

Working Group on Thermal Treatment of Waste

# Energy from Waste

State-of-the-Art-Report  
Statistics 5<sup>th</sup> Edition August 2006



**ISWA**  
International Solid Waste Association

## **Cover photo**

The photo on the front cover shows the SYSAV plant in Malmö, Sweden. For the time being the plant has three furnace lines and burns nearly 400,000 tonnes of waste pr. year. A 4<sup>th</sup> new line similar to line 3 with a capacity of 25 t/h is to go into operation by 2008. (Photo by Bo Strandh).

The general manager of SYSAV, Mr. Hakon Rylander is chairman of ISWA's Working Group on Thermal Treatment of Waste.

The vice-chairman of the Working Group, Mr. Jørgen Haukohl of Rambøll Danmark A/S is the editor of this publication. Rambøll has been consultant for SYSAV on development of the Waste to Energy plant since 1998.

# Energy from Waste State-of-the-Art Report

5<sup>th</sup> Edition  
2006

Austria • Belgium • Czech Republic • Denmark  
Finland • France • Germany  
Great Britain • Hungary • Italy • Netherlands • Norway Portugal •  
Spain • Sweden • Switzerland • USA



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**Edited by:** Rambøll Danmark A/S  
Teknikerbyen 31  
DK-2830 Virum  
Denmark  
Phone +45 4598 6000  
Fax +45 4598 8520  
Website: [www.ramboll.dk](http://www.ramboll.dk)  
Contact person: Jørgen haukohl  
E-mail: [jh@ramboll.dk](mailto:jh@ramboll.dk)

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c/o  
ISWA General Secretariat  
Vesterbrogade 74, 3rd floor  
DK-1620 Copenhagen V  
Denmark  
Phone: +45 32 96 15 88  
Fax: +45 32 96 15 84  
E-mail: [iswa@iswa.dk](mailto:iswa@iswa.dk)  
Website: [www.iswa.org](http://www.iswa.org)

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## **1. Introduction**

This is the 5<sup>th</sup> Edition of the State-of-the Art Report on waste to energy plants prepared by Rambøll on behalf of the ISWA Working Group on Thermal Treatment of Waste. This 5<sup>th</sup> Edition presents information on the plants in 16 European countries by year 2005 and includes operational data covering 2004.

The countries included are Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, Italy, the Netherlands, Norway, Portugal, Spain, Sweden and Switzerland. To the best of the editors' knowledge these 16 countries represent all European countries with waste to energy plants with the exception of Luxembourg with only one plant incinerating 130.000 tonnes of waste per year.

Data on the individual incineration plants are presented country by country in three tables in the report:

1. General Information (location, name, address etc.)
2. Technical Information (number of lines, capacity, furnace/boiler and flue gas treatment systems including their suppliers etc.)
3. Operational data (quantities incinerated, residues formed and energy produced and sold)

The report covers MSW incineration plants with a capacity of more than 15 tonnes/day or 10,000 tonnes/year, which means that special plants for hazardous waste, sludge, agricultural and hospital wastes are not included.

The data has been collected through a questionnaire that was distributed to the waste to energy plants in the various countries in 2005. In general, the response rate on the questionnaire has been high in most countries, near to 100%, and it is believed that almost all the existing plants in the 16 countries are included. However, for Austria, Belgium, France, Great Britain and Portugal technical information and operational data are not complete for all of the plants.

In total the report brings information on 431 European waste to energy plants. This is an increase of 15% compared to the 375 plants listed in the 4th Edition embracing 14 countries. The increase is primarily due to a better response rate to the questionnaires (Austria, Great Britain, Norway and Sweden). In most of the other countries the number of plants has remained constant or increased. However, as an exception to this trend, the number of plants in Italy has gone down from 62 to 51 due to closure of old plants.

Of the increase, the two additional countries, the Czech Republic and Finland, accounts for 4 plants.

The first section of the report contains a comparison of the 16 countries in terms of number of plants, amount of waste treated, energy sold and the residues generated.

The second section presents the above national tables with general information, technical information and operational data for the waste to energy plants data in the 16 countries.

Finally, the report contains information on the waste-to-energy plants in USA.

### **Acknowledgements**

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Mrs. Ana Loureiro, Valorsul, Portugal

Mrs. Amalia Cerda, Tirme S.A., Spain

Mr. Conrad Bader, Von Roll Inova, Switzerland

Mr. Anders Hedenstedt, Svenska Renhållningsverksföreningen (RVF), Sweden

Mr. Ted Michaels, Integrated Waste Services Association, USA

Virum, August 2006

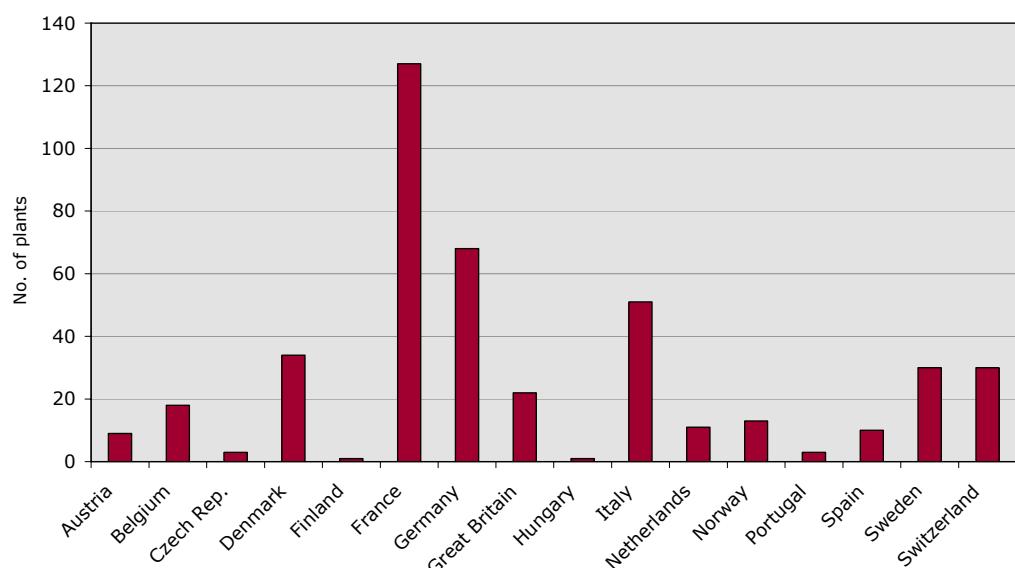
Rambøll Danmark A/S

## 2. Waste to energy plants in Europe

This section presents a comparison of the waste to energy plants in Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, Italy, the Netherlands, Norway, Portugal, Spain, Sweden and Switzerland in 2004/2005.

### 2.1 Number of plants and capacity

The total number of incineration plants in the 16 countries in 2005 was 431 as shown country by country in Figure 1:

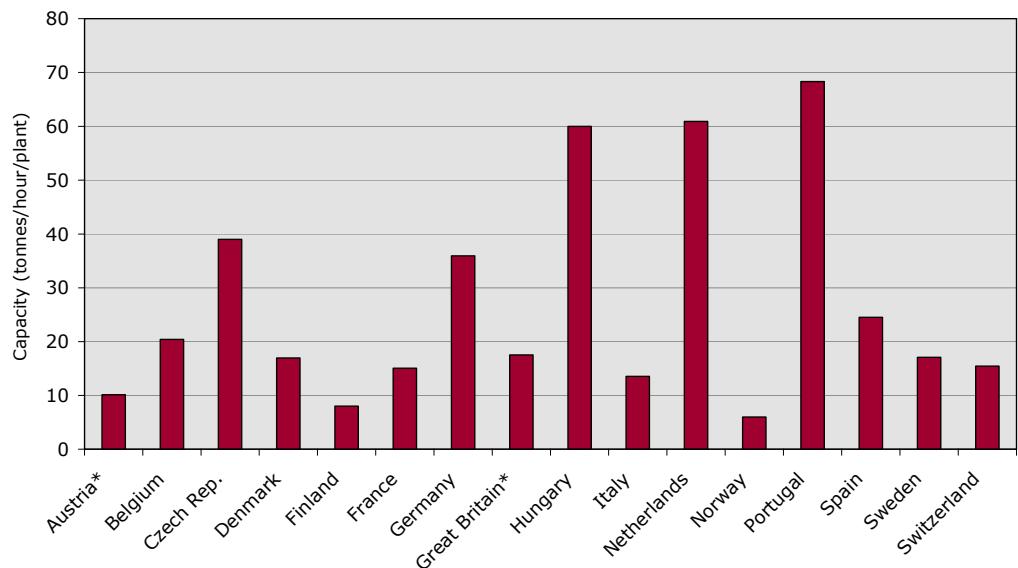


**Figure 1:** Number of Plants, 2005

Data on waste capacity are complete or almost complete for all the countries with the exception of Austria and Great Britain, where data are complete for respectively 50% and 70% of the plants. These two countries are marked with \* in the section below.

It is worth noting that the Waste Incineration Directive (2000/76/EC) was to be fully implemented in the EU Member States by 28 December 2005. This might have caused some plants to close during 2005. Consequently, the total number of plants and their capacities listed may be on the high side.

The number of furnaces per plant varies from 1 to 8. The average size of the plants (tonnes/hour/plant) in 2005 is shown in Figure 2.



**Figure 2:** Capacity per plant (average size), 2005

As can be seen, there are great differences in the average size of the plants from one country to the other.

The data behind the graphs in Figure 1 and 2 are shown in Table 1. The table contains information on the number of plants, their total capacity (nominal) in tonnes/hour and the average capacity in tonnes/hour/plant for each of the 16 countries.

In addition the table contains the total number of plants and capacity in the 16 countries as well as the average plant size.

| Country        | Plants and capacities |                         |                                   |
|----------------|-----------------------|-------------------------|-----------------------------------|
|                | No. of plants         | Total capacity tonnes/h | Capacity per plant tonnes/h/plant |
| Austria*       | 9                     | 91                      | 10,1                              |
| Belgium        | 18                    | 367                     | 20,4                              |
| Czech Rep.     | 3                     | 117                     | 39,0                              |
| Denmark        | 34                    | 577                     | 17,0                              |
| Finland        | 1                     | 8                       | 8,0                               |
| France         | 127                   | 1.909                   | 15,0                              |
| Germany        | 68                    | 2.445                   | 36,0                              |
| Great Britain* | 22                    | 386                     | 17,5                              |
| Hungary        | 1                     | 60                      | 60,0                              |
| Italy          | 51                    | 690                     | 13,5                              |
| Netherlands    | 11                    | 670                     | 60,9                              |
| Norway         | 13                    | 78                      | 6,0                               |
| Portugal       | 3                     | 205                     | 68,3                              |
| Spain          | 10                    | 245                     | 24,5                              |
| Sweden         | 30                    | 513                     | 17,1                              |
| Switzerland    | 30                    | 464                     | 15,5                              |
| Sum/average    | 431                   | 8.825                   | 20,5                              |

\* Data are incomplete for these countries, however the no. of plants should be correct.

**Table 1:** Plants and capacities, 2005

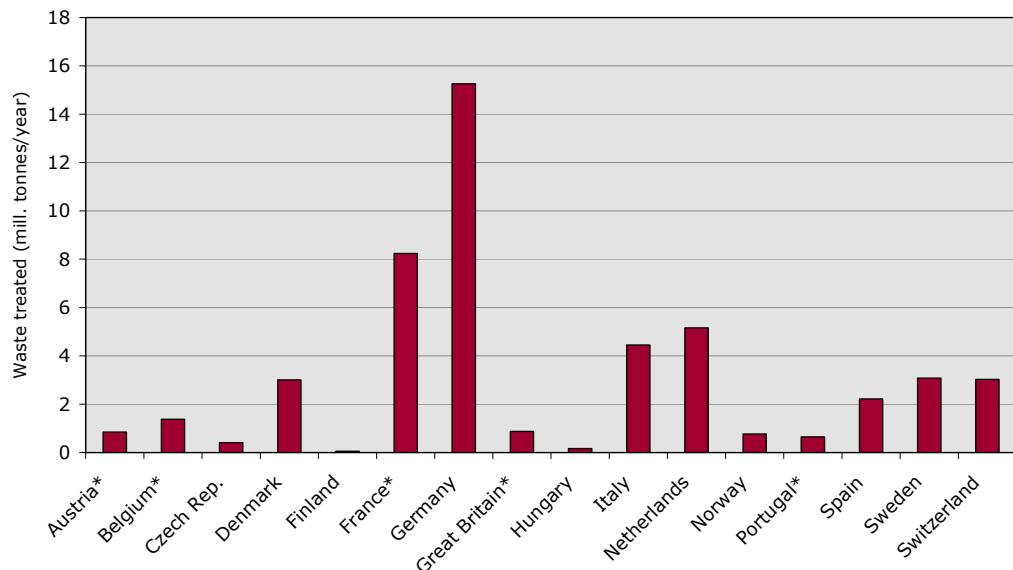
## 2.2

### Amounts of waste treated

Operational data are complete or almost complete for all countries with the exception of Portugal, where operational data are missing for 1 out of 3 plants, Austria, Belgium and France, where operational data are only 50-60% complete, and Great Britain, where operational data have only been obtained for 20% of the plants.

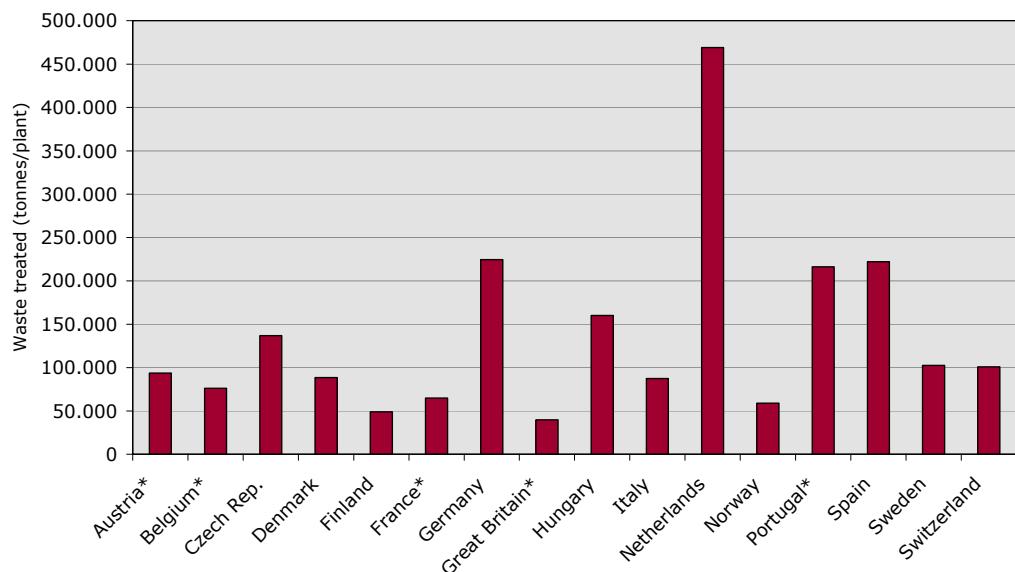
These countries are marked with \* in the following sections.

The amounts of waste incinerated in the 16 countries in 2004 are shown in Figure 3.

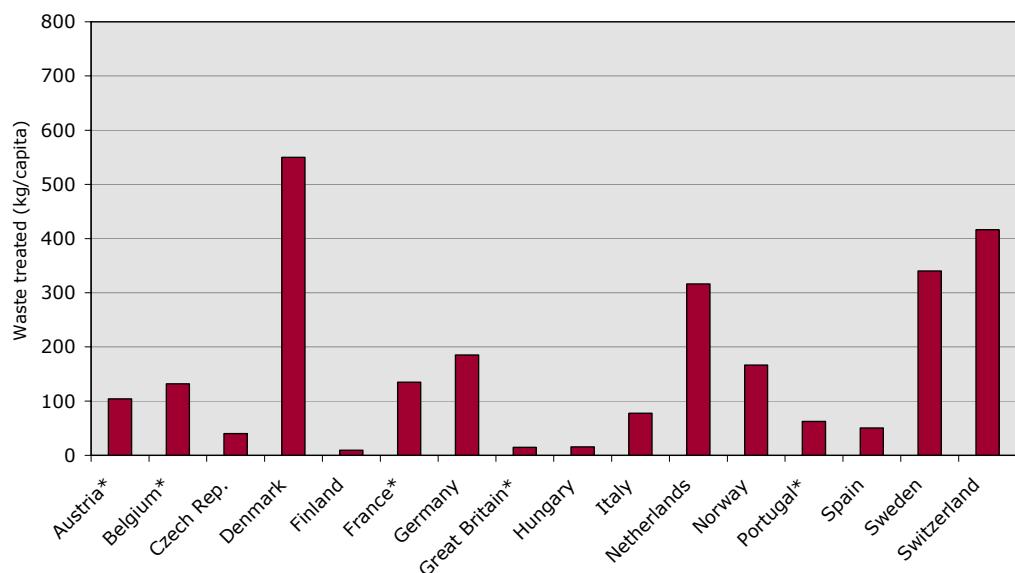


**Figure 3:** Amounts of waste treated, 2004

The average amounts of waste treated per plant and per capita in 2004 are shown in Figure 4 and 5.



**Figure 4:** Waste amounts treated per plant (average), 2004



**Figure 5:** Waste amounts treated per capita, 2004

The data illustrated in Figure 3-5 are shown in Table 2. The figures in brackets in the table are estimations of the total waste quantity incinerated in the countries where the collected data are incomplete.

| Country        | Waste quantity treated  |                             |                         |
|----------------|-------------------------|-----------------------------|-------------------------|
|                | total tonnes/year       | per plant tonnes/year/plant | per capita kg/year/cap. |
| Austria*       | (1.400.000) 842.230     | 93.581                      | 104                     |
| Belgium*       | (2.300.000) 1.370.693   | 76.150                      | 132                     |
| Czech Rep.     | 410.383                 | 136.794                     | 40                      |
| Denmark        | 3.009.953               | 88.528                      | 550                     |
| Finland        | 49.000                  | 49.000                      | 9                       |
| France*        | (12.000.000) 8.238.173  | 64.868                      | 135                     |
| Germany        | 15.259.766              | 224.408                     | 185                     |
| Great Britain* | (2.600.000) 872.797     | 39.673                      | 15                      |
| Hungary        | 160.054                 | 160.054                     | 16                      |
| Italy          | 4.453.738               | 87.328                      | 78                      |
| Netherlands    | 5.158.988               | 468.999                     | 316                     |
| Norway         | 766.723                 | 58.979                      | 166                     |
| Portugal*      | (1.000.000) 648.463     | 216.154                     | 63                      |
| Spain          | 2.221.218               | 222.122                     | 50                      |
| Sweden         | 3.077.906               | 102.597                     | 340                     |
| Switzerland    | 3.024.847               | 100.828                     | 417                     |
| Sum/average    | (47.100.000) 49.564.932 | 115.000                     | 123                     |

\* Data incomplete. The figures in brackets are estimations of the total waste quantity incinerated

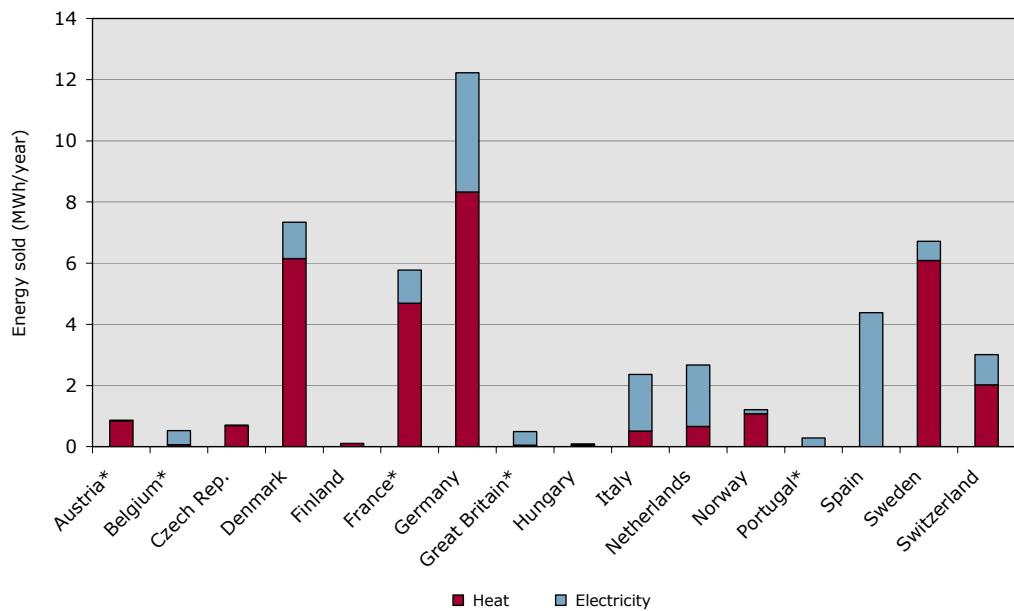
**Table 2:** Quantities treated, 2004

## 2.3

### **Energy sold**

All plants recover the heat of combustion and convert it to steam and/or warm or hot water. Normally the steam is used for generating electricity, while the heated water is used for district heating. Some plants deliver steam to outside customers.

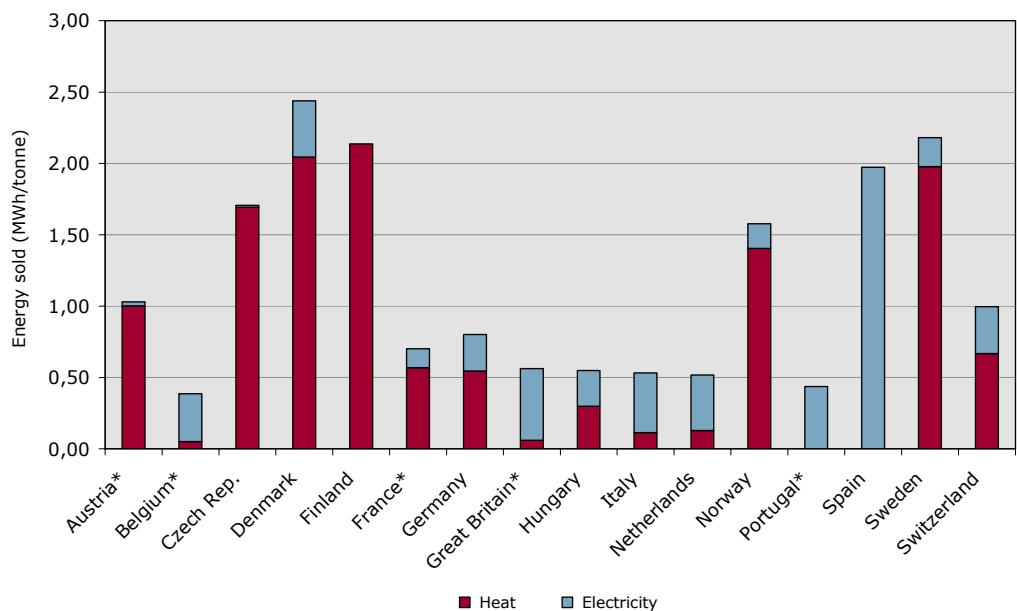
The total amount of electricity and heat that was sold in 2004 is shown in Figure 6. The data are listed in Table 3.



**Figure 6:** Electricity and heat sold, 2004

The Figure shows that the energy sales are particularly high in countries where the heat can be used for district heating systems: Denmark, France, Germany and Sweden.

Figure 7 shows electricity and heat sold pr. tonnes of waste incinerated in 2004. The data are shown in table 3.



**Figure 7:** Electricity and heat sold pr tonnes of waste incinerated, 2004

The average energy sales pr. tonnes of waste incinerated varies from 0,5 MWh/tonne to 2,5 MWh/tonne.

| Country        | Energy sold          |                         |                  |                           |                    |
|----------------|----------------------|-------------------------|------------------|---------------------------|--------------------|
|                | Steam<br>tonnes/year | Electricity<br>MWh/year | Heat<br>MWh/year | Electricity<br>MWh/tonnes | Heat<br>MWh/tonnes |
| Austria*       | 1.596.587            | 23.412                  | 844.200          | 0,03                      | 1,00               |
| Belgium*       | 566.645              | 460.390                 | 69.324           | 0,34                      | 0,05               |
| Czech Rep.     | 578.015              | 5.702                   | 694.719          | 0,01                      | 1,69               |
| Denmark        | 0                    | 1.183.653               | 6.156.051        | 0,39                      | 2,05               |
| Finland        | 0                    | 0                       | 104.700          | 0,00                      | 2,14               |
| France*        | 504.809              | 1.083.137               | 4.691.580        | 0,13                      | 0,57               |
| Germany        | 1.856.267            | 3.905.450               | 8.327.206        | 0,26                      | 0,55               |
| Great Britain* | 0                    | 439.625                 | 51.459           | 0,50                      | 0,06               |
| Hungary        | 0                    | 40.291                  | 47.684           | 0,25                      | 0,30               |
| Italy          | 0                    | 1.855.245               | 509.498          | 0,42                      | 0,11               |
| Netherlands    | 2.118.344            | 2.010.257               | 659.818          | 0,39                      | 0,13               |
| Norway         | 207.000              | 132.593                 | 1.076.679        | 0,17                      | 1,40               |
| Portugal*      | 0                    | 282.726                 | 0                | 0,44                      | 0,00               |
| Spain          | 30.859               | 4.381.060               | 0                | 1,97                      | 0,00               |
| Sweden         | 91.180               | 624.049                 | 6.088.072        | 0,20                      | 1,98               |
| Switzerland    | 437.910              | 993.982                 | 2.019.972        | 0,33                      | 0,67               |
| Sum/average    | 7.987.616            | 17.421.572              | 31.340.962       | 0,35                      | 0,63               |

\* Data incomplete

**Table 3:** Electricity and heat sold, 2004

## 2.4

**Residues**

Table 4 contains data on the generation of bottom ash and residues from flue gas treatment.

| Country        | Residues                  |   |
|----------------|---------------------------|---|
|                | Bottom ash<br>tonnes/year | Flue gas treatment residue<br>tonnes/year |
| Austria*       | 211.778                   | 23.975                                    |
| Belgium*       | 264.874                   | 42.996                                    |
| Czech Rep.     | 114.158                   | 6.127                                     |
| Denmark        | 639.956                   | 87.469                                    |
| Finland        | 10.000                    | 2.000                                     |
| France*        | 2.208.250                 | 208.173                                   |
| Germany        | 3.490.323                 | 90.939                                    |
| Great Britain* | 221.982                   | 30.447                                    |
| Hungary        | 38.125                    | 4.177                                     |
| Italy          | 677.116                   | 116.177                                   |
| Netherlands    | 1.311.507                 | 126.314                                   |
| Norway         | 132.822                   | 26.026                                    |
| Portugal*      | 122.714                   | 22.609                                    |
| Spain          | 358.791                   | 123.935                                   |
| Sweden         | 380.019                   | 122.508                                   |
| Switzerland    | 584.805                   | 70.395                                    |
| Sum/average    | 10.767.220                | 1.104.267                                 |

**Table 4:** Residue production, 2004

Table 4 shows that the amount of bottom ash corresponds to approximately 22% of the waste quantity incinerated, while the amount of flue gas treatment residues corresponds to 2,2% on average.

## National data

### Abbreviations

| Furnace type             |  |
|--------------------------|--|
| M:                       | Moveable                                 |
| F:                       | Fixed                                    |
| R:                       | Rotary                                   |
| FB:                      | Fluid bed                                |
| G:                       | Gasification                             |
| P:                       | Pyrolysis                                |
| O:                       | Others                                   |
| Boiler type              |  |
| S:                       | Steam                                    |
| WW:                      | Warm water (temperature < 120 °C)        |
| HW:                      | Hot water (temperature > 120 °C)         |
| Flue gas cleaning system |  |
| DRY:                     | Dry scrubbing                            |
| SD:                      | Semi dry scrubbing                       |
| WET:                     | Wet scrubbing                            |
| FF:                      | Fabric filter                            |
| ESP:                     | Electrostatic precipitator               |
| FGC:                     | Flue gas condensation                    |
| SNCR:                    | Selective Non Catalytic Reduction        |
| SCR:                     | Selective Catalytic Reduction            |
| DeNO <sub>x</sub> :      | NO <sub>x</sub> reduction by SNCR or SCR |
| CYC:                     | Cyclone                                  |
| AC:                      | Active Carbon                            |
| D/F:                     | Reduction of dioxins and furans          |
| CAT:                     | Catalyst                                 |
| O:                       | Other                                    |
| Other fuels              |  |
| G:                       | Natural gas (nm <sup>3</sup> )           |
| O:                       | Oil (m <sup>3</sup> )                    |
| B:                       | Biomass (t)                              |

Number of plants: 9  
Average capacity: 10 t/h  
Quantity treated 2004: 842,000 t



## Austria

### General Information

| Location               | Name of Plant<br>Web-site  | Address of Plant                       | Phone<br>Fax                                 |
|------------------------|--|--|--|
| Arnoldstein            | KRV<br><a href="http://www.krv.co.at">www.krv.co.at</a>                              | Industriestraße 25<br>9601 Arnoldstein | +43 4255 22366<br>+43 4255 22366-200         |
| Graz                   | Niklasdorf   | Proleber-Straße 10<br>8712 Niklasdorf  | +43 3842 83481 - 100<br>+43 316 386365 - 205 |
| Lenzing                | RVL Lenzing  | p.a Lenzing AG<br>4860 Lenzing         | +43 7672 93133-22<br>+43 7673 93133-25       |
| Wels (I)               | WAV I<br><a href="http://www.wav.at">www.wav.at</a>                                  | Mitterhoferstraße 100<br>4600 Wels     | +43 7242 71475-175<br>+43 7243 71475-901     |
| Wels (II)              | WAV II<br><a href="http://www.wav.at">www.wav.at</a>                                 | Mitterhoferstraße 100<br>4600 Wels     | +43 7242 71475-175<br>+43 7243 71475-901     |
| Wien<br>(Flötzersteig) | MVA- Flötzersteig<br><a href="http://www.sauberbrenner.at">www.sauberbrenner.at</a>  | Flötzersteig 12<br>1160 Wien           | +43 1 31326 8755<br>+43 1 31326 8783         |
| Wien<br>(Simmeringer)  | Simmeringer Haide  | 11. Haidequerstraße 6<br>1110 Wien     | +43 1 31326-6100<br>+43 1 31326-6158         |
| Wien (Spittelau)       | Wien (Spittelau)<br><a href="http://www.fernwaermewien.at">www.fernwaermewien.at</a> | Spittelauer Lände 45<br>1090 Wien      | +43 1 31326 2702<br>+43 1 31326 2884         |
| Zwentendorf            | Zwentendorf<br><a href="http://www.avn.at">www.avn.at</a>                            | AVN-Straße<br>3435 Zwentendorf         | +43 2277 26121-0<br>+43 2277 26121-14813     |

## Austria

### General Information

| Location               | Contact Person<br>E-mail                                       | Owner of plant<br>No. of inhab. served            | Owners<br>Address                          |
|------------------------|--|---|--|
| Arnoldstein            | Dipl.-Ing. Günter Zellinger<br><br>Guenter.Zellinger@krv.co.at | Kärntner Restmüllverwertungs GmbH<br>(KRV)        | Industriestraße 25<br><br>9601 Arnoldstein |
| Graz                   | Dr. Helmfried Spiegel<br><br>Helmfried.Spiegel@enages.at       | ENAGES, Energie- und Abfallverwertungs-<br>GesmbH | Elisabethstraße 59/3<br><br>8010 Graz      |
| Lenzing                | Karl Schnopp<br><br>Karl.Schnopp@ave.at                        | AVE Reststoffverwertung GmbH                      | p.a Lenzing AG<br><br>4860 Lenzing         |
| Wels (I)               | Ing. Ronald Wachter<br><br>Ronald.wachter@ave.at               | Welser Abfallverwertung Betriebsführung<br>GmbH   | Mitterhoferstraße 100<br><br>4600 Wels     |
| Wels (II)              | Ing. Ronald Wachter<br><br>Ronald.wachter@ave.at               | Welser Abfallverwertung Betriebsführung<br>GmbH   | Mitterhoferstraße 100<br><br>4600 Wels     |
| Wien<br>(Flötzersteig) | Ing. Erich Pawelka<br><br>Erich.Pawelka@fernwaermewien.at      | Fernwärme Wien                                    | Spittelauer Lände 45<br><br>1090 Wien      |
| Wien<br>(Simmeringer)  | Dipl.-Ing. Ernst Locher<br><br>Ernst.Locher@fernwärmewien.at   | Fernwärme Wien                                    | Spittelauer Lände 45<br><br>1090 Wien      |
| Wien (Spittelau)       | Dr. Thomas Angerer<br><br>Thomas.Angerer@fernwaermewien.a<br>t | Fernwärme Wien                                    | Spittelauer Lände 45<br><br>1090 Wien      |
| Zwentendorf            | Dipl.-Ing. Gernot Alfons<br><br>Gernot.Alfons@avn.at           | AVN Abfallverwertung Niederösterreich<br>GmbH     | EVN Platz<br><br>2344 Maria Enzersdorf     |

## Austria

### Technical Information on the Plant

| Location            | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |          | Boiler |                 | Steam Data oC/bar | Hours of Operat.2004 |
|---------------------|----------|--------------|--------------|------------|-------------|---------|----------|--------|-----------------|-------------------|----------------------|
|                     |          |              |              |            |             | Type    | Supplier | Type   | Supplier        |                   |                      |
| Arnoldstein         | 1        | 2004         |              | 10,7       | 10          | M       | Martin   | S      | Martin / Wehrle | 400/40            | 4000                 |
| Graz                | 1        |              |              |            |             |         |          |        |                 |                   |                      |
| Lenzing             | 1        |              |              |            |             |         |          |        |                 |                   |                      |
| Wels (I)            | 1        | 1995         |              |            |             |         |          |        |                 |                   |                      |
| Wels (II)           | 1        | 2005         |              |            |             | M       |          | S      |                 |                   |                      |
| Wien (Flötzersteig) | 1        | 1963         |              | 8,3        | 8,9         | M       | W+E      | S      | AE&E            | 270/15            | 8222                 |
|                     | 2        | 1963         |              | 8,3        | 8,9         | M       | W+E      | S      | AE&E            | 270/15            | 8075                 |
|                     | 3        | 1963         |              | 8,3        | 8,9         | M       | W+E      | S      | AE&E            | 270/15            | 8122                 |
| Wien (Simmeringer)  | 1        |              |              |            |             |         |          |        |                 |                   |                      |
| Wien (Spittelau)    | 1        | 1971         |              | 16,6       | 8,9         | M       | Martin   | S      | WA-BI           | 241/33            | 7930                 |
|                     | 2        | 1971         |              | 16,6       | 8,9         | M       | Martin   | S      | WA-BI           | 241/33            | 7808                 |
| Zwentendorf         | 1        | 2004         | -            | 11,24      | 9,15        | grate   | Allstom  | S      | Alstom          | 380/50            | 8000                 |
|                     | 2        | 2004         | -            | 11,24      | 9,15        | grate   | Allstom  | s      | Alstom          | 380/50            | 8000                 |

## Austria

### Technical Information on the Plant

| Location            | Line No. | Flue Gas Cleaning System | ESP  |              | Flue Gas Cleaning |                     | Flue Gas Temp., °C |
|---------------------|----------|--------------------------|------|--------------|-------------------|---------------------|--------------------|
|                     |          |                          | Year | Supplier     | Year              | Supplier            |                    |
| Arnoldstein         | 1        | SD                       | 2004 | ---          | 2004              | AE & E              | 180                |
| Graz                | 1        |                          |      |              |                   |                     |                    |
| Lenzing             | 1        |                          |      |              |                   |                     |                    |
| Wels (!)            | 1        |                          |      |              |                   |                     |                    |
| Wels (II)           | 1        | ESP+WET+FF+SCR           |      |              |                   |                     |                    |
| Wien (Flötzersteig) | 1        | WET/ESP Denox            | 1990 | Walter & Cie | 1985              | AE&E                | 170                |
|                     | 2        | WET/ESP DENOX            | 1991 | Walter & Cie | 1985              | AE&E                | 170                |
|                     | 3        | WET/ESP DENOX            | 1991 | Walter & Cie | 1985              | AE&E                | 170                |
| Wien (Simmeringer)  | 1        |                          |      |              |                   |                     |                    |
| Wien (Spittelau)    | 1        | WET/ESP Denox            | 1989 | WA-BI        | 1989              | AE&E                | 115                |
|                     | 2        | WET/ESP DENOX            | 1989 | WA-BI        | 1989              | AE&E                | 115                |
| Zwentendorf         | 1        | FF, WET, SCR             | 2004 | FF, Lühr     | 2004              | Lühr, RWE, Integral | 140                |
|                     | 2        | FF, WET, SCR             | 2004 | FF, Lühr     | 2004              | Lühr, RWE, Integral | 140                |

**Austria**

**Operational data, 2004**

| Location            | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels |
|---------------------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|------------|
|                     | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) |            |
| Arnoldstein         | 40644                            | 40644                 |                                       |                          |                    |                               |                                |            |
| Graz                |                                  |                       |                                       |                          |                    |                               |                                |            |
| Lenzing             |                                  |                       |                                       |                          |                    |                               |                                |            |
| Wels (I)            |                                  |                       |                                       |                          |                    |                               |                                |            |
| Wels (II)           |                                  |                       |                                       |                          |                    |                               |                                |            |
| Wien (Flötzersteig) | 209629                           | 209629                |                                       |                          |                    |                               |                                | G:3171281  |
| Wien (Simmeringer)  |                                  |                       |                                       |                          |                    |                               |                                |            |
| Wien (Spittelau)    | 268957                           |                       |                                       |                          |                    |                               |                                |            |
| Zwentendorf         | 323000                           | 190000                | 129900                                |                          | 2300               | 800                           |                                | G:1700000  |

**Austria**

**Operational data, 2004**

| Location            | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|---------------------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|                     | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Arnoldstein         | 9400                   | 3100                      | 130000            |                      |               | 7300              | 12330                | 1140          |
| Graz                |                        |                           |                   |                      |               |                   |                      |               |
| Lenzing             |                        |                           |                   |                      |               |                   |                      |               |
| Wels (I)            |                        |                           |                   |                      |               |                   |                      |               |
| Wels (II)           |                        |                           |                   |                      |               |                   |                      |               |
| Wien (Flötzersteig) | 55201                  | 3841                      | 580168            |                      | 406118        | 478287            |                      | 334801        |
| Wien (Simmeringer)  |                        |                           |                   |                      |               |                   |                      |               |
| Wien (Spittelau)    | 60577                  | 5204                      |                   | 36800                | 518583        |                   | 11082                | 508259        |
| Zwentendorf         | 86600                  | 11830                     | 1111000           | -                    | 1111000       |                   |                      |               |



Number of plants: 18  
Average capacity: 20 t/h  
Quantity treated 2004: 1.370.000 t



## **Belgium**

### **General Information**

| <b>Location</b>        | <b>Name of Plant<br/>Web-site</b>                                  | <b>Address of Plant</b>                              | <b>Phone<br/>Fax</b>                     |
|------------------------|--|--|--|
| Antwerpen              | Antwerpen  | Poldervlietweg 5 Haven 550<br>2030 Antwerpen         | +32 035 68 49 59<br>+32 035 68 49 99     |
| Brugge                 | IVBO<br>----   | Pathoekeweg 41<br>8000                               | +32 050 45 63 11<br>+32 050 45 63 63     |
| Brussel                | Brussel  | Monnoyekaai 8<br>1000                                | +32 022 41 64 90<br>+32 022 16 07 11     |
| Doel-Beveren           | Doel-Beveren<br><a href="http://www.indaver.be">www.indaver.be</a> | Haven 1940 Molenweg<br>9130                          | +32 03 568 48 23                         |
| Eeklo                  | Eeklo  | Sint-Laureinsesteenweg 29<br>9900 Eeklo              | +32 093 77 82 11<br>+32 093 78 18 44     |
| Gent                   | Gent<br><a href="http://www.ivago.be">www.ivago.be</a>             | Proeftuinstraat 43<br>9000                           | +32 092 40 81 11<br>+32 092 40 81 99     |
| Harelbeke              | Harelbeke  | Kortrijksesteenweg 264<br>8530 Harelbeke             | +32 056 71 61 17<br>+32 056 71 09 85     |
| Herstal                | Herstal<br><a href="http://www.intradel.be">www.intradel.be</a>    | Port de HERSTAL - Pré Wigi<br>4040                   | +32 4 240 74 74<br>+32 4 248 11 42       |
| Houthalen              | AVI Houthalen<br><a href="http://www.rmz.be">www.rmz.be</a>        | Industrieterrein Centrum Zuid 2098<br>3530 Houthalen | +32(0)11 52 36 36<br>+32(0)11 52 55 56   |
| Knokke-Heist           | Knokke-Heist   | Sluisstraat 82<br>8300                               | +32 050 60 82 92<br>+32 050 60 82 92     |
| Menen                  | Menen  | Industrielaan 30<br>8930 Menen                       | +32 056 1 52 81 30<br>+32 056 1 51 97 59 |
| Oostende               | IVOO-Oostende<br><a href="http://www.ivoo.be">www.ivoo.be</a>      | Klokhofstraat 2<br>8400 Oostende                     | +32 (0)59 55 27 30<br>+32 (0)59 80 12 03 |
| Pont-de-Loup           | Pont-de-Loup   | Port de la Praye<br>6250                             | +32 071 43 46 64<br>+32 071 36 08 84     |
| Roeselare              | Roeselare<br><a href="http://www.ivro.be">www.ivro.be</a>          | Oostnieuwkerksesteenweg 121<br>8800                  | +32 (0)51 26 03 50<br>+32 (0)51 26 03 52 |
| St. Niklaas            | St. Niklaas  | Vlyminckxhoek 12<br>9100                             | +32 (0)37 76 72 50<br>+32 (0)37 80 68 56 |
| Thurmaide              | Thurmaide<br><a href="http://ipalle.be">ipalle.be</a>              | Hameau de Ribonfasse 1<br>7971 Thumaide              | +32 69845988<br>+32 69845116             |
| Virginal               | Virginal   | 16 rue de Tubize<br>1460                             | +32 067 21 71 11<br>+32 067 64 90 73     |
| Wilrijk<br>(Antwerpen) | ISVAG<br><a href="http://www.isvag.be">www.isvag.be</a>            | Boomsesteenweg 1000<br>2610                          | +32 038 77 28 55<br>+32 038 77 09 28     |

## Belgium

### General Information

| Location               | Contact Person<br>E-mail   | Owner of plant<br>No. of inhab. served  | Owners<br>Address                             |
|------------------------|--|---|---|
| Antwerpen              | inge.denissen@indaver.be   |   |   |
| Brugge                 | Martin Davans<br>info@ivbo.be  | IVBO<br>220000  | Pathoekeweg<br>8000 Brugge                    |
| Brussel                | Patricia Poitevin<br>patricia.poitevin@bruxelles-<br>proprete.be'          |   |   |
| Doel-Beveren           | Nic Maes<br>nic.maes@indaver.be  | Indaver N.V.  | Poldervlietweg 5, Haven 550<br>2030 Antwerpen |
| Eeklo                  | ivm_eeklo@yahoo.com/ivm@ivmeekl<br>o.be                                    | Group of communities - IVM  |   |
| Gent                   | Luc De Clercq<br>luc.declercq@ivago.be                                     | IVAGO o.v.  | Botermarkt 1<br>B 9000 GENT                   |
| Harelbeke              | jacques.soenens@imog.be  | Imog<br>230000  |   |
| Herstal                | Jean-Marc Digneffe<br>jean-marc.digneffe@intradel.be                       | INTRADEL SCRL<br>970837   | Port de Herstal - Pré Wigi<br>4040 HERSTAL    |
| Houthalen              | Hugo Knevels, managing director<br>hugo.knevels@regionalemilieuzorg.b<br>e | Regionale Milieuzorg<br>320000  | Grote Baan 176<br>3530 HOUTHALEN              |
| Knokke-Heist           | engels.r@dalkia.be   | Dalkia (Montenay)   |   |
| Menen                  | info@ivom.be   | Voozillen, Dhr. M. Benton   |   |
| Oostende               | ir. Fons Doms<br>info@ivoo.be  | IVOO Intergemeentelijke vereniging voor<br>afvalbeheer voor Oostende en ommela<br>134.663 | Klokhofstraat 2<br>8400 Oostende              |
| Pont-de-Loup           | Jean-Louis PIREAU<br>jlpirreau.icdipdl@belgacom.net                        | ICDI  |   |
| Roeselare              | koen.van.overberghe@ivro.be  | 180000  |   |
| St. Niklaas            |  |   |   |
| Thurmaide              | Laurent DUPONT<br>laurent.dupont@ipalle.be                                 | Intercommunale IPALLE SCRL<br>326000  | Chemin de l'eau vive, 1<br>7503 Froyennes     |
| Virginal               | valmat@ibw.be  | IBW   |   |
| Wilrijk<br>(Antwerpen) | Dhr. W. Ex<br>walter.ex@isvag.be   |   |   |

## Belgium

### Technical Information on the Plant

| Location     | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace  |                           | Boiler     |                    | Steam Data oC/bar | Hours of Operat.2004 |
|--------------|----------|--------------|--------------|------------|-------------|----------|---------------------------|------------|--------------------|-------------------|----------------------|
|              |          |              |              |            |             | Type     | Supplier                  | Type       | Supplier           |                   |                      |
| Antwerpen    | 1        |              |              | 7          |             |          | DBA ABB                   |            |                    | 400/40            |                      |
|              | 2        |              |              | 7          |             |          | DBA ABB                   |            |                    | 400/40            |                      |
| Brugge       | 1        | 1982         | ---          | 9          | 10          | M        | Cnim Martin               | S          | Martin GmbH / Cnim | 330/27            | 6633                 |
|              | 2        | 1997         | ---          | 9          | 10          | M        | Cnim Martin               | S          | Martin GmbH / Cnim | 330/27            | 6171                 |
|              | 3        | 2004         | ---          | 9          | 10          | M        | Cnim Martin               | S          | Martin GmbH / Cnim | 330/27            | 6297                 |
| Brussel      | 1        |              |              | 23         |             |          | Cnim Martin               |            |                    | 400/39            |                      |
|              | 2        |              |              | 23         |             |          | Cnim Martin               |            |                    | 400/39            |                      |
|              | 3        |              |              | 23         |             |          | Cnim Martin               |            |                    | 400/39            |                      |
| Doel-Beveren | 1        | 1996         |              | 13,3       | 10,8        | M        | Seghers                   | S          |                    | 400/40            | 8042                 |
|              | 2        | 1996         |              | 13,3       | 10,8        | M        | Seghers                   | S          |                    | 400/40            | 8173                 |
|              | 3        | 2001         |              | 21,5       | 11,3        | M        | Seghers                   | S          |                    | 400/40            | 8138                 |
| Eeklo        | 1        | 1881         |              | 7          | 9           | M+R      | Vølund                    |            |                    | /                 |                      |
|              | 2        | 1881         |              | 7          | 9           | M+R      | Vølund                    |            |                    | /                 |                      |
| Gent         | 1        | 1996         | 2024         | 6,5        | 9,42        | M        | Seghers Better Technology | S          |                    | 37 bar/320        | 8047                 |
|              | 2        | 1996         | 2024         | 6,5        | 9,42        | M        | Seghers Better Technology | S          |                    | 37 bar/320        | 8218                 |
| Harelbeke    | 1        |              |              | 5,5        |             |          | Seghers                   |            |                    | 400/36            |                      |
|              | 2        |              |              | 5,5        |             |          | Seghers                   |            |                    | 400/36            |                      |
| Herstal      | 1        |              | 2010         | 8          |             | M        | Kablitz                   |            |                    | 380/40            | 6821                 |
|              | 2        |              | 2010         | 8          |             | R        | LB                        |            |                    | 380/40            | 5127                 |
|              | 3        |              | 2010         | 8          |             | R        | LB                        |            |                    | 380/40            | 6270                 |
|              | 4        |              | 2010         | 8          |             | M        | Kablitz                   |            |                    | 380/40            | 6723                 |
| Houthalen    | 1        | 1984         | 2011         | 5,5        | 8,7         | M        | Vølund                    | WATE RPIPE | Volund/CMI         | 360/36            | 6016                 |
|              | 2        | 1984         | 2011         | 5,5        | 8,7         | M        | Vølund                    | WATE RPIPE | Volund/CMI         | 360/36            | 6846                 |
| Knokke-Heist | 1        |              |              | 2,5        |             |          | Noell                     |            |                    | /                 |                      |
|              | 2        |              |              | 2,5        |             |          | Noell                     |            |                    | /                 |                      |
| Menen        | 1        |              |              | 4          |             | M        | Seghers                   | WW         | M                  | /                 |                      |
|              | 2        |              |              | 4          |             | M        | Seghers                   | WW         | M                  | /                 |                      |
| Oostende     | 1        | 1982         | -            | 5,5        | 9           |          | Seghers                   |            |                    | 360/35            |                      |
|              | 2        | 1982         | -            | 5,5        | 9           |          | Seghers                   |            |                    | 360/35            |                      |
| Pont-de-Loup | 1        |              |              | 7,5        |             |          | Stein LB                  |            |                    | 380/40            |                      |
|              | 2        |              |              | 7,5        |             |          | Stein LB                  |            |                    | 380/40            |                      |
|              | 3        |              |              | 7,5        |             |          | Stein LB                  |            |                    | 380/40            |                      |
| Roeselare    | 1        | 1976         |              | 4          | 9,2         | M        | Vølund                    | HW         | NDTI               | /                 | 8000                 |
|              | 2        | 1976         |              | 4          | 9,2         | M        | Vølund                    | HW         | NDTI               | /                 | 8000                 |
| St. Niklaas  | 1        |              |              | 3,2        |             |          | Vølund                    |            |                    | /                 |                      |
|              | 2        |              |              | 3,2        |             |          | Vølund                    |            |                    | /                 |                      |
| Thurmaide    | 1        | 1985         | 2011         | 7          | 9,21        | Grille M | W+E                       | Hor S      | W+E                | 365/36            | 8136                 |
|              | 2        | 2001         | ?            | 16         | 8,5         | Grille M | Martin                    | Hor S      | CNIM               | 395/45            | 7832                 |
|              | 3        | 2001         | ?            | 16         | 8,5         | Grille M | Martin                    | Hor S      | CNIM               | 395/45            | 7509                 |

## Belgium

### Technical Information on the Plant

| Location     | Line No. | Flue Gas Cleaning System        | ESP  |          | Flue Gas Cleaning |                                | Flue Gas Temp., °C |
|--------------|----------|---------------------------------|------|----------|-------------------|--------------------------------|--------------------|
|              |          |                                 | Year | Supplier | Year              | Supplier                       |                    |
| Antwerpen    | 1        | NO INFO                         |      |          |                   |                                |                    |
|              | 2        | NO INFO                         |      |          |                   |                                |                    |
| Brugge       | 1        | WET acid                        | 1982 | ---      | 1982              | Baumco (Germany)               | 80 °C              |
|              | 2        | WET acid + WET basic + FF       | 1982 | ---      | 1997              | extension: Fabricom Belgium    | 120 °C             |
|              | 3        | Wet acid + WET basic + FF + SCR | 1982 | ---      | 2004              | extension: AMECSPIE Belgium    | 170 °C             |
| Brussel      | 1        | NO INFO                         |      |          |                   |                                |                    |
|              | 2        | NO INFO                         |      |          |                   |                                |                    |
|              | 3        | NO INFO                         |      |          |                   |                                |                    |
| Doel-Beveren | 1        | FF/SD/WET/SNCR                  |      |          |                   |                                |                    |
|              | 2        | FF/SD/WET/SNCR                  |      |          |                   |                                |                    |
|              | 3        | FF/SD/WET/SNCR                  |      |          |                   |                                |                    |
| Eeklo        | 1        | ESP+SD+FF                       |      |          |                   |                                | 175                |
|              | 2        | ESP+SD+FF                       |      |          |                   |                                | 175                |
| Gent         | 1        | SD/WET/FF/ESP/SCR               |      |          | 1996/             | Seghers Better Tehnology       | 150                |
|              | 2        | SD/WET/FF/ESP/SCR               |      |          | 1996/             | Seghers Better Tehnology       | 150                |
| Harelbeke    | 1        | NO INFO                         |      |          |                   |                                |                    |
|              | 2        | NO INFO                         |      |          |                   |                                |                    |
| Herstal      | 1        | SD ESP FF                       |      |          |                   |                                | 120                |
|              | 2        | SD ESP FF                       |      |          |                   |                                | 120                |
|              | 3        | SD ESP FF                       |      |          |                   |                                | 120                |
|              | 4        | SD ESP FF                       |      |          |                   |                                | 120                |
| Houthalen    | 1        | SD/ESP/SCR                      | 1994 | FLS      | 2003              | ABAY                           | 141°C              |
|              | 2        | SD/ESP/SCR                      | 1994 | FLS      | 2003              | ABAY                           | 141°C              |
| Knokke-Heist | 1        | NO INFO                         |      |          |                   |                                |                    |
|              | 2        | NO INFO                         |      |          |                   |                                |                    |
| Menen        | 1        | SD                              |      |          |                   | Seghers BT + Research Cottrell | 150                |
|              | 2        | SD                              |      |          |                   | Seghers BT + Research Cottrell | 150                |
| Oostende     | 1        | SD + FF (1998 - Alstom)         | 1982 | Fläkt    |                   | common : SCR 2004 - Fabricom   | 200                |
|              | 2        | SD + FF (1998 - Alstom)         | 1982 | Fläkt    |                   |                                |                    |
| Pont-de-Loup | 1        | NO INFO                         |      |          |                   |                                |                    |
|              | 2        | NO INFO                         |      |          |                   |                                |                    |
|              | 3        | NO INFO                         |      |          |                   |                                |                    |
| Roeselare    | 1        | NO INFO                         | 1998 | Cotrell  | 1986              | DRY - ESP - FF - SCR           | 205                |
|              | 2        | NO INFO                         | 1998 | Cotrell  | 1986              | DRY - ESP - FF - SCR           | 205                |
| St. Niklaas  | 1        | NO INFO                         |      |          |                   |                                |                    |
|              | 2        | NO INFO                         |      |          |                   |                                |                    |
| Thurmaide    | 1        | Combiné (SD +WET)               | 1985 |          | 1996              | NEU PROCESS INTERNATIONAL      | 63                 |
|              | 2        | Combiné (SD + WET)              |      | NON      | 1996              | NEU PROCESS INTERNATIONAL      | 63                 |
|              | 3        | WET Humide sans rejet liquide   |      | NON      | 2001              | CNIM                           | 63                 |

**Belgium****Technical Information on the Plant**

| Location               | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |            | Boiler |          | Steam Data oC/bar | Hours of Operat.2004 |
|------------------------|----------|--------------|--------------|------------|-------------|---------|------------|--------|----------|-------------------|----------------------|
|                        |          |              |              |            |             | Type    | Supplier   | Type   | Supplier |                   |                      |
| Virginal               | 1        |              |              | 5          |             |         | Bartholomé |        |          | 380/40            |                      |
|                        | 2        |              |              | 5          |             |         | Bartholomé |        |          | 380/40            |                      |
| Wilrijk<br>(Antwerpen) | 1        |              |              | 9          | 9,5         | M       | Seghers    | S      |          | 400/40            | 8122                 |
|                        | 2        |              |              | 9          | 9,5         | M       | Seghers    | S      |          | 400/40            | 7766                 |

**Belgium****Technical Information on the Plant**

| Location               | Line No. | Flue Gas Cleaning System | ESP  |          | Flue Gas Cleaning |          | Flue Gas Temp., °C |
|------------------------|----------|--------------------------|------|----------|-------------------|----------|--------------------|
|                        |          |                          | Year | Supplier | Year              | Supplier |                    |
| Virginal               | 1        | NO INFO                  |      |          |                   |          |                    |
|                        | 2        | NO INFO                  |      |          |                   |          |                    |
| Wilrijk<br>(Antwerpen) | 1        | SD-WET-ESP-SNCR          | 1999 |          | 1999              |          | 68                 |
|                        | 2        | SD-WET-ESP-SNCR          | 1999 |          | 1999              |          | 68                 |

**Belgium**  
**Operational data, 2004**

| Location            | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels            |
|---------------------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|-----------------------|
|                     | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) |                       |
| Antwerpen           |                                  |                       |                                       |                          |                    |                               |                                |                       |
| Brugge              | 174733                           | 129933                | 41277                                 |                          |                    | 3523                          |                                |                       |
| Brussel             |                                  |                       |                                       |                          |                    |                               |                                |                       |
| Doel-Beveren        | 397029                           |                       |                                       |                          |                    |                               |                                | O:1197314             |
| Eeklo               |                                  |                       |                                       |                          |                    |                               |                                |                       |
| Gent                | 94383                            | 81576                 |                                       |                          |                    | 475                           | 12332                          | O:153,33<br>G:4381600 |
| Harelbeke           |                                  |                       |                                       |                          |                    |                               |                                |                       |
| Herstal             | 123787                           | 89645                 | 34142                                 |                          |                    |                               |                                |                       |
| Houthalen           | 69195                            | 65195                 | 2300                                  | 0                        | 0                  | 1700                          | 0                              | O:325598<br>G:1500000 |
| Knokke-Heist        |                                  |                       |                                       |                          |                    |                               |                                |                       |
| Menen               |                                  |                       |                                       |                          |                    |                               |                                |                       |
| Oostende            | 65000                            | 50000                 | 15000                                 | 0                        | 0                  | 0                             | 0                              |                       |
| Pont-de-Loup        |                                  |                       |                                       |                          |                    |                               |                                |                       |
| Roeselare           | 56000                            | 45000                 | 11000                                 |                          |                    |                               |                                |                       |
| St. Niklaas         |                                  |                       |                                       |                          |                    |                               |                                |                       |
| Thurmaide           | 259614                           | 69386                 | 134910                                |                          | 7352               | 22157                         | 16728                          | O:284804              |
| Virginal            |                                  |                       |                                       |                          |                    |                               |                                |                       |
| Wilrijk (Antwerpen) | 130952                           | 130952                | 0                                     | 0                        | 0                  | 0                             |                                |                       |

**Belgium**  
**Operational data, 2004**

| Location            | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|---------------------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|                     | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Antwerpen           |                        |                           |                   |                      |               |                   |                      |               |
| Brugge              | 26982                  |                           | 439323            | 27825                | 326525        |                   | 5531                 | 27262         |
| Brussel             |                        |                           |                   |                      |               |                   |                      |               |
| Doel-Beveren        | 110355                 | 13510                     | 1300000           | 150308               |               | 566645            | 148445               |               |
| Eeklo               |                        |                           |                   |                      |               |                   |                      |               |
| Gent                | 16292                  | 4741                      |                   |                      |               |                   |                      |               |
| Harelbeke           |                        |                           |                   |                      |               |                   |                      |               |
| Herstal             | 17552                  | 6705                      | 462622            | 83495                |               |                   | 62387                |               |
| Houthalen           | 16043                  | 2815                      |                   | 25426                | 14062         |                   | 19306                | 14062         |
| Knokke-Heist        |                        |                           |                   |                      |               |                   |                      |               |
| Menen               |                        |                           |                   |                      |               |                   |                      |               |
| Oostende            | 13000                  | 2000                      |                   | 27000                |               | 0                 | 20000                | 0             |
| Pont-de-Loup        |                        |                           |                   |                      |               |                   |                      |               |
| Roeselare           | 8800                   | 2000                      |                   |                      | 125000        |                   |                      | 28000         |
| St. Niklaas         |                        |                           |                   |                      |               |                   |                      |               |
| Thurmaide           | 55850                  | 11225                     |                   | 149098               |               |                   | 126217               |               |
| Virginal            |                        |                           |                   |                      |               |                   |                      |               |
| Wilrijk (Antwerpen) |                        |                           |                   | 78504                |               |                   | 78504                |               |



Number of plants: 3  
Average capacity: 39 t/h  
Quantity treated 2004: 410.000 t



**Czech Republic**  
**General Information**

| Location | Name of Plant<br>Web-site         | Address of Plant                              | Phone<br>Fax                         |
|----------|-----------------------------------|---|--------------------------------------|
| Brno     | SAKO Brno<br>www.sako.cz          | Jedovnická 2<br>62800 Brno                    | +420 548 138 140<br>+420 548 138 102 |
| Liberec  | TERMIZO Liberec<br>www.termizo.cz | Dr. Milady Horakove 571/56<br>46006 Liberec 7 | +420 482 428 682<br>+420 482 428 672 |
| Praha    | Spalovna Malešice<br>www.psas.cz  | Prumyslova 615 / 32<br>18000 Praha 10         | +420 284 098 825<br>+420 272 704 344 |

**Technical Information on the Plant**

| Location | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace  |                                  | Boiler |  | Steam Data oC/bar | Hours of Operat.2004 |
|----------|----------|--------------|--------------|------------|-------------|----------|----------------------------------|--------|--|-------------------|----------------------|
|          |          |              |              |            |             | Type     | Supplier                         | Type   | Supplier   |                   |                      |
| Brno     | 1        | 1989         | 2008         | 15         | 10,87       | Rotary   | CKD Dukla,<br>licence<br>BABCOCK | S      |  | 220/10            | 4436                 |
|          | 2        | 1989         | 2006         | 15         | 10,87       | Rotary   | CKD Dukla,<br>licence<br>BABCOCK | S      |  | 220/10            | 3806                 |
|          | 3        | 1989         | 2006         | 15         | 10,87       | Rotary   | CKD Dukla,<br>licence<br>BABCOCK | S      |  | 220/10            | 1625                 |
| Liberec  | 1        | 1999         | 2029         | 12         | 10,5        | Moveable | Von Roll Zürich                  | Steam  | Von Roll Zürich,<br>Liberecky<br>Energomont a.s. | 400/40            | 8070                 |
| Praha    | 1        | 1998         | -            | 15         | 10          | M        | CKD Dukla                        | S      | CKD Dukla  | 235/13,5          | 5766                 |
|          | 2        | 1998         | -            | 15         | 10          | M        | CKD Dukla                        | S      | CKD Dukla  | 235/13,5          | 3643                 |
|          | 3        | 1998         | -            | 15         | 10          | M        | CKD Dukla                        | S      | CKD Dukla  | 235/13,5          | 3943                 |
|          | 4        | 1998         | -            | 15         | 10          | M        | CKD Dukla                        | S      | CKD Dukla  | 235/13,5          | 3634                 |
|          |          |              |              |            | 117         |          |                                  |        |  |                   |                      |

**Operational data, 2004**

| Location | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels |
|----------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|------------|
|          | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) |            |
| Brno     | 106.740                          | 101.769               | 4.717                                 | 0                        | 0                  | 254                           | 0                              | G:252051   |
| Liberec  | 92.260                           | 81.809                | 4.124                                 | 0                        | 0                  | 0                             | 6.327                          | G:117943   |
| Praha    | 211.383                          | 211.383               | -                                     | -                        | -                  | -                             | -                              | G:900002   |

**Czech Republic**  
**General Information**

| Location | Contact Person<br>E-mail               | Owner of plant<br>No. of inhab. served | Owners<br>Address                             |
|----------|--|--|---|
| Brno     | Vaclav Hnanicek<br>hnanicek@sako.cz    | SAKO Brno, a.s.                        | Jedovnická 2<br>62800 Brno                    |
| Liberec  | Jana Penickova<br>penickova@termizo.cz | TERMIZO a.s.<br>250000                 | Dr. Milady Horakove 571/56<br>46006 Liberec 7 |
| Praha    | Pavel Beran<br>beranp@psas.cz          | Pražské služby, a.s.                   | Pod Šancemi 444/1<br>180 77 Praha 9           |

**Technical Information on the Plant**

| Location | Line<br>No. | Flue Gas Cleaning<br>System | ESP  |               | Flue Gas Cleaning |   | Flue Gas<br>Temp., °C |
|----------|-------------|-----------------------------|------|---------------|-------------------|---|-----------------------|
|          |             |                             | Year | Supplier      | Year              | Supplier                                      |                       |
| Brno     | 1           | semi-dry                    | 1989 | ZVVZ Milevsko | 1994              | ABB Flakt                                     | 145                   |
|          | 2           | semi-dry                    | 1989 | ZVVZ Milevsko | 1994              | ABB Flakt                                     | 145                   |
|          | 3           | semi-dry                    | 1989 | ZVVZ Milevsko | 1994              | ABB Flakt                                     | 145                   |
| Liberec  | 1           | wet, FF, ESP, SNCR          | 1999 | ZVVZ Milevsko | 1999              | Von Roll Zürich, ZVVZ<br>Milevsko, EVECO Brno | 45                    |
| Praha    | 1           | Wet, ESP, SNCR              | 1998 | ZVVZ Milevsko | 1998              | CKD Dukla                                     | 110                   |
|          | 2           | Wet, ESP, SNCR              | 1998 | ZVVZ Milevsko | 1998              | CKD Dukla                                     | 110                   |
|          | 3           | Wet, ESP, SNCR              | 1998 | ZVVZ Milevsko | 1998              | CKD Dukla                                     | 110                   |
|          | 4           | Wet, ESP, SNCR              | 1998 | ZVVZ Milevsko | 1998              | CKD Dukla                                     | 110                   |

**Operational data, 2004**

| Location | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|----------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|          | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Brno     | 24.196                 | 5.063                     | 305.742           | 1.726                | 241.651       | 156.989 189.804   |                      |               |
| Liberec  | 35.503                 | 1.064                     | 268.949           | 15.074               | 239.066       | 5.702 168.769     |                      |               |
| Praha    | 54.459                 |                           | 608.609           | -                    | 488.648       | 421.026           | -                    | 336.146       |



Number of plants: 34  
Average capacity: 17 t/h  
Quantity treated 2004: 3.010.000 t



## Denmark

### General Information

| Location      | Name of Plant<br>Web-site  | Address of Plant                             | Phone<br>Fax                   |
|---------------|--|--|--------------------------------|
| Esbjerg       | L90 Affaldsforbrænding<br><a href="http://www.L90.dk">www.L90.dk</a>                                 | Måde Industrivej 35<br>6705 Esbjerg Ø        | +45 7915 1300<br>+45 9626 1510 |
| Frederikshavn | Frederikshavns Affaldskraftvarmeværk A/S<br><a href="http://www.elsamkraft.dk">www.elsamkraft.dk</a> | Vensysselsvej 201<br>9900 Frederikshavn      | +45 7924 1020                  |
| Glostrup      | I/S Vestforbrænding<br><a href="http://www.vestfor.dk">www.vestfor.dk</a>                            | Ejbymosevej 219<br>2600 Glostrup             | +45 4485 7000<br>+45 4485 7001 |
| Grenaa        | Grenaa Forbrændingsanlæg   | Kalorievej 9<br>8500 Grenaa                  | +45 8759 2813<br>+45 8759 2819 |
| Haderslev     | Haderslev Kraftvarmeværk<br><a href="http://www.elsamkraft.dk">www.elsamkraft.dk</a>                 | Dybkær 2, Marstrup<br>6100 Haderslev         | +45 7924 1160<br>+45 7924 1170 |
| Hadsund       | Hadsund Bys Fjernvarmeværk   | Fabriksvej 1<br>9560 Hadsund                 | +45 9857 1632<br>+45 9857 4432 |
| Hammel        | Hammel Fjernvarme A.m.b.a.<br><a href="http://www.hammelfjernvarme.dk">www.hammelfjernvarme.dk</a>   | Irlandsvej 6<br>8450 Hammel                  | +45 8696 9766<br>+45 8696 9766 |
| Herning       | Knudmose Værket  | Miljøvej 2<br>7400 Herning                   | +45 9926 8211<br>+45 9926 8212 |
| Hjørring      | Forbrændingsanlæg AVV<br><a href="http://www.avv.dk">www.avv.dk</a>                                  | Mandøvej 8<br>9800 Hjørring                  | +45 9623 6644<br>+45 9623 6611 |
| Hobro         | I/S Fælles Forbrænding<br><a href="http://www.isff.dk">www.isff.dk</a>                               | Hvedemarken 13, Postboks 130<br>9500 Hobro   | +45 9657 6100<br>+45 9657 6101 |
| Holstebro     | Måbjergværket A/S<br><a href="http://www.elsamkraft.dk">www.elsamkraft.dk</a>                        | Energivej 2<br>7500 Holstebro                | +45 7924 1120<br>+45 7924 1140 |
| Horsens       | Horsens Kraftvarmeværk A/S<br><a href="http://www.elsamkraft.dk">www.elsamkraft.dk</a>               | Endelavevej 7<br>8700 Horsens                | +45 7924 1060<br>+45 7924 1070 |
| Høje-Taastrup | Vestforbrænding I/S (Taastrup)<br><a href="http://www.vestfor.dk">www.vestfor.dk</a>                 | Lervangen 1-3<br>2630 Høje Taastrup          | +45 4350 0000<br>+45 4350 0090 |
| Hørsholm      | Nordforbrænding I/S<br><a href="http://www.nordf.dk">www.nordf.dk</a>                                | Savsvinget 2<br>2970 Hørsholm                | +45 4516 0500<br>+45 4516 0511 |
| Kolding       | Kolding Forbrændingsanlæg<br><a href="http://www.tas-is.dk">www.tas-is.dk</a>                        | Bronzevej 6<br>6000 Kolding                  | +45 7632 5000<br>+45 7632 5055 |
| København     | I/S Amagerforbrænding<br><a href="http://www.amfor.dk">www.amfor.dk</a>                              | Kraftværksvej 31<br>2300 København S         | +45 3268 9300<br>+45 3268 9393 |
| Leirvik       | Brennistöðin á Hagaleiti<br><a href="http://www.irf.fo">www.irf.fo</a>                               | Hagaleiti, Postboks 39<br>FO-520 Leirvik     | +298 473300<br>+298 473340     |
| Middelfart    | Vestfyns Forbrændingsanlæg<br><a href="http://www.tas-is.dk">www.tas-is.dk</a>                       | Fynsvej 52<br>5500 Middelfart                | +45 7632 5000<br>+45 7632 5055 |
| Nykøbing F    | I/S REFA<br><a href="http://www.refa.dk">www.refa.dk</a>   | Energivej 4<br>4800 Nykøbing F.              | +45 5484 1400<br>+45 5484 1414 |
| Næstved       | I/S FASAN<br><a href="http://www.fasan.dk">www.fasan.dk</a>  | Ved Fjorden 20<br>4700 Næstved               | +45 5575 0800<br>+45 5575 0825 |
| Odense        | Odense Kraftvarmeværk A/S<br><a href="http://www.elsamkraft.dk">www.elsamkraft.dk</a>                | Havnegade 120, Postboks 928<br>5000 Odense C | +45 7924 1080<br>+45 6590 3812 |
| Roskilde      | KARA<br><a href="http://www.kara.dk">www.kara.dk</a>   | Håndværkervej 70<br>4000 Roskilde            | +45 4634 7500<br>+45 4634 7510 |
| Rønne         | BOFA I/S<br><a href="http://www.bofa.dk">www.bofa.dk</a>   | Almegårdsvej 8<br>3700 Rønne                 | +45 5693 3228<br>+45 5695 9203 |
| Skagen        | Skagen Forbrænding   | Buttervej 66<br>9990 Skagen                  | +45 9844 5496<br>+45 9845 1600 |
| Skanderborg   | Renosyd i/s<br><a href="http://www.renosyd.dk">www.renosyd.dk</a>                                    | Norgesvej 13<br>8660 Skanderborg             | +45 8652 5211<br>+45 8652 5241 |

**Denmark**  
**General Information**

| Location      | Contact Person<br>E-mail                      | Owner of plant<br>No. of inhab. served                        | Owners<br>Address                          |
|---------------|---|---|--|
| Esbjerg       | Jan Fletcher Hansen<br>l90@l90.dk             | L90<br>612.000  | Poppelvej 1<br>7400 Herning                |
| Frederikshavn | Poul Engling-Poulsen<br>pcp@elsam.com         | Elsam Kraft A/S<br>55.000                                     | Ovrgade 45<br>7000 Fredericia              |
| Glostrup      | Henrik Ørnberg<br>hoe@vestfor.dk              | I/S Vestforbrænding<br>875.000                                | Ejbymosevej 219<br>2600 Glostrup           |
| Grenaa        | Ehlers Brodersen<br>ebo@grenaakommune.dk      | Grenaa kommune<br>82270                                       | Torvet 3<br>8500 Grenaa                    |
| Haderslev     | Harry Hansen<br>hh@elsam.com                  | Elsam A/S<br>125000   | Ovrgade 45<br>7000 Fredericia              |
| Hadsund       | Ejnar Sand<br>hadsund_fjernvarme@mail.dk      | Consumer-owned  |  |
| Hammel        | Niels Haugaard<br>nh@hammelfjernvarme.dk      | Hammel Fjernvarme A.m.b.a.                                    | Irlandsvej 6<br>8450 Hammel                |
| Herning       | Ove H. Jespersen<br>ohj@egjylland.dk          | EG. Jylland   | Dalgas Alle 3<br>7400 Herning              |
| Hjørring      | Christen Pedersen<br>cp@avv.dk                | AVV I/S   | Mandøvej 4<br>9800 Hjørring                |
| Hobro         | Thomas Nielsen<br>tn@isff.dk                  | I/S Fælles Forbrænding  | Hvedemarken 13, Postboks 130<br>9500 Hobro |
| Holstebro     | Erik Tranberg<br>et@elsam.com                 | Elsam A/S   | Ovrgade 45<br>7000 Fredericia              |
| Horsens       | Leif Sørensen<br>les@elsam.com                | Elsam A/S   | Ovrgade 45<br>7000 Fredericia              |
| Høje-Taastrup | Poul Erik Sørensen<br>ps@vega-affald.dk       | Vestforbrænding   | Ejbymosevej 219<br>2600 Glostrup           |
| Hørsholm      | Henrik Bo Christiansen<br>nordf@nordf.dk      | I/S Nordforbrænding   | Savsvinget 2<br>2970 Hørsholm              |
| Kolding       | Jan Højte Nielsen<br>jhn@tas-is.dk            | TAS I/S   | Bronzevej 6<br>6000 Kolding                |
| København     | Poul Bach Olsen<br>pbo@amfor.dk               | I/S Amagerforbrænding<br>530000                               | Kraftværksvej 31<br>2300 København S       |
| Leirvik       | Poul Andrias Joensen<br>poul@irf.fo           | IRF, Interkommunali<br>Renovationsfelagsskapurin L/F<br>29029 | Hagaleiti, Postboks 39<br>FO-520 Leirvik   |
| Middelfart    | Jan Højte Nielsen<br>jhn@tas-is.dk            | TAS   | Bronzevej 6<br>6000 Kolding                |
| Nykøbing F    | Bjørn Stender<br>bls@refa.dk                  | I/S REFA<br>116000  | Energivej 4<br>4800 Nykøbing F.            |
| Næstved       | Leif F. Mortensen<br>lfm@fasan.dk             | I/S FASAN<br>192.000  | Ved Fjorden 20<br>4700 Næstved             |
| Odense        | Peter C. Graversen<br>pcg@elsam.com           | Elsam Kraft A/S   | Ovrgade 45<br>7000 Fredericia              |
| Roskilde      | Stig L. Schmidt<br>kara@kara.dk               | I/S KARA<br>239.000   | Håndværkervej 70<br>4000 Roskilde          |
| Rønne         | Jean Soelberg<br>driftsleder@bofa.dk          | Municipality of Bornholm                                      | Ullasvej 23<br>3700 Rønne                  |
| Skagen        | Lars Østergaard<br>lars.oestergaard@skagen.dk | Municipality of Skagen<br>10000                               | Sct. Laurentii Vej 87<br>9990 Skagen       |
| Skanderborg   | Finn Søgaard<br>renosyd@renosyd.dk            | Renosyd i/s<br>94.381   | Norgesvej 13<br>8660 Skanderborg           |

## Denmark

### General Information

| Location   | Name of Plant<br>Web-site  | Address of Plant                            | Phone<br>Fax                   |
|------------|--|---|--------------------------------|
| Slagelse   | Energien<br><a href="http://www.kavo.dk">www.kavo.dk</a>                           | Dalsvinget 11<br>4200 Slagelse              | +45 5852 6289<br>+45 5853 3879 |
| Svendborg  | Svendborg kraftvarmeværk<br><a href="http://www.svendborg.dk">www.svendborg.dk</a> | Bodøvej 15<br>5700 Svendborg                | +45 6321 5535<br>+45 6321 5585 |
| Sønderborg | Sønderborg Kraftvarmeværk I/S<br><a href="http://www.skvv.dk">www.skvv.dk</a>      | Vestermark 16<br>6400 Sønderborg            | +45 7442 0200<br>+45 7442 0211 |
| Thisted    | Kraftvarmeværk Thisted I/S<br><a href="http://www.kvvt.dk">www.kvvt.dk</a>         | Industrivej 9, Postboks 166<br>7700 Thisted | +45 9792 1442<br>+45 9791 1442 |
| Torshavn   | Torshavn Forbrændingsanlæg   | Å Hjalla, 188 Hoyvik<br>FO-110 Torshavn     | +298 302040<br>+298 302041     |
| Vejen      | Vejen Kraftvarmeværk<br><a href="http://www.elsamkraft.dk">www.elsamkraft.dk</a>   | Koldingvej 30B<br>6600 Vejen                | +45 7924 1160<br>+45 7924 1170 |
| Aalborg    | Reno-Nord I/S<br><a href="http://www.reno-nord.dk">www.reno-nord.dk</a>            | Troensevej 2<br>9220 Aalborg Øst            | +45 9815 6566<br>+45 9815 1797 |
| Århus      | Kraftvarmeanlæg Århus Nord<br><a href="http://www.aakv.dk">www.aakv.dk</a>         | Ølstedvej 20<br>8200 Århus N                | +45 8940 1500<br>+45 8940 1505 |
| Aars       | Aars Fjernvarmeværk<br><a href="http://www.aarsfjv.dk">www.aarsfjv.dk</a>          | Dybvad Møllevej 1<br>9600 Aars              | +45 9998 8070                  |

## Denmark

### General Information

| Location   | Contact Person<br>E-mail               | Owner of plant<br>No. of inhab. served                    | Owners<br>Address                          |
|------------|--|---|--|
| Slagelse   | Ole Andersen<br>oja@kavo.dk            | I/S KAVO<br>140000  | Møllesøvej 7<br>4241 Vemmelev              |
| Svendborg  | Peter Boysen<br>affald@svendborg.dk    | Svendborg kommune   | Ramsherred 5<br>5700 Svendborg             |
| Sønderborg | Erik Wolff<br>ewo@skvv.dk              | Sønderborg Kraftvarmeværk I/S                             | Vestermark 16<br>6400 Sønderborg           |
| Thisted    | Jørgen Skaarup<br>js@kvvt.dk           | I/S Thyra (50%) / Thisted Vandforsyning<br>(50%)<br>77717 | Asylgade 30 / Ringvejen 26<br>7700 Thisted |
| Torshavn   | Bárdur Michelsen<br>bardur@torshavn.fo | Torshavnar Kommuna<br>19282                               | Vaglið<br>FO-100 Torshavn                  |
| Vejen      | Harry Hansen<br>hh@elsam.com           | Elsam A/S   | Overgade 45<br>7000 Fredericia             |
| Aalborg    | Henrik Skov<br>hs@reno-nord.dk         | I/S Reno-Nord   | Troensevej 2<br>9220 Aalborg Øst           |
| Århus      | Juul Meldgaard<br>jm@akv.aarhus.dk     | Århus kommunale Værker<br>ca. 300000                      | Bautavej 1<br>8210 Århus V                 |
| Aars       | Per Sørensen<br>psa@aarsfv.dk          | I/S Aars Varmeværk  | Dybvd Møllevej 1<br>9600 Aars              |

## Denmark

### Technical Information on the Plant

| Location      | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |               | Boiler |                 | Steam Data oC/bar | Hours of Operat.2004 |
|---------------|----------|--------------|--------------|------------|-------------|---------|---------------|--------|-----------------|-------------------|----------------------|
|               |          |              |              |            |             | Type    | Supplier      | Type   | Supplier        |                   |                      |
| Esbjerg       | 1        | 2003         |              | 24         | 11,5        | M       | Vølund        | S      | Vølund          | 400/42            | 7693                 |
| Frederikshavn | 1        | 1994         |              | 5          |             | M       | Vølund        | S      |                 | 400/48            | 7922                 |
| Glostrup      | 1        | 1970         | 2004         | 10         | 11          | R       | Vølund        | HW     | Vølund          |                   | 6110                 |
|               | 2        | 1970         |              | 10         | 11          | R       | Vølund        | HW     | Vølund          |                   | 6370                 |
|               | 3        | 1970         |              | 10         |             | R       | Vølund        | HW     | Vølund          |                   | 4390                 |
|               | 4        | 1975         |              | 14         |             | R       | Vølund        | HW     | Vølund          |                   | 4500                 |
|               | 5        | 1998         |              | 28         | 11          | M       | Vølund        | S      | Vølund          | 380/52            | 6700                 |
|               | 6        | 2004         |              | 35         | 11          | M       | Fisia Babcock | S      | Fisia Babcock   | 380/52            |                      |
| Grenaa        | 1        | 1981, 2000   |              | 2,5        | 8,4         | M       | Vølund        | HW     | Vølund          |                   | 8125                 |
| Haderslev     | 1        | 1993         |              | 4,5        | 9,2         | M       | Krüger        | S      | Aalborg Boilers | 520/65            | 7352                 |
|               | 2        | 1993         |              | 4,5        | 9,2         | M       | Krüger        | S      | Aalborg Boilers | 520/65            | 7161                 |
| Hadsund       | 1        | 1984         | 2005         | 1,3        | 11,6        | M       | Vølund        | WW     | Vølund          |                   | 5397                 |
|               | 2        | 1984         | 2005         | 1,3        | 11,6        | M       | Vølund        | WW     | Vølund          |                   | 6862                 |
| Hammel        | 1        | 1986         |              | 2,5        | 10,5        | M       | Vølund        | WW     | Vølund          |                   |                      |
|               | 2        | 2002         |              | 4          |             | M       | Vølund        | WW     | Vølund          |                   |                      |
| Herning       | 1        | 1994         |              | 5          | 11,7        | M       | Vølund        | S      | Vølund          | 400/66            | 8248                 |
| Hjørring      | 1        | 1986         | 2005         | 3          | 9,6         | M       | Vølund        | WW     | Vølund          |                   |                      |
|               | 2        | 1986         |              | 3          | 9,6         | M       | Vølund        | WW     | Vølund          |                   | 442                  |
|               | 3        | 1998         |              | 6          | 12          | M       | Krüger        | S      | BWE             | 400/48            | 8027                 |
| Hobro         | 1        | 1981         |              | 3          | 10,5        | M       | B&S           | WW     | Vølund          |                   | 8639                 |
|               | 2        | 2001         |              | 3,9        | 10          | M       | Vølund        | WW     | Vølund          |                   |                      |
| Holstebro     | 1        | 1992         |              | 9          | 11          | M       | Vølund        | S      | Vølund          | 412/67            | 7490                 |
|               | 2        | 1992         |              | 9          | 11          | M       | Vølund        | S      | Vølund          | 412/67            | 7811                 |
|               | 3        | 1992         |              | 10         | 14          | M       | Vølund        | S      | Vølund          | 412/67            |                      |
| Horsens       | 1        | 1992         | 2019         | 5          | 10          | M       | Vølund        | S      | Vølund          | 425/48            | 8252                 |
|               | 2        | 1992         | 2019         | 5          | 10          | M       | Vølund        | S      | Vølund          | 425/48            | 8315                 |
| Høje-Taastrup | 1        | 1989         | 2005         | 2,5        | 12,5        | M       | Vølund        | WW     | Vølund          |                   |                      |
|               | 2        | 1989         | 2005         | 2,5        | 12,5        | M       | Vølund        | WW     | Vølund          |                   |                      |
| Hørsholm      | 1        | 1989         |              | 3          | 10          | M       | Vølund        | WW     | Vølund          |                   |                      |
|               | 2        | 1988         |              | 3          | 10          | M       | Vølund        | WW     | Vølund          |                   |                      |
|               | 3        | 1987         |              | 3          | 10          | M       | Vølund        | WW     | Vølund          |                   |                      |
|               | 4        | 1999         |              | 10         | 12,5        | M       | ABB Enertech  | S      | Alstom          | 400/50            |                      |
| Kolding       | 1        | 1982         | 2005         | 4          | 8,4         | M       | B&S           | W      | DSV             |                   | 6066                 |
|               | 2        | 1982         | 2005         | 4          | 8,4         | M       | B&S           | W      | DSV             |                   | 5406                 |
|               | 3        | 1993         |              | 9,2        | 10          | M       | Krüger        | S      | Aalborg Boilers | 425/55            | 8155                 |
| København     | 1        | 1971, 2001   |              | 15         |             | M       | Vølund        | S      | Vølund          | 380/46            | 7021                 |
|               | 2        | 1971, 2001   |              | 15         |             | M       | Vølund        | S      | Vølund          | 380/46            | 6708                 |
|               | 3        | 1971, 2000   |              | 15         |             | M       | Vølund        | S      | Vølund          | 380/46            | 7044                 |
|               | 4        | 1990, 1999   |              | 15         |             | M       | Vølund        | S      | Vølund          | 380/46            | 7140                 |
| Leirvik       | 1        | 1989         |              | 2,5        | 8,4         | M       | Vølund        | WW     | Vølund          |                   | 7670                 |
| Middelfart    | 1        | 1972         | 2005         | 2          | 8,4         | M       | B&S           | WW     | Danstoker       |                   | 7862                 |
|               | 2        | 1974         | 2005         | 2          | 8,4         | M       | B&S           | WW     | Danstoker       |                   | 7862                 |
| Nykøbing F    | 1        | 1983         |              | 4          | 9,4         | M       | Vølund        | WW     | Vølund          |                   | 4750                 |
|               | 2        | 1983         |              | 4          | 9,4         | M       | Vølund        | WW     | Vølund          |                   | 4478                 |
|               | 3        | 1999         |              | 9          | 12          | M       | Vølund        | S      | Vølund          | 400/40            | 7873                 |

## Denmark

### Technical Information on the Plant

| Location      | Line No. | Flue Gas Cleaning System | ESP  |             | Flue Gas Cleaning |                   | Flue Gas Temp., °C |
|---------------|----------|--------------------------|------|-------------|-------------------|-------------------|--------------------|
|               |          |                          | Year | Supplier    | Year              | Supplier          |                    |
| Esbjerg       | 1        | FF+WET                   | 2003 |             | 2003              | FLS               | 60                 |
| Frederikshavn | 1        | ESP+WET+WetESP           | 1994 | FLS         | 2005              | FLS               |                    |
| Glostrup      | 1        | SNCR+ESP+FF+WET          | 1970 | Rothenmühle | 2000              | Götaverken        | 110                |
|               | 2        | SNCR+ESP+FF+WET          | 1970 | Rothenmühle | 2000              | Götaverken        | 110                |
|               | 3        |                          | 1970 | Rothenmühle |                   |                   |                    |
|               | 4        |                          | 1974 | Rothenmühle |                   |                   |                    |
|               | 5        | SNCR+ESP+WET+FF          | 1998 | FLS Miljoe  | 1998              | ABB               | 110                |
|               | 6        | SNCR+FF+WET              | 2004 |             | 2004              | Götaverken        | 110                |
| Grenaa        | 1        | DRY+FF                   |      |             | 1992/             | ABB/Alstom        | 140                |
| Haderslev     | 1        | FF+WET                   |      |             | 1993              | FLS               | 58                 |
|               | 2        | FF+WET                   |      |             | 1993              | FLS               | 58                 |
| Hadsund       | 1        | ESP+WET                  | 1984 | FLS         | 1995              | ABB               | 62                 |
|               | 2        | ESP+WET                  | 1984 | FLS         | 1995              | ABB               | 62                 |
| Hammel        | 1        | DRY+FF                   |      |             | 2002              | Alstom            |                    |
|               | 2        | DRY+FF                   |      |             | 2002              | Alstom            |                    |
| Herning       | 1        | ESP+WET                  | 1994 | ABB         | 1994              | ABB               | 50                 |
| Hjørring      | 1        | ESP+WET                  |      | Fläkt       |                   | ABB               | 60                 |
|               | 2        | DRY+FF                   |      |             | 2005              | Simatek           | 140                |
|               | 3        | DRY+FF                   |      |             | 2005              | Simatek           | 140                |
| Hobro         | 1        | ESP+WET                  |      |             |                   | ABB               | 175                |
|               | 2        | ESP+WET                  |      |             |                   | FLS/ABB           | 175                |
| Holstebro     | 1        | SNCR+ESP+WET             | 1992 | ABB         | 92/04             | ABB/Götaverken    | 75-85              |
|               | 2        | SNCR+ESP+WET             | 1992 | ABB         | 92/04             | ABB/Götaverken    | 75-85              |
|               | 3        | FF                       |      |             | 1992              | ABB               | 95                 |
| Horsens       | 1        | DRY+FF                   |      |             | 1992              | ABB/Fläkt         | 140                |
|               | 2        | DRY+FF                   |      |             | 1992              | ABB/Fläkt         | 140                |
| Høje-Taastrup | 1        | DRY+FF                   |      |             |                   | FLS/Vølund        | 142                |
|               | 2        | DRY+FF                   |      |             |                   | FLS/Vølund        | 142                |
| Hørsholm      | 1        | SNCR+DRY+FF              |      |             |                   | Fläkt             | 120                |
|               | 2        | SNCR+DRY+FF              |      |             |                   | Fläkt             | 120                |
|               | 3        | SNCR+DRY+FF              |      |             |                   | Fläkt             | 120                |
|               | 4        | SNCR+ESP+WET+FF          | 1999 | FLS         | 1999              | FLS               | 120                |
| Kolding       | 1        | ESP+WET                  | 1982 | Fläkt       | 1989              | FLS               | 60                 |
|               | 2        | ESP+WET                  | 1982 | Fläkt       | 1989              | FLS               | 60                 |
|               | 3        | DRY                      |      |             | 2004              | Simatek           | 140                |
| København     | 1        | SNCR+SD+FF               |      |             | 1990              | Vølund+Fläkt+Niro | 130                |
|               | 2        | SNCR+SD+FF               |      |             | 1990              | Vølund+Fläkt+Niro | 130                |
|               | 3        | SNCR+SD+FF               |      |             | 1990              | Vølund+Fläkt+Niro | 130                |
|               | 4        | SNCR+SD+FF               |      |             | 1990              | Vølund+Fläkt+Niro | 130                |
| Leirvik       | 1        | ESP                      | 1989 |             | 1989              |                   |                    |
| Middelfart    | 1        | DRY+FF                   |      |             | 1989              | Fläkt             | 140                |
|               | 2        | DRY+FF                   |      |             | 1989              | Fläkt             | 140                |
| Nykøbing F    | 1        | SD+FF                    | 1983 |             | 2004              | Filcon            | 140                |
|               | 2        | SD+FF                    | 1983 |             | 2004              | Filcon            | 140                |
|               | 3        | SD+FF                    | 1999 |             | 1999              | FLS               | 140                |

## Denmark

### Technical Information on the Plant

| Location    | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |               | Boiler |                    | Steam Data oC/bar | Hours of Operat.2004 |
|-------------|----------|--------------|--------------|------------|-------------|---------|---------------|--------|--------------------|-------------------|----------------------|
|             |          |              |              |            |             | Type    | Supplier      | Type   | Supplier           |                   |                      |
| Næstved     | 1        | 1983         | 2005         | 4,5        | 10,5        | M       | Vølund        | S      | Vølund             | 410/70            | 5980                 |
|             | 2        | 1995         |              | 4,5        | 10,5        | M       | Vølund        | S      | Vølund             | 400/50            | 7341                 |
|             | 3        | 1995         |              | 4,5        | 10,5        | M       | Vølund        | S      | Vølund             | 400/50            | 7581                 |
|             | 4        | 2005         |              | 8          | 12          | M       | Vølund        | S      | Vølund             | 400/50            |                      |
| Odense      | 1        | 1996         |              | 8          | 10,5        | M       | B&S           | S      | BWE/B&S            | 380/65            | 7882                 |
|             | 2        | 1996         |              | 8          | 10,5        | M       | B&S           | WW     | BWE/B&S            | 380/65            | 8299                 |
|             | 3        | 2000         |              | 16         | 11,5        | M       | BBPE          | WW     | BBPE               | 380/65            | 7889                 |
| Roskilde    | 1        |              |              |            |             |         |               |        |                    |                   |                      |
|             | 3        | 1980         |              | 7          | 10,5        | M+R     | Vølund        | WW     | Vølund             |                   | 2762                 |
|             | 4        | 1988         |              | 7          | 10,5        | M+R     | Vølund        | WW     | Vølund             |                   | 0                    |
|             | 5        | 1999         |              | 20         | 11,5        | M       | ABB Enertech  | S      | ABB                | 400/40            | 7748                 |
| Rønne       | 1        | 1991         |              | 2,5        | 9,2         | F       | B&S           | WW     | B&W                |                   | 7859                 |
| Skagen      | 1        | 1979         |              | 2          |             | M       | B&S           | WW     | Vølund             |                   | 7915                 |
| Skanderborg | 1        | 1983         |              | 4,5        | 8,8         | M       | B&S           | WW     | Aalborg Boilers    |                   | 4545                 |
|             | 2        | 1992         |              | 5,5        | 10,4        | M       | B&S           | S      | Aalborg Boilers    | 400/46            | 7730                 |
| Slagelse    | 1        | 1990         | 2021         | 6          | 10,5        | M       | B&S (Vølund)  | S      | Aalborg Industries | 430/67            | 7182                 |
|             | 2        | 1983         |              | 4          | 10,5        | M       | B&S (Vølund)  | WW     | Danstoker          |                   | 8200                 |
| Svendborg   | 1        | 1999         |              | 6          | 12          | M       | Vølund        | S      | Vølund             | 400/50            | 8140                 |
| Sønderborg  | 1        | 1996         |              | 8          | 10,5        | M       | Krüger        | S      | BWE                | 420/60            | 7913                 |
| Thisted     | 1        | 1991         |              | 6,36       | 9,21        | M       | Vølund        | S      | Vølund             | 400/46            | 8325                 |
| Torshavn    | 1        | 1987         |              | 2,5        | 10,5        | M       | B&S           | WW     | Aalborg Boilers    |                   | 6997                 |
| Vejen       | 1        | 1991         |              | 4,3        | 11,9        | M       | Vølund        | S      | Vølund             | 410/51            | 8474                 |
| Aalborg     | 1        | 1980         | 2005         | 8          | 10,5        | M/R     | Vølund        | HW     | Vølund             |                   | 4282                 |
|             | 2        | 1980         |              | 8          | 10,5        | M/R     | Vølund        | HW     | Vølund             |                   | 4541                 |
|             | 3        | 1991         |              | 11         | 10,5        | M       | B&S           | S      | Aalborg Boilers    | 425/50            | 8100                 |
|             | 4        | 2005         |              | 20         | 12          | M       | Vølund        | S      | Vølund             | 425/50            |                      |
| Århus       | 1        | 1995         | 2004         | 7,6        | 10,5        | M       | B&S           | S      | Aalborg Boilers    | 430/66            | 7620                 |
|             | 2        | 1994         |              | 7,6        | 10,5        | M       | B&S           | S      | Aalborg Boilers    | 430/66            | 7991                 |
|             | 3        | 1992         |              | 8          | 10,5        | M       | B&S           | HW     | Vølund             |                   | 6392                 |
|             | 4        | 2004         |              | 16         | 11          | M       | Fisia-Babcock | S      | Fisia-Babcock      | 400/40            | 926                  |
| Aars        | 1        | 1985         |              | 3,5        |             | M       | B&S           | WW     | Aalborg Boilers    |                   |                      |
|             | 2        | 1995         |              | 5          |             | M       | B&S           | S      | Aalborg Boilers    | 430/47            |                      |

## Denmark

### Technical Information on the Plant

| Location    | Line No. | Flue Gas Cleaning System | ESP  |                   | Flue Gas Cleaning |                  | Flue Gas Temp., °C |
|-------------|----------|--------------------------|------|-------------------|-------------------|------------------|--------------------|
|             |          |                          | Year | Supplier          | Year              | Supplier         |                    |
| Næstved     | 1        |                          |      |                   |                   |                  |                    |
|             | 2        | ESP+DRY+FF+WET           |      | ELEX              | 2005              | Alstom           | 60                 |
|             | 3        | ESP+DRY+FF+WET           |      | ELEX              | 2005              | Alstom           | 60                 |
|             | 4        | SNCR+DRY+FF+WET          |      |                   | 2005              | Alstom           | 60                 |
| Odense      | 1        | SNCR+ESP+WET+FF          | 1996 | ABB               | 1996              | ABB              | 98                 |
|             | 2        | SNCR+ESP+WET+FF          | 1996 | ABB               | 1996              | ABB              | 96                 |
|             | 3        | SNCR+FF+WET              |      |                   | 2000              | BBPE             | 66                 |
| Roskilde    | 1        |                          |      |                   |                   |                  |                    |
|             | 3        | SNCR+SD+FF               |      |                   |                   | FLS              | 150                |
|             | 4        | SD+FF                    |      |                   |                   | FLS              | 150                |
|             | 5        | SNCR+ESP+WET+FF          | 1999 | ABB               | 1999              | ABB              | 120                |
| Rønne       | 1        | SD+FF                    |      |                   |                   | Fläkt            | 140                |
| Skagen      | 1        | ESP+DRY+FF               |      |                   | 1992              | ABB              | 140                |
| Skanderborg | 1        | ESP+FF+WET               | 1983 | Research-Cottrell | 2005              | ABB/Fläkt/Alstom | 65                 |
|             | 2        | ESP+FF+WET               | 1992 | ABB Flakt         | 2005              | ABB/Fläkt/Alstom | 65                 |
| Slagelse    | 1        | DRY+FF                   |      |                   | 2004              | Simatek          | 140                |
|             | 2        | DRY+FF                   |      |                   | 2005              | Simatek          | 140                |
| Svendborg   | 1        | ESP+WET                  | 1999 | ABB               | 1999              | LAB              | 65                 |
| Sønderborg  | 1        | ESP+WET                  | 1996 | ABB               |                   | ABB+LAB          | 65                 |
| Thisted     | 1        | FF+WET+FGC               |      |                   | 2002              | Götaverken       | 60                 |
| Torshavn    | 1        | ESP                      |      | Fläkt             |                   | Fläkt            | 200                |
| Vejen       | 1        | DRY+FF                   |      |                   | 2004              | Filcon           | 135                |
| Aalborg     | 1        | SD+ESP                   |      |                   |                   | FLS              | 150                |
|             | 2        | SD+ESP                   |      |                   |                   | FLS              | 150                |
|             | 3        | SD+ESP                   |      |                   |                   | FLS              | 150                |
|             | 4        | SNCR+ESP+WET+FGC         | 2005 | Alstom            | 2005              | LAB              | 54                 |
| Århus       | 1        | SNCR+DRY+FF              |      |                   | 2005              | Alstom           | 130                |
|             | 2        | SNCR+DRY+FF              |      |                   | 2005              | Alstom           | 130                |
|             | 3        | SD+ESP                   |      | FLS               |                   | FLS              | 130                |
|             | 4        | SNCR+FF+WET              |      |                   | 2004              | Fisia-Babcock    |                    |
| Aars        | 1        | NO INFO                  |      |                   |                   |                  |                    |
|             | 2        | NO INFO                  |      |                   |                   |                  |                    |

**Denmark**  
**Operational data, 2004**

| Location      | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels  |
|---------------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|---|
|               | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) | O: Oil (l)<br>G: Gas (Nm3)<br>B: Biomass (t)<br>S: Sundry (spec.) |
| Esbjerg       | 181635                           |                       |                                       | 0                        | 0                  | 0                             | 0                              | O:388000  |
| Frederikshavn | 35295                            |                       |                                       |                          |                    |                               |                                | O:25700   |
| Glostrup      | 466000                           |                       |                                       |                          |                    |                               | bonemeal                       |   |
| Grenaa        | 20975                            | 12493                 | 6166                                  |                          |                    |                               | 2240                           | B:76  |
| Haderslev     | 56292                            |                       |                                       |                          |                    |                               |                                | G:13677   |
| Hadsund       | 20092                            | 12648                 | 4845                                  |                          |                    |                               |                                | B:2599  |
| Hammel        | 29501                            |                       |                                       |                          |                    |                               |                                |   |
| Herning       | 39341                            |                       |                                       |                          |                    |                               |                                | G:1004194   |
| Hjørring      | 61270                            | 31718                 | 26338                                 | 0                        | 2735               | 479                           | 0                              |   |
| Hobro         | 25450                            | 15745                 | 9705                                  | 0                        | 0                  | 0                             | 0                              | G:10812<br>B:487  |
| Holstebro     | 142957                           |                       |                                       |                          |                    |                               |                                |   |
| Horsens       | 70713                            |                       |                                       |                          |                    |                               |                                | B:313   |
| Høje-Taastrup | 53356                            |                       |                                       |                          |                    |                               |                                |   |
| Hørsholm      | 109493                           | 51304                 | 28835                                 | 0                        | 137                | 0                             | 29218                          | G:74919   |
| Kolding       | 94169                            | 36786                 | 55659                                 |                          |                    |                               | 829                            | B:895   |
| København     | 401823                           | 208807                | 177411                                | 0                        | 0                  | 1942                          | 13663                          |   |
| Leirvik       | 16116                            |                       |                                       |                          |                    |                               |                                | O:18637   |
| Middelfart    | 21098                            | 8700                  | 12330                                 |                          |                    |                               |                                | B:68  |
| Nykøbing F    | 105000                           | 40000                 | 53000                                 | 0                        | 0                  | 0                             | 6000                           | O:180000<br>B:6000  |
| Næstved       | 89458                            | 48961                 | 40316                                 | 63                       |                    |                               |                                | B:118   |
| Odense        | 26498                            | 100790                | 109740                                |                          |                    |                               | 57968                          | O:664000  |
| Roskilde      | 198443                           |                       |                                       |                          |                    |                               |                                | G:239622  |
| Rønne         | 21158                            |                       |                                       |                          |                    |                               |                                |   |
| Skagen        | 11116                            |                       |                                       |                          |                    |                               |                                |   |
| Skanderborg   | 57002                            |                       |                                       |                          |                    |                               |                                | O:116299  |
| Slagelse      | 60152                            |                       |                                       | 0                        | 0                  | 0                             | 0                              |   |
| Svendborg     | 54000                            | 21900                 | 23500                                 |                          |                    | 400                           | 8200                           | G:53000   |
| Sønderborg    | 65918                            |                       |                                       |                          |                    |                               |                                |   |
| Thisted       | 51821                            | 22474                 | 28479                                 |                          |                    |                               |                                | B:868   |
| Torshavn      | 14365                            |                       |                                       |                          |                    |                               |                                |   |
| Vejen         | 38164                            |                       |                                       |                          |                    |                               |                                |   |
| Aalborg       | 134774                           | 74025                 | 60749                                 |                          |                    |                               |                                |   |
| Århus         | 183047                           | 92973                 | 90274                                 |                          |                    | 361                           |                                | O:339521<br>B:1476  |
| Aars          | 53461                            |                       |                                       |                          |                    |                               |                                |   |

**Denmark**  
**Operational data, 2004**

| Location      | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|---------------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|               | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Esbjerg       | 36225                  | 4111                      |                   |                      |               | 0                 | 94178                | 398925        |
| Frederikshavn | 12312                  | 810                       |                   | 18065                | 75194         |                   | 14935                | 75083         |
| Glostrup      | 95000                  | 15200                     |                   | 107000               | 1168000       |                   | 107000               | 1063000       |
| Grenaa        | 3900                   | 433                       |                   |                      | 49493         |                   |                      |               |
| Haderslev     | 9893                   | 770                       |                   | 32216                | 100554        |                   | 26702                | 86111         |
| Hadsund       | 3490                   | 222                       |                   |                      | 46618         |                   |                      | 43221         |
| Hammel        | 5088                   | 1106                      |                   |                      | 77918         |                   |                      |               |
| Herning       | 6295                   | 743                       |                   | 27728                | 85630         |                   | 27728                | 85630         |
| Hjørring      | 13676                  | 655                       |                   | 34763                | 112435        |                   |                      | 106180        |
| Hobro         | 5360                   | 404                       | 0                 | 0                    | 68900         | 0                 | 0                    | 47623         |
| Holstebro     | 27589                  | 2419                      |                   | 158392               | 452500        |                   | 141650               | 432200        |
| Horsens       | 15924                  | 1741                      |                   | 44463                | 151873        |                   | 40683                | 128126        |
| Høje-Taastrup | 10064                  | 1271                      |                   | 0                    | 134705        |                   |                      |               |
| Hørsholm      | 17728                  | 3365                      |                   | 49560                | 236518        |                   |                      | 214099        |
| Kolding       | 15431                  | 1923                      |                   | 49401                | 206750        |                   | 44681                | 188294        |
| København     | 80365                  | 21655                     |                   | 149417               | 813941        |                   | 149417               | 792340        |
| Leirvik       | 2365                   | 124                       |                   |                      |               |                   |                      |               |
| Middelfart    | 4194                   | 338                       |                   |                      | 48330         |                   |                      | 48330         |
| Nykøbing F    | 21000                  | 2100                      | 0                 | 40600                | 211500        | 0                 | 40600                | 184900        |
| Næstved       | 16904                  | 1387                      |                   | 41406                | 223726        |                   | 37348                | 197427        |
| Odense        | 53479                  | 4092                      |                   | 178371               | 530833        |                   | 156893               | 530278        |
| Roskilde      | 41358                  | 5627                      |                   | 104200               | 381518        |                   | 104200               | 381518        |
| Rønne         | 3102                   | 355                       |                   |                      | 58333         |                   |                      | 47346         |
| Skagen        | 2445                   | 240                       |                   |                      | 27835         |                   |                      | 19530         |
| Skanderborg   | 9986                   | 1183                      |                   | 22147                | 120050        |                   | 22147                | 107275        |
| Slagelse      | 11013                  | 1417                      |                   | 21787                | 135278        |                   |                      |               |
| Svendborg     | 9600                   | 950                       |                   | 32600                | 111300        |                   | 28600                | 100100        |
| Sønderborg    | 11882                  | 630                       |                   | 38235                | 127449        |                   |                      |               |
| Thisted       | 9014                   | 1183                      |                   | 20516                | 116483        |                   | 16453                | 103583        |
| Torshavn      | 1562                   | 290                       |                   |                      |               |                   |                      |               |
| Vejen         | 7520                   | 1089                      |                   | 19069                | 71944         |                   | 16086                | 58333         |
| Aalborg       | 36422                  | 4538                      |                   | 41545                | 283508        |                   | 36510                | 283508        |
| Århus         | 30472                  | 4399                      |                   | 63067                | 374303        |                   | 60217                | 374113        |
| Aars          | 9298                   | 699                       |                   | 17625                |               |                   | 17625                | 58978         |



Number of plants: 1  
Average capacity: 8 t/h  
Quantity treated 2004: 49.000 t



## Finland

### General Information

| Location | Name of Plant<br>Web-site                    | Address of Plant                      | Phone<br>Fax   |
|----------|--|---------------------------------------|----------------|
| Turku    | Oriksdon Jätteenpolttolaitos<br>www.turko.fi | Polttolaitoksenkatu 13<br>20380 Turku | +358 2262 4640 |

### Technical Information on the Plant

| Location | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |          | Boiler |          | Steam Data oC/bar | Hours of Operat.2004 |
|----------|----------|--------------|--------------|------------|-------------|---------|----------|--------|----------|-------------------|----------------------|
|          |          |              |              |            |             | Type    | Supplier | Type   | Supplier |                   |                      |
| Turku    | 1        | 1975/1995    | 2009         | 4          | 10          | M       | von Roll | HW     | Volund   |                   | 7300                 |
|          | 2        | 1975/1995    | 2009         | 4          | 10          | M       | von Roll | HW     | Volund   |                   | 7300                 |

### Operational data, 2004

| Location | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels  |
|----------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|---|
|          | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) |   |
| Turku    | 49.000                           | 49.000                |                                       |                          |                    |                               |                                | O: Oil (l)<br>G: Gas (Nm3)<br>B: Biomass (t)<br>S: Sundry (spec.)<br>O:5000 |

## Finland

### General Information

|          |   |   |                                      |
|----------|---|---|--------------------------------------|
| Location | Contact Person<br>E-mail                | Owner of plant<br>No. of inhab. served  | Owners<br>Address                    |
| Turku    | Esko Pohjanen<br>esko.pohjanen@turku.fi | Turkun Kaupunki (Turkun city)<br>175000 | Linnankatu 55<br>20100 Turku Finland |

### Technical Information on the Plant

| Location | Line No. | Flue Gas Cleaning System | ESP  |          | Flue Gas Cleaning |          | Flue Gas Temp., °C |
|----------|----------|--------------------------|------|----------|-------------------|----------|--------------------|
|          |          |                          | Year | Supplier | Year              | Supplier |                    |
| Turku    | 1        | SD                       | 1975 | ABB      | 1995              | ABB      | 135                |
|          | 2        | SD                       | 1975 | ABB      | 1995              | ABB      | 135                |

### Operational data, 2004

| Location | Residues            |                        | Energy Produced |                   |            | Energy Sold    |                   |            |
|----------|---------------------|------------------------|-----------------|-------------------|------------|----------------|-------------------|------------|
|          | Bottom Ash (tonnes) | Flue Gas Res. (tonnes) | Steam (tonnes)  | Electricity (MWh) | Heat (MWh) | Steam (tonnes) | Electricity (MWh) | Heat (MWh) |
| Turku    | 10.000              | 2.000                  |                 | 104.700           |            |                |                   |            |



Number of plants: 127  
Average capacity: 15 t/h  
Quantity treated 2004: 8.238.000 t



## France

### General Information

| Location                 | Name of Plant<br>Web-site  | Address of Plant                                    | Phone<br>Fax                             |
|--------------------------|--|---|--|
| Amilly                   | Montargis<br><a href="http://www.novergie.fr">www.novergie.fr</a>                  | 215 rue de Paucourt<br>45200                        | +33 02 38 87 37 38<br>+33 02 38 87 37 39 |
| Antibes                  | Antibes<br><a href="http://www.sidom.fr">www.sidom.fr</a>                          | route de Grasse<br>06600                            | +33 04 93 65 48 07<br>+33 04 93 95 8178  |
| Argenteuil               | Argenteuil<br><a href="http://www.novergie.fr">www.novergie.fr</a>                 | 2 rue du Chemin Vert<br>95100                       | +33 01 34 11 70 31<br>+33 01 34 11 70 32 |
| Arrabloy                 | Gien<br><a href="http://www.groupe-tiru.com">www.groupe-tiru.com</a>               | Les Gatines<br>45500                                | +33 02 38 29 81 40<br>+33 02 38 38 38 20 |
| Aurillac                 | Aurillac   | 19 rue du Docteur Mallet<br>15000                   | +33 04 71 46 86 30<br>+33 04 71 48 71 08 |
| Bayonne                  | Bayonne<br><a href="http://www.novergie.fr">www.novergie.fr</a>                    | CIVD des Bacheforès, Chemin de Loustaounou<br>64100 | +33 05 59 44 26 44<br>+33 05 59 44 26 45 |
| Bègles                   | Bordeaux (Bègles)<br><a href="http://www.novergie.fr">www.novergie.fr</a>          | rue Louis Blériot<br>33323                          | +33 05 57 35 16 80<br>+33 05 57 35 16 81 |
| Bellegarde sur valserine | Bellegarde sur valserine<br><a href="http://www.novergie.fr">www.novergie.fr</a>   | ZI Arlod Chantavril<br>01200                        | +33 04 50 56 67 30<br>+33 04 50 56 67 37 |
| Bellentre                | Bourg St Maurice (Valezan)<br><a href="http://www.novergie.fr">www.novergie.fr</a> | RN 90 - Lieu Dit Le Praz<br>73210                   | +33 04 79 09 80 56                       |
| Benesse-Maremne          | Benesse Maremne<br><a href="http://sitcom40.fr">sitcom40.fr</a>                    |   | +33 05 58 72 03 94<br>+33 05 58 72 47 57 |
| Besançon                 | Besançon<br><a href="http://www.novergie.fr">www.novergie.fr</a>                   | 8 rue Edouard Belin<br>25000                        | +33 03 81 21 15 60<br>+33 03 81 21 15 61 |
| Bessières                | Bessières (Econotre)<br><a href="http://www.novergie.fr">www.novergie.fr</a>       | ZA des Turquès - Route de Montauban<br>31660        | +33 05 34 26 03 00<br>+33 05 34 26 03 01 |
| Béthune                  | Labeuvrière  |   | +33 03 21 61 50 00<br>+33 03 21 61 50 43 |
| Blois                    | Blois 2  | 161 avenue de Chateaudun<br>41000                   | +33 02 54 74 62 53<br>+33 02 54 74 62 26 |
| Bourgoin Jallieu         | Bourgoin Jallieu   | 3 rue du Pont Rouge - BP 594<br>38314               | +33 04 74 43 27 89<br>+33 04 74 93 70 20 |
| Bourogne                 | Belfort (Bourogne)   |   | +33 03 84 36 46 90<br>+33 03 84 36 46 92 |
| Brest                    | Brest  | 179 Boulevard de l'Europe<br>29200                  | +33 02 98 34 32 10<br>+33 02 98 34 32 51 |
| Briec de l'Odet          | Briec (Quimper)  | ZI Luminoc'h<br>29510                               | +33 02 98 98 88 76<br>+33 02 98 52 02 53 |
| Brive la Gaillarde       | Brive  |   | +33 05 55 17 65 10<br>+33 05 55 17 65 19 |

## France

### General Information

| Location                    | Contact Person<br>E-mail  | Owner of plant<br>No. of inhab. served                                   | Owners<br>Address  |
|-----------------------------|---|--|--|
| Arnilly                     | M. BOUTON<br>jeanfrancois.bouton@wanadoo.fr   | SMIRTOM  | Parc de Chaumont<br>45700 Pannes   |
| Antibes                     | M. Dominique LAURENT<br>dominique.laurent@sidom.fr  | SIDOM d'Antibes<br>240000  | Route de Grasse - BP 63<br>06602 Antibes Cedex                                 |
| Argenteuil                  | Mme. FAVROU<br>par courrier   | Syndicat Azur à Argenteuil   | 2 rue du Chemin Vert<br>95100 Argenteuil                                       |
| Arrabloy                    | M. Jacques BERRY<br>jacques.berry@groupe-tiru.com   | SIDEME<br>170000   | Les Gatinas<br>45500 Arrabloy  |
| Aurillac                    | Melle Isabelle GUILLAUME<br><a href="mailto:i_guillaume@agglo-aurillac.org">i_guillaume@agglo-aurillac.org</a>                    | Communauté d'agglomération du Bassin<br>d'Aurillac                       | 3 Place des Carmes - BP 501<br>15005 Aurillac                                  |
| Bayonne                     | M. Dominique CARRERE<br><a href="mailto:biltagarbi@wanadoo.fr">biltagarbi@wanadoo.fr</a>  | Syndicat Mixte Biltagarbi  | 7 rue Candelé<br>64990 Saint Pierre d'Irube                                    |
| Bègles                      | M. Thierry LAMOTTE<br><a href="mailto:thierry.lamotte@novergie.fr">thierry.lamotte@novergie.fr</a>                                | ASTRIA   | rue Louis Blériot<br>33323 Bègles  |
| Bellegarde sur<br>valserine | M. Vincent COLIN<br><a href="mailto:vincentcolin@sidefage.fr">vincentcolin@sidefage.fr</a>  | SIDEFAGE   | Z.I. Arlod - 5 Chemin du Tapey<br>01200 Bellegarde sur Valserine               |
| Bellentre                   | pas de réponse  | SITOM de Aime  | RN 90 - Lieu Dit Le Praz<br>73210 Aime   |
| Benesse-<br>Maremne         | M. TOULLEC<br><a href="mailto:accueil@sitcom40.fr">accueil@sitcom40.fr</a>  | SITCOM DE LA COTE SUD DES<br>LANDES                                      | 62 Chemin du Bayonnais<br>40230 Benesse-Maremne                                |
| Besançon                    | M. LE PRESIDENT - envoi par<br>courrier<br><a href="mailto:anne-laure.grandjean@besancon.fr">anne-laure.grandjean@besancon.fr</a> | SYBERT   | La City - 4 rue Gabriel Plançon<br>25043 Besançon                              |
| Bessières                   | M. LEONARD  | ECONOTRE   | ZA des Turquès - Route de<br>Montauban<br>31660 Bessières                      |
| Béthune                     | M. Le Président<br><a href="mailto:alain.wacheux@agglo-artoiscomm.fr">alain.wacheux@agglo-artoiscomm.fr</a>                       | Communauté d'agglomération de l'Artois                                   | Hôtel Communautaire - 100 avenue<br>de Londres - bp 548<br>62411 Béthune Cedex |
| Blois                       | M. Jean-Paul VERRIER<br><a href="mailto:val-eco41@wanadoo.fr">val-eco41@wanadoo.fr</a>  | Val Eco - Syndicat Intercommunal de<br>Traitement des Déchets du Blésois | 1 rue Honoré de Balzac<br>41000 Blois  |
| Bourgoin Jallieu            | M. Alain COTTALORDA<br><a href="mailto:sitom.ni@wanaddo.fr">sitom.ni@wanaddo.fr</a>   | SITOM Nord Isère   | 3 rue du Pont Rouge - BP 594<br>38314 Bourgoin Jallieu Cedex                   |
| Bourogne                    | M. BRIQUET<br><a href="mailto:pbriquet@sertrid.fr">pbriquet@sertrid.fr</a>  | SERTRID  | Zone Industrielle de Bourogne - BP<br>10<br>90140 Bourogne                     |
| Brest                       | M. Bertrand Huguen<br><a href="mailto:contact@brest-metropole-oceane.fr">contact@brest-metropole-oceane.fr</a>                    | CUB - Communauté Urbaine de Brest  | Hôtel de CUB - 24 rue Coat Ar<br>Gueven - BP 9224<br>29222 Brest Cedex 2       |
| Briec de l'Odet             | M. Le Président ou Mme Mélène<br>BAUME<br><a href="mailto:melane.baume@mairie-quimper.fr">melane.baume@mairie-quimper.fr</a>      | SIDEPAQ  | Mairie - 44 Place Saint Corentin - BP<br>17059<br>29107 Quimper cedex          |
| Brive la Gaillarde          | M. PITTMAN<br><a href="mailto:ppittman@cg19.fr">ppittman@cg19.fr</a>  | SITOM 19   | 22 rue Berlioz<br>19100 Brive la Gaillarde                                     |

## France

### General Information

| Location              | Name of Plant<br>Web-site  | Address of Plant   | Phone<br>Fax                             |
|-----------------------|--|--|--|
| Carhaix               | Carhaix<br><a href="http://www.novergie.fr">www.novergie.fr</a>                              | Site de Kervoazou<br>29270   | +33 02 98 99 35 00<br>+33 02 98 99 35 19 |
| Carrières sous Poissy | Carrières sous Poissy<br><a href="http://www.novergie.fr">www.novergie.fr</a>                | RD 190 Les Bouveries<br>78955  | +33 01 30 06 30 30<br>+33 01 30 06 30 40 |
| Carrières sur Seine   | Carrières sur Seine<br><a href="http://www.novergie.fr">www.novergie.fr</a>                  | 2 rue de l'Union<br>78420  | +33 01 39 15 88 74<br>+33 01 39 15 88 41 |
| Cenon                 | UIOM de Cenon  | rue Jean Cocteau<br>33150  | +33 05 56 99 10 57<br>+33 05 56 99 10 58 |
| Cergy Pontoise        | Cergy Pontoise   | Parc d'activités les Bétunes 2 - ave. du Fief -<br>BP 9111 - St Ouen L'Aumône<br>95073 | +33 01 34 48 56 02<br>+33 01 34 48 56 01 |
| Chambéry              | Chambéry   | 73026  | +33 04 79 96 86 20<br>+33 04 79 96 86 21 |
| Chateaudun            | Chateaudun   | 28200  | +33 02 37 45 61 55<br>+33 02 37 66 00 64 |
| Chaumont              | Chaumont   | ZI de la Dame Huguenotte<br>52000  | +33 03 25 01 69 69<br>+33 03 25 01 69 60 |
| Colmar                | Colmar   | 68000  | +33 03 69 99 55 90<br>+33 03 69 99 55 94 |
| Colombelles           | Caen (Colombelles)<br><a href="http://www.novergie.fr">www.novergie.fr</a>                   | 9 rue Francis de Pressencé<br>14460  | +33 02 31 30 45 57<br>+33 02 31 30 45 38 |
| Concarneau            | Concarneau   | Le Poteau Vert - Rue Neuve<br>29900  | +33 02 98 50 50 14<br>+33 02 98 60 53 30 |
| Confort Meilars       | Confort-Meilars (Douarnenez)<br><a href="http://www.groupe-tiru.com">www.groupe-tiru.com</a> | Menez Gourret<br>29790   | +33 02 98 75 51 53                       |
| Coueron               | Nantes (Ouest)   | La Cité Navale<br>44220  | +33 02 40 85 36 78<br>+33 02 40 85 36 71 |
| Cran Gevrier          | Annecy   | 74962  | +33 04 50 66 77 99<br>+33 04 50 66 78 00 |
| Créteil               | Créteil<br><a href="http://www.novergie.fr">www.novergie.fr</a>                              | 10 rue de Malfourches<br>94000   | +33 01 48 98 55 11<br>+33 01 48 98 48 83 |
| Dieppe                | Dieppe   | 76203  | +33 02 35 06 61 32<br>+33 02 32 14 01 60 |
| Dijon                 | Dijon<br><a href="http://www.grand-dijon.fr">www.grand-dijon.fr</a>                          | rue alexander fleming<br>21075   | +33 03 80 76 40 76<br>+33 03 80 76 40 80 |
| Douchy les Mines      | Douchy   | 7 route de Lourches<br>59282   | +33 03 27 43 78 99<br>+33 03 27 43 86 67 |
| Dunkerque             | Dunkerque  | rue A Carrel<br>59386  | +33 03 28 62 70 85<br>+33 03 28 62 71 76 |

## France

### General Information

| Location              | Contact Person<br>E-mail   | Owner of plant<br>No. of inhab. served                                      | Owners<br>Address  |
|-----------------------|--|---|--|
| Carhaix               | M. Patrick POULIQUEN<br><a href="mailto:patrick.pouliquen@equipement.gouv.fr">patrick.pouliquen@equipement.gouv.fr</a> | SIRCOB - Syndicat Intercantonal de repurgation du centre ouest bretagne     | 21 Route de Gourin<br>29270 Carhaix  |
| Carrières sous Poissy | M. Jack FAIVRE<br><a href="mailto:jack.faivre@novergie.fr">jack.faivre@novergie.fr</a>                                 | SIDRU   | Azalys - RD 190 Les Bouvieries<br>78955 Carrières sous Poissy  |
| Carrières sur Seine   | M. POLI<br><a href="mailto:sitru.poli@wanadoo.fr">sitru.poli@wanadoo.fr</a>  | SITRU TRAITEMENT RESIDUS URB BOUCLE DE LA SEINE                             | 2 rue de l'Union<br>78420 Carrières sur Seine  |
| Cenon                 | M. BATZ<br><a href="mailto:so.co.gest@wanadoo.fr">so.co.gest@wanadoo.fr</a>  | SO.CO.GEST  | 40 rue de Belfort<br>33000 BORDEAUX  |
| Cergy Pontoise        | Stéphane PIERCOURT<br><a href="mailto:stephane.piercourt@veolia-proprete.fr">stephane.piercourt@veolia-proprete.fr</a> | (SAN) SYNDICAT AGGLO NOUVELLE DE CERGY PONTOISE                             | Parc d'activités les Bétunes 2 - ave. du Fief - BP 9111 - St Ouen L'Aumône<br>95073 Cergy Pontoise cedex |
| Chambéry              | M. Pierre TOURNIER<br><a href="mailto:pierre.tournier@chambery-metropole.fr">pierre.tournier@chambery-metropole.fr</a> | Communauté d'agglomération de Chambéry Métropole                            | 474 rue Aristide Bergès<br>73026 Chambéry Cedex  |
| Chateaudun            | M. Thibaut ROGER<br><a href="mailto:SICTOM.28200@wanadoo.fr">SICTOM.28200@wanadoo.fr</a>                               | SICTOM DE LA REGION DE CHATEAUDUN   | Route de Sancheville<br>28200 Chateaudun   |
| Chaumont              | Michel ROUYER<br><a href="mailto:michel.rouyer@veolia-proprete.fr">michel.rouyer@veolia-proprete.fr</a>                | SHMVD   | ZI de la Dame Huguenotte<br>52000 Chaumont   |
| Colmar                | Mme. Sylvia MORON<br><a href="mailto:s.moron@agglo-colmar.fr">s.moron@agglo-colmar.fr</a>                              | SITDCE (Syndicat Intercommunal de traitement des déchets de Colmar et       | environnements) 32 Cours Sainte Anne<br>68000 Colmar   |
| Colombelles           | M. Le Président<br><a href="mailto:sydevac@ville-caen.fr">sydevac@ville-caen.fr</a>                                    | SYDEVAC   | Hôtel de Ville - Esplanade Jean Marie Louvel<br>14000 Caen   |
| Concarneau            | M. KAUFMANN<br><a href="mailto:sicom3@wanadoo.fr">sicom3@wanadoo.fr</a>  | SICOM DE LA REGION SUD EST DU FINISTERE                                     | Stang Argant - BP 111<br>29181 Concarneau Cedex  |
| Confort Meillars      | M. Jérôme CHAUVIN<br><a href="mailto:j.chauvin.sitom@wanadoo.fr">j.chauvin.sitom@wanadoo.fr</a>                        | SITOM Ouest de Cornouaille<br>45000   | 75 rue Ar Veret - BP 225<br>29172 Douarnenez cedex   |
| Coueron               | Emmanuel ALLORENT<br><a href="mailto:emmanuel.allorent@veolia-proprete.fr">emmanuel.allorent@veolia-proprete.fr</a>    | Agglomération Nantaise  | ARC EN CIEL - La Cité Navale<br>44220 Coueron  |
| Cran Gevrier          | M. Hugues De Calignon<br><a href="mailto:hugues.de-calignon@sila.fr">hugues.de-calignon@sila.fr</a>                    | Syndicat Mixte du Lac d'Annecy (SILA)                                       | 7 rue des Terrasses - BP 39<br>74962 Cran Gevrier cedex  |
| Créteil               | M. Paul MAURY<br><a href="mailto:paul.maury@novergie.fr">paul.maury@novergie.fr</a>                                    | CIE de Créteil  | 10 rue de Maifourches<br>94000 Créteil   |
| Dieppe                | Mme. MARSAULT - Direction Technique<br><a href="mailto:m.marsault@mairie-dieppe.fr">m.marsault@mairie-dieppe.fr</a>    | COMMUNE DE DIEPPE   | Mairie-Parc Jehan Ango - BP 226<br>76203 Dieppe cedex  |
| Dijon                 | M. ROUMILHAC<br><a href="mailto:proumilhac@grand-dijon.fr">proumilhac@grand-dijon.fr</a>                               | Communauté de l'Agglomération Dijonnaise (COMADI - Grand Dijon)<br>350000   | 40 avenue du Drapeau - BP 17510<br>21075 Dijon   |
| Douchy les Mines      | M. Bernard NICOULAUD<br><a href="mailto:bernard.nicoulaud@siaved.fr">bernard.nicoulaud@siaved.fr</a>                   | SIAVED - Syndicat intercommunal élimination des ordures ménagères<br>200000 | 5 route de Lourches<br>59282 Douchy Les Mines  |
| Dunkerque             | Fabrice MAZOUNI<br><a href="mailto:fabrice.mazouni@cud.fr">fabrice.mazouni@cud.fr</a>                                  | Communauté Urbaine de Dunkerque<br>210000                                   | Pertuis de la Marine - BP 5530<br>59386 Dunkerque cedex 1  |

## France

### General Information

| Location                    | Name of Plant<br>Web-site   | Address of Plant   | Phone<br>Fax                             |
|-----------------------------|---|--|--|
| ECHILLAIS                   | Rochefort   | Chemin Rural n° 12<br>17620                                | +33 05 46 82 17 83<br>+33 05 46 99 76 30 |
| Fort de France - Martinique | Martiniquaise de Valorisation   | ZAC Rivière Roche<br>97200                                 | +33 05 96 75 38 05<br>+33 05 96 75 87 06 |
| Fourchambault               | Nevers (Sonirval)   | 38 route de Vauzelles<br>58600                             | +33 03 86 90 79 40<br>+33 03 86 90 79 49 |
| Grand Quevilly              | Rouen 2   | Boulevard de Stalingrad<br>76120                           | +33 02 32 10 26 80<br>+33 02 32 10 26 81 |
| Grenoble                    | Grenoble (La Tronche)   | 38031  | +33 04 76 59 59 59<br>+33 04 76 42 33 43 |
| Guerville                   | Mantes (Valene)   | Route Départementale 113<br>78390                          | +33 01 34 97 93 51<br>+33 01 30 92 72 81 |
| Guichainville               | Evreux Sud<br><a href="http://www.novergie.fr">www.novergie.fr</a>                  | V.C.6 - Lieu Dit Saint Laurent<br>27930                    | +33 02 32 23 47 47<br>+33 02 32 23 47 46 |
| Halluin                     | Halluin (Lille)   | Rocade de la Valée de la Lys - RD 191 - BP<br>302<br>59433 | +33 03 20 21 27 61<br>+33 03 20 21 30 48 |
| Henin-Beaumont              | Hénin-Beaumont<br><a href="http://www.groupe-tiru.com">www.groupe-tiru.com</a>      | chemin de la buisse<br>62253                               | +33 03 21 79 72 27<br>+33 03 21 79 66 60 |
| Issy-Les-Moulineaux         | Issy-les-Moulineaux<br><a href="http://www.groupe-tiru.com">www.groupe-tiru.com</a> | 167 Quai de Stalingrad<br>92130                            | +33 01 40 13 17 00<br>+33 01 42 33 40 47 |
| La Couronne                 | Angoulême   | Route de Saint Michel, Le Mas<br>16400                     | +33 05 45 38 60 80<br>+33 05 45 38 60 59 |
| La Rochelle                 | La Rochelle   | Rue du Chef de Baie<br>17041                               | +33 05 46 43 18 52<br>+33 05 46 51 50 93 |
| La Séguinière               | Cholet  | Lieu Dit l'établère - BP 5<br>49280                        | +33 02 41 63 76 16<br>+33 02 41 56 25 77 |
| La Veuve                    | Aureade (La Veuve)  | Avenue des Crayères - ZI de la Veuve<br>51520              | +33 03 26 26 16 20<br>+33 03 26 26 16 29 |
| Lasse                       | Lasse Sivert  | RD 139 - Route de Mouliherne à Clefs<br>49490              | +33 02 41 82 17 32<br>+33 02 41 82 26 68 |
| Le Fayet                    | Chedde-Passy<br><a href="http://www.novergie.fr">www.novergie.fr</a>                | 1159 route de la Centrale<br>74190                         | +33 04 50 78 10 48<br>+33 04 50 78 09 11 |
| Le Mans                     | Le Mans   | 206 rue de l'Angevinière<br>72024                          | +33 02 43 86 01 50<br>+33 02 43 85 72 96 |
| Lens                        | Noyelles sous Lens  |  | +33 03 21 77 41 41<br>+33 03 21 77 41 00 |

## France

### General Information

| Location                    | Contact Person<br>E-mail   | Owner of plant<br>No. of inhab. served                           | Owners<br>Address  |
|-----------------------------|--|--|--|
| ECHILLAIS                   | Mme. Catherine JOURDY<br><a href="mailto:c.jourdy@cda-paysrochefortais.fr">c.jourdy@cda-paysrochefortais.fr</a>                        | Communauté Communes du Pays Rochefortais                         | 10 rue du Docteur Pujos - BP 224<br>17304 Rochefort                                |
| Fort de France - Martinique | M. Ronald BRITHEMER<br><a href="mailto:ronald.brithemer@cacem-mq.com">ronald.brithemer@cacem-mq.com</a>                                | CACEM - Communauté d'agglomération du centre de la Martinique    | Immeuble Cardinal - Chateauboeuf Est - BP 407<br>97204 Fort de France - Martinique |
| Fourchambault               | Stéphane BIAUSQUE - Jacques FOURNIER<br><a href="mailto:stephane.biausque@veolia-proprete.fr">stephane.biausque@veolia-proprete.fr</a> | SONIRVAL   | 38 route de Vauzelles<br>58600 Fourchambault                                       |
| Grand Quevilly              | M. Bruno GAUTIER<br><a href="mailto:bruno.gautier@smedar.fr">bruno.gautier@smedar.fr</a>   | SMEDAR   | 149 boulevard de l'Yser<br>76000 Rouen   |
| Grenoble                    | M. GABET-FOURNIER<br><a href="mailto:jeanbernard.gabetfournier@la-metro.org">jeanbernard.gabetfournier@la-metro.org</a>                | Grenoble Alpes Métropole   | 3 rue Malakoff<br>38031 Grenoble cedex 01  |
| Guerville                   | Yves MAHOUAS<br><a href="mailto:yves.mahouas@veolia-proprete.fr">yves.mahouas@veolia-proprete.fr</a>                                   | VALENE   | Route Départementale 113<br>78390 Guerville  |
| Guichainville               | M. NAZON<br><a href="mailto:direction@setom.fr">direction@setom.fr</a>   | SETOM Sud de l'Eure<br>248000                                    | V.C.6 - Lieu Dit Saint Laurent<br>27930 Guichainville                              |
| Halluin                     | M. Jean-Luc MUSILLI<br><a href="mailto:jlmusilli@cndl-lille.fr">jlmusilli@cndl-lille.fr</a>  | Communauté Urbaine de Lille Métropole                            | 1 rue du Ballon - BP 749<br>59034 Lille cedex                                      |
| Henin-Beaumont              | Sébastien Chapelet<br><a href="mailto:sebastien.chapelet@agglo-henincarvin.fr">sebastien.chapelet@agglo-henincarvin.fr</a>             | Communauté d'agglomération d'Hénin-Carvin<br>156 000             | 242 boulevard Schweitzer<br>62 110 hénin-beaumont                                  |
| Issy-Les-Moulineaux         | Mme. LECAT<br><a href="mailto:lecat@syctom-paris.fr">lecat@syctom-paris.fr</a>   | SYCTOM de l'agglomération Parisienne<br>1250000                  | 35 Boulevard de Sébastopol<br>75001 Paris  |
| La Couronne                 | M. CHIELLET<br><a href="mailto:b.chiellet@comaga.org">b.chiellet@comaga.org</a>  | Communauté d'agglomération du Grand Angoulême                    | 25 Boulevard Besson Bey<br>16008 Angoulême   |
| La Rochelle                 | M. Stéphane MAIEGELLEN<br><a href="mailto:stephane.maiegellen@agglo-larochelle.fr">stephane.maiegellen@agglo-larochelle.fr</a>         | Communauté de l'agglomération de la Rochelle                     | 6 rue Saint Michel - BP 1287<br>17086 La Rochelle                                  |
| La Séguinière               | Emmanuel BRIET<br>pas d'adresse émail  | SAS INCINERATION BOUYER LEROUX                                   | Lieu Dit l'établère - BP 5<br>49280 La Séguinière                                  |
| La Veuve                    | M. Yves DETRAIGNE<br><a href="mailto:y.detraigne@senat.fr">y.detraigne@senat.fr</a>  | Syndicat Départemental Traitement des déchets ménagers (SYVALOM) | 13 rue Carnot<br>51000 Châlons en Champagne  |
| Lasse                       | Eric DELALANDE / Hervé JAMET<br><a href="mailto:eric.delalande@veolia-proprete.fr">eric.delalande@veolia-proprete.fr</a>               | SAVED SALAMANDRE   | RD 139 - Route de Mouliherne à Clefs<br>49490 Lasse                                |
| Le Fayet                    | Mme. SINCIERETTI<br><a href="mailto:sitom2@wanadoo.fr">sitom2@wanadoo.fr</a>   | SITOM DES VALLEES DU MONT BLANC                                  | 1159 route de la Centrale<br>74190 Passy   |
| Le Mans                     | Jean-Michel VAUVY / David L'HOSTIS<br><a href="mailto:jean-michel.vauvy@veolia-proprete.fr">jean-michel.vauvy@veolia-proprete.fr</a>   | SEC  | 206 rue de l'Angevinière<br>72024 Le Mans Cedex                                    |
| Lens                        | M. René DUFOUR<br><a href="mailto:lpeliks@agglo-lenslievin.fr">lpeliks@agglo-lenslievin.fr</a>   | Communauté d'agglomération de Lens-Liévin                        | 21 rue Marcel Sembat - BP 65<br>62302 Lens   |

## France

### General Information

| Location              | Name of Plant<br>Web-site  | Address of Plant                                       | Phone<br>Fax  |
|-----------------------|--|--|---|
| Lescar                | Pau<br><a href="http://www.novergie.fr">www.novergie.fr</a>                  | rue d'Arsonval - ZI Induspal<br>64320                  | +33 05 59 11 50 50<br>+33 05 59 11 50 51                |
| Limoges               | Limoges  | Centrale Energie Déchets - Avenue de Faugeras<br>87280 | +33 05 55 35 48 81<br>+33 05 55 35 53 57                |
| Livet                 | Bourg d'Oisans   | 38220  | +33 04 76 11 01 09<br>+33 04 76 11 01 65                |
| Lons-le-Saunier       | Lons-le-Saunier<br><a href="http://www.novergie.fr">www.novergie.fr</a>      | ZI - rue René Maire<br>39000                           | +33 03 84 47 44 41<br>+33 03 84 24 01 47                |
| Ludres                | Nancy Energie  | 226 rue Victor Grignard - ZI<br>54710                  | +33 03 83 26 50 60<br>+33 03 83 26 12 23                |
| Lunel-Viel            | Lunel<br><a href="http://www.novergie.fr">www.novergie.fr</a>                | Lieu Dit Les Roussels, RN 113<br>34400                 | +33 04 67 83 59 49<br>+33 04 67 83 59 48                |
| Lyon 7ème             | Lyon Sud   | 69007  | +33 04 72 71 55 20<br>+33 04 78 58 01 21                |
| Mainvilliers          | Chartres 2 (Orisane)<br><a href="http://www.novergie.fr">www.novergie.fr</a> | La Mare Corbonne<br>28300                              | +33 02 37 91 35 20<br>+33 02 37 91 35 49                |
| Marignier             | Cluses/Marignier   | 164 Impasse des Gravières<br>74970                     | +33 04 50 98 43 14 /04<br>50 34 6<br>+33 04 50 98 70 57 |
| Massy                 | Massy  | 91743  | +33 01 69 30 38 51<br>+33 01 64 47 03 39                |
| Maubeuge              | Maubeuge<br><a href="http://www.smiaa.fr">www.smiaa.fr</a>                   | ZI des Terres du Pont Rouge<br>59600                   | +33 03 27 58 83 22<br>+33 03 27 62 23 52                |
| Mère                  | Vernou-en-Sologne  | 41500  | +33 02 54 81 41 38<br>+33 02 54 81 40 89                |
| Messanges             | Messanges<br><a href="http://sitcom40.fr">sitcom40.fr</a>                    | 40660  | +33 05 58 72 03 94<br>+33 05 58 72 47 57                |
| Metz                  | Metz   | 57071  | +33 03 87 20 10 12<br>+33 03 87 39 07 50                |
| Montauban             | Montauban<br><a href="http://www.novergie.fr">www.novergie.fr</a>            | 786 avenue Gasseras<br>82000                           | +33 05 63 22 12 35<br>+33 05 63 93 58 00                |
| Montbéliard           | Montbéliard  | Rue du Champ du Cerf<br>25280                          | +33 03 81 90 20 97<br>+33 03 81 90 55 01                |
| Montereau Fault Yonne | Montereau  | ZI - 22 rue des Grandes Haies<br>77130                 | +33 01 64 32 67 23<br>+33 01 64 32 08 12                |
| Monthyon              | Monthyon (Somoval)   | La Croix Gillet<br>77122                               | +33 01 64 36 54 60<br>+33 01 64 36 54 61                |
| Mourenx               | Mourenx  | 64150  | +33 05 59 60 03 46<br>+33 05 59 60 06 93                |
| Nantes                | Nantes (Est)<br><a href="http://www.novergie.fr">www.novergie.fr</a>         | 350 rue de l'Etier<br>44326                            | +33 02 40 52 50 00<br>+33 02 40 52 52 25                |

## France

### General Information

| Location              | Contact Person<br>E-mail  | Owner of plant<br>No. of inhab. served                              | Owners<br>Address   |
|-----------------------|---|---|---|
| Lescar                | M. Bernard LAJUS<br><a href="mailto:b.lajus@agglo-pau.fr">b.lajus@agglo-pau.fr</a>                                      | Communauté d'Agglomération de Pau Pyrénées                          | bassin Est - 2 bis Place Royale - BP 547<br>64000 Pau                               |
| Limoges               | Christian CHIELENS<br><a href="mailto:christian.chielens@veolia-proprete.fr">christian.chielens@veolia-proprete.fr</a>  | STVL  | Centrale Energie Déchets - Avenue de Faugeras<br>87280 Limoges                      |
| Livet                 | Mme. REYNAUD<br><a href="mailto:oisans.sei@wanadoo.fr">oisans.sei@wanadoo.fr</a>  | SITOM de l'Oisans   | Place de L'Eglise - BP 50<br>38220 Le Bourg d'Oisans                                |
| Lons-le-Saunier       | M. MARTIN<br><a href="mailto:direction@letri.com">direction@letri.com</a>   | SYDOM - Syndicat départemental de traitement des OM du Jura         | Juratrom 350 rue René Maire - BP 340<br>39000 Lons-le-Saunier                       |
| Ludres                | Eric CALVET<br><a href="mailto:eric.calvet@veolia-proprete.fr">eric.calvet@veolia-proprete.fr</a>                       | COMMUNAUTE URBAINE DU GRAND NANCY                                   | 226 rue Victor Grignard - ZI<br>54710 Ludres  |
| Lunel-Viel            | M. Claude MARGUET<br><a href="mailto:claude.marguet@novergie.fr">claude.marguet@novergie.fr</a>                         | Syndicat Pic & Etang  | OCREAL - Lieu-Dit<br>34400 Lunel-Viel   |
| Lyon 7ème             | M. ROUSMANS<br><a href="mailto:crousmans@grand-lyon.org">crousmans@grand-lyon.org</a>                                   | Communauté Urbaine de Lyon  | 7 rue Dole<br>69007 Lyon 7ème   |
| Mainvilliers          | M. Jean-Michel MOSKOVOY<br><a href="mailto:jmmoskovoy@agglo-chartres.fr">jmmoskovoy@agglo-chartres.fr</a>               | Communauté d'agglomération de Chartres Métropole                    | 3 rue Charles Brune - BP 90085<br>28112 Lucé  |
| Marignier             | M. André BRECHET<br><a href="mailto:andre.brechet@veolia-proprete.fr">andre.brechet@veolia-proprete.fr</a>              | SIVOM DE LA REGION DE CLUSES  | 155 Rue du Stade - BP 161<br>74300 Cluses cedex                                     |
| Massy                 | M. Hervé CHARNIGUET<br><a href="mailto:herve.charniguet@elyo.fr">herve.charniguet@elyo.fr</a>                           | CURMA UIOM  | Zone Industrielle de Bonde - Route de Bonde<br>91743 Massy Cedex                    |
| Maubeuge              | Mme. Céline MORLAND<br><a href="mailto:contact@smiaa.fr">contact@smiaa.fr</a>   | SMIAA (Syndicat Mixte de l'Arrondissement d'Avesnes)<br>220000      | 32 Boulevard de l'Europe - BP 81251<br>59607 Maubeuge Cedex                         |
| Mère                  | Melle. Céline JOLY<br><a href="mailto:sieom@ville-de-mere.com">sieom@ville-de-mere.com</a>                              | SIEOM - Syndicat Intercommunal Elimination des Ordures Ménagères du | Groupement de Mère - Hôtel de Ville<br>41500 Mère                                   |
| Messanges             | M. TOULLEC<br><a href="mailto:accueil@sitcom40.fr">accueil@sitcom40.fr</a>  | SITCOM DE LA COTE SUD DES LANDES<br>40000                           | 62 Chemin du Bayonnais<br>40230 Messanges   |
| Metz                  | M. Laurent GADEYNE<br><a href="mailto:lgadeyne@ca2m.com">lgadeyne@ca2m.com</a>  | Communauté d'Agglomération Metz Métropole (CA2M)                    | Pôle Environnement & Déchets - 2 rue Thomas Edison - BP 55025<br>57071 Metz Cedex 3 |
| Montauban             | M. Renaud PERIN<br><a href="mailto:rperin@ville-montauban.fr">rperin@ville-montauban.fr</a>                             | SIRTOMAD  | Rue de l'Hôtel de Ville - BP 764<br>82013 Montauban Cedex                           |
| Montbéliard           | Régis LAMORLETTE<br><a href="mailto:regis.lamorlette@veolia-proprete.fr">regis.lamorlette@veolia-proprete.fr</a>        | MONTVALOR   | Rue du Champ du Cerf<br>25280 Montbéliard   |
| Montereau Fault Yonne | M. LEFIER<br>par courrier   | SIRMOTOM  | Hôtel de l'Intercommunalité - 4 rue Edouard Branly<br>77130 Montereau Fault Yonne   |
| Monthyon              | Anne THEVENOT - Patrick SERRE<br><a href="mailto:anne.thevenot@veolia-proprete.fr">anne.thevenot@veolia-proprete.fr</a> | SMITOM DU NORD SEINE ET MARNE<br>MONTHYON<br>334000                 | Chemin de la Croix Gillet<br>77122 Monthyon   |
| Mourenx               | Mme. Sylvie BROUAT<br><a href="mailto:s.brouat@cc-lacq.fr">s.brouat@cc-lacq.fr</a>                                      | Communauté des Communes de Lacq                                     | Rond Point des Chênes - BP 73<br>64150 Mourenx                                      |
| Nantes                | M. GAUVAIN<br><a href="mailto:francoise.marianneau@novergie.fr">francoise.marianneau@novergie.fr</a>                    | VALORENA  | 350 rue de l'Etier - BP 62633<br>44326 Nantes cedex 3                               |

## France

### General Information

| Location         | Name of Plant<br>Web-site  | Address of Plant  | Phone<br>Fax                               |
|------------------|--|---|--|
| Nice             | Nice   | 33 Boulevard de l'Ariane<br>06000                         | +33 04 93 54 90 61<br>+33 04 93 27 28 23   |
| Nîmes            | Nîmes (EVOLIA)   | Lieu dit Mas de Mayan - Chemin du Mas de Cheylon<br>30900 | +33 04 66 70 95 20<br>+33 04 66 70 95 21   |
| Ouarville        | Rambouillet (Ouarville)<br><a href="http://www.novergie.fr">www.novergie.fr</a>  | Chemin Saint Mathurin<br>28150                            | +33 02 37 18 31 83<br>+33 02 37 18 31 89   |
| Paris            | Irvy<br><a href="http://www.groupe-tiru.com">www.groupe-tiru.com</a>             | 43, rue Bruneseau<br>75013                                | +33 01 40 13 17 00<br>+33 01 42 33 40 47   |
| Pessac           | Agen<br><a href="http://www.novergie.fr">www.novergie.fr</a>                     | Monbusc<br>47520 Le Passage                               | +33 05 57 26 59 79<br>+33 05 57 26 15 97   |
| Pithiviers       | Pithiviers   | 45300   | +33 02 38 06 02 88<br>+33 02 38 32 76 22   |
| Planguenoual     | Lamballe (Planguenoual)<br><a href="http://www.novergie.fr">www.novergie.fr</a>  | Les landes lambert<br>22400                               | +33 02 96 50 13 55<br>+33 02 96 31 39 25   |
| Plouharnel       | Plouharnel   | Kernévé<br>56720  | +33 02 97 52 39 39<br>+33 02 97 52 40 88   |
| Pluzunet         | Pluzunet Lannion   | Site de Quelven<br>22140                                  | +33 02 96 54 65 10<br>+33 02 96 54 65 18   |
| Poitiers         | Poitiers   | Route Edouard Branly - Saint Eloi<br>86000                | +33 05 49 52 35 35<br>+33 05 49 52 37 06   |
| Pontarlier       | Pontarlier<br><a href="http://www.novergie.fr">www.novergie.fr</a>               | ZI Les Petits Planchants<br>25300                         | +33 03 81 46 49 66<br>+33 03 81 46 95 21   |
| Pontcharra       | Pontcharra   | ZI du Pré Brun<br>38530                                   | +33 04 76 97 19 52<br>+33 04 76 97 92 93   |
| Pontivy          | Pontivy<br><a href="http://www.groupe-tiru.com">www.groupe-tiru.com</a>          | Rue Vicat, Zone Industrielle Le Sourn<br>56300            | +33 02 97 25 01 70<br>+33 02 97 25 63 69   |
| Pontmain         | Pontmain<br><a href="http://www.novergie.fr">www.novergie.fr</a>                 | Route de Fougères<br>53220                                | +33(0)2 43 66 52 85<br>+33(0)2 43 66 52 31 |
| Pontx-les-Forges | Born 2 (Pontenx)<br><a href="http://www.groupe-tiru.com">www.groupe-tiru.com</a> | Lieu dit Larrouza, Chemin Départemental 49<br>40200       | +33 05 58 78 56 00<br>+33 05 58 78 91 36   |
| Rambervillers    | Epinal (Rambervillers)   | Route de Romont<br>88700                                  | +33 03 29 65 31 65<br>+33 03 29 65 46 81   |
| Reims            | Reims  | Chemin du Moulin de Vrilly - ZI des Essilards<br>51689    | +33 03 26 85 56 70<br>+33 03 26 85 47 60   |
| Rennes           | Rennes   | Avenue Charles Tillon<br>35000                            | +33 02 99 59 09 17<br>+33 02 99 59 47 65   |

## France

### General Information

| Location         | Contact Person<br>E-mail   | Owner of plant<br>No. of inhab. served  | Owners<br>Address   |
|------------------|--|---|---|
| Nice             | Georges MARRON - Pascal ROUMEGUERE<br>g.marron@sonitherm.com                                 | SONITHERM   | 33 Boulevard de l'Ariane<br>06000 Nice  |
| Nîmes            | Olivier DANAT - Philippe GABAS<br>olivier.danat@veolia-proprete.fr                           | EVOLIA  | Lieu dit Mas de Mayan - Chemin du<br>Mas de Cheylon<br>30900 Nîmes                                    |
| Ouarville        | M. Jean-Pierre AMAT<br>jean-pierre.amat@novergie.fr  | SITREVA   | Valoryele - Chemin Saint Mathurin<br>28150 Ouarville  |
| Paris            | Mme. LECAT<br>lecat@syctom-paris.fr  | SYCTOM de l'agglomération Parisienne<br>1600000                                     | 35 Boulevard de Sébastopol<br>75001 Paris   |
| Pessac           | Mme. Nathalie FRANCO<br>nathalie.franco@novergie.fr  | SOGAD   | Envoi Courrier : Novergie - 28 avenue<br>Léonard de Vinci - Parc<br>Technologique<br>47520 Le Passage |
| Pithiviers       | M. Le Président<br>bgv4@wanadoo.fr   | SITOM DE L'ARRONDISSEMENT DE<br>PITHIVIERS  | Route Bouzonville en Beauce<br>45300 Pithiviers   |
| Planguenoual     | Romuald TOUSSAINT<br>lamballe@lamballe-<br>communaute.com                                    | SMICTOM DE PENTHIEVRE-MENE  | 50 rue d'Armor - BP 90456<br>22404 Lamballe cedex   |
| Plouharnel       | Melle Carole SOUBITEZ<br>carole.soubitez@sivomabq.fr   | Syndicat Mixte D'AURAY-BELZ-<br>QUIBERON (SIVOM)                                    | 31 Avenue de l'Océan - BP 6<br>56720 Plouharnel   |
| Pluzunet         | M. BARDINI<br>bardini@valorys.smitred.com  | SMITRED OUEST ARMOR   | Valorys - Site Quelven Covenant Le<br>Grand<br>22140 Pluzunet   |
| Poitiers         | M. FREISSEIX<br>j.freisseix@agglo-poitiers.fr  | Communauté d'agglomération de Poitiers  | Hôtel de Ville - 15 Place du Maréchal<br>Leclerc - BP 569<br>86021 Poitiers Cedex                     |
| Pontarlier       | M. Le Président<br>smetom25@wanadoo.fr   | SMETOM - Syndicat mixte d'étude et de<br>traitement des OM du Haut Doubs<br>115 000 | ZI Les Petits Planchants - BP 235<br>25303 Pontarlier cedex   |
| Pontcharra       | M. HUGUENOTTE<br>dg@ville-pontcharra.fr  | SIBRECSA - Zone Industrielle - 411<br>avenue Champollion                            | Envoi Courrier : Mairie - 95 avenue de<br>la gare<br>38530 Pontcharra                                 |
| Pontivy          | M. Bastien GILLARD<br>info@pays-pontivy.com  | Communauté de communes du pays de<br>Pontivy (SITTON-MI)<br>100 000                 | 31 rue Jean Moulin - BP 96<br>56303 Pontivy cedex   |
| Pontmain         | Mr. Laurent GENEAU<br>laurent.geneau@cg53.fr   | Conseil Général de la Mayenne   | Datae Sender - Hôtel du Département<br>- 39 rue Mazagran - BP 1429<br>53014 Laval Cedex               |
| Pontx-les-Forges | M. Le Président<br>sivom.parentis@wanadoo.fr   | SIVOM DES CANTONS DU PAYS DE<br>BORN<br>87 000                                      | Place du Général de Gaulle<br>40161 Parentis-en-Born Cedex  |
| Rambervillers    | Georges GUITTONNEAU<br>georges.guittonneau@veolia-<br>proprete.fr                            | SOVVAD  | Route de Romont<br>88700 Rambervillers  |
| Reims            | Jérôme ROUssel - Stéphane<br>HELAWEI<br>jerome.roussel@veolia-proprete.fr                    | REMIVAL   | Chemin du Moulin de Vrilly - ZI des<br>Essiliards<br>51689 Reims Cedex                                |
| Rennes           | Claude BIBARD / Sébastien<br>MATHEY<br>claude.bibard@veolia-proprete.fr /<br>sebastien.mathe | SOBREC  | Avenue Charles Tillon<br>35000 Rennes   |

## France

### General Information

| Location                         | Name of Plant<br>Web-site   | Address of Plant  | Phone<br>Fax                             |
|----------------------------------|---|---|--|
| Rillieux La Pape                 | Lyon Nord (Valorly)<br><a href="http://www.novergie.fr">www.novergie.fr</a>   | 1110 route du Mas Rillier<br>69140                      | +33 04 78 95 88 00<br>+33 04 78 95 88 26 |
| Rosiers d'Egletons               | Rosiers-d'égletons<br><a href="http://www.novergie.fr">www.novergie.fr</a>  | Lieu dit les Chaux - RD 12<br>19300                     | +33 05 55 17 67 30<br>+33 05 55 17 67 39 |
| Rungis                           | Rungis  | 1 rue du Four - Secteur Marée - BP 10328<br>94569       | +33 01 58 42 73 60<br>+33 01 58 42 73 69 |
| Saint Ouen                       | Saint Ouen<br><a href="http://www.groupe-tiru.com">www.groupe-tiru.com</a> / <a href="http://www.syctom-paris.fr">www.syctom-paris.fr</a> | 22 rue Ardoin<br>93400                                  | +33 01 40 13 17 00<br>+33 01 42 33 40 47 |
| Saint Pourcain sur Sioule        | Bayet   | Les Bouillots - BP 32<br>03500                          | +33 04 70 45 51 67<br>+33 04 70 45 63 01 |
| Saint Saulve                     | Valenciennes<br><a href="http://www.groupe-tiru.com">www.groupe-tiru.com</a>  | Zone Industrielle - 4 rue du Galibot<br>59880           | +33 03 27 47 02 33<br>+33 03 27 47 02 60 |
| Sainte Gemmes sur Loire - ANGERS | Angers  | Quartier de la Roseraie- 36, rue d'Arbrissel<br>49130   | +33 02 41 05 50 45<br>+33 02 41 05 51 25 |
| Saint-Jean-De-Folleville         | Saint Jean de Folleville (Le Havre)   |   | +33 02 35 39 55 00<br>+33 02 35 39 55 09 |
| Salins-les-Thermes               | Moutiers<br><a href="http://www.novergie.fr">www.novergie.fr</a>  | Route de la Rageat, Villarlurin<br>73600                | +33 04 79 24 41 41<br>+33 04 79 22 81 33 |
| Saran                            | Saran (Orléans)   | 651 rue de la Motte Pétrée<br>45770                     | +33 02 38 56 97 45<br>+33 02 38 56 97 58 |
| Sarcelles                        | Sarcelles (Saren)   | 1 rue de Tissonvilliers<br>95200                        | +33 01 34 19 15 57<br>+33 01 34 19 15 99 |
| Sausheim                         | Mulhouse 2<br><a href="http://www.novergie.fr">www.novergie.fr</a>  | 1 route de Chalampé<br>68390                            | +33 03 89 43 21 30<br>+33 03 89 59 75 70 |
| Schweighouse sur Moder           | Haguenau<br><a href="http://www.novergie.fr">www.novergie.fr</a>  | ZI du Reid<br>67590                                     | +33 03 88 72 04 47<br>+33 03 88 72 61 71 |
| Sens                             | Sens  | Rue des Longues Raies - Z.I. des Vauguillettes<br>89100 | +33 03 86 65 89 00<br>+33 03 86 65 89 30 |
| Sète                             | Sète  | ZI des Eaux Blanches<br>34200                           | +33 04 67 43 09 55<br>+33 04 67 43 09 40 |
| St Pierre d'Oléron               | Saint Pierre Oléron   |   | +33 05 46 47 24 68<br>+33 05 46 47 12 88 |
| St Thibault des Vignes           | Lagny<br><a href="http://sietrem.fr">sietrem.fr</a>   | 3 rue Grand Pommeraye - ZA la Courtillière<br>77400     | +33 01 60 94 21 71<br>+33 01 64 30 11 00 |
| Strasbourg                       | Strasbourg<br><a href="http://www.strasbourg.fr">www.strasbourg.fr</a>  | 3 route du Rohrschollen<br>67000                        | +33 3 88 60 90 45<br>+33 3 88 60 95 21   |

## France

### General Information

| Location                         | Contact Person<br>E-mail                                  | Owner of plant<br>No. of inhab. served                                  | Owners<br>Address   |
|----------------------------------|---|---|---|
| Rillieux La Pape                 | M. ROUSMANS<br>crousmans@grand-lyon.org                   | Le Grand Lyon (Courly)<br>SYTTOM 19                                     | 83 Cours Liberté<br>69003 Lyon 3ème<br>22 rue Berlioz<br>19100 Brive la Gaillarde   |
| Rungis                           | M. Henri VERLHAC<br>hverlhac@cg19.fr                      | SIEVD   | 15 rue des Hautes Bornes<br>94310 Orly  |
| Saint Ouen                       | Mme. LECAT<br>lecat@systom-paris.fr                       | SYCTOM de l'agglomération Parisienne<br>1 400 000                       | 35 boulevard de Sébastopol<br>75001 Paris   |
| Saint Pourcain sur Sioule        | M. Gérard LAPLANCHE<br>sthevegniot@sictom-sud-allier.fr   | SICTOM SUD ALLIER   | Les Bouillots - BP 32<br>03500 Bayet  |
| Saint Sauve                      | M. Bernard MINEUR<br>bernard.mineur@groupe-tiru.com       | SIVDMHV   | ECOVALOR - Zone Industrielle - 4<br>rue du Galibot<br>59880 Saint Sauve             |
| Sainte Gemmes sur Loire - ANGERS | M. Jacques MARY<br>jacques.mary@angersloiremetropole.fr   | Communauté d'agglomération Angers Loire Métropole<br>280000             | 83 rue du Mail - BP 80529<br>49105 Angers Cedex 02                                  |
| Saint-Jean-De-Folleville         | M. ALLAIN<br>sevede@wanadoo.fr                            | SEVEDE  | Oréade - ZAC de Port Jérôme II - BP 60048<br>76170 Saint-Jean-De-Folleville         |
| Salins-les-Thermes               | M. Nouare KISMOUNE<br>sivomoutiers@wanadoo.fr             | SITOM de la Région de Moutiers  | 53 Place de l'Hôtel de Ville<br>73600 Moutiers                                      |
| Saran                            | Mme. Laurence DUZOIT<br>ldudoit@agglo-orleans.fr          | Communauté d'agglomération Orléans Val de Loire                         | 33 rue Hatton<br>45000 Orléans  |
| Sarcelles                        | Jean-Luc DELWARTE<br>jean-luc.delwarte@veolia-proprete.fr | SAREN   | 1 rue de Tissonvilliers<br>95200 Sarcelles  |
| Sausheim                         | M. GIRY<br>r.giry@sivom-mulhouse.fr                       | SIVOM de l'Agglomération Mulhousienne                                   | 25 avenue du Président Kennedy<br>68100 Mulhouse                                    |
| Schweighouse sur Moder           | M. Christian HEY<br>smitom.hey@wanadoo.fr                 | Syndicat Mixte pour le Traitement des OM<br>Secteur de Haguenau Saverne | (SMITOM) - ZI Secteur du Ried - BP 364 - Schweighouse/Moder<br>57507 Haguenau Cedex |
| Sens                             | M. PERETTI<br>nperetti@cc-senonais.fr                     | Communauté de communes du Sénonais<br>42000                             | La Poterne - BP 552 - 21 boulevard du 14 juillet<br>89100 Sens                      |
| Sète                             | Michel ROY<br>michel.roy@veolia-proprete.fr               | SETOM   | ZI des Eaux Blanches<br>34200 Sète  |
| St Pierre d'Oléron               | M. Le Président<br>accueil@cdc-oleron.fr                  | Communauté de communes de l'Île d'Oléron                                | 59 route des Allées - BP 85<br>17310 St Pierre d'Oléron                             |
| St Thibault des Vignes           | Mme. VINCENT<br>sietrem2@wanadoo.fr                       | SIETREM DE LAGNY SUR MARNE  | 3 rue Grand Pommeraye - ZA la Courtillière<br>77400 St Thibault des Vignes          |
| Strasbourg                       | M. Philippe JORDAN<br>philippe.jordan@cus-strasbourg.net  | Communauté Urbaine de Strasbourg<br>460000                              | 1 Parc de l'Etoile - BP 1049 / 1050 F<br>67076 STRASBOURG Cedex                     |

## France

### General Information

| Location               | Name of Plant<br>Web-site  | Address of Plant   | Phone<br>Fax                             |
|------------------------|--|--|--|
| Surgères               | Paille   | 17700  | +33 05 46 07 16 66<br>+33 05 46 07 11 13 |
| Taden                  | Dinan 2  | Lieu Dit Les Landes Basses - Route de Ploubalay<br>22100 | +33 02 96 85 25 46<br>+33 02 96 85 87 10 |
| Thiverval-Grignon      | Thiverval Grignon  | Chemin latéral n° 18<br>78850                            | +33 01 34 94 67 86<br>+33 01 34 94 67 74 |
| Thonon Les Bains Cedex | Thonon Les Bains   | ZI de Vongy<br>74203                                     | +33 04 50 70 69 68<br>+33 04 50 26 54 51 |
| Tignes                 | Tignes   | Croisement des Brévières<br>73320                        | +33 04 79 41 01 63<br>+33 04 79 41 06 77 |
| Toulon                 | Toulon<br><a href="http://www.novergie.fr">www.novergie.fr</a>                       | Chemin Gaétan Gastaldo - Quartier Escaillon<br>83200     | +33 04 94 89 98 10<br>+33 04 94 22 58 80 |
| Toulouse Mirail        | Toulouse<br><a href="http://www.lombric.com">www.lombric.com</a>                     | 11 Chemin de Perpignan<br>31100                          | +33 05 61 19 09 60<br>+33 05 61 19 09 69 |
| Tronville en Barrois   | Tronville en Barrois<br><a href="http://www.novergie.fr">www.novergie.fr</a>         | Route Nationale<br>55310                                 | +33 03 29 78 84 33<br>+33 03 29 78 18 71 |
| Vaux-le-Penil          | Melun<br><a href="http://www.semardel.fr">www.semardel.fr</a>                        | Route de Nangis - ZAC du Tertre de Chérisy<br>770000     | +33 01 64 83 58 60<br>+33 01 64 83 58 69 |
| Vedène                 | Avignon<br><a href="http://www.novergie.fr">www.novergie.fr</a>                      | CVDM Route du Pontet<br>84270                            | +33 04 90 31 04 05<br>+33 04 90 31 57 91 |
| Vert le Grand          | Vert le Grand<br><a href="http://www.semardel.fr">www.semardel.fr</a>                | Ecosite<br>91810   | +33 01 69 14 16 00<br>+33 01 69 14 16 47 |
| Villefranche sur Saône | Villefranche/Saône<br><a href="http://sytraival.com">sytraival.com</a>               | 132 rue benoit Frachon<br>69400                          | +33 04 74 68 82 59<br>+33 04 74 68 94 04 |
| Villejust              | Villejust 1 & 2<br><a href="http://www.siom.fr">www.siom.fr</a>                      | Route Départementale 118<br>91140                        | +33 01 60 14 09 34<br>+33 01 69 31 33 87 |
| Villiers Saint Paul    | Esiane (Villiers Saint-Paul)<br><a href="http://www.novergie.fr">www.novergie.fr</a> | avenue Frédéric et Irène Joiliot Curie<br>60870          | +33 03 44 25 20 64<br>+33 03 44 29 34 17 |
| Vitré                  | Vitré<br><a href="http://www.novergie.fr">www.novergie.fr</a>                        | ZI de la Haie Robert<br>35500                            | +33 02 99 74 44 47<br>+33 02 99 75 05 58 |

## France

### General Information

| Location               | Contact Person<br>E-mail  | Owner of plant<br>No. of inhab. served  | Owners<br>Address   |
|------------------------|---|---|---|
| Surgères               | M. GABRIEAU<br><br>info@vals-aunis.com                              | SMICTOM de Surgères (Syndicat Mixte Collecte et Traitement Ordures                | Ménagères) 41 bis rue Bernard Palissy<br>17700 Surgères   |
| Taden                  | Jacques GUIHARD<br><br>jacques.guihard@veolia-proprete.fr           | IDEX FASSA Environnement  | Lieu Dit Les Landes Basses - Route de Ploubalay<br>22100 Taden  |
| Thiverval-Grignon      | M. Le Président<br><br>sidompe.behoust@wanadoo.fr                   | SIDOMPE SI DESTRUCTION OM DE PLAISIR ET ENVIRONS<br>280000                        | Place du Village<br>78910 Behoust   |
| Thonon Les Bains Cedex | M. PARIS<br><br>stoc@ville-thonon.fr                                | STOC - Syndicat de Traitement des Ordures du Chablais                             | Hôtel de Ville - BP 517<br>74203 Thonon Les Bains Cedex   |
| Tignes                 | M. Le Président<br><br>sivom@sivomhautetarentaise.fr                | SIVOM de la Haute Tarentaise  | Chef Lieu - BP 1<br>73707 Seez Cedex  |
| Toulon                 | M. DE GAULEJAC<br><br>par courrier                                  | SITTOMAT  | CCUAT - Chemin Gaëtan Gastaldo - Quartier Escaillon<br>83200 Toulon                                     |
| Toulouse Mirail        | Hélène MAILLE - Alain NARDO<br><br>helene.maille@veolia-proprete.fr | SETMI   | 11 Chemin de Perpignan<br>31100 Toulouse  |
| Tronville en Barrois   | M. Le Directeur Technique<br><br>par courrier                       | NOVERGIE NORD EST   | Meuse Energie - Route Nationale<br>55310 Tronville en Barrois   |
| Vaux-le-Penil          | M. DIDION<br><br>kschott@lombric.com                                | SMITOM Centre Ouest Seine et Marnais<br>280 000                                   | Route de Nangis - ZAC du Tertre de Chérisy<br>77000 Vaux-le-Penil                                       |
| Vedène                 | M. PELLET<br><br>par courrier                                       | SIDOMRA   | Novery - CVDM Route du Pontet<br>84270 Védène   |
| Vert le Grand          | M. FRANCHINO<br><br>cfranchino.pse@wanadoo.fr                       | SEMARDEL<br>700000  | PSE - CITD Ecosite de Vert Le Grand - Chemin Butte - BP 2<br>91810 Vert le Grand                        |
| Villefranche sur Saône | M. Marc JANIN<br><br>marc.janin@sytraival.fr                        | Syndicat Mixte d'Elimination de Traitement et de Valorisation de Déchet<br>240000 | Beaujolais Dombes (SYTRAIVAL) - 130 rue Benoît Frachon - Z.I. portuaire<br>69400 Villefranche sur Saône |
| Villejust              | Mme. Véronique PERRET<br><br>veronique.perret@siom.fr               | SIOM de la Vallée de Chevreuse<br>170000  | CD 118<br>91140 Villejust   |
| Villiers Saint Paul    | Jean-Christophe GUERIN<br><br>jean-christophe.guerin@novery.fr      | Esiane  | avenue Frédéric et Irène Joiliot Curie<br>60870 Villiers Saint Paul                                     |
| Vitré                  | Mme. CHEHABEDDINE<br><br>vitre.sictom@wanadoo.fr                    | SMICTOM DU SUD-EST DE L'ILLE ET VILAINE   | 1 Place Notre Dame<br>35500 Vitré   |

## France

### Technical Information on the Plant

| Location                 | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |                      | Boiler |                | Steam Data oC/bar | Hours of Operat.2004 |
|--------------------------|----------|--------------|--------------|------------|-------------|---------|----------------------|--------|----------------|-------------------|----------------------|
|                          |          |              |              |            |             | Type    | Supplier             | Type   | Supplier       |                   |                      |
| Amilly                   | 1        | 1969         |              | 2,8        |             | M       |                      |        |                |                   |                      |
| Antibes                  | 1        | 1970         | ?            | 19         | 9,63        | M       | CNIM (Martin)        | S      | -              |                   | 7859                 |
| Argenteuil               | 1        | 1975         |              | 7,5        |             | M       | VON ROLL             | S      | CITTIC CAROSSO | 220               |                      |
|                          | 2        | 1975         |              | 7,5        |             | M       | VON ROLL             | S      | CITTIC CAROSSO | 220               |                      |
|                          | 3        | 1998         |              | 9          |             | M       | INOR VON ROLL        | S      | FIRE POWER     | 360               |                      |
| Arrabloy                 | 1        | 1999         |              | 5          |             | FB      | ABT France           | S      | FIRE POWER     | 350/36            |                      |
|                          | 2        | 1999         |              | 5          |             | FB      | ABT France           | S      | FIRE POWER     | 350/36            |                      |
| Aurillac                 | 1        | 1988         |              | 1          | 8,372       | O       | FRAPY                | WW     | PYROTHERM      | 80°C              |                      |
| Bayonne                  | 1        | 1990         |              | 3,2        |             | M       |                      | S      |                |                   |                      |
|                          | 2        | 1990         |              | 0,3        |             | M       |                      | S      |                |                   |                      |
| Bègles                   | 1        | 1998         |              | 11         |             | M       | ABB                  | S      | FIRE POWER     | 360               |                      |
|                          | 2        | 1998         |              | 11         |             | M       | ABB                  | S      | FIRE POWER     | 360               |                      |
|                          | 3        | 1998         |              | 11         |             | M       | ABB                  | S      | FIRE POWER     | 360               |                      |
| Bellegarde sur valserine | 1        | 1998         |              | 8          |             | M       | TNEE                 | S      | ACMA           | 385               |                      |
|                          | 2        | 1998         |              | 8          |             | M       | TNEE                 | S      | ACMA           | 385               |                      |
| Bellentre                | 1        | 1991         |              | 3,3        |             | M       | NOVERGIE (TRIGA)     |        | -              |                   |                      |
| Benesse-Maremne          | 1        | 1972         |              | 3          |             | M       | SOGEA                |        | -              |                   |                      |
|                          | 2        | 1985         |              | 4,5        |             | M       | SOGEA                |        | -              |                   |                      |
| Besançon                 | 1        | 1976         |              | 3          |             | M       | LURGI                | S      | SEUM           | 220               |                      |
|                          | 2        | 2002         |              | 4          |             | M       | LURGI                | S      | SEUM           | 220               |                      |
| Bessières                | 1        | 2001         |              | 11,4       |             | M       | ALSTOM               | S      |                |                   |                      |
|                          | 2        | 2001         |              | 11,4       |             | M       | ALSTOM POWER         | S      |                |                   |                      |
| Béthune                  | 1        | 1979         |              | 5          |             | M       | INOR                 | S      | LARDET         | 300               |                      |
|                          | 2        | 1979         |              | 5          |             | M       | INOR                 | S      | LARDET         | 300               |                      |
|                          | 3        | 1996         |              | 10         |             | M       | Itisa Volund         | S      | Leroux Lotz    | 300               |                      |
| Blois                    | 1        | 2000         |              | 5,5        |             | M       | ALSTOM POWER         | S      | ALSTOM POWER   | 360/45            |                      |
|                          | 2        | 2000         |              | 5,5        |             | M       | ALSTOM POWER         | S      | ALSTOM POWER   | 360/45            |                      |
| Bourgoin Jallieu         | 1        | 1986         |              | 5          | 8,372       | M       | VOLUND               | S      | CAROSSO        | 209/18            |                      |
|                          | 2        | 1995         |              | 6          | 8,372       | M       | VOLUND               | S      | FIRE POWER     | 240/19            |                      |
| Bourogne                 | 1        | 1975         |              | 4          |             | M       | STEIN                | S      | Coméco         |                   |                      |
|                          | 2        | 1988         |              | 4          |             | M       | STEIN                | S      | STEIN FASEL    | 350               |                      |
| Brest                    | 1        | 1988         |              | 9          | 7,326       | M       | VON ROLL             | S      | CITTIC CAROSSO | 290/32            |                      |
|                          | 2        | 1988         |              | 9          | 7,326       | M       | VON ROLL             | S      | CITTIC CAROSSO | 290/32            |                      |
| Brie de l'Odé            | 1        | 1996         |              | 4          | 7,326       | M       | VOLUND               | S      | LE ROUX & LOTZ | 350/40            |                      |
|                          | 2        | 1996         |              | 4          | 7,326       | M       | VOLUND               | S      | LE ROUX & LOTZ | 350/40            |                      |
| Brive la Gaillarde       | 1        | 1973         |              | 3,5        |             | M       | INOR                 | S      | Stein Fasel    | 180               |                      |
|                          | 2        | 1973         |              | 3,5        |             | M       | INOR                 | S      | Stein Fasel    | 180               |                      |
|                          | 3        | 1983         |              | 3,5        |             | M       | INOR                 | S      | Wanser         | 180               |                      |
| Carhaix                  | 1        | 1994         |              | 4          |             | M       | ITISA ANSALDO VOLUND | S      | BERI           | 340/28            |                      |

## France

### Technical Information on the Plant

| Location                 | Line No. | Flue Gas Cleaning System | ESP  |           | Flue Gas Cleaning |              | Flue Gas Temp., °C |
|--------------------------|----------|--------------------------|------|-----------|-------------------|--------------|--------------------|
|                          |          |                          | Year | Supplier  | Year              | Supplier     |                    |
| Amilly                   | 1        | DRY                      |      |           |                   | SPEIC VINCI  |                    |
| Antibes                  | 1        | ESP-SD-FF-O              | 1970 |           | 1998              | CNIM EGIDE   | 170                |
| Argenteuil               | 1        | ESP+WET                  |      |           |                   | SPEIC        |                    |
|                          | 2        | ESP+WET                  |      |           |                   | SPEIC        |                    |
|                          | 3        | ESP+WET                  |      |           |                   | SPEIC        |                    |
| Arrabloy                 | 1        | SD+FF                    |      |           | 1999              | GENEVET      |                    |
|                          | 2        | SD+FF                    |      |           | 1999              | GENEVET      |                    |
| Aurillac                 | 1        | DRY+FF                   |      |           | 1990              | NEU          |                    |
| Bayonne                  | 1        | DRY+FF                   |      |           |                   |              |                    |
|                          | 2        | DRY+FF                   |      |           |                   |              |                    |
| Bègles                   | 1        | ESP+WET                  |      |           |                   | LAB          |                    |
|                          | 2        | ESP+WET                  |      |           |                   | LAB          |                    |
|                          | 3        | ESP+WET                  |      |           |                   | LAB          |                    |
| Bellegarde sur valserine | 1        | WET                      |      |           |                   | -            |                    |
|                          | 2        | WET                      |      |           |                   | -            |                    |
| Bellentre                | 1        | DRY+FF                   |      |           |                   | GENEVET      |                    |
| Benesse-Maremne          | 1        | ESP+WET                  |      |           |                   | SULZER       |                    |
|                          | 2        | ESP+WET                  |      |           |                   | SULZER       |                    |
| Besançon                 | 1        | DRY+FF                   |      |           |                   | VINCI        |                    |
|                          | 2        | DRY+FF                   |      |           |                   | VINCI        |                    |
| Bessières                | 1        | WET                      |      |           |                   | LAB          |                    |
|                          | 2        | WET                      |      |           |                   | LAB          |                    |
| Béthune                  | 1        | WET                      |      |           |                   | LAB          |                    |
|                          | 2        | WET                      |      |           |                   | LAB          |                    |
|                          | 3        | WET                      |      |           |                   | LAB          |                    |
| Blois                    | 1        | SD                       |      |           |                   | ALSTOM POWER |                    |
|                          | 2        | SD                       |      |           |                   | ALSTOM POWER |                    |
| Bourgoin Jallieu         | 1        | SD+ESP+FF                | 1996 | WALTER    | 2006              | LAB          |                    |
|                          | 2        | SD+ESP+FF                | 1996 | WALTER    | 2006              | LAB          |                    |
| Bourogne                 | 1        | ESP                      |      |           |                   | ROTHEMÜHLE   |                    |
|                          | 2        | ESP                      |      |           |                   | ROTHEMÜHLE   |                    |
| Brest                    | 1        | DRY+ESP+FF+SCR           | 1988 | ABB Flakt | 2006              | SPEIC        |                    |
|                          | 2        | DRY+ESP+FF+SCR           | 1988 | ABB Flakt | 2006              | SPEIC        |                    |
| Brie de l'Odé            | 1        | DRY+FF+SNCR              |      |           | 2006              | HAMON+VOLUND |                    |
|                          | 2        | DRY+FF+SNCR              |      |           | 2006              | HAMON+VOLUND |                    |
| Brive la Gaillarde       | 1        | CYC+ESP+WET+D/F          |      |           |                   | GENEVET      |                    |
|                          | 2        | CYC+ESP+WET+D/F          |      |           |                   | GENEVET      |                    |
|                          | 3        | CYC+ESP+WET+D/F          |      |           |                   | PRAT         |                    |
| Carhaix                  | 1        | DRY+FF                   |      |           |                   | LAB          |                    |

## France

### Technical Information on the Plant

| Location              | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |                 | Boiler |                  | Steam Data oC/bar | Hours of Operat.2004 |
|-----------------------|----------|--------------|--------------|------------|-------------|---------|-----------------|--------|------------------|-------------------|----------------------|
|                       |          |              |              |            |             | Type    | Supplier        | Type   | Supplier         |                   |                      |
| Carrières sous Poissy | 1        | 1998         |              | 7,5        |             | M       | ALSTOM          | S      | ALSTOM           | 360               |                      |
|                       | 2        | 1998         |              | 7,5        |             | M       | ALSTOM          | S      | ALSTOM           | 360               |                      |
| Carrières sur Seine   | 1        | 1978         |              | 10         |             | F       | LUCHAIRE        | S      | BABCOCK          | 295               |                      |
|                       | 2        | 1987         |              | 10         |             | F       | ITISA           | S      | BERI             | 270               |                      |
| Cenon                 | 1        | 1983         |              | 8          |             | R       | VKW             | S      | BABCOCK          | 265               | 7728                 |
|                       | 2        | 1983         |              | 8          |             | R       | VKW             | S      | BABCOCK          | 265               | 7859                 |
| Cergy Pontoise        | 1        | 1995         |              | 10,5       | 9,209       | M       | CNIM (MARTIN)   | S      | CNIM             | 390/41            |                      |
|                       | 2        | 1995         |              | 10,5       | 9,209       | M       | CNIM (MARTIN)   | S      | CNIM             | 390/41            |                      |
| Chambéry              | 1        | 1977         |              | 4,2        |             | M       | ALBERTI         |        |                  |                   |                      |
|                       | 2        | 1977         |              | 4,2        |             | M       | ALBERTI         |        |                  |                   |                      |
|                       | 3        | 1996         |              | 6          |             | M       | SOGEA           | S      | FIRE POWER       |                   |                      |
| Chateaudun            | 1        | 1976         |              | 3,4        |             | M       | INOR Von Roll   |        |                  |                   |                      |
| Chaumont              | 1        | 1998         |              | 5          | 8,372       | M       | CNIM (MARTIN)   | S      | CNIM             | 350/35            |                      |
|                       | 2        | 1998         |              | 5          | 8,372       | M       | CNIM (MARTIN)   | S      | CNIM             | 350/35            |                      |
| Colmar                | 1        | 1988         |              | 6          |             | M       | CNIM MARTIN     | S      | CNIM             | 250               |                      |
|                       | 2        | 1988         |              | 6          |             | M       | CNIM MARTIN     | S      | CNIM             | 250               |                      |
| Colombelles           | 1        | 1972         |              | 7,8        |             | M       | CNIM            | HW     | CNIM             | 1900/24           |                      |
|                       | 2        | 1972         |              | 7,8        |             | M       | CNIM            | HW     | CNIM             | 1900/24           |                      |
| Concarneau            | 1        | 1989         |              | 3,9        | 7,535       | M       | VON ROLL        | S      | CITTIC CARROSSO  | 220/23            |                      |
|                       | 2        | 1989         |              | 3,9        | 7,535       | M       | VON ROLL        | S      | CITTIC CARROSSO  | 220/23            |                      |
| Confort Meilars       | 1        | 1973         |              | 3          |             | M       | FERBECK VINCENT |        |                  |                   |                      |
| Coueron               | 1        | 1994         |              | 7          | 8,372       | M       | CNIM (MARTIN)   | S      | CNIM             | 350/35            | 7798                 |
|                       | 2        | 1994         |              | 7          | 8,372       | M       | CNIM (MARTIN)   | S      | CNIM             | 350/35            | 8059                 |
| Cran Gevrier          | 1        | 1986         |              | 4,2        |             | M       | SOGEA           | S      | SOGEA            | 260               |                      |
|                       | 2        | 1986         |              | 4,2        |             | M       | SOGEA           | S      | SOGEA            | 260               |                      |
|                       | 3        | 1994         |              | 6          |             | M       | SOGEA           | -      |                  |                   |                      |
| Créteil               | 1        |              |              |            |             | O       | FDI (MAGUIN)    | S      | Fire Power       | 210               |                      |
|                       | 3        | 1994         |              | 2,6        |             | M       | ABB             | S      | Leroux & L       | 360               |                      |
|                       | 4        | 2000         |              | 15         |             | M       | ABB             | S      | Leroux & L       | 360               |                      |
|                       | 5        | 2000         |              | 15         |             |         |                 |        |                  |                   |                      |
| Dieppe                | 1        | 1971         |              | 3          |             | M       | INOR VON ROLL   | S      | SOCOMAS          | 180               |                      |
|                       | 2        | 1971         |              | 3          |             | M       | INOR VON ROLL   | S      | SOCOMAS          | 180               |                      |
| Dijon                 | 1        | 1974         |              | 9,1        | 9,6         | M       | INOR            | S      | VON ROLL - INOVA | 218               |                      |
|                       | 2        | 1974         |              | 9,1        | 9,6         | M       | INOR            | S      | VON ROLL - INOVA | 218               |                      |
| Douchy les Mines      | 1        | 1977         |              | 5,5        |             | M       | MARTIN          | S      | LEROUX ET LOTZ   | 360/40            |                      |
|                       | 2        | 1977         |              | 5,5        |             | M       | MARTIN          | S      | LEROUX ET LOTZ   | 360/40            |                      |
| Dunkerque             | 1        | 1971         | 1998         | 4          |             | M       | OFAG            |        | -                |                   | 7069                 |
|                       | 2        | 1972         | 1998         | 4          |             | M       | OFAG            |        | -                |                   | 6700                 |
|                       | 3        | 1977         | 1998         | 5          |             | M       | OFAG            |        | -                |                   | 7249                 |

## France

### Technical Information on the Plant

| Location              | Line No. | Flue Gas Cleaning System | ESP  |                   | Flue Gas Cleaning |   | Flue Gas Temp., °C |
|-----------------------|----------|--------------------------|------|-------------------|-------------------|---|--------------------|
|                       |          |                          | Year | Supplier          | Year              | Supplier                                  |                    |
| Carrières sous Poissy | 1        | ESP+WET+SCR              |      |                   |                   | LAB                                       |                    |
|                       | 2        | ESP+WET+SCR              |      |                   |                   | LAB                                       |                    |
| Carrières sur Seine   | 1        | ESP+SD+FF                |      |                   |                   | ABB Energie                               |                    |
|                       | 2        | ESP+SD+FF                |      |                   |                   | ABB Fläkt                                 |                    |
| Cenon                 | 1        | ESP+WET                  | 1983 | NEU Electrofiltre | 1993              | LAB                                       | 60                 |
|                       | 2        | ESP+WET                  | 1983 | NEU Electrofiltre | 1993              | LAB                                       | 60                 |
| Cergy Pontoise        | 1        | WET+FF+SCR               |      |                   | 2006              | ALSTOM+LAB                                |                    |
|                       | 2        | WET+FF+SCR               |      |                   | 2006              | ALSTOM+LAB                                |                    |
| Chambéry              | 1        | FGC                      |      |                   |                   | SPEIC                                     |                    |
|                       | 2        | FGC                      |      |                   |                   | SPEIC                                     |                    |
|                       | 3        | FGC                      |      |                   |                   | SPEIC                                     |                    |
| Chateaudun            | 1        | SD                       |      |                   |                   | Inova France                              |                    |
| Chaumont              | 1        | DRY+FF+SCR               |      |                   | 2006              | CNIM+AFEI+HAMON                           |                    |
|                       | 2        | DRY+FF+SCR               |      |                   | 2006              | CNIM+AFEI+HAMON                           |                    |
| Colmar                | 1        | ESP+SD                   |      |                   |                   | CNIM                                      |                    |
|                       | 2        | ESP+SD                   |      |                   |                   | CNIM                                      |                    |
| Colombelles           | 1        | WET                      |      |                   |                   | SULZER                                    |                    |
|                       | 2        | WET                      |      |                   |                   | SULZER                                    |                    |
| Concarneau            | 1        | DRY+FF                   |      |                   | 2006              | SPEIC                                     |                    |
|                       | 2        | DRY+FF                   |      |                   | 2006              | SPEIC                                     |                    |
| Confort Meilars       | 1        | FF                       |      |                   | 1973              | GENEVET/AREA IMPIATI                      |                    |
| Coueron               | 1        | WET / ESP / FF / SCR     | 1994 | NEU ELECTROFILTRE | 2006              | CT Environnement / LAB                    | 180                |
|                       | 2        | WET / ESP / FF / SCR     | 1994 | NEU ELECTROFILTRE | 2006              | CT Environnement / LAB                    | 180                |
| Cran Gevrier          | 1        | ESP+FGC                  |      |                   |                   | SPEIC                                     |                    |
|                       | 2        | ESP+FGC                  |      |                   |                   | SPEIC                                     |                    |
|                       | 3        | ESP+FGC                  |      |                   |                   | SPEIC                                     |                    |
| Créteil               | 1        |                          |      |                   |                   |   |                    |
|                       | 3        | FGC                      |      |                   |                   | SPEIC                                     |                    |
|                       | 4        | ESP+WET                  |      |                   |                   | CT environnement                          |                    |
|                       | 5        | ESP+WET                  |      |                   |                   | CT environnement                          |                    |
| Dieppe                | 1        | CYC                      |      |                   |                   | PRAT                                      |                    |
|                       | 2        | CYC                      |      |                   |                   | PRAT                                      |                    |
| Dijon                 | 1        | ESP+WET+SCRF             |      | Neu Electrofiltre | 2004              | CT environnement + Concept Technik Unwelt | 180                |
|                       | 2        | ESP+WET+SCRF             |      | Neu Electrofiltre | 2004              | CT environnement + Concept Technik Unwelt | 180                |
| Douchy les Mines      | 1        | ESP+DRY+FF               | 2004 |                   | 1988              | NEU/NPI                                   |                    |
|                       | 2        | ESP+DRY+FF               | 2004 |                   | 1988              | NEU/NPI                                   |                    |
| Dunkerque             | 1        | ESP                      |      |                   |                   | ROTHEMUHLE                                |                    |
|                       | 2        | ESP                      |      |                   |                   | ROTHEMUHLE                                |                    |
|                       | 3        | ESP                      |      |                   |                   | DRESSER                                   |                    |

## France

### Technical Information on the Plant

| Location                    | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |                         | Boiler |                         | Steam Data oC/bar | Hours of Operat.2004 |
|-----------------------------|----------|--------------|--------------|------------|-------------|---------|-------------------------|--------|-------------------------|-------------------|----------------------|
|                             |          |              |              |            |             | Type    | Supplier                | Type   | Supplier                |                   |                      |
| ECHILLAIS                   | 1        | 1990         |              | 2,5        | 7,116       | M       | SOGEA                   | S      | CITTIC CARROSSO         | 191/12            |                      |
|                             | 2        | 1990         |              | 2,5        | 7,116       | M       | SOGEA                   | S      | CITTIC CARROSSO         | 191/12            |                      |
| Fort de France - Martinique | 1        | 2002         |              | 7          | 8,372       | R       | VINCI                   | S      | CTC                     | 350/40            |                      |
|                             | 2        | 2002         |              | 7          | 8,372       | R       | VINCI                   | S      | CTC                     | 350/40            |                      |
| Fourchambault               | 1        | 2002         |              | 6,6        | 8,791       | M       | VOLUND                  | S      | LEROUX ET LOTZ          | 350/38            |                      |
| Grand Quevilly              | 1        | 2000         |              | 14,5       | 9,628       | M       | VON ROLL                | S      | FIRE POWER ENTREPROSE   | 395/36            |                      |
|                             | 2        | 2000         |              | 14,5       | 9,628       | M       | VON ROLL                | S      | FIRE POWER ENTREPROSE   | 395/36            |                      |
|                             | 3        | 2000         |              | 14,5       | 9,628       | M       | VON ROLL                | S      | FIRE POWER ENTREPROSE   | 395/36            |                      |
| Grenoble                    | 1        | 1995         |              | 8          |             | R       | DBA                     | S      | ACMA                    | 285               |                      |
|                             | 2        | 1996         |              | 8          |             | R       | DBA                     | S      | ACMA                    | 285               |                      |
|                             | 3        | 1994         |              | 8          |             | R       | DBA                     | S      | ACMA                    | 285               |                      |
| Guerville                   | 1        | 1997         |              | 3,3        | 9,209       | FB      | TMC                     | S      | RAFACO                  | 390/40            |                      |
|                             | 2        | 1997         |              | 3,3        | 9,209       | FB      | TMC                     | S      | RAFACO                  | 390/40            |                      |
|                             | 3        | 1997         |              | 3,3        | 9,209       | FB      | TMC                     | S      | RAFACO                  | 390/40            |                      |
| Guichainville               | 1        | 2003         |              | 5,6        |             | M       | INOVA FRANCE / VON ROLL | S      | INOVA FRANCE / VON ROLL | 380/40            |                      |
|                             | 2        | 2003         |              | 5,6        |             | M       | INOVA FRANCE / VON ROLL | S      | INOVA FRANCE / VON ROLL | 380/40            |                      |
| Halluin                     | 1        | 2000         |              | 14,5       | 9,209       | M       | ALSTOM (City 2000)      | S      | ALSTOM                  | 370/42            |                      |
|                             | 2        | 2000         |              | 14,5       | 9,209       | M       | ALSTOM (City 2000)      | S      | ALSTOM                  | 370/42            |                      |
|                             | 3        | 2000         |              | 14,5       | 9,209       | M       | ALSTOM (City 2000)      | S      | ALSTOM                  | 370/42            |                      |
| Henin-Beaumont              | 1        | 1974         |              | 4,5        |             | M       | MARTIN                  | -      | -                       | -                 |                      |
|                             | 2        | 1974         |              | 4,5        |             | M       | MARTIN                  |        |                         |                   |                      |
| Issy-Les-Moulineaux         | 1        | 1965         |              | 18,8       |             | M       | CNIM (Martin)           | S      | CNIM                    | 410/50            |                      |
|                             | 2        | 1965         |              | 18,8       |             | M       | CNIM (Martin)           | S      | CNIM                    | 410/50            |                      |
|                             | 3        | 1965         |              | 18,8       |             | M       | CNIM (Martin)           | S      | CNIM                    | 410/50            |                      |
|                             | 4        | 1965         |              | 18,8       |             | M       | CNIM (Martin)           | S      | CNIM                    | 410/50            |                      |
| La Couronne                 | 1        | 1986         |              | 4,2        |             | M       | SOBEA                   | S      | CITTIC CARROSSO         | 215               |                      |
| La Rochelle                 | 1        | 1988         |              | 4          | 8,372       | M       | VON ROLL                | S      | CITTIC modifiée LEROUX  | 220/24            |                      |
|                             | 2        | 1988         |              | 4          | 8,372       | M       | VON ROLL                | S      | CITTIC modifiée LEROUX  | 220/24            |                      |
| La Séguinière               | 1        | 1983         | 2005         | 4          | 2000        | O       | Laurent BOUILLET        | -      | -                       | -                 | 6995                 |
| La Veuve                    | 1        | 2006         |              | 12,5       | 10,05       | M       | CNIM (MARTIN)           | S      | CNIM                    | 400/60            |                      |
| Lasse                       | 1        | 2004         |              | 12,5       | 10,05       | M       | CNIM (MARTIN)           | S      | CNIM                    | 400°C / 60        |                      |
| Le Fayet                    | 1        | 1995         |              | 7,5        |             | M       | ITISA VOLUND            | S      | LEROUX & LOTZ           | 350               |                      |

## France

### Technical Information on the Plant

| Location                    | Line No. | Flue Gas Cleaning System | ESP  |          | Flue Gas Cleaning |                                  | Flue Gas Temp., °C |
|-----------------------------|----------|--------------------------|------|----------|-------------------|----------------------------------|--------------------|
|                             |          |                          | Year | Supplier | Year              | Supplier                         |                    |
| ECHILLAIS                   | 1        | DRY+ESP+FF               | 1990 | SPEIC    | 2006              | AREA IMPIANTI                    |                    |
|                             | 2        | DRY+ESP+FF               | 1990 | SPEIC    | 2006              | AREA IMPIANTI                    |                    |
| Fort de France - Martinique | 1        | WET+FF+SNCR              |      |          | 2002              | CT ENVIRONNEMENT                 |                    |
|                             | 2        | WET+FF+SNCR              |      |          | 2002              | CT ENVIRONNEMENT                 |                    |
| Fourchambault               | 1        | DRY+FF+SNCR              |      |          | 2002              | VOLUND / PROCEDAIR / PETRO MILJÖ |                    |
| Grand Quevilly              | 1        | SD+ESP+FF+SCR            | 2000 | ABB      | 2000              | ABB                              |                    |
|                             | 2        | SD+ESP+FF+SCR            | 2000 | ABB      | 2000              | ABB                              |                    |
|                             | 3        | SD+ESP+FF+SCR            | 2000 | ABB      | 2000              | ABB                              |                    |
| Grenoble                    | 1        | WET                      |      |          |                   | DBA                              |                    |
|                             | 2        | WET                      |      |          |                   | DBA                              |                    |
|                             | 3        | WET                      |      |          |                   | DBA                              |                    |
| Guerville                   | 1        | DRY+FF+SNCR              |      |          | 2004              | CNIM / FLS / CNIM                |                    |
|                             | 2        | DRY+FF+SNCR              |      |          | 2004              | CNIM / FLS / CNIM                |                    |
|                             | 3        | DRY+FF+SNCR              |      |          | 2004              | CNIM / FLS / CNIM                |                    |
| Guichainville               | 1        | DRY                      | 2003 |          | 2003              | INOVA                            |                    |
|                             | 2        | DRY                      | 2003 |          | 2003              | INOVA                            |                    |
| Halluin                     | 1        | WET+FF+SCR               |      |          | 2000              | ALSTOM                           |                    |
|                             | 2        | WET+FF+SCR               |      |          | 2000              | ALSTOM                           |                    |
|                             | 3        | WET+FF+SCR               |      |          | 2000              | ALSTOM                           |                    |
| Henin-Beaumont              | 1        | FF                       |      |          | 2002              | LAB-GENEVET                      |                    |
|                             | 2        | FF                       |      |          | 2002              | LAB-GENEVET                      |                    |
| Issy-Les-Moulineaux         | 1        | ESP+WET                  |      |          | 1992              | LURGI / LAB                      |                    |
|                             | 2        | ESP+WET                  |      |          | 1992              | LURGI / LAB                      |                    |
|                             | 3        | ESP+WET                  |      |          | 1992              | LURGI / LAB                      |                    |
|                             | 4        | ESP+WET                  |      |          | 1992              | LURGI / LAB                      |                    |
| La Couronne                 | 1        | ESP                      |      |          |                   | WALTHER                          |                    |
| La Rochelle                 | 1        | DRY+FF+SNCR              |      |          | 2000              | ABB+Fuel Tech                    |                    |
|                             | 2        | DRY+FF+SNCR              |      |          | 2000              | ABB+Fuel Tech                    |                    |
| La Séguinière               | 1        | DRY+FF                   |      |          | 1995              | GENEVET/NP1                      |                    |
| La Veuve                    | 1        | SD+FF+SNCR               |      |          | 2006              | LAB+CNIM                         |                    |
| Lasse                       | 1        | SD / FF / SCR            | -    |          | 2004              | CNIM - SIDAC - LAB               | 180°C              |
| Le Fayet                    | 1        | SD+FF                    |      |          |                   | NKK + GENEVET                    |                    |

## France

### Technical Information on the Plant

| Location              | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |                    | Boiler |                                       | Steam Data oC/bar | Hours of Operat.2004 |
|-----------------------|----------|--------------|--------------|------------|-------------|---------|--------------------|--------|---------------------------------------|-------------------|----------------------|
|                       |          |              |              |            |             | Type    | Supplier           | Type   | Supplier                              |                   |                      |
| Le Mans               | 1        | 1975         | 2005         | 8          | 7,535       | M       | VON ROLL           | S      | -                                     | 350/25.1          |                      |
|                       | 2        | 2002         |              | 9          | 9,628       | M       | VON ROLL           | S      | LEROUX ET LOTZ                        |                   |                      |
|                       | 3        | 1991         |              | 12         | 7,116       | M       | VON ROLL           | S      | CITTIC CARROSSO                       | 350/25.1          |                      |
| Lens                  | 1        | 1973         |              | 6,7        |             | M       | CNIM (MARTIN)      |        | -                                     |                   |                      |
|                       | 2        | 1973         |              | 6,7        |             | M       | CNIM (MARTIN)      |        | -                                     |                   |                      |
| Lescar                | 1        | 1987         |              | 5          |             | F       | TRIGA ABB          | S      | Leroux et lotz                        | 370               |                      |
|                       | 2        | 1997         |              | 6          |             | F       | TRIGA ABB          | S      | Leroux et lotz                        | 370               |                      |
| Limoges               | 1        | 1989         |              | 5          | 7,786       | M       | VOLUND             | S      | LEROUX & LOTZ                         | 280/25            |                      |
|                       | 2        | 1989         |              | 5          | 7,786       | M       | VOLUND             | S      | LEROUX & LOTZ                         | 280/25            |                      |
|                       | 3        | 1992         |              | 5          | 8,791       | M       | VOLUND             | S      | LEROUX & LOTZ                         | 280/25            |                      |
| Livet                 | 1        | 1998         |              | 2,5        | 7,535       | M       | SOBEA              |        |                                       |                   |                      |
| Lons-le-Saunier       | 1        | 1994         |              | 5          |             | M       | CNIM (MARTIN)      | S      | CNIM                                  | 330               |                      |
| Ludres                | 1        | 1995         |              | 8          | 8,372       | M       | ALSTOM (City 2000) | S      | ALSTOM                                | 400/40            |                      |
|                       | 2        | 1995         |              | 8          | 8,372       | M       | ALSTOM (City 2000) | S      | ALSTOM                                | 400/40            |                      |
| Lunel-Viel            | 1        | 1999         |              | 8          |             | M       | ALSTOM             | S      | ALSTOM                                | 360               |                      |
|                       | 2        | 1999         |              | 8          |             | M       | ALSTOM             | S      | ALSTOM                                | 360               |                      |
| Lyon 7ème             | 1        | 1990         |              | 12         |             | M       | MARTIN CNIM        | S      | CNIM                                  | 354               |                      |
|                       | 2        | 1990         |              | 12         |             | M       | MARTIN CNIM        | S      | CNIM                                  | 354               |                      |
|                       | 3        | 1990         |              | 12         |             | M       | MARTIN CNIM        | S      | CNIM                                  | 354               |                      |
| Mainvilliers          | 1        | 1999         |              | 7,5        |             | M       | ALSTOM             | S      | ALSTOM                                | 360/45            |                      |
|                       | 2        | 1999         |              | 7,5        |             | M       | ALSTOM             | S      | ALSTOM                                | 360/45            |                      |
| Marignier             | 1        | 1991         |              | 5          | 9,628       | M       | VOLUND             | S      | MATEC (Fire Power)                    | 330/27            |                      |
| Massy                 | 1        | 1985         |              | 5,5        |             | M       | INOR Von Roll      | S      | CITTIC                                | 230               |                      |
|                       | 2        | 1986         |              | 5,5        |             | M       | INOR Von Roll      | S      | CITTIC CARROSSO                       | 230               |                      |
| Maubeuge              | 1        | DEMA NTEL EE |              |            |             |         |                    |        |                                       |                   |                      |
|                       | 2        | 2002         |              | 5,5        | 9,209       | M       | VON ROLL           | S      | conception VON ROLL, construction CCT | 360°C /36         | 8187                 |
|                       | 3        | 2001         |              | 5,5        | 9,209       | M       | VON ROLL           | S      | Conception VON ROLL, construction CCT | 360°C /36         | 8076                 |
| Mère                  | 1        |              |              |            |             |         |                    |        |                                       |                   |                      |
| Messanges             | 1        |              |              |            |             |         |                    |        |                                       |                   |                      |
| Metz                  | 1        | 1970         |              | 6          |             | M       | Martin             | S      | CNIM                                  |                   |                      |
|                       | 2        | 1970         |              | 6          |             | M       | Martin             | S      | CNIM                                  |                   |                      |
| Montauban             | 1        | 1986         |              | 5          |             | O       | LBI                | S      | LBI Cyclergie                         | 194               |                      |
| Montbéliard           | 1        | 1987         |              | 4          | 8,372       | O       | Laurent Bouillet   | S      | STEIN FASEL                           | 260 / 16          | 8100                 |
|                       | 2        | 1987         |              | 4          | 8,372       | O       | Laurent Bouillet   | S      | STEIN FASEL                           | 260 / 16          | 8100                 |
| Montereau Fault Yonne | 1        | 1973         |              | 3,2        | 8,791       | M       | SOBEA              | -      | -                                     | -                 |                      |
| Monthyon              | 1        | 1997         |              | 7          | 9,209       | M       | CNIM (MARTIN)      | S      | CNIM                                  | 390/40            | 1843                 |
|                       | 2        | 1997         |              | 7          | 9,209       | M       | CNIM (MARTIN)      | S      | CNIM                                  | 390/40            |                      |
|                       | 3        | 1998         |              | 4          | 9,209       | FB      | TMC                | S      | TMC                                   | 390/40            |                      |
| Mourenx               | 1        |              |              |            |             |         |                    |        |                                       |                   |                      |

## France

### Technical Information on the Plant

| Location              | Line No. | Flue Gas Cleaning System | ESP  |           | Flue Gas Cleaning |                                      | Flue Gas Temp., °C |
|-----------------------|----------|--------------------------|------|-----------|-------------------|--------------------------------------|--------------------|
|                       |          |                          | Year | Supplier  | Year              | Supplier                             |                    |
| Le Mans               | 1        | ESP+DRY                  |      |           | 2001              | SPEIC                                |                    |
|                       | 2        | DRY+FF+SCR               |      |           | 2002              | VON ROLL / ETM                       |                    |
|                       | 3        | DRY+FF+SCR               |      |           | 2003              | VON ROLL / ETM                       |                    |
| Lens                  | 1        | DRY                      |      |           |                   | ABB Alsthom                          |                    |
|                       | 2        | DRY                      |      |           |                   | ABB Alsthom                          |                    |
| Lescar                | 1        | ESP+WET                  |      |           |                   | Procedair                            |                    |
|                       | 2        | ESP+WET                  |      |           |                   | Procedair                            |                    |
| Limoges               | 1        | DRY+WET+FF+SNCR          |      |           | 2006              | CNIM+AREA                            |                    |
|                       | 2        | DRY+WET+FF+SNCR          |      |           | 2006              | CNIM+AREA                            |                    |
|                       | 3        | SD+FF                    |      |           | 2006              | ITISA/AREA+DCE                       |                    |
| Livet                 | 1        | DRY+ESP+FF               | 1999 | PROCEDAIR | 2006              | AREA IMPIANTI                        |                    |
| Lons-le-Saunier       | 1        | SD+ESP                   |      |           |                   | CNIM                                 |                    |
| Ludres                | 1        | DRY+ESP+FF+SCR           | 1995 | LURGI     | 2006              | HAMON                                |                    |
|                       | 2        | DRY+ESP+FF+SCR           | 1995 | LURGI     | 2006              | HAMON                                |                    |
| Lunel-Viel            | 1        | WET                      |      |           |                   | SPEIC                                |                    |
|                       | 2        | WET                      |      |           |                   | SPEIC                                |                    |
| Lyon 7ème             | 1        | ESP+WET                  |      |           |                   | LAB                                  |                    |
|                       | 2        | ESP+WET                  |      |           |                   | LAB                                  |                    |
|                       | 3        | ESP+WET                  |      |           |                   | LAB                                  |                    |
| Mainvilliers          | 1        | SD                       |      |           |                   | ALSTOM                               |                    |
|                       | 2        | SD                       |      |           |                   | ALSTOM                               |                    |
| Marignier             | 1        | DRY+ESP+FF+SNCR          | 1992 | WALTER    | 2006              | IRH+WALTER+LUHR+IRH                  |                    |
| Massy                 | 1        | WET                      |      |           |                   | LAB                                  |                    |
|                       | 2        | WET                      |      |           |                   | LAB                                  |                    |
| Maubeuge              | 1        |                          |      |           |                   |                                      |                    |
|                       | 2        | DRY - FF - SNCR          |      |           | 2005              | VON ROLL + ROTHEMULE + AERA IMPIANTI |                    |
|                       | 3        | DRY - FF - SNCR          |      |           | 2005              | VON ROLL + ROTHEMULE + AERA IMPIANTI |                    |
| Mère                  | 1        |                          |      |           |                   |                                      |                    |
| Messanges             | 1        |                          |      |           |                   |                                      |                    |
| Metz                  | 1        | ESP                      |      |           |                   | LURGI                                |                    |
|                       | 2        | ESP                      |      |           |                   | LURGI                                |                    |
| Montauban             | 1        | DRY+FF                   |      |           |                   | ALSTOM NPI                           |                    |
| Montbéliard           | 1        | DRY / FF                 |      |           | 1997              | LBI+Lodge Cotrell                    | 160                |
|                       | 2        | DRY / FF                 |      |           | 1997              | LBI+Lodge Cotrell                    | 160                |
| Montereau Fault Yonne | 1        | DRY+FF                   |      |           | 2003              | SPEIC                                |                    |
| Monthyon              | 1        | DRY+FF+SNCR              |      |           | 2006              | CNIM                                 |                    |
|                       | 2        | DRY+FF+SNCR              |      |           | 2006              | CNIM                                 |                    |
|                       | 3        | DRY+FF+SNCR              |      |           | 2006              | TMC / CNIM                           |                    |
| Mourenx               | 1        |                          |      |           |                   |                                      |                    |

## France

### Technical Information on the Plant

| Location           | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |                     | Boiler |                     | Steam Data oC/bar | Hours of Operat.2004 |
|--------------------|----------|--------------|--------------|------------|-------------|---------|---------------------|--------|---------------------|-------------------|----------------------|
|                    |          |              |              |            |             | Type    | Supplier            | Type   | Supplier            |                   |                      |
| Nantes             | 1        | 1987         |              | 9,5        |             | M       | CNIM MARTIN         | HW     | CNIM                | 200/29            |                      |
|                    | 2        | 1987         |              | 9,5        |             | M       | CNIM MARTIN         | HW     | CNIM                | 200/29            |                      |
| Nice               | 1        | 1977         |              | 12         | 8,372       | M       | CNIM (MARTIN)       | S      | CNIM                | 350/31            |                      |
|                    | 2        | 1977         |              | 12         | 8,372       | M       | CNIM (MARTIN)       | S      | CNIM                | 350/31            |                      |
|                    | 3        | 1982         |              | 12         | 8,372       | M       | CNIM (MARTIN)       | S      | CNIM                | 350/31            |                      |
|                    | 4        | 1998         |              | 18         | 8,372       | M       | CNIM (MARTIN)       | S      | CNIM                | 350/31            |                      |
| Nîmes              | 1        | 2004         |              | 14         | 9,628       | M       | ALSTOM (City 2000)  | S      | ALSTOM              | 400/46            |                      |
| Ouarville          | 1        | 2000         |              | 8          |             | M       | LURGI               | S      | LURGI               | 360               |                      |
|                    | 2        | 2000         |              | 8          |             | M       | LURGI               | S      | LURGI               | 360               |                      |
| Paris              | 1        | 1969         |              | 50         |             | M       | CNIM (Martin)       | S      | CNIM                | 475/75            |                      |
|                    | 2        | 1969         |              | 50         |             | M       | CNIM (Martin)       | S      | CNIM                | 475/75            |                      |
| Pessac             | 1        | 1991         |              | 5          |             | M       | VOLUND              | S      | MATEC (Fire Power)  | 330/27            |                      |
| Pithiviers         | 1        | 1985         |              | 3,25       |             | M       | INOR VON ROLL       | S      | CITTIC              |                   |                      |
| Planguenoual       | 1        | 1993         |              | 5,6        |             | M       | LBI                 | S      | STEIN FASEL         | 350/35            |                      |
| Plouharnel         | 1        | 1971         |              | 4,2        | 9,209       | M       | ALBERTI FRONSARD    | -      | -                   | -                 |                      |
| Pluzunet           | 1        | 1997         |              | 7          | 9,209       | M       | VOLUND              | S      | LEROUX/LOTZ         | 350/40            |                      |
| Poitiers           | 1        | 1984         |              | 3,3        | 8,372       | M       | BRUN & SORENSEN     | S      | LEROUX ET LOTZ      | 180/18            |                      |
|                    | 2        | 1984         |              | 3,3        | 8,372       | M       | BRUN & SORENSEN     | S      | LEROUX ET LOTZ      | 180/18            |                      |
| Pontarlier         | 1        | 1989         |              | 5          |             | M       | ITISA VOLUND        | ES     | BABCOCK             |                   |                      |
| Pontcharra         | 1        | 1977         |              | 2,7        | 7,535       | M       | SOBEA               |        |                     |                   |                      |
| Pontivy            | 1        | 1990         |              | 4          |             | O       | CYCLERGIE           | S      | STEIN FASEL         | 220/23            |                      |
| Pontmain           | 1        | 1984         |              | 3,2        |             |         | VINCI ENVIRONNEMENT | S      | CITTIC              | 20 bars           | 8035                 |
|                    | 2        | 2003         |              | 4          |             |         | VINCI ENVIRONNEMENT | S      | LEROUX ET LOTZ      | 350/40            | 8332                 |
| Pontx-les-Forges   | 1        | 1997         |              | 5,3        |             | O       | CYCLERGIE           | S      | Leroutx et Lotz     | 355/34            |                      |
| Rambervillers      | 1        | 1983         |              | 3          | 7,702       | M       | BRUN ET SORENSEN    | S      | LARDET BABCOCK      | 335/36            |                      |
|                    | 2        | 1983         |              | 3          | 7,702       | M       | BRUN ET SORENSEN    | S      | LARDET BABCOCK      | 335/36            |                      |
|                    | 3        | 2002         |              | 6          | 9,628       | M       | STEINMULLER         | S      | THERMIC ENGINEERING | 380/36            |                      |
| Reims              | 1        | 1989         |              | 6,5        | 7,535       | R       | TUNZINI             | S      | BERRY               | 290/25            |                      |
|                    | 2        | 1989         |              | 6,5        | 7,535       | R       | TUNZINI             | S      | BERRY               | 290/25            |                      |
| Rennes             | 1        | 1968         |              | 5          | 10,47       | M       | CNIM (Martin)       | S      | CNIM                | 228/27            |                      |
|                    | 2        | 1968         |              | 5          | 10,47       | M       | CNIM (Martin)       | S      | CNIM                | 228/27            |                      |
|                    | 3        | 1996         |              | 8          | 9,209       | M       | CNIM (Martin)       | S      | CNIM                | 380/27            |                      |
| Rillieux La Pape   | 1        | 1989         |              | 12         |             | M       | CNIM                | S      | STEIN FASEL         | 380               |                      |
|                    | 2        | 1989         |              | 12         |             | M       | CNIM                | S      | STEIN FASEL         | 380               |                      |
| Rosiers d'Egletons | 1        | 1997         |              | 5,3        |             | O       | L.B.I               | S      | Leroux et Lotz      | 360               |                      |

## France

### Technical Information on the Plant

| Location           | Line No. | Flue Gas Cleaning System | ESP  |           | Flue Gas Cleaning |                         | Flue Gas Temp., °C |
|--------------------|----------|--------------------------|------|-----------|-------------------|-------------------------|--------------------|
|                    |          |                          | Year | Supplier  | Year              | Supplier                |                    |
| Nantes             | 1        | ESP+WET                  |      |           |                   | CNIM                    |                    |
|                    | 2        | ESP+WET                  |      |           |                   | CNIM                    |                    |
| Nice               | 1        | WET+ESP+SCR              | 1977 | WALTER    | 2006              | ALSTOM / WALTER / LAB   |                    |
|                    | 2        | WET+ESP+SCR              | 1977 | WALTER    | 2006              | ALSTOM / WALTER / LAB   |                    |
|                    | 3        | WET+ESP+SCR              | 1982 | WALTER    | 2006              | ALSTOM / WALTER / LAB   |                    |
|                    | 4        | WET+ESP+SCR              | 1998 | NEF       | 2006              | ALSTOM / NEF / LAB      |                    |
| Nîmes              | 1        | SD+FF+SCR                |      |           | 2004              | ALSTOM                  |                    |
| Ouarville          | 1        | WET                      |      |           |                   | ALSTOM NPI              |                    |
|                    | 2        | WET                      |      |           |                   | ALSTOM NPI              |                    |
| Paris              | 1        | ESP+WET                  |      |           | 1996              | LURGI / LAB             | 230                |
|                    | 2        | ESP+WET                  |      |           | 1996              | LURGI / LAB             | 230                |
| Pessac             | 1        | WET+ESP                  |      |           | 1992              | LAB WALTER              |                    |
| Pithiviers         | 1        | SD                       |      |           |                   | INOR VON ROLL           |                    |
| Planguenoual       | 1        | FF+DRY                   |      |           |                   | GENEVET                 |                    |
| Plouharnel         | 1        | DRY+FF                   |      |           | 2000              | PROCEDAIR               |                    |
| Pluzunet           | 1        | WET+FGC+ESP+SCR          |      |           | 2000              | SULZER+CT ENVIRONNEMENT |                    |
| Poitiers           | 1        | SD+FF                    |      |           | 1997              | FABRICOM / GENEVET      |                    |
|                    | 2        | SD+FF                    |      |           | 1997              | FABRICOM / GENEVET      |                    |
| Pontarlier         | 1        | SD+ESP                   |      |           |                   | ALSTOM NPI              |                    |
| Pontcharra         | 1        | DRY+FF                   |      |           | 2002              | LAB                     |                    |
| Pontivy            | 1        | FF+DRY                   |      |           | 1990              | CYCLERGIE HAMON         |                    |
| Pontmain           | 1        | DRY                      |      |           |                   | SPEIC                   |                    |
|                    | 2        | DRY                      |      |           |                   | SPEIC                   |                    |
| Pontx-les-Forges   | 1        | DRY                      |      |           | 1997              | LAB GENEVET             |                    |
| Rambervillers      | 1        | WET+FF                   |      |           | 2002              | INOR / CT ENVIRONNEMENT |                    |
|                    | 2        | WET+FF                   |      |           | 2002              | INOR / CT ENVIRONNEMENT |                    |
|                    | 3        | WET+FF                   |      |           | 2002              | CT ENVIRONNEMENT        |                    |
| Reims              | 1        | DRY+FF                   |      |           | 1996              | ALSTOM                  |                    |
|                    | 2        | DRY+FF                   |      |           | 1996              | ALSTOM                  |                    |
| Rennes             | 1        | SD+DRY+ESP+FF+SCR        | 1992 | ABB Flakt | 2006              | ABB Flakt + VON ROLL    |                    |
|                    | 2        | SD+DRY+ESP+FF+SCR        | 1992 | ABB Flakt | 2006              | ABB Flakt + VON ROLL    |                    |
|                    | 3        | SD+DRY+ESP+FF+SCR        | 1992 | ABB Flakt | 2006              | ABB Flakt + VON ROLL    |                    |
| Rillieux La Pape   | 1        | ESP+WET                  |      |           |                   | LAB                     |                    |
|                    | 2        | ESP+WET                  |      |           |                   | LAB                     |                    |
| Rosiers d'Egletons | 1        | DRY+FF                   |      |           |                   | Genevet                 |                    |

## France

### Technical Information on the Plant

| Location                         | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |                  | Boiler |                    | Steam Data oC/bar | Hours of Operat.2004 |
|----------------------------------|----------|--------------|--------------|------------|-------------|---------|------------------|--------|--------------------|-------------------|----------------------|
|                                  |          |              |              |            |             | Type    | Supplier         | Type   | Supplier           |                   |                      |
| Rungis                           | 1        | 1985         |              | 8,5        | 7,535       | M       | CNIM (MARTIN)    | HW     | CNIM               | 180/20            |                      |
|                                  | 2        | 1985         |              | 8,5        | 7,535       | M       | CNIM (MARTIN)    | HW     | CNIM               | 180/20            |                      |
| Saint Ouen                       | 1        | 1990         |              | 28         |             | M       | STEIN ALSTOM     | S      | STEIN              | 380/40            |                      |
|                                  | 2        | 1990         |              | 28         |             | M       | STEIN ALSTOM     | S      | STEIN              | 380/40            |                      |
|                                  | 3        | 1990         |              | 28         |             | M       | STEIN ALSTOM     | S      | STEIN              | 380/40            |                      |
| Saint Pourcain sur Sioule        | 1        | 1982         |              | 4          | 7,535       | M       | ITISA VOLUND     | S      | BELIARD CRIGHTON   | 209/18            |                      |
|                                  | 2        | 1988         |              | 5          | 7,535       | M       | ITISA VOLUND     | S      | LEROUX & LOTZ      | 209/18            |                      |
| Saint Sauve                      | 1        | 1977         |              | 5,5        |             | M       | CNIM MARTIN      | S      | BABCOCK            | 360/40            |                      |
|                                  | 2        | 1977         |              | 5,5        |             | M       | CNIM MARTIN      | S      | BABCOCK            | 360/40            |                      |
|                                  | 3        | 1977         |              | 5,5        |             | M       | CNIM MARTIN      | S      | LURGI              | 360/40            |                      |
| Sainte Gemmes sur Loire - ANGERS | 1        | 1974         | 2010         | 5          | 8,4         | M       | VON ROLL         | S      | CITTIC CARROSSO    | 202/16            | 7182                 |
|                                  | 2        | 1974         | 2010         | 5          | 8,4         | M       | VON ROLL         | S      | CITTIC CARROSSO    | 202/16            | 7196                 |
|                                  | 3        | 1974         | 2010         | 5          | 8,4         | M       | VON ROLL         | S      | CITTIC CARROSSO    | 202/16            | 7094                 |
| Saint-Jean-De-Folleville         | 1        | 1970         |              | 8          |             | M       | VKW              | S      | STEIN              | 235               |                      |
|                                  | 2        | 1970         |              | 8          |             | M       | VKW              | S      | STEIN              | 235               |                      |
|                                  | 3        | 1975         |              | 8          |             | M       | VKW              | /      |                    |                   |                      |
| Salins-les-Thermes               | 1        | 1991         |              | 0,95       |             | M       |                  |        |                    |                   |                      |
| Saran                            | 1        | 1995         |              | 7          | 8,372       | M       | VOLUND           | S      | LEROUX & LOTZ      | 355/38            |                      |
|                                  | 2        | 1995         |              | 7          | 8,372       | M       | VOLUND           | S      | LEROUX & LOTZ      | 355/38            |                      |
| Sarcelles                        | 1        | 1978         |              | 10         | 8,372       | M       | VOLUND           | S      | STEIN              | 310/33            |                      |
|                                  | 2        | 1978         |              | 10         | 8,372       | M       | VOLUND           | S      | STEIN              | 310/33            |                      |
| Sausheim                         | 1        | 1999         |              | 11,5       |             | FB      |                  | S      |                    |                   |                      |
|                                  | 2        | 1999         |              | 11,5       |             | FB      |                  | S      |                    |                   |                      |
| Schweighouse sur Moder           | 1        | 1990         |              | 5          |             | M       | ITISA VOLUND     | S      | ACMA               | 320               |                      |
|                                  | 2        | 1990         |              | 5          |             | M       | ITISA VOLUND     | S      | ACMA               | 320               |                      |
| Sens                             | 1        | 1988         |              | 3          | 7,953       | M       | VOLUND           | S      | VOLUND             | 200/16            |                      |
| Sète                             | 1        | 1992         |              | 5,6        | 7,953       | M       | VON ROLL         | S      | MATEC (Fire Power) | 230/27            |                      |
| St Pierre d'Oléron               | 1        | 1976         |              | 2,5        |             | M       | ITISA            | -      |                    |                   |                      |
|                                  | 2        | 1979         |              | 2,5        |             | M       | BS FRANCE        | -      |                    |                   |                      |
| St Thibault des Vignes           | 1        | 1985         |              | 8          |             | R       | TNEE             | S      | FIRE POWER         | 260               | 7187                 |
|                                  | 2        | 1995         |              | 12         |             | R       | TNEE             | S      | FIRE POWER         | 260               | 7388                 |
| Strasbourg                       | 1        | 1975         |              | 11,3       |             | M       | VON ROLL         | S      | SACM               | 330/30            |                      |
|                                  | 2        | 1975         |              | 11,3       |             | M       | VON ROLL         | S      | SACM               | 330/30            |                      |
|                                  | 3        | 1975         |              | 11,3       |             | M       | VON ROLL         | S      | SACM               | 330/30            |                      |
|                                  | 4        | 1975         |              | 11,3       |             | M       | VON ROLL         | S      | SACM               | 330/30            |                      |
| Surgères                         | 1        | 1981         |              | 3,5        |             | O       | Laurent Bouillet |        | -Néant             |                   |                      |

## France

### Technical Information on the Plant

| Location                         | Line No. | Flue Gas Cleaning System | ESP  |          | Flue Gas Cleaning |                     | Flue Gas Temp., °C |
|----------------------------------|----------|--------------------------|------|----------|-------------------|---------------------|--------------------|
|                                  |          |                          | Year | Supplier | Year              | Supplier            |                    |
| Rungis                           | 1        | DRY+ESP+FF+SCR           |      |          | 2006              | SPEIC               |                    |
|                                  | 2        | DRY+ESP+FF+SCR           |      |          | 2006              | SPEIC               |                    |
| Saint Ouen                       | 1        | ESP+WET                  |      |          | 1990              | WALTER HAMON / TNÉE |                    |
|                                  | 2        | ESP+WET                  |      |          | 1990              | WALTER HAMON / TNÉE |                    |
|                                  | 3        | ESP+WET                  |      |          | 1990              | WALTER HAMON / TNÉE |                    |
| Saint Pourcain sur Sioule        | 1        | DRY+WET+ESP+FF+SCR       | 1998 | WALTER   | 2006              | LAB                 |                    |
|                                  | 2        | DRY+WET+ESP+FF+SCR       | 1998 | WALTER   | 2006              | LAB                 |                    |
| Saint Sauve                      | 1        | ESP+WET                  |      |          | 1998              | WALTER/NEU          |                    |
|                                  | 2        | ESP+WET                  |      |          | 1995              | WALTER/NEU          |                    |
|                                  | 3        | ESP+WET                  |      |          | 1994              | WALTER/NEU          |                    |
| Sainte Gemmes sur Loire - ANGERS | 1        | SD-FF                    |      |          | 2000              | ABB Flakt           |                    |
|                                  | 2        | SD-FF                    |      |          | 2000              | ABB Flakt           |                    |
|                                  | 3        | SD-FF                    |      |          | 2000              | ABB Flakt           |                    |
| Saint-Jean-De-Folleville         | 1        | ESP                      |      |          |                   | AIR INDUSTRIE       |                    |
|                                  | 2        | ESP                      |      |          |                   | AIR INDUSTRIE       |                    |
|                                  | 3        | ESP                      |      |          |                   | AIR INDUSTRIE       |                    |
| Salins-les-Thermes               | 1        | DRY+FF                   |      |          |                   |                     |                    |
| Saran                            | 1        | DRY+ESP+FF               | 1995 | LAB      | 2006              | SPEIC               |                    |
|                                  | 2        | DRY+ESP+FF               | 1995 | LAB      | 2006              | SPEIC               |                    |
| Sarcelles                        | 1        | DRY+ESP                  |      |          | 1990              | ABB FLÄKT           |                    |
|                                  | 2        | DRY+ESP                  |      |          | 1990              | ABB FLÄKT           |                    |
| Sausheim                         | 1        | WET+ESP                  |      |          |                   |                     |                    |
|                                  | 2        | WET+ESP                  |      |          |                   |                     |                    |
| Schweighouse sur Moder           | 1        | SD+ESP                   |      |          |                   | ALSTOM NPI          |                    |
|                                  | 2        | SD+ESP                   |      |          |                   | ALSTOM NPI          |                    |
| Sens                             | 1        | DRY+ESP+FF               |      |          | 2002              | AREA IMPIATI        |                    |
| Sète                             | 1        | DRY+ESP+FF               | 1992 | SPEIC    | 2006              | VON ROLL            |                    |
| St Pierre d'Oléron               | 1        | CYC                      |      |          |                   | PRAT                |                    |
|                                  | 2        | CYC                      |      |          |                   | GENEVET             |                    |
| St Thibault des Vignes           | 1        | ESP+DRY+FF+SNCR          |      |          | 2003              | HAMON               | 190                |
|                                  | 2        | ESP+DRY+FF+SNCR          |      |          | 2003              | HAMON               | 190                |
| Strasbourg                       | 1        | ESP+WET                  |      |          | 1995              | CECA/HAMON + LAB    |                    |
|                                  | 2        | ESP+WET                  |      |          | 1995              | CECA/HAMON + LAB    |                    |
|                                  | 3        | ESP+WET                  |      |          | 1995              | CECA/HAMON + LAB    |                    |
|                                  | 4        | ESP+WET                  |      |          | 1995              | CECA/HAMON + LAB    |                    |
| Surgères                         | 1        | CYC                      |      |          |                   | PRAT                |                    |

## France

### Technical Information on the Plant

| Location               | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace  |                  | Boiler |                 | Steam Data oC/bar | Hours of Operat.2004 |
|------------------------|----------|--------------|--------------|------------|-------------|----------|------------------|--------|-----------------|-------------------|----------------------|
|                        |          |              |              |            |             | Type     | Supplier         | Type   | Supplier        |                   |                      |
| Taden                  | 1        | 1998         |              | 7          | 8,372       | M        | ABB              | S      | LEROUX ET LOTZ  | 350/35            | 8074                 |
|                        | 2        | 1998         |              | 7          | 8,372       | M        | ABB              | S      | LEROUX ET LOTZ  | 350/35            | 7829                 |
| Thiverval-Grignon      | 1        | 1974         |              | 10         |             | M        | CNIM Martin      | HW     | CNIM            | 210/35            |                      |
|                        | 2        | 1974         |              | 10         |             | M        | CNIM Martin      | HW     | CNIM            | 210/35            |                      |
|                        | 3        | 1993         |              | 14         |             | M        | CNIM Martin      | S      | CNIM            | 380/45            |                      |
| Thonon Les Bains Cedex | 1        | 1988         |              | 5          | 1800        | M        | ITISA VOLUND     | S      | SITTIC CARROSSO | 198/15            |                      |
| Tignes                 | 1        | 1985         |              | 1,5        | 8,372       | Sol fixe | SOBEA            |        |                 |                   |                      |
|                        | 2        | 1985         |              | 1,5        | 8,372       | Sol fixe | SOBEA            |        |                 |                   |                      |
| Toulon                 | 1        | 1984         |              | 12         |             | M        | CNIM Martin      | S      | CNIM            | 385               |                      |
|                        | 2        | 1984         |              | 12         |             | M        | CNIM Martin      | S      | CNIM            | 385               |                      |
|                        | 3        | 1993         |              | 14         |             | M        | CNIM Martin      | S      | CNIM            | 385               |                      |
| Toulouse Mirail        | 1        | 2003         |              | 10         | 9,628       | M        | CNIM (MARTIN)    | S      | CNIM            | 250/17            |                      |
|                        | 2        | 2005         |              | 10         | 9,628       | M        | CNIM (MARTIN)    | S      | CNIM            | 250/17            |                      |
|                        | 3        | 2006         |              | 10         | 9,628       | M        | CNIM (MARTIN)    | S      | CNIM            | 250/17            |                      |
|                        | 4        | 1997         |              | 14         | 9,628       | R        | VINCI            | S      | FIRE POWER      | 250/17            |                      |
| Tronville en Barrois   | 1        | 1983         |              | 4          |             | O        | LAURENT BOUILLET | S      | STEIN FASER     | 226/25            |                      |
| Vaux-le-Penil          | 1        | 2003         |              | 8          | 9,837       | M        | ALSTOM           | S      | LEROUX ET LOTZ  | 380°/42 ba        | 8000                 |
|                        | 2        | 2003         |              | 8          | 9,837       | M        | ALSTOM           | S      | LEROUX ET LOTZ  | 380°/42 ba        | 8000                 |
| Vedène                 | 1        | 1995         |              | 6          |             | M        | CNIM (MARTIN)    | S      | CNIM            | 350               |                      |
|                        | 2        | 1995         |              | 6          |             | M        | CNIM (MARTIN)    | S      | CNIM            | 350               |                      |
|                        | 3        | 1997         |              | 6          |             | M        | CNIM (MARTIN)    | S      | CNIM            | 320               |                      |
| Vert le Grand          | 1        | 1999         |              | 14         | 9,2         | M        | IVRF             | S      | IVRF            | 400               |                      |
|                        | 2        | 1999         |              | 14         | 9,2         | M        | IVRF             | S      | IVRF            | 400               |                      |
| Villefranche sur Saône | 1        | 2002         |              | 6,5        |             | M        | CNIM MARTIN      | S      | CNIM            | 360/44            |                      |
|                        | 2        | 2003         |              | 4,5        |             | M        | CNIM MARTIN      | S      | CNIM            | 360/44            |                      |
| Villejust              | 1        | 1972         |              | 5          | 2400        | M        | CNIM MARTIN      |        |                 |                   |                      |
|                        | 2        | 1984         |              | 6          | 2400        | M        | CNIM MARTIN      | HW     | CNIM            | 180               |                      |
| Villiers Saint Paul    | 1        | 2004         |              | 11         |             | M        |                  | S      |                 |                   |                      |
|                        | 2        | 2004         |              | 11         |             | M        |                  | S      |                 |                   |                      |
| Vitré                  | 1        | 1988         |              | 4          |             | M        | LBI              | S      | LARDET BABCOCK  | 310/35            |                      |

## France

### Technical Information on the Plant

| Location               | Line No. | Flue Gas Cleaning System | ESP  |          | Flue Gas Cleaning |                    | Flue Gas Temp., °C |
|------------------------|----------|--------------------------|------|----------|-------------------|--------------------|--------------------|
|                        |          |                          | Year | Supplier | Year              | Supplier           |                    |
| Taden                  | 1        | WET+FF                   |      |          | 1998              | ALSTOM             |                    |
|                        | 2        | WET+FF                   |      |          | 1998              | ALSTOM             |                    |
| Thiverval-Grignon      | 1        | ESP+WET                  |      |          | 1993              | CNIM               |                    |
|                        | 2        | ESP+WET                  |      |          | 1993              | CNIM               |                    |
|                        | 3        | FF+WET                   |      |          | 1993              | CNIM               |                    |
| Thonon Les Bains Cedex | 1        | DRY+ESP+FF               |      |          | 1988              | LODGE COTTRELL/DCE |                    |
| Tignes                 | 1        | DRY+FF                   |      |          | 2001              | LAB                |                    |
|                        | 2        | DRY+FF                   |      |          | 2001              | LAB                |                    |
| Toulon                 | 1        | SD+FF                    |      |          |                   | CNIM /ABB          |                    |
|                        | 2        | SD+FF                    |      |          |                   | CNIM               |                    |
|                        | 3        | SD+FF                    |      |          |                   | CNIM /AAF          |                    |
| Toulouse Mirail        | 1        | DRY+WET+FF+SNCR          |      |          | 2006              | SULZER/LAB + CNIM  |                    |
|                        | 2        | DRY+WET+FF+SNCR          |      |          | 2006              | SULZER/LAB + CNIM  |                    |
|                        | 3        | DRY+WET+FF+SNCR          |      |          | 2006              | SULZER/LAB + CNIM  |                    |
|                        | 4        | DRY+WET+FF+SNCR          |      |          | 2004              | SULZER/LAB + CNIM  |                    |
| Tronville en Barrois   | 1        | WET                      |      |          |                   | CT Environnement   |                    |
| Vaux-le-Penil          | 1        | SD+FF+SNCR               |      |          | 2003              | ALSTOM             | 140                |
|                        | 2        | SD+FF+SNCR               |      |          | 2003              | ALSTOM             | 140                |
| Vedène                 | 1        | ESP+SD                   |      |          |                   | CNIM               |                    |
|                        | 2        | ESP+SD                   |      |          |                   | CNIM               |                    |
|                        | 3        | ESP+SD                   |      |          |                   | CNIM               |                    |
| Vert le Grand          | 1        | ESP+D/F+SD+FF+SNCR       | 1999 | ABB      | 1999              | ABB                | 120                |
|                        | 2        | ESP+D/F+SD+FF+SNCR       | 1999 | ABB      | 1999              | ABB                | 120                |
| Villefranche sur Saône | 1        | DRY+FF                   |      |          | 2002              |                    |                    |
|                        | 2        | DRY+FF                   |      |          | 2003              |                    |                    |
| Villejust              | 1        | SD+FF                    |      |          |                   | CNIM               |                    |
|                        | 2        | SD+FF                    |      |          |                   | CNIM               |                    |
| Villiers Saint Paul    | 1        | DRY+ESP+FF               |      |          |                   |                    |                    |
|                        | 2        | DRY+ESP+FF               |      |          |                   |                    |                    |
| Vitré                  | 1        | DRY                      |      |          |                   | LAB                |                    |

**France**  
**Operational data, 2004**

| Location                    | Total Incinerated Waste Quantity |                       |                                    |                          |                    |                            |                             | Aux. Fuels |
|-----------------------------|----------------------------------|-----------------------|------------------------------------|--------------------------|--------------------|----------------------------|-----------------------------|------------|
|                             | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial /Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital Waste<br>(tonnes) | Other (Specify)<br>(tonnes) |            |
| Amilly                      |                                  |                       |                                    |                          |                    |                            |                             |            |
| Antibes                     | 135067                           | 135067                | 0                                  | 0                        | 0                  | 0                          | 0                           |            |
| Argenteuil                  | 173000                           |                       |                                    |                          |                    |                            |                             |            |
| Arrabloy                    | 53707                            | 41683                 | 8933                               |                          | 3091               |                            |                             |            |
| Aurillac                    | 6840                             | 6700                  | 140                                |                          |                    |                            |                             |            |
| Bayonne                     |                                  |                       |                                    |                          |                    |                            |                             |            |
| Bègles                      | 275000                           |                       |                                    |                          |                    |                            |                             |            |
| Bellegarde sur valserine    |                                  |                       |                                    |                          |                    |                            |                             |            |
| Bellentre                   |                                  |                       |                                    |                          |                    |                            |                             |            |
| Benesse-Maremne             |                                  |                       |                                    |                          |                    |                            |                             |            |
| Besançon                    | 50000                            | 55000                 |                                    |                          | 6000               |                            |                             |            |
| Bessières                   | 155000                           | 155000                |                                    |                          |                    |                            |                             |            |
| Béthune                     |                                  |                       |                                    |                          |                    |                            |                             |            |
| Blois                       |                                  |                       |                                    |                          |                    |                            | 20000                       |            |
| Bourgoin Jallieu            |                                  |                       |                                    |                          |                    |                            |                             |            |
| Bourogne                    |                                  |                       |                                    |                          |                    |                            |                             |            |
| Brest                       |                                  |                       |                                    |                          |                    |                            |                             |            |
| Brie de l'Odet              | 52800                            |                       |                                    |                          |                    |                            |                             |            |
| Brive la Gaillarde          |                                  |                       |                                    |                          |                    |                            |                             |            |
| Carhaix                     |                                  |                       |                                    |                          |                    |                            |                             |            |
| Carrières sous Poissy       | 115000                           |                       |                                    |                          |                    |                            |                             |            |
| Carrières sur Seine         |                                  |                       |                                    |                          |                    |                            |                             |            |
| Cenon                       | 134242                           | 123138                | 0                                  | 0                        | 11104              | 0                          | 0                           |            |
| Cergy Pontoise              | 152300                           | 143500                | 8800                               |                          |                    |                            |                             |            |
| Chambéry                    |                                  |                       |                                    |                          |                    |                            |                             |            |
| Chateaudun                  |                                  |                       |                                    |                          |                    |                            |                             |            |
| Chaumont                    | 73100                            | 73100                 |                                    |                          |                    |                            |                             |            |
| Colmar                      |                                  |                       |                                    |                          |                    |                            |                             |            |
| Colombelles                 |                                  |                       |                                    |                          |                    |                            |                             |            |
| Concarneau                  | 46000                            | 46000                 |                                    |                          |                    |                            |                             |            |
| Confort Meilars             | 18809                            | 18332                 | 477                                |                          |                    |                            |                             |            |
| Coueron                     | 98954                            | 59217                 | 35882                              | 0                        | 0                  | 0                          | 3855                        | O:50200    |
| Cran Gevrier                |                                  |                       |                                    |                          |                    |                            |                             |            |
| Créteil                     |                                  |                       |                                    |                          |                    |                            |                             |            |
| Dieppe                      |                                  |                       |                                    |                          |                    |                            |                             |            |
| Dijon                       |                                  |                       |                                    |                          |                    |                            |                             |            |
| Douchy les Mines            | 39295                            | 33608                 | 2157                               |                          |                    | 3530                       |                             |            |
| Dunkerque                   | 83353                            | 79981                 | 3221                               |                          |                    |                            |                             | O:19100    |
| ECHILLAIS                   | 29750                            | 29750                 |                                    |                          |                    |                            |                             |            |
| Fort de France - Martinique |                                  |                       |                                    |                          |                    |                            |                             |            |
| Fourchambault               | 20650                            | 20650                 |                                    |                          |                    |                            |                             |            |
| Grand Quevilly              | 293215                           | 290460                | 2755                               |                          |                    |                            |                             |            |
| Grenoble                    |                                  |                       |                                    |                          |                    |                            |                             |            |
| Guerville                   | 52365                            | 52365                 |                                    |                          |                    |                            |                             |            |
| Guichainville               | 90000                            |                       |                                    |                          |                    |                            |                             |            |
| Halluin                     | 332976                           |                       |                                    |                          |                    |                            |                             |            |
| Henin-Beaumont              | 54443                            | 48478                 | 5964                               |                          |                    |                            |                             |            |

**France**

**Operational data, 2004**

| Location                       | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|--------------------------------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|                                | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Amilly                         | 4000                   | 250                       |                   |                      |               |                   |                      |               |
| Antibes                        | 29168                  | 5717                      | 0                 | 0                    | 0             | 0                 |                      |               |
| Argenteuil                     | 45000                  | 4000                      |                   | 33000                | 64000         |                   |                      |               |
| Arrabloy                       | 4661                   | 4484                      |                   | 12067                | 123321        |                   | 4490                 |               |
| Aurillac                       |                        |                           |                   |                      | 11800         |                   |                      | 8700          |
| Bayonne                        | 13540                  | 900                       |                   | 6000                 |               |                   |                      |               |
| Bègles                         | 47000                  | 6580                      |                   | 135000               |               |                   |                      |               |
| Bellegarde sur<br>valserine    | 25000                  | 1300                      |                   | 55000                |               |                   |                      |               |
| Bellentre                      | 4200                   | 1600                      |                   |                      |               |                   |                      |               |
| Benesse-Maremne                |                        |                           |                   |                      |               |                   |                      |               |
| Besançon                       | 12000                  | 1500                      |                   | 5000                 | 50000         |                   |                      |               |
| Bessières                      | 32000                  | 3700                      |                   | 80000                |               |                   |                      |               |
| Béthune                        |                        |                           |                   |                      |               |                   |                      |               |
| Blois                          | 20000                  | 4000                      |                   |                      |               |                   |                      | 73000         |
| Bourgoin Jallieu               |                        |                           |                   |                      |               |                   |                      |               |
| Bourogne                       |                        |                           |                   |                      |               |                   |                      |               |
| Brest                          |                        |                           |                   |                      |               |                   |                      |               |
| Briec de l'Odet                | 12493                  |                           |                   | 17563                |               |                   | 14010                |               |
| Brive la Gaillarde             |                        |                           |                   |                      |               |                   |                      |               |
| Carhaix                        | 6500                   | 725                       |                   | 7500                 |               |                   |                      |               |
| Carrières sous Poissy          | 24000                  | 2800                      |                   | 50000                |               |                   |                      |               |
| Carrières sur Seine            | 25000                  | 5000                      |                   | 17000                | 48000         |                   |                      |               |
| Cenon                          | 35358                  | 3108                      | 304331            | 8102                 | 108417        | 0                 | 0                    | 108417        |
| Cergy Pontoise                 | 37000                  |                           |                   | 46800                | 165000        |                   | 34850                | 165000        |
| Chambéry                       |                        |                           |                   |                      |               |                   |                      |               |
| Chateaudun                     |                        |                           |                   |                      |               |                   |                      |               |
| Chaumont                       | 14000                  |                           |                   | 30500                |               |                   | 25000                |               |
| Colmar                         |                        |                           |                   |                      |               |                   |                      |               |
| Colombelles                    | 31560                  | 1638                      |                   |                      | 105000        |                   |                      |               |
| Concarneau                     | 5213                   |                           |                   |                      | 85000         |                   |                      | 33700         |
| Confort Meilars                | 4573                   | 461                       |                   |                      |               |                   |                      |               |
| Coueron                        | 23882                  | 2066                      | 277931            | 21055                | 239791        | 51517             | 15015                |               |
| Cran Gevrier                   |                        |                           |                   |                      |               |                   |                      |               |
| Créteil                        |                        |                           |                   |                      |               |                   |                      |               |
| Dieppe                         |                        |                           |                   |                      |               |                   |                      |               |
| Dijon                          |                        |                           |                   |                      |               |                   |                      |               |
| Douchy les Mines               | 9295                   | 1236                      |                   |                      |               |                   |                      |               |
| Dunkerque                      | 24858                  | 1743                      |                   |                      |               |                   |                      |               |
| ECHILLAIS                      | 6875                   |                           |                   |                      |               |                   |                      | 17250         |
| Fort de France -<br>Martinique |                        |                           |                   |                      |               |                   |                      |               |
| Fourchambault                  |                        |                           |                   | 2333                 |               |                   | 1905                 |               |
| Grand Quevilly                 | 73500                  |                           |                   | 172160               |               |                   | 137520               |               |
| Grenoble                       |                        |                           |                   |                      |               |                   |                      |               |
| Guerville                      | 7366                   |                           |                   | 22276                | 145000        |                   | 12806                |               |
| Guichainville                  | 23500                  | 2800                      |                   | 42000                |               |                   | 31000                |               |
| Halluin                        | 84310                  |                           |                   | 170459               |               |                   | 127110               |               |
| Henin-Beaumont                 | 12035                  | 1843                      |                   |                      |               |                   |                      |               |

**France**  
**Operational data, 2004**

| Location              | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels |
|-----------------------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|------------|
|                       | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) |            |
| Issy-Les-Moulineaux   | 537094                           | 533411                | 3683                                  |                          | 532                |                               |                                |            |
| La Couronne           |                                  |                       |                                       |                          |                    |                               |                                |            |
| La Rochelle           | 59000                            | 59000                 |                                       |                          |                    |                               |                                |            |
| La Séguinière         | 29185                            | 29185                 |                                       |                          |                    |                               |                                |            |
| La Veuve              |                                  |                       |                                       |                          |                    |                               |                                |            |
| Lasse                 |                                  |                       |                                       |                          |                    |                               |                                |            |
| Le Fayet              |                                  |                       |                                       |                          |                    |                               |                                |            |
| Le Mans               | 103840                           | 97712                 | 6128                                  |                          |                    |                               |                                |            |
| Lens                  |                                  |                       |                                       |                          |                    |                               |                                |            |
| Lescar                | 82000                            | 82000                 |                                       |                          |                    |                               |                                |            |
| Limoges               | 87727                            | 87727                 |                                       |                          |                    |                               |                                |            |
| Livet                 | 16022                            | 16022                 |                                       |                          |                    |                               |                                |            |
| Lons-le-Saunier       |                                  |                       |                                       |                          |                    |                               |                                |            |
| Ludres                | 101200                           | 96040                 | 5160                                  |                          |                    |                               |                                |            |
| Lunel-Viel            |                                  |                       |                                       |                          |                    |                               |                                |            |
| Lyon 7ème             |                                  |                       |                                       |                          |                    |                               |                                |            |
| Mainvilliers          |                                  |                       |                                       |                          |                    |                               |                                |            |
| Marignier             | 41928                            | 41928                 |                                       |                          |                    |                               |                                |            |
| Massy                 |                                  |                       |                                       |                          |                    |                               |                                |            |
| Maubeuge              | 87379                            | 71314                 | 16065                                 |                          |                    |                               |                                |            |
| Mère                  |                                  |                       |                                       |                          |                    |                               |                                |            |
| Messanges             |                                  |                       |                                       |                          |                    |                               |                                |            |
| Metz                  |                                  |                       |                                       |                          |                    |                               |                                |            |
| Montauban             | 37500                            |                       |                                       |                          |                    |                               |                                |            |
| Montbéliard           | 53200                            |                       |                                       |                          |                    |                               |                                |            |
| Montereau Fault Yonne | 15321                            |                       |                                       |                          |                    |                               |                                |            |
| Monthyon              | 122126                           |                       |                                       |                          |                    |                               |                                |            |
| Mourenx               |                                  |                       |                                       |                          |                    |                               |                                |            |
| Nantes                |                                  |                       |                                       |                          |                    |                               |                                |            |
| Nice                  | 325900                           | 322000                | 3900                                  |                          |                    |                               |                                |            |
| Nîmes                 |                                  |                       |                                       |                          |                    |                               |                                |            |
| Ouarville             |                                  |                       |                                       |                          |                    |                               |                                |            |
| Paris                 | 690123                           | 684844                | 5279                                  |                          | 990                |                               |                                |            |
| Pessac                |                                  |                       |                                       |                          |                    |                               |                                |            |
| Pithiviers            |                                  |                       |                                       |                          |                    |                               |                                |            |
| Planguenoual          |                                  |                       |                                       |                          |                    |                               |                                |            |
| Plouharnel            | 23000                            | 23000                 |                                       |                          |                    |                               |                                |            |
| Pluzunet              | 52000                            | 52000                 |                                       |                          |                    |                               |                                |            |
| Poitiers              | 37200                            | 37200                 |                                       |                          |                    |                               |                                |            |
| Pontarlier            | 32680                            | 37500                 |                                       |                          |                    |                               |                                |            |
| Pontcharra            | 18059                            | 18059                 |                                       |                          |                    |                               |                                |            |
| Pontivy               | 27877                            | 27589                 | 288                                   |                          |                    |                               |                                |            |
| Pontmain              | 62946                            | 61240                 | 1706                                  |                          |                    |                               | O:29663                        |            |
| Pontx-les-Forges      | 39866                            | 38475                 | 1391                                  |                          |                    |                               |                                |            |
| Rambervillers         | 95000                            |                       |                                       |                          |                    |                               |                                |            |
| Reims                 | 80550                            | 80550                 |                                       |                          |                    |                               |                                |            |
| Rennes                | 132709                           | 132709                |                                       |                          |                    |                               |                                |            |

**France**  
**Operational data, 2004**

| Location              | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|-----------------------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|                       | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Issy-Les-Moulineaux   | 128291                 | 12068                     |                   | 82853                | 918711        |                   | 41236                | 847870        |
| La Couronne           | 7500                   | 1850                      |                   |                      |               |                   |                      |               |
| La Rochelle           | 16080                  |                           |                   |                      | 140700        |                   |                      | 57200         |
| La Séguinière         | 6995                   | 1743                      |                   | 0                    | 59388         |                   |                      |               |
| La Veuve              |                        |                           |                   |                      |               |                   |                      |               |
| Lasse                 |                        |                           |                   |                      |               |                   |                      |               |
| Le Fayet              | 10000                  | 1900                      |                   | 24000                |               |                   |                      |               |
| Le Mans               | 29317                  |                           |                   | 10262                | 160500        |                   | 4217                 | 17518         |
| Lens                  |                        |                           |                   |                      |               |                   |                      |               |
| Lescar                | 20000                  | 2000                      |                   | 25000                |               |                   |                      |               |
| Limoges               | 17530                  |                           |                   | 10500                | 157000        |                   | 3700                 | 34500         |
| Livet                 |                        |                           |                   |                      |               |                   |                      |               |
| Lons-le-Saunier       | 5500                   | 1500                      |                   | 5000                 | 37000         |                   |                      |               |
| Ludres                | 25600                  |                           |                   | 35000                | 257000        |                   | 25000                | 82000         |
| Lunel-Viel            | 35000                  | 3500                      |                   | 65000                |               |                   |                      |               |
| Lyon 7ème             |                        |                           |                   |                      |               |                   |                      |               |
| Mainvilliers          | 24900                  | 4500                      |                   | 54300                |               |                   | 46500                |               |
| Marignier             | 7764                   |                           |                   | 6838                 |               |                   |                      | 4724          |
| Massy                 |                        |                           |                   |                      |               |                   |                      |               |
| Maubeuge              | 19888                  | 3716                      | 226429            | 43510                | 0             |                   | 36323                |               |
| Mère                  |                        |                           |                   |                      |               |                   |                      |               |
| Messanges             |                        |                           |                   |                      |               |                   |                      |               |
| Metz                  |                        |                           |                   |                      |               |                   |                      |               |
| Montauban             | 5500                   | 1500                      |                   |                      | 17000         |                   |                      |               |
| Montbéliard           | 7840                   | 2980                      |                   | 0                    | 86520         |                   |                      | 53500         |
| Montereau Fault Yonne | 4742                   |                           |                   |                      |               |                   |                      |               |
| Monthyon              | 32000                  | 4200                      |                   | 36054                | 46758         |                   |                      |               |
| Mourenx               |                        |                           |                   |                      |               |                   |                      |               |
| Nantes                | 35000                  | 3100                      |                   |                      | 120000        |                   |                      |               |
| Nice                  |                        |                           |                   | 67000                |               |                   | 43000                | 118000        |
| Nîmes                 |                        |                           |                   |                      |               |                   |                      |               |
| Ouarville             | 30000                  | 3600                      |                   | 50000                |               |                   |                      |               |
| Paris                 | 152046                 | 15922                     |                   | 181385               | 1266643       |                   | 134759               | 930764        |
| Pessac                | 8000                   | 1000                      |                   |                      | 11            |                   |                      |               |
| Pithiviers            |                        |                           |                   |                      |               |                   |                      |               |
| Planguenoual          | 7925                   | 1900                      |                   | 13770                |               |                   |                      |               |
| Plouharnel            | 6405                   |                           |                   |                      |               |                   |                      |               |
| Pluzunet              | 10000                  |                           |                   | 17639                |               |                   | 12900                | 6000          |
| Poitiers              |                        |                           |                   |                      | 57000         |                   |                      | 46400         |
| Pontarlier            | 4700                   | 1300                      |                   |                      | 60000         |                   |                      | 23000         |
| Pontcharra            | 2236                   |                           |                   |                      |               |                   |                      |               |
| Pontivy               | 4286                   | 1226                      | 69435             |                      | 52466         |                   |                      |               |
| Pontmain              | 16921                  | 2340                      | 170361            |                      | 116318        |                   |                      |               |
| Pontx-les-Forges      | 7826                   | 1850                      | 97647             | 13436                |               |                   | 13436                |               |
| Rambervillers         | 20000                  | 2000                      |                   | 16000                |               |                   | 16000                |               |
| Reims                 |                        |                           |                   | 3550                 | 47000         |                   |                      | 47000         |
| Rennes                |                        |                           |                   | 37996                | 256177        |                   | 26193                | 81571         |

**France**  
**Operational data, 2004**

| Location                         | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels |
|----------------------------------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|------------|
|                                  | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) |            |
| Rillieux La Pape                 |                                  |                       |                                       |                          |                    |                               |                                |            |
| Rosiers d'Egletons               |                                  |                       |                                       |                          |                    |                               |                                |            |
| Rungis                           | 118390                           | 118390                |                                       |                          |                    |                               |                                |            |
| Saint Ouen                       | 622653                           | 619226                | 3427                                  |                          | 463                |                               |                                |            |
| Saint Pourcain sur Sioule        | 51300                            | 39500                 | 11800                                 |                          |                    |                               |                                |            |
| Saint Sauve                      | 128679                           | 126155                | 2524                                  |                          |                    |                               |                                |            |
| Sainte Gemmes sur Loire - ANGERS | 83489                            | 81333                 | 2156                                  |                          |                    |                               |                                |            |
| Saint-Jean-De-Folleville         |                                  |                       |                                       |                          |                    |                               |                                |            |
| Salins-les-Thermes               |                                  |                       |                                       |                          |                    |                               |                                |            |
| Saran                            | 99380                            | 97900                 | 1480                                  |                          |                    |                               |                                |            |
| Sarcelles                        | 154101                           | 154101                |                                       |                          |                    |                               |                                |            |
| Sausheim                         |                                  |                       |                                       |                          |                    |                               |                                |            |
| Schweighouse sur Moder           | 70000                            |                       |                                       |                          |                    |                               |                                |            |
| Sens                             | 17700                            | 17700                 |                                       |                          |                    |                               |                                |            |
| Sète                             | 39200                            | 38000                 | 1200                                  |                          |                    |                               |                                |            |
| St Pierre d'Oléron               |                                  |                       |                                       |                          |                    |                               |                                |            |
| St Thibault des Vignes           | 147953                           | 127169                | 20784                                 |                          |                    |                               |                                |            |
| Strasbourg                       | 282329                           | 255041                | 27288                                 |                          |                    |                               |                                |            |
| Surgères                         |                                  |                       |                                       |                          |                    |                               |                                |            |
| Taden                            | 103200                           |                       | 8245                                  |                          | 9525               |                               |                                |            |
| Thiverval-Grignon                | 191000                           | 128000                | 57000                                 |                          | 5600               |                               |                                |            |
| Thonon Les Bains Cedex           | 38700                            | 38700                 |                                       |                          |                    |                               |                                |            |
| Tignes                           | 8900                             | 8900                  |                                       |                          |                    |                               |                                |            |
| Toulon                           |                                  |                       |                                       |                          |                    |                               |                                |            |
| Toulouse Mirail                  | 209600                           | 205000                | 4600                                  |                          |                    |                               |                                |            |
| Tronville en Barrois             | 30000                            |                       |                                       |                          |                    |                               |                                |            |
| Vaux-le-Penil                    | 128000                           | 126000                | 2000                                  |                          |                    |                               |                                |            |
| Vedène                           |                                  |                       |                                       |                          |                    |                               |                                |            |
| Vert le Grand                    |                                  |                       |                                       |                          |                    |                               |                                |            |
| Villefranche sur Saône           | 78301                            | 76262                 | 397                                   |                          | 1004               | 287                           |                                |            |
| Villejust                        | 81500                            | 59600                 | 21900                                 |                          |                    |                               |                                |            |
| Villiers Saint Paul              |                                  |                       |                                       |                          |                    |                               |                                |            |
| Vitré                            | 26500                            | 28000                 |                                       |                          |                    |                               |                                |            |

**France**  
**Operational data, 2004**

| Location                         | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|----------------------------------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|                                  | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Rillieux La Pape                 | 35000                  | 3500                      |                   | 42000                | 105000        |                   |                      |               |
| Rosiers d'Egletons               | 6000                   | 1600                      |                   | 13000                |               |                   |                      |               |
| Rungis                           | 23343                  |                           |                   |                      | 170586        |                   |                      | 105600        |
| Saint Ouen                       | 143753                 | 11482                     | 1647549           | 59591                | 1210120       |                   | 22136                | 1248783       |
| Saint Pourcain sur Sioule        | 9500                   |                           |                   |                      | 121000        |                   |                      | 80600         |
| Saint Sauve                      | 29562                  | 2183                      | 84160             | 40139                |               |                   | 32146                |               |
| Sainte Gemmes sur Loire - ANGERS | 19911                  | 2954                      |                   |                      |               |                   |                      | 64836         |
| Saint-Jean-De-Folleville         |                        |                           |                   |                      |               |                   |                      |               |
| Salins-les-Thermes               | 800                    | 100                       |                   |                      |               |                   |                      |               |
| Saran                            | 22600                  |                           |                   | 44500                |               |                   | 37000                |               |
| Sarcelles                        | 35053                  |                           |                   | 5733                 | 196805        |                   | 501                  | 113971        |
| Sausheim                         | 9000                   | 2500                      |                   | 85800                |               |                   |                      |               |
| Schweighouse sur Moder           | 18500                  | 2500                      |                   | 10000                | 60000         |                   |                      |               |
| Sens                             | 3550                   |                           |                   |                      | 26500         |                   |                      | 17500         |
| Sète                             |                        |                           |                   |                      | 52000         |                   |                      | 11500         |
| St Pierre d'Oléron               |                        |                           |                   |                      |               |                   |                      |               |
| St Thibault des Vignes           | 33188                  | 5494                      | 427474            | 11432                |               |                   | 3155                 | 226           |
| Strasbourg                       | 77449                  | 7911                      | 921498            | 85601                | 607300        | 261830            | 67889                |               |
| Surgères                         |                        |                           |                   |                      |               |                   |                      |               |
| Taden                            | 0                      | 2350                      | 126785            | 35398                |               |                   |                      |               |
| Thiverval-Grignon                | 37500                  | 5210                      |                   | 45300                | 66700         |                   | 28300                | 66700         |
| Thonon Les Bains Cedex           | 6330                   |                           |                   |                      | 82900         |                   |                      | 50500         |
| Tignes                           |                        |                           |                   |                      |               |                   |                      |               |
| Toulon                           | 73000                  | 9000                      |                   | 107000               | 13000         |                   |                      |               |
| Toulouse Mirail                  | 50800                  |                           |                   | 246000               | 360000        |                   | 10000                | 150000        |
| Tronville en Barrois             | 6500                   | 600                       |                   |                      | 28000         |                   |                      |               |
| Vaux-le-Penil                    | 33000                  | 5000                      | 385000            | 70000                | 0             |                   | 61700                |               |
| Vedène                           | 34000                  | 6500                      |                   | 63000                |               |                   |                      |               |
| Vert le Grand                    |                        |                           |                   |                      |               |                   |                      |               |
| Villefranche sur Saône           | 17632                  | 2743                      | 227541            | 16237                | 173663        | 22678             | 13340                |               |
| Villejust                        | 27000                  |                           |                   |                      | 68000         |                   |                      |               |
| Villiers Saint Paul              | 43200                  | 2200                      | 10000             | 80000                |               |                   |                      |               |
| Vitré                            | 4400                   | 1200                      |                   | 1200                 | 25250         |                   |                      | 25250         |



Number of plants: 68  
Average capacity: 36 t/h  
Quantity treated 2004: 15.260.000 t



## Germany

### General Information

| Location        | Name of Plant<br>Web-site   | Address of Plant                                      | Phone<br>Fax                             |
|-----------------|---|---|--|
| Augsburg        | AVA - Abfallverwertung Augsburg GmbH<br><a href="http://www.ava-augsburg.de">www.ava-augsburg.de</a>                            | Am Mittleren Moos 60<br>86167 Augsburg                | +49 0821/7409-102<br>+49 0821/7409-100   |
| Bamberg         | Müllheizkraftwerk Bamberg<br><a href="http://www.mhw.bamberg.de">www.mhw.bamberg.de</a>   | Rheinstr. 6<br>96052 Bamberg                          | +49 0951/6041-11<br>+49 0951/6041-12     |
| Berlin-Ruhleben | Abfallbehandlungswerk Nord (Berlin)<br><a href="http://www.bsr.de">www.bsr.de</a>   | Freiheit 24-25<br>13597 Berlin                        | +49 030/7592-5201<br>+49 030/7592-5208   |
| Bielefeld       | Müllverbrennungsanlage Bielefeld-Herford<br>GmbH<br><a href="http://www.interargem.de">www.interargem.de</a>                    | Schelpmilser Weg 30<br>33609 Bielefeld                | +49 05221/283-200<br>+49 05221/283-219   |
| BKB Hannover    | BKB Hannover  | Moorwaldweg 310<br>30659 Hannover                     |  |
| Bonn            | MVA Müllverwertungsanlage Bonn GmbH<br><a href="http://www.stadtwerke-bonn.de">www.stadtwerke-bonn.de</a>                       | Immenburgerstr 22<br>53121 Bonn                       | +49 0228/7255-200<br>+49 0228/7255-205   |
| Bremen          | Müllheizwerk Bremen<br><a href="http://www.ano-bremen.de">www.ano-bremen.de</a>   | Oken 2<br>28219 Bremen                                | +49 0421/6189-140<br>+49 0421/6189-149   |
| Bremerhaven     | Müll-Heiz-Kraftwerk (Bremerhaven)<br><a href="http://www.beg-entsorgungsgesellschaft.de">www.beg-entsorgungsgesellschaft.de</a> | Zur Hexenbrücke 16<br>27570 Bremerhaven               | +49 0471/186-0<br>+49 0471/186-112       |
| Burgau          | Müllverschmelzungsanlage Burgau   | Remharter Straße<br>89331 Unterknöringen              | +49 08221/95-482<br>+49 08221/95-480     |
| Burgkirchen     | Müllheizkraftwerk Burgkirchen<br><a href="http://www.zas-burgkirchen.de">www.zas-burgkirchen.de</a>                             | Bruck 110<br>84508 Burgkirchen                        | +49 08679/308-0<br>+49 08679/308-308     |
| Böblingen       | Restmüllheizkraftwerk Böblingen<br><a href="http://www.rbb.info">www.rbb.info</a>   | Musberger Straße 11<br>71032 Böblingen                | +49 07031/2118-100<br>+49 07031/2118-111 |
| Coburg          | Müllheizkraftwerk Coburg<br><a href="http://www.zaw-coburg.de">www.zaw-coburg.de</a>  | Glender Str 30<br>96450 Coburg                        | +49 09561/5530-0<br>+49 09561/5530-39    |
| Darmstadt       | Müllheizkraftwerk Darmstadt<br><a href="http://www.zas-darmstadt.de">www.zas-darmstadt.de</a>                                   | Otto-Röhm-Str 19<br>64293 Darmstadt                   | +49 06151/701-4320<br>+49 06151/701-4309 |
| Düsseldorf      | Stadtwerke Düsseldorf AG<br><a href="http://www.swd-ag.de">www.swd-ag.de</a>  | Flinger Broich 25<br>40235 Düsseldorf                 | +49 0211/821-6860<br>+49 0211/821-3035   |
| Eschbach        | TREA Breisgau   | Heitersheimerstrasse 2<br>79427 Eschbach              |  |
| Eschweiler      | MVA Weisweiler<br><a href="http://www.mva-weisweiler.de">www.mva-weisweiler.de</a>  | Zum Hagelkreuz 22<br>52249 Eschweiler                 | +49 02403.991-101<br>+49 02403-991-103   |
| Essen           | Müllheizkraftwerk Essen-Karnap<br><a href="http://www.rwe.de">www.rwe.de</a>  | Arenbergstr. 45<br>45329 Essen                        | +49 0201/8386-0<br>+49 0201/8386-3481    |
| Frankfurt       | AVA Nordweststadt<br><a href="http://www.fes-frankfurt.de">www.fes-frankfurt.de</a>   | Heddernheimer Landstr. 157<br>60439 Frankfurt a. Main | +49 069-212-32112<br>+49 069-212-32050   |
| Greppin         | Gemeinschaftsklärwerk Bitterfeld-Wolfen<br><a href="http://www.gkw-bitterfeld-wolfen.de">www.gkw-bitterfeld-wolfen.de</a>       | Salegaster Chaussee 2<br>06803 Greppin                | +49 03493/77913<br>+49 03493/72187       |
| Göppingen       | Müllheizkraftwerk Göppingen<br><a href="http://www.bkb-goepplingen.de">www.bkb-goepplingen.de</a>                               | Illichofweg 40<br>73037 Göppingen                     | +49 07161-6716222<br>+49 07161-6716210   |
| Hagen           | Müllverbrennungsanlage Hagen<br><a href="http://www.heb-hagen.de">www.heb-hagen.de</a>  | Am Pfannenofen 39<br>58097 Hagen                      | +49 02331/207-3868<br>+49 02331/882028   |
| Hamburg         | Müllverwertung Borsigstraße   | Borsigstr 6<br>22113 Hamburg                          | +49 040/73189-101<br>+49 040/73189-115   |

## Germany

### General Information

| Location        | Contact Person<br>E-mail  | Owner of plant<br>No. of inhab. served                                 | Owners<br>Address                           |
|-----------------|---|--|---|
| Augsburg        | Barth   | AVA - Abfallverwertung Augsburg GmbH<br>1.000.000                      | Am Mittleren Moos 60<br>86167 Augsburg      |
| Bamberg         | Externbrink   | Zweckverband Müllheizkraftwerk Stadt und Landkreis Bamberg<br>500.000  | Kettenbrückstr. 1<br>96052 Bamberg          |
| Berlin-Ruhleben | Dr. Oldenstein  | Berliner Stadtreinigungsbetriebe (BSR)                                 | Ringbahnstr. 96<br>12103 Berlin             |
| Bielefeld       | Michael Kahl<br><a href="mailto:michael.kahl@interargem.de">michael.kahl@interargem.de</a>    | Interargem-Entsorgungs-GmbH<br>1.000.000                               | Goebenstr. 3 - 7<br>32052 Herford           |
| BKB Hannover    |   | 500.000  |   |
| Bonn            | Becker  | Stadtwerke Bonn GmbH<br>300.000  | Theaterstr. 24<br>53111 Bonn                |
| Bremen          | Römhild   | ANO Abfallbehandlung Nord GmbH<br>600.000                              | Oken 3<br>28219 Bremen                      |
| Bremerhaven     | Kaletka   | Bremerhavener Entsorgungsgesellschaft mbH<br>650.000                   | Zur Hexenbrücke 16<br>27570 Bremerhaven     |
| Burgau          | Schmid  | Landkreis Günzburg<br>121.000  | Bismarckstr. 9<br>89312 Günzburg            |
| Burgkirchen     | Herr Holl<br><a href="mailto:info@zas-burgkirchen.de">info@zas-burgkirchen.de</a>             | ZV Abfallverwertung Südostbayern<br>949.000                            | Bruck 110<br>84508 Burgkirchen              |
| Böblingen       |   | IGORA Verwaltungsgesellschaft mbH<br>500.000                           | Südliche Münchner Str. 24<br>82031 Grünwald |
| Coburg          | Georg Papa<br><a href="mailto:g.papa@zaw-coburg.de">g.papa@zaw-coburg.de</a>                  | Zweckverband für Abfallwirtschaft in Nordwest-Oberfranken, D<br>346000 | Von-Werthern-Str. 6<br>96487 Dörflas-Esbach |
| Darmstadt       | Mielke  | ZV Abfallverwertung Südhessen, Darmstadt<br>1.000.000                  | Frankfurter Str. 100<br>64293 Darmstadt     |
| Düsseldorf      | Hansmann<br><a href="mailto:ghansmann@swd-ag.de">ghansmann@swd-ag.de</a>                      | Stadtwerke Düsseldorf AG<br>650.000                                    | Flinger Broich 25<br>40235 Düsseldorf       |
| Eschbach        |   | SOTEC GmbH<br>400.000  | Hafenstr. 25<br>66111 Saarbrücken           |
| Eschweiler      | U. Koch / A Fries   | MVA Weisweiler GmbH & Co KG<br>550.000                                 | Zum Hagelkreuz 22<br>52249 Eschweiler       |
| Essen           |   | RWE Power AG- Kraftwerke Region West-MHKW Essen-Karnap<br>1.227.537    | Arenbergstr. 45<br>45329 Essen              |
| Frankfurt       | Fechner   | Stadt Frankfurt - Umweltamt -<br>1.300.000                             | Seehofstr. 41<br>60594 Frankfurt a. Main    |
| Greppin         | Dr. Basse<br><a href="mailto:info@gkw-bitterfeld-wolfen.de">info@gkw-bitterfeld-wolfen.de</a> | GKW Gemeinschaftsklärwerk Bitterfeld-Wolfen<br>420.000                 | Salegaster Chaussee 2<br>06803 Greppin      |
| Göppingen       | Althaus   | Müllheizkraftwerk Göppingen GmbH<br>250.000                            | Iltishofweg 40<br>73037 Göppingen           |
| Hagen           |   | Hagener Entsorgungsbetrieb HEB GmbH<br>300.000                         | Fuhrparkstr. 14 - 20<br>58089 Hagen         |
| Hamburg         | Kaulbarsch  | Müllverwertung Borsigstraße GmbH<br>680.000                            | Borsigstraße 6<br>22113 Hamburg             |

**Germany**  
**General Information**

| Location      | Name of Plant<br>Web-site  | Address of Plant                             | Phone<br>Fax                                 |
|---------------|--|--|--|
| Hamburg       | Müllverwertungsanlage Rugenberger Damm<br><a href="http://www.mvr-hh.de">www.mvr-hh.de</a>                     | Rugenberger Damm 1<br>21129 Hamburg          | +49 040/74186-100<br>+49 040/74186-115       |
| Hamburg       | Müllverbrennungsanlage Stellinger Moor<br><a href="http://www.srh.de">www.srh.de</a>                           | Schnackenburgallee 100<br>22525 Hamburg      | +49 040/25763301<br>+49 040/2576-3300        |
| Hameln        | Enertec Hameln GmbH<br><a href="http://www.interargem.de">www.interargem.de</a>                                | Am Kraftwerk 1<br>31789 Hameln               | +49 05151/810<br>+49 05151/812-922           |
| Hamm          | MHB Hamm Betriebsführungsges. mbH<br><a href="http://www.mva-hamm.de">www.mva-hamm.de</a>                      | Am Lausbach 2<br>59075 Hamm                  | +49 02381/9770232<br>+49 02381/70087         |
| Helmstedt     | TRV Buschhaus<br><a href="http://www.bkb.de">www.bkb.de</a>  | Schöninger Str 2/3<br>38350 Helmstedt        | +49 05351/18-0<br>+49 05351/18-4740          |
| Herten        | RZR Herten<br><a href="http://www.agr.de">www.agr.de</a>   | Im Emscherbruch 11<br>45699 Herten           | +49 02366/300-219<br>+49 02366/300-400       |
| Ingolstadt    | Müllverwertungsanlage Ingolstadt<br><a href="http://www.mva.ingolstadt.de">www.mva.ingolstadt.de</a>           | Am Mailinger Bach 141<br>85055 Ingolstadt    | +49 0841/3784820<br>+49 0841/3784849         |
| Iserlohn      | Müllheizkraftwerk Iserlohn<br><a href="http://www.amk-mhkw.de">www.amk-mhkw.de</a>                             | Giesestr 10<br>58636 Iserlohn                | +49 02371/4301-119<br>+49 02371/4301-113     |
| Kamp-Lintfort | Abfallentsorgungszentrum (AEZ) Kreis Wesel<br><a href="http://www.aez-asdonkshof.de">www.aez-asdonkshof.de</a> | Graftstr. 25<br>47475 Kamp-Lintfort          | +49 2842/940-267<br>+49 2842/940-200         |
| Kassel        | Müllheizkraftwerk Kassel<br><a href="http://www.mhkw-kassel.de">www.mhkw-kassel.de</a>                         | Am Lossewerk 8-10<br>34123 Kassel            | +49 0561/7824030<br>+49 0561/7824026         |
| Kassel        | Kassel 2   | Am Lossewerk 8-10<br>34123 Kassel            | +49 0561/782-2611<br>+49 0561/782-2610       |
| Kempten       | ZAK Energie GmbH<br><a href="http://www.zak-kempten.de">www.zak-kempten.de</a>                                 | Dieselstr. 20<br>87437 Kempten               | +49 0831/5714814<br>+49 0831/5714850         |
| Kiel          | Müllheizkraftwerk Kiel<br><a href="http://www.mvkiel.de">www.mvkiel.de</a>                                     | Theodor-Heuss-Ring 30<br>24114 Kiel          | +49 0431/5942-046<br>+49 0431/5942-910       |
| Krefeld       | EGK Krefeld<br><a href="http://www.egk.de">www.egk.de</a>  | Parkstr. 234<br>47829 Krefeld                | +49 2151/495-500<br>+49 2151/495-495         |
| Köln          | AVG Köln   | Geestemünder Str. 23<br>50735 Köln           | +49 0221/7170-0<br>+49 0221/7170-333         |
| Landshut      | Landshut   | Am Lurzenhof 31<br>84036 Landshut            | +49 0871/14362400                            |
| Lauta         | Thermische Abfallbehandlung Lauta<br><a href="http://T-A-Lauta.de">T-A-Lauta.de</a>                            | Straße B, Nr. 5<br>D- 02991 Lauta            | +49 35722 933 301<br>+49 35722 933 390       |
| Leuna         | MVV TREA Leuna   | An der B 19. Tor 12. Bau 1207<br>06237 Leuna |  |
| Leverkusen    | AVEA MHKW Leverkusen GmbH & Co. KG<br><a href="http://www.avea.de">www.avea.de</a>                             | Im Eisholz 3<br>51373 Leverkusen             | +49 214/8668-316<br>+49 214/8668-100         |
| Ludwigshafen  | GML Abfallwirtschaftsgesellschaft mbH  | Lagerplatzweg<br>67059 Ludwigshafen          | +49 (0) 621/5054-930<br>+49 (0) 621/5054-960 |
| Magdeburg     | Müllheizkraftwerk Rothensee<br><a href="http://www.mhkw-rothensee.de">www.mhkw-rothensee.de</a>                | Kraftwerk-Privatweg 7<br>39126 Magdeburg     | +49 391-5872795<br>+49 391-5871764           |
| Mainz         | Abfallverbrennungsanlage Mainz   |  |  |

**Germany**  
**General Information**

| Location      | Contact Person<br>E-mail                        | Owner of plant<br>No. of inhab. served  | Owners<br>Address                                       |
|---------------|---|---|---|
| Hamburg       | Dr. Zwahr / Frau Menke                          | MVR Müllverwertung Rugenberger Damm<br>GmbH & Co KG<br>1.200.000                    | Rugenberger Damm 1<br>21129 Hamburg                     |
| Hamburg       | Franck  | Stadtreinigung Hamburg<br>600.000   | Schnackenburgallee 100<br>22525 Hamburg                 |
| Hameln        | Lähälme   | Interargem-Entsorgungs-GmbH<br>250.000  | Schelpmilser Weg 30<br>33609 Bielefeld                  |
| Hamm          |   | MVA Hamm Eigentümer GmbH<br>1.050.000   | Am Lausbach 2<br>59075 Hamm                             |
| Helmstedt     |   | Braunschweigische Kohlen-Bergwerke AG<br>1.000.000                                  | Schöninger Str. 2/3<br>38350 Helmstedt                  |
| Herten        | von dem Berge                                   | AGR Abfallentsorgungsgesellschaft<br>Ruhrgebiet mbH,<br>754.000                     | Gildehofstr. 1<br>45127 Essen                           |
| Ingolstadt    | Meier<br>gerhard.meier@mva.ingolstadt.de        | ZV Müllverwertungsanlage Ingolstadt<br>700.000                                      | Am Mailinger Bach 141<br>85055 Ingolstadt               |
| Iserlohn      | Schumacher                                      | AMK-Abfallentsorgungsgesellschaft des<br>Märkischen K<br>460.000                    | Giesestr. 10<br>58636 Iserlohn                          |
| Kamp-Lintfort | Spohn<br>spohn@aez-asdonkshof.de                | Kreis Weseler Abfallgesellschaft mbH &<br>Co KG<br>480.000                          | Graftstr. 25<br>47475 Kamp-Lintfort                     |
| Kassel        | Hr. Themann                                     | MHKW Kassel GmbH<br>350.000   | Königstor 3 - 13<br>34117 Kassel                        |
| Kassel        |   |   |   |
| Kempten       | Witt  | ZAK Energie GmbH<br>289.700   | Immenstädter Str. 79a<br>87435 Kempten                  |
| Kiel          | U. Günther                                      | 1 Versorgung und Verkehr Kiel GmbH,<br>433.000                                      | Werftstr. 233 - 234<br>24143 Kiel                       |
| Krefeld       | Dr. Mützenich<br>muetzenich@egk.de              | EAG Entsorgungsanlagengesellschaft<br>Krefeld GmbH & Co. KG<br>1.000.000            | Parkstr. 234<br>47829 Krefeld                           |
| Köln          | Dr. Rolf  | AVG Abfallentsorgungs- und<br>Verwertungsgesellschaft Köln mbH<br>1.000.000         | Geestemünder Str. 23<br>50735 Köln                      |
| Landshut      |   | Stadtwerke Landshut   |   |
| Lauta         | Herr Jäger<br>hartmut.jaeger@vattenfall.de      | Thermische Abfallbehandlung Lauta<br>VEAG/STEAG Aktiengesellschaft oHG<br>1.100.000 | Chausseesstraße 23<br>D-10115 Berlin                    |
| Leuna         | trea1@leuna.de                                  | 400.000   |   |
| Leverkusen    | Austel<br>au@avea.de                            | AVEA GmbH & Co. KG<br>800.000   | Im Eisholz 3<br>51373 Leverkusen                        |
| Ludwigshafen  | Westermann<br>westermann@gml.frm.de             | GML Abfallwirtschaftsgesellschaft mbH,<br>Ludwigshafe<br>680.000                    | Bürgermeister-Grünzweig-Straße 87<br>67059 Ludwigshafen |
| Magdeburg     | Herr Oesterhoff<br>Oesterhoff@mhwk-rothensee.de | Müllheizkraftwerk Rothensee GmbH<br>900.000   | Kraftwerk-Privatweg 7<br>39126 Magdeburg                |
| Mainz         |   |   |   |

**Germany**  
**General Information**

| Location     | Name of Plant<br>Web-site  | Address of Plant                                 | Phone<br>Fax                             |
|--------------|--|--|--|
| Mannheim     | Müllheizkraftwerk Mannheim<br><a href="http://www.mvv.de">www.mvv.de</a>   | Otto-Hahn-Str. 1<br>68169 Mannheim               | +49 0621/290-0<br>+49 0621/290-4606      |
| Neunkirchen  | Abfallheizkraftwerk Neunkirchen<br><a href="http://www.sotec.de">www.sotec.de</a>  | Am Blücherflöz 12<br>66538 Neunkirchen           | +49 06821/8698-0<br>+49 06821/8698-119   |
| Neustadt     | MHKW Neustadt<br><a href="http://www.zv-aw.de">www.zv-aw.de</a>  | Industrieweg 9 - 11<br>23730 Neustadt / Holstein | +49 04561/399-412<br>+49 04561/399-387   |
| Nürnberg     | ASN Nürnberg<br><a href="http://www.asn.nuernberg.de">www.asn.nuernberg.de</a>   | Hintere Marktstr. 4<br>904441 Nürnberg           | +49 0911/231-7707<br>+49 0911/231-7708   |
| Oberhausen   | Gemeinschafts-Müll-Verbrennungsanlage<br>Niederr.  | Buschhausener Strasse<br>46018 Oberhausen        | +49 0208/8594-100<br>+49 0208/8594-210   |
| Offenbach    | Müllheizkraftwerk Offenbach<br><a href="http://www.evo-ag.de">www.evo-ag.de</a>  | Dietzenbacher Str. 189<br>63069 Offenbach        | +49 069/8060-2522<br>+49 069/8060-2599   |
| Olching      | AHKW Geiselbullach (Olching)<br><a href="http://www.mva-geisbullach.de">www.mva-geisbullach.de</a>                                   | Josef-Kistler-Weg 22<br>82140 Olching            | +49 08142/2867-0<br>+49 08142/2867-92    |
| Pirmasens    | MHKW Pirmasens<br><a href="http://www.sotec.de">www.sotec.de</a>   | Staffelberg 2-4<br>66954 Pirmasens               | +49 06331/5536-10<br>+49 06331/5536-60   |
| Rosenheim    | Stadtwerke Rosenheim GmbH & Co. KG<br><a href="http://www.stadtwerke-rosenheim.de">www.stadtwerke-rosenheim.de</a>                   | Färberstr. 47<br>83022 Rosenheim                 | +49 08031/36-2501<br>+49 08031/15883     |
| Schwandorf   | Zweckverband Müllverwertung Schwandorf<br>(ZMS)<br><a href="http://www.z-m-s.de">www.z-m-s.de</a>                                    | Alustr. 7<br>92421 Schwandorf                    | +49 09431/631-555<br>+49 09431/631-595   |
| Schweinfurt  | GKS Schweinfurt<br><a href="http://www.gks-schweinfurt.de">www.gks-schweinfurt.de</a>  | Hafenstr. 30<br>97424 Schweinfurt                | +49 09721/6580-133<br>+49 09721/6580-160 |
| Solingen     | EntsorgungsBetriebe Solingen- MHKW -<br><a href="http://www.entsorgungsbetriebe.solingen.de">www.entsorgungsbetriebe.solingen.de</a> | Sandstr. 16a<br>42655 Solingen                   | 0212/2719-112<br>0212/2719-111           |
| Stapelfeld   | MVA Stapelfeld<br><a href="http://www.bkb-stapelfeld.de">www.bkb-stapelfeld.de</a>   | Ahrensburger Weg 4<br>22145 Stapelfeld           | +49 0406/7576-813<br>+49 0406/7576-549   |
| Stassfurt    | EVZA Stassfurt   | An der Loderburger Bahn<br>39418 Stassfurt       |  |
| Stuttgart    | Restmüllheizkraftwerk Stuttgart-Münster  | Voltastr. 45<br>70376 Stuttgart                  | +49 0711/289-44517<br>+49 0711/289-47714 |
| Stuttgart    | Hauptklärwerk Mühlhausen<br><a href="http://www.stuttgart.de">www.stuttgart.de</a>   | Aldinger Str. 212<br>70378 Stuttgart             | +49 0711/289-44517<br>+49 0711/289-47714 |
| Tornesch     | Müllheizkraftwerk Tornesch-Ahrenlohe<br><a href="http://www.gab-tornesch.de">www.gab-tornesch.de</a>                                 | Hasenkamp 15<br>25436 Tornesch-Ahrenlohe         | +49 04120/709-111<br>+49 04120/709-100   |
| Ulm          | Müllheizkraftwerk Ulm-Donautal<br><a href="http://www.zv-tad.de">www.zv-tad.de</a>   | Siemensstr. 1<br>89079 Ulm                       | +49 0731/185-1285<br>+49 0731/185-1265   |
| Unterföhring | HKW Nord München<br><a href="http://www.awm.muenchen.de">www.awm.muenchen.de</a>   | Münchener Str. 22<br>85774 Unterföhring          | +49 089/9925-8310<br>+49 089/2361-8229   |
| Völklingen   | Betriebsgesellschaft AVA Velsen GmbH<br><a href="http://www.ava-velsen.de">www.ava-velsen.de</a>                                     | Alte Grube Velsen<br>66333 Völklingen            | +49 06898/946-112<br>+49 06898/946-111   |
| Weissenfels  | SITA Abfallverwertung GmbH<br><a href="http://www.sita-deutschland.de">www.sita-deutschland.de</a>                                   | Bayerische Straße 20<br>D-06679 Zorbau           | +49-34441-505-0<br>+49-34441-505-210     |

**Germany**  
**General Information**

| Location     | Contact Person<br>E-mail                           | Owner of plant<br>No. of inhab. served                                       | Owners<br>Address                                |
|--------------|--|--|--|
| Mannheim     | Michael Horix<br>m.horix@mvv.de                    | MVV RHE AG<br>1.047.440  | Luisenring 49<br>68159 Mannheim                  |
| Neunkirchen  |  | SOTEC-Vermietungsgesellschaft MVA<br>Neunkirchen mbH & Co.<br>400.000        | Tölzer Straße 15<br>82031 Grünwald               |
| Neustadt     | Rappl<br>hans.rappl@zv-aw.de                       | ZVO Abfallwirtschafts GmbH<br>205.000  | Postfach 13 53<br>23663 Timmendorfer Strand      |
| Nürnberg     | Wittek   | Abfallwirtschaft und Stadtreinigungsbetrieb<br>Nürnberg - ASN<br><br>850.000 |  |
| Oberhausen   | Ernek  | Gemeinschafts-Müll-Verbrennungsanlage<br>Niederrhein GmbH<br><br>800.000     | Postfach 10 26 37<br><br>46018 Oberhausen        |
| Offenbach    | Kneisel<br>joerg.kneisel@evo-ag.de                 | Energieversorgung Offenbach AG<br>1.000.000                                  | Andréstr. 71<br>63067 Offenbach                  |
| Olching      |  | GfA Gesellschaft für Abfallwirtschaft mbH<br><br>331.851                     | Josef-Kistler-Weg 22<br><br>82140 Olching        |
| Pirmasens    |  | Abfallbehandlungs GmbH & Co. KG<br>450.000                                   | Südliche Münchener Str. 24<br>82031 Grünwald     |
| Rosenheim    | Dr. Götz Brühl<br><br>info-stadtwerke@rosenheim.de | Stadtwerke Rosenheim GmbH & Co. KG<br><br>100.000                            | Bayerstr. 5<br><br>83022 Rosenheim               |
| Schwandorf   | Denk   | Zweckverband Müllverwertung Schwandorf<br>(ZMS)<br>1.650.544                 | Alutstr. 7<br><br>92421 Schwandorf               |
| Schweinfurt  | Walter   | Gemeinschaftskraftwerk Schweinfurt<br>GmbH<br>1.000.000                      | Hafenstr. 30<br><br>97424 Schweinfurt            |
| Solingen     |  | Stadt Solingen<br>160.000  | Der Oberbürgermeister                            |
| Stapelfeld   | Schwarz  | MVA Stapelfeld GmbH<br>950.000   | Ahrensburger Weg 4<br>22145 Stapelfeld           |
| Stassfurt    |  |  |  |
| Stuttgart    | Eberle   | EnBW Kraftwerke AG<br>600.000  | Voltastr. 45<br>70376 Stuttgart                  |
| Stuttgart    | Eberle   | Landeshauptstadt Stuttgart,<br>Tiefbauamt/SES<br>1.260.000                   | Hohe Straße 25<br>70176 Stuttgart                |
| Tornesch     | Doose  | GAB Gesellschaft für Abfallwirtschaft und<br>Behandlung<br>290.000           | Bundesstr. 301<br><br>25495 Kummerfeld           |
| Ulm          | Stefan Freibauer<br><br>info@zv-tad.de             | ZV Thermische Abfallverwertung<br>Donautal, Ulm<br>1.000.000                 | Schillerstr. 30<br><br>89077 Ulm                 |
| Unterföhring |  | Landeshauptstadt München<br>3.100.000  | Georg-Brauchle-Ring 29<br>80992 München          |
| Völklingen   | Feld   | EVS Gesellschaft für<br>Abfallverwertungsanlagen mbH<br>600.000              | Untertürkheimer Str. 21<br><br>66117 Saarbrücken |
| Weißenthof   | Josef Staus<br>sks.zorbau@sita-deutschland.de      | SITA Abfallverwertung GmbH<br>1.4 Mio  | Industriestraße 161<br>D-50999 Köln              |

**Germany****General Information**

| <b>Location</b> | <b>Name of Plant<br/>Web-site</b>  | <b>Address of Plant</b>             | <b>Phone<br/>Fax</b>                   |
|-----------------|--|-------------------------------------|--|
| Weißenhorn      | Müllkraftwerk Weißenhorn<br><a href="http://www.awb-neu-ulm.de">www.awb-neu-ulm.de</a>                               | Daimlerstr. 36<br>89264 Weißenhorn  | +49 07309/878-207<br>+49 07309/878-216 |
| Wuppertal       | AWG Abfallwirtschaftsgesellschaft mbH<br>Wuppertal<br><a href="http://www.awg.wuppertal.de">www.awg.wuppertal.de</a> | Korzert 15<br>42349 Wuppertal       | +49 0202/4042-145<br>+49 0202/4042-177 |
| Würzburg        | Müllheizkraftwerk Würzburg<br><a href="http://www.zvaws.de">www.zvaws.de</a>   | Gattinger Str. 31<br>97076 Würzburg | +49 0931/36-2511<br>+49 0931/36-1513   |

**Germany****General Information**

| <b>Location</b> | <b>Contact Person</b><br><b>E-mail</b> | <b>Owner of plant</b><br><b>No. of inhab. served</b>            | <b>Owners</b><br><b>Address</b>      |
|-----------------|--|---|--------------------------------------|
| Weißenhorn      | Brugger                                | Landkreis Neu-Ulm, Weißenhorn<br>300.000                        | Kantstr. 8<br>89231 Neu-Ulm          |
| Wuppertal       |  | AWG Abfallwirtschaftsgesellschaft mbH<br>Wuppertal<br>1.000.000 | Postfach 10 18 80<br>42108 Wuppertal |
| Würzburg        | Dima                                   | Zweckverband Abfallwirtschaft Raum<br>Würzburg<br>380.000       | Eichhornstr. 5<br>97070 Würzburg     |

## Germany

### Technical Information on the Plant

| Location        | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |             | Boiler |                    | Steam Data oC/bar | Hours of Operat.2004 |
|-----------------|----------|--------------|--------------|------------|-------------|---------|-------------|--------|--------------------|-------------------|----------------------|
|                 |          |              |              |            |             | Type    | Supplier    | Type   | Supplier           |                   |                      |
| Augsburg        | 1        | 1996         |              | 10         | 9,2         | M       | W+E         | S      | Baumgarte          | 400/40            |                      |
|                 | 2        | 1996         |              | 10         | 9,2         | M       | W+E         | S      | Baumgarte          | 400/40            |                      |
|                 | 3        | 1996         |              | 10         | 9,2         | M       | W+E         | S      | Baumgarte          | 400/40            |                      |
| Bamberg         | 1        | 1978         |              | 6          | 9           | M       | DBA         | S      | DBA                | 227/27            |                      |
|                 | 2        | 1978         |              | 6          | 9           | M       | DBA         | S      | DBA                | 227/27            |                      |
|                 | 3        | 1981         |              | 6          | 9           | M       | DBA         | S      | DBA                | 227/27            |                      |
| Berlin-Ruhleben | 1        | 1995         |              | 31         | 9           | M       | Babcock     | S      | Babcock            | 470/75            |                      |
|                 | 2        | 1997         |              | 32         | 9           | M       | Babcock     | S      | Babcock            | 470/75            |                      |
|                 | 3        | 1996         |              | 32         | 9           | M       | Babcock     | S      | Babcock            | 470/75            |                      |
|                 | 4        | 1996         |              | 32         | 9           | M       | Babcock     | S      | Babcock            | 470/75            |                      |
|                 | 5        | 1996         |              | 24         | 9           | M       | Babcock     | S      | Babcock            | 470/75            |                      |
|                 | 6        | 1996         |              | 24         | 9           | M       | Babcock     | S      | Babcock            | 470/75            |                      |
|                 | 7        | 1997         |              | 24         | 9           | M       | Babcock     | S      | Babcock            | 470/75            |                      |
|                 | 8        | 1997         |              | 24         | 9           | M       | Babcock     | S      | Babcock            | 470/75            |                      |
| Bielefeld       | 1        | 1981         |              | 16         | 12,4        | M       | W+E         | S      | EWB                | 385/40            |                      |
|                 | 2        | 1981         |              | 16         | 12,4        | M       | W+E         | S      | EWB                | 385/40            |                      |
|                 | 3        | 1981         |              | 16         | 12,4        | M       | W+E         | S      | EWB                | 385/40            |                      |
| BKB Hannover    | 1        |              |              |            |             |         |             |        |                    | 400/40            |                      |
| Bonn            | 1        | 1991         |              | 10         | 10          | M       | Von Roll    | S      | Lendjes/ Baumgarte | 400/40            |                      |
|                 | 2        | 1991         |              | 10         | 10          | M       | Von Roll    | S      | Lendjes/ Baumgarte | 400/40            |                      |
|                 | 3        | 1991         |              | 10         | 10          | M       | Von Roll    | S      | Lendjes/ Baumgarte | 400/40            |                      |
| Bremen          | 1        | 1969         |              | 15         | 8,4         | M       | Balcke/Dürr | S      | Bremer Vulkan      | 215/22            |                      |
|                 | 2        | 1969         |              | 15         | 8,4         | M       | Balcke/Dürr | S      | Bremer Vulkan      | 215/22            |                      |
|                 | 3        | 1969         |              | 15         | 8,4         | M       | Balcke/Dürr | S      | Bremer Vulkan      | 215/22            |                      |
|                 | 4        | 1976         |              | 20         | 12,5        | M       | Balcke/Dürr | S      | Bremer Vulkan      | 215/22            |                      |
| Bremerhaven     | 1        | 1976         |              | 15         | 10          | M       | Von Roll    | S      | MAN-Seebeckwerft   | 400/40            |                      |
|                 | 2        | 1976         |              | 15         | 10          | M       | Von Roll    | S      | MAN-Seebeckwerft   | 400/40            |                      |
|                 | 3        | 1976         |              | 15         | 10          | M       | Von Roll    | S      | MAN-Seebeckwerft   | 400/40            |                      |
| Burgau          | 1        | 1983         |              | 3          | 9,5         | P       | Babcock     | S      | Babcock            | 400/25            |                      |
|                 | 2        | 1983         |              | 3          | 9,5         | P       | Babcock     | S      | Babcock            | 400/25            |                      |
| Burgkirchen     | 1        | 1994         |              | 15         | 10,56       | M       | Steinmüller | S      | Steinmüller        | 400/80            | 7819                 |
|                 | 2        | 1994         |              | 15         | 10,56       | M       | Steinmüller | S      | Steinmüller        | 400/80            | 7668                 |
| Böblingen       | 1        | 1999         |              | 9,43       |             | M       | LCS         | S      | LCS                | 400/40            | 7560                 |
|                 | 2        | 1999         |              | 9,43       |             | M       | LCS         | S      | LCS                | 400/40            | 7728                 |
| Coburg          | 1        | 1988         |              | 11         | 11          | M       | Martin      | S      | Wehrle             | 400/40            |                      |
|                 | 2        | 1988         |              | 11         | 11          | M       | Martin      | S      | Wehrle             | 400/40            |                      |
| Darmstadt       | 1        | 1967         |              | 11         | 8,5         | M       | Von Roll    | S      | Noell/Wamser       | 350/38            |                      |
|                 | 2        | 1967         |              | 8,3        | 8,5         | M       | Von Roll    | S      | Noell/Wamser       | 350/38            |                      |
|                 | 3        | 1977         |              | 11         | 8,5         | M       | Von Roll    | S      | Noell/Wamser       | 350/38            |                      |
| Düsseldorf      | 1        | 1991         |              | 12,5       | 10,9        | M       | VKW/Babcock | S      | Lentjes            | 500/80            |                      |
|                 | 2        | 1991         |              | 12,5       | 10,9        | M       | VKW/Babcock | S      | Lentjes            | 500/80            |                      |
|                 | 3        | 1989         |              | 12,5       | 10,9        | M       | VKW/Babcock | S      | Lentjes            | 500/80            |                      |
|                 | 4        | 1989         |              | 12,5       | 10,9        | M       | VKW/Babcock | S      | Lentjes            | 500/80            |                      |
|                 | 5        | 1995         |              | 12,5       | 10,9        | M       | VKW/Babcock | S      | Lentjes            | 500/80            |                      |
|                 | 6        | 1980         |              | 12,5       | 10,9        | M       | VKW/Babcock | S      | Lentjes            | 500/80            |                      |
| Eschbach        | 1        |              |              |            |             |         |             |        |                    | 400/40            |                      |

## Germany

### Technical Information on the Plant

| Location        | Line No. | Flue Gas Cleaning System | ESP  |          | Flue Gas Cleaning |                | Flue Gas Temp., °C |
|-----------------|----------|--------------------------|------|----------|-------------------|----------------|--------------------|
|                 |          |                          | Year | Supplier | Year              | Supplier       |                    |
| Augsburg        | 1        | DRY.WET.SCR.FF.ESP       |      |          | 1995              | ABB            | 120                |
|                 | 2        | DRY.WET.SCR.FF.ESP       |      |          |                   | ABB            | 120                |
|                 | 3        | DRY.WET.SCR.FF.ESP       |      |          |                   | ABB            | 120                |
| Bamberg         | 1        | ESP.WET.FF.SCR           |      |          |                   | DBA/ABB        | 150                |
|                 | 2        | ESP.WET.FF.SCR           |      |          |                   | DBA/ABB        | 150                |
|                 | 3        | ESP.WET.FF.SCR           |      |          |                   | DBA/ABB        | 150                |
| Berlin-Ruhleben | 1        | DRY.FF.O(CAT)            |      |          |                   | Fläkt/ABB      | 145                |
|                 | 2        | DRY.FF.O(CAT)            |      |          |                   | Fläkt/ABB      | 145                |
|                 | 3        | DRY.FF.O(CAT)            |      |          |                   | Fläkt/ABB      | 145                |
|                 | 4        | DRY.FF.O(CAT)            |      |          |                   | Fläkt/ABB      | 145                |
|                 | 5        | DRY.FF.O(CAT)            |      |          |                   | Fläkt/ABB      | 145                |
|                 | 6        | DRY.FF.O(CAT)            |      |          |                   | Fläkt/ABB      | 145                |
|                 | 7        | DRY.FF.O(CAT)            |      |          |                   | Fläkt/ABB      | 145                |
|                 | 8        | DRY.FF.O(CAT)            |      |          |                   | Fläkt/ABB      | 145                |
| Bielefeld       | 1        | ESP.WET.SCR.FF           | 1981 | DBA      | 1994              | DBA            | 110                |
|                 | 2        | ESP.WET.SCR.FF           | 1981 | DBA      | 1994              | DBA            | 110                |
|                 | 3        | ESP.WET.SCR.FF           | 1981 | DBA      | 1994              | DBA            | 110                |
| BKB Hannover    | 1        |                          |      |          |                   |                |                    |
| Bonn            | 1        | ESP.WET.FF               |      |          |                   | Von Roll       | 108                |
|                 | 2        | ESP.WET.FF               |      |          |                   | Von Roll       | 108                |
|                 | 3        | ESP.WET.FF               |      |          |                   | Von Roll       | 108                |
| Bremen          | 1        | SD.FF.ESP                |      |          |                   | Lurgi          |                    |
|                 | 2        | SD.FF.ESP                |      |          |                   | Lurgi          |                    |
|                 | 3        | SD.FF.ESP                |      |          |                   | Lurgi          |                    |
|                 | 4        | SD.FF.ESP                |      |          |                   | Lurgi          |                    |
| Bremerhaven     | 1        | SNCR.ESP.WET.FF          |      |          |                   | Lurgi/Von Roll | 120                |
|                 | 2        | SNCR.ESP.WET.FF          |      |          |                   | Lurgi/Von Roll | 120                |
|                 | 3        | SNCR.ESP.WET.FF          |      |          |                   | Lurgi/Von Roll | 120                |
| Burgau          | 1        | FF.SNCR.SD.O             |      |          |                   | Babcock        |                    |
|                 | 2        | FF.SNCR.SD.O             |      |          |                   | Babcock        |                    |
| Burgkirchen     | 1        | ESP.WET.SCR.FF           | 1994 | Lurgi    | 1994              | Lurgi          | 140                |
|                 | 2        | ESP.WET.SCR.FF           | 1994 | Lurgi    | 1994              | Lurgi          | 140                |
| Böblingen       | 1        | FF.WET.O(CAT)            |      |          |                   | LCS            | 175                |
|                 | 2        | FF.WET.O(CAT)            |      |          |                   | LCS            | 175                |
| Coburg          | 1        | ESP.WET.FF.SNCR          |      |          |                   | Lurgi          | 75                 |
|                 | 2        | ESP.WET.FF.SNCR          |      |          |                   | Lurgi          | 75                 |
| Darmstadt       | 1        | DRY.WET.SCR.ESP          |      |          |                   | Von Roll/Lurgi | 105                |
|                 | 2        | DRY.WET.SCR.ESP          |      |          |                   | Von Roll/Lurgi | 105                |
|                 | 3        | DRY.WET.SCR.ESP          |      |          |                   | Von Roll/Lurgi | 105                |
| Düsseldorf      | 1        | ESP.WET.FF.SCR           |      |          |                   | Babc/Lentjes   | 180                |
|                 | 2        | ESP.WET.FF.SCR           |      |          |                   | Babc/Lentjes   | 180                |
|                 | 3        | ESP.WET.FF.SCR           |      |          |                   | Babc/Lentjes   | 180                |
|                 | 4        | ESP.WET.FF.SCR           |      |          |                   | Babc/Lentjes   | 180                |
|                 | 5        | ESP.WET.FF.SCR           |      |          |                   | Babc/Lentjes   | 180                |
|                 | 6        | ESP.WET.FF.SCR           |      |          |                   | Babc/Lentjes   | 180                |
| Eschbach        | 1        |                          |      |          |                   |                |                    |

## Germany

### Technical Information on the Plant

| Location      | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |              | Boiler |             | Steam Data oC/bar | Hours of Operat.2004 |
|---------------|----------|--------------|--------------|------------|-------------|---------|--------------|--------|-------------|-------------------|----------------------|
|               |          |              |              |            |             | Type    | Supplier     | Type   | Supplier    |                   |                      |
| Eschweiler    | 1        | 1996         |              | 16         | 10,1        | M       | DBA          | S      | LCS         | 400/40            |                      |
|               | 2        | 1996         |              | 16         | 10,1        | M       | DBA          | S      | LCS         | 400/40            |                      |
|               | 3        | 1996         |              | 16         | 10,1        | M       | DBA          | S      | LCS         | 400/40            |                      |
| Essen         | 1        | 1987         |              | 26,3       | 9           | M       | VKW          | S      | VKW         | 400/41            |                      |
|               | 2        | 1987         |              | 26,3       | 9           | M       | VKW          | S      | VKW         | 400/41            |                      |
|               | 3        | 1987         |              | 26,3       | 9           | M       | VKW          | S      | VKW         | 400/41            |                      |
|               | 4        | 1993         |              | 26,3       | 9           | M       | VKW          | S      | VKW         | 400/41            |                      |
| Frankfurt     | 1        | 1966         |              | 15         | 9           | M       | Von Roll     | S      | Von Roll    | 500/60            |                      |
|               | 2        | 1966         |              | 15         | 9           | M       | Von Roll     | S      | Von Roll    | 500/60            |                      |
|               | 3        | 1966         |              | 15         | 9           | M       | Von Roll     | S      | Von Roll    | 500/60            |                      |
|               | 4        | 1966         |              | 15         | 9           | M       | Von Roll     | S      | Von Roll    | 500/60            |                      |
| Greppin       | 1        | 1997         |              | 2          | 10          | FB      | Tölke        | S      | Bertsch     | 180/10            | 7800                 |
| Göppingen     | 1        | 1975         |              | 18         | 10,5        | M       | Babcock      | S      | VKW         | 410/39            |                      |
| Hagen         | 1        | 1966         |              | 6          | 8,3         | O       | VKS          | S      | VKS         | 190/13,5          | 7126                 |
|               | 2        | 1966         |              | 6          | 8,3         | O       | VKS          | S      | VKS         | 190/13,5          | 6887                 |
|               | 3        | 1966         |              | 6          | 8,3         | O       | VKS          | S      | VKS         | 190/13,5          | 7183                 |
| Hamburg       | 1        | 1999         |              | 21,5       | 9,75        | M       | Steinmüller  | S      | Steinmüller | 400/42            |                      |
| Hamburg       | 1        | 1972         |              | 19         | 6,28        | M       | Martin       | S      | Walther     | 410/40            |                      |
| Hamburg       | 1        | 1994         |              | 21,5       | 9           | M       | Steinmüller  | S      | Steinmüller | 380/19            | 8111                 |
|               | 2        | 1994         |              | 21,5       | 9           | M       | Steinmüller  | S      | Steinmüller | 380/19            | 8086                 |
| Hamburg       | 2        | 1999         |              | 21,5       | 9,75        | M       | Steinmüller  | S      | Steinmüller | 400/42            |                      |
| Hamburg       | 2        | 1972         |              | 19         | 6,28        | M       | Martin       | S      | Walther     | 410/40            |                      |
| Hameln        | 1        | 1977         |              | 10         | 10,5        | M       | VKW          | S      | VKW         | 420/40            |                      |
|               | 2        | 1984         |              | 10         | 10,5        | M       | VKW          | S      | VKW         | 420/40            |                      |
|               | 3        | 1993         |              | 10         | 10,5        | M       | EVT          | S      | EVT         | 420/40            |                      |
| Hamm          | 1        | 1985         |              | 9,4        | 8,8         | M       |              | S      |             | 400/40            |                      |
|               | 2        | 1985         |              | 9,4        | 8,8         | M       |              | S      |             | 400/40            |                      |
|               | 3        | 1985         |              | 9,4        | 8,8         | M       |              | S      |             | 400/40            |                      |
|               | 4        | 1985         |              | 9,4        | 8,8         | M       |              | S      |             | 400/40            |                      |
| Helmstedt     | 1        | 1998         |              | 22,5       | 9,2         | M       | Alstom       | S      | Alstom      | 400/40            |                      |
|               | 2        | 1998         |              | 22,5       | 9,2         | M       | Alstom       | S      | Alstom      | 400/40            |                      |
| Herten        | 1        | 1982         |              | 20         | 9,4         | M       | Steinmüller  | S      | Steinmüller | 320/32            |                      |
|               | 2        | 1990         |              | 20         | 9,4         | M       | Kablitz      | S      | MAB Lentjes | 320/32            |                      |
| Ingolstadt    | 1        | 1996         |              | 12         | 10,5        | M       | Martin       | S      | Wehrle      | 400/40            | 8035                 |
|               | 2        | 1996         |              | 12         | 10,5        | M       | Martin       | S      | Wehrle      | 400/40            | 7059                 |
|               | 3        | 1983         |              | 8          | 10,5        | M       | W+E          | S      | Wamser      | 400/40            | 5957                 |
| Iserlohn      | 1        | 1988         |              | 8          | 8,4         | M       | Koch         | S      | Lurgi       | 280/18            |                      |
|               | 2        | 1989         |              | 8          | 8,4         | M       | Technip/Koch | S      | Lurgi       | 280/18            |                      |
|               | 3        | 1996         |              | 16         | 8,4         | M       | Koch         | S      | Lurgi       | 280/18            |                      |
| Kamp-Lintfort | 1        | 1997         |              | 16,6       | 9,2         | F       | DBA          | S      | DBA         | 400/40            | 7990                 |
|               | 2        | 1997         |              | 16,6       | 9,2         | F       | DBA          | S      | DBA         | 400/40            | 7970                 |
| Kassel        | 1        |              |              |            |             |         |              |        |             |                   |                      |
| Kassel        | 1        | 1968         |              | 10         | 7           | M       | Dürr         | S      | Dürr        | 420/42            |                      |
|               | 2        | 1968         |              | 10         | 7           | M       | Dürr         | S      | Dürr        | 420/42            |                      |
|               | 3        | 1968         |              | 10         | 7           | M       | Dürr         | S      | Dürr        | 420/42            |                      |
|               | 4        | 1968         |              | 10         | 7           | M       | Dürr         | S      | Dürr        | 420/42            |                      |
| Kempten       | 1        | 1996         |              | 8,5        | 13,4        | M       | Martin       | S      | Wehrle      | 400/38            | 8070                 |
| Kiel          | 1        | 1996         |              | 8,75       | 9           | M       | Babcock      | S      | Babcock     | 400/40            |                      |
|               | 2        | 1996         |              | 8,75       | 9           | M       | Babcock      | S      | Babcock     | 400/40            |                      |

## Germany

### Technical Information on the Plant

| Location      | Line No. | Flue Gas Cleaning System | ESP  |           | Flue Gas Cleaning |                   | Flue Gas Temp., °C |
|---------------|----------|--------------------------|------|-----------|-------------------|-------------------|--------------------|
|               |          |                          | Year | Supplier  | Year              | Supplier          |                    |
| Eschweiler    | 1        | SD.FF. WET.SCR           |      |           |                   | DBA               |                    |
|               | 2        | SD.FF. WET.SCR           |      |           |                   | DBA               |                    |
|               | 3        | SD.FF. WET.SCR           |      |           |                   | DBA               |                    |
| Essen         | 1        | ESP.WET. FF.SCR          |      |           |                   | DBA/EVT           | 160                |
|               | 2        | ESP.WET. FF.SCR          |      |           |                   | DBA/EVT           | 160                |
|               | 3        | ESP.WET. FF.SCR          |      |           |                   | DBA/EVT           | 160                |
|               | 4        | ESP.WET. FF.SCR          |      |           |                   | DBA/EVT           | 160                |
| Frankfurt     | 1        | SD.FF. ESP               |      |           |                   | Lurgi             | 120                |
|               | 2        | SD.FF. ESP               |      |           |                   | Lurgi             | 120                |
|               | 3        | SD.FF. ESP               |      |           |                   | Lurgi             | 120                |
|               | 4        | SD.FF. ESP               |      |           |                   | Lurgi             | 120                |
| Greppin       | 1        | ESP.WET.FF               | 1997 | BEHT      | 1997              | Götaverken Miljö  | 65                 |
| Göppingen     | 1        | SD.FF. WET.O(CAT)        |      |           |                   |                   |                    |
| Hagen         | 1        | SD.ESP. SCR.FF           |      |           |                   | Babcock           | 180                |
|               | 2        | SD.ESP. SCR.FF           |      |           |                   | Babcock           | 180                |
|               | 3        | SD.ESP. SCR.FF           |      |           |                   | Babcock           | 180                |
| Hamburg       | 1        | FF.WET.WET.FF            |      |           |                   | Steinmüller       | 130                |
| Hamburg       | 1        | WET.ESP.SCR              |      |           |                   | Von Roll. Lentjes | 120                |
| Hamburg       | 1        | FF.WET                   |      |           |                   | Steinmüller       |                    |
|               | 2        | FF.WET                   |      |           |                   | Steinmüller       |                    |
| Hamburg       | 2        | FF.WET.WET.FF            |      |           |                   | Steinmüller       | 130                |
| Hamburg       | 2        | WET.ESP.SCR              |      |           |                   | Von Roll. Lentjes | 120                |
| Hameln        | 1        | DRY.ESP.FF.O(CAT)        |      |           |                   | Lentjes           | 140                |
|               | 2        | DRY.ESP.FF.O(CAT)        |      |           |                   | Lentjes           | 140                |
|               | 3        | DRY.ESP.FF.O(CAT)        |      |           |                   | Lentjes           | 140                |
| Hamm          | 1        | SD                       |      |           |                   |                   | 170                |
|               | 2        | SD                       |      |           |                   |                   | 170                |
|               | 3        | SD                       |      |           |                   |                   | 170                |
|               | 4        | SD                       |      |           |                   |                   | 170                |
| Helmstedt     | 1        | FF. WET                  |      |           |                   | Lurgi             | 65                 |
|               | 2        | FF. WET                  |      |           |                   | Lurgi             | 65                 |
| Herten        | 1        | WET.ESP.O(CAT)           |      |           |                   | Bischoff/ Lentjes |                    |
|               | 2        | WET.ESP.O(CAT)           |      |           |                   | Bischoff/ Lentjes |                    |
| Ingolstadt    | 1        | FF.WET. O(CAT)           |      |           | 1996              | Von Roll          | 145                |
|               | 2        | FF.WET. O(CAT)           |      |           | 1996              | Von Roll          | 145                |
|               | 3        | ESP.WET.O(CAT).FF        | Elex |           | 1992              | Von Roll          | 125                |
| Iserlohn      | 1        | ESP.WET.O(CAT).FF        |      |           |                   | Lurgi             | 150                |
|               | 2        | ESP.WET.O(CAT).FF        |      |           |                   | Lurgi             | 150                |
|               | 3        | ESP.WET.O(CAT).FF        |      |           |                   | Lurgi             | 150                |
| Kamp-Lintfort | 1        | 2XESP, 2XWET, SCR, ACR   | 1997 | DBA       | 1997              | LCS               | 100                |
|               | 2        | 2XESP, 2XWET, SCR, ACR   | 1997 | DBA       | 1997              | LCS               | 100                |
| Kassel        | 1        |                          |      |           |                   |                   |                    |
| Kassel        | 1        | SD, ESP, FF, O           |      |           |                   | KRC, LCS          |                    |
|               | 2        | SD, ESP, FF, O           |      |           |                   | KRC, LCS          |                    |
|               | 3        | SD, ESP, FF, O           |      |           |                   | KRC, LCS          |                    |
|               | 4        | SD, ESP, FF, O           |      |           |                   | KRC, LCS          |                    |
| Kempten       | 1        | ESP.WET.SCR.FF           | 1996 | Noell KRC | 1996              | Noell KRC         | 135                |
| Kiel          | 1        | ESP,WET,SCR,FF           |      |           |                   | NOELL             | 40                 |
|               | 2        | ESP,WET,SCR,FF           |      |           |                   | NOELL             | 40                 |

## Germany

### Technical Information on the Plant

| Location     | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |                              | Boiler |                                     | Steam Data oC/bar | Hours of Operat.2004 |
|--------------|----------|--------------|--------------|------------|-------------|---------|------------------------------|--------|-------------------------------------|-------------------|----------------------|
|              |          |              |              |            |             | Type    | Supplier                     | Type   | Supplier                            |                   |                      |
| Krefeld      | 1        | 1975         |              | 12         | 8,5         | M       | VKW                          | S      | DBA                                 | 375/21            | 4997                 |
|              | 2        | 1975         |              | 12         | 8,5         | M       | VKW                          | S      | DBA                                 | 375/21            | 4342                 |
|              | 3        | 1982         |              | 12         | 8,5         | M       | DBA                          | S      | DBA                                 | 375/21            | 7150                 |
|              | 4        | 1997         |              | 18,43      | ~ 9,5       | M       | Steinmüller DBA              | S      | Steinmüller                         | 420/42            | 8001                 |
| Köln         | 1        | 1997         |              | 18         | 11,3        | M       | DBA                          | S      | DBA                                 | 400/40            |                      |
|              | 2        | 1997         |              | 18         | 11,3        | M       | DBA                          | S      | DBA                                 | 400/40            |                      |
|              | 3        | 1997         |              | 18         | 11,3        | M       | DBA                          | S      | DBA                                 | 400/40            |                      |
|              | 4        | 1997         |              | 18         | 11,3        | M       | DBA                          | S      | DBA                                 | 400/40            |                      |
| Landshut     | 1        | 1971         | 2006         | 3          | 8,5         | M       | Von Roll                     | S      | Wamser                              | 380/21            |                      |
|              | 2        | 1974         | 2006         | 3          | 8,5         | M       | Von Roll                     | S      | Wamser                              | 380/21            |                      |
|              | 3        | 1984         | 2006         | 6          | 8,5         | M       | Von Roll                     | S      | Wamser                              | 380/21            |                      |
| Lauta        | 1        | 2004         | -            | 15         | 9,5         | -       | -                            | S      | ALSTOM Power Boiler Conversion GmbH | 400/40            | 5320                 |
|              | 2        | 2004         | -            | 15         | 9,5         | -       | -                            | S      | ALSTOM Power Boiler Conversion GmbH | 400/40            | 4950                 |
| Leuna        | 1        |              |              |            |             |         |                              |        |                                     | 400/40            |                      |
| Leverkusen   | 1        | 1970         |              | 10         | 8,79        | M       | Von Roll                     | S      | MAN                                 | 300/17            | 7608                 |
|              | 2        | 1970         |              | 10         | 8,79        | M       | Von Roll                     | S      | MAN                                 | 300/17            | 7500                 |
|              | 3        | 1986         |              | 12         | 10,5        | M       | DBA                          | S      | Lentjes                             | 300/17            | 7135                 |
| Ludwigshafen | 1        | 1996         |              | 9          | 12          | M       | System Düsseldorf Walzenrost | S      | ML                                  | 420/42            |                      |
|              | 2        | 1989         |              | 12         | 8           | M       |                              | S      | VKW                                 | 420/42            |                      |
|              | 3        | 1989         |              | 12         | 8           | M       |                              | S      | VKW                                 | 420/42            |                      |
| Magdeburg    | 1        |              |              |            |             |         |                              |        |                                     | 400/40            |                      |
| Mainz        | 1        |              |              |            |             |         |                              |        |                                     |                   |                      |
| Mannheim     | 1        |              |              |            |             |         |                              |        |                                     |                   |                      |
|              | 2        | 1965         |              | 12         | 9,2         | F       | EVT                          | S      | EVT                                 | 500/120           |                      |
|              | 3        | 1965         |              | 12         | 9,2         | F       | EVT                          | S      | EVT                                 | 500/120           |                      |
|              | 4        | 1997         |              | 25         | 9,6         | F       | EVT                          | S      | EVT                                 | 500/120           |                      |
|              | 5        | 2003         |              | 25         | 9,6         | F       | Seghers/Rafako               | S      | Seghers                             | 265/27            |                      |
| Neunkirchen  | 1        | 1969         |              | 5          | 8           | m       | Martin.Mchn                  | S      |                                     | 400/40            |                      |
|              | 2        | 1977         |              | 10         | 8           | M       | Martin.Mchn                  | S      |                                     | 400/40            |                      |
|              | 3        | 1999         |              | 8,5        | 8           | M       | Martin.Mchn                  | S      |                                     | 400/40            |                      |
| Neustadt     | 1        | 1984         |              | 8          | 10          | M       | Von Roll                     | S      | Baumgarte                           | 420/42            | 8070                 |
| Nürnberg     | 1        | 1968         |              | 12,5       | 8,5         | M       | Von Roll                     | S      | EVT                                 | 400/40            |                      |
|              | 2        | 1968         |              | 12,5       | 8,5         | M       | Von Roll                     | S      | EVT                                 | 400/40            |                      |
|              | 3        | 1968         |              | 12,5       | 8,5         | M       | Von Roll                     | S      | EVT                                 | 400/40            |                      |
|              | 4        | 1979         |              | 20         | 8,5         | M       | Martin                       | S      | EVT                                 | 400/40            |                      |
| Oberhausen   | 1        | 1997         |              | 24,5       | 6,3         | M       | Babcock                      | S      | Babcock                             | 480/60            |                      |
|              | 2        | 1997         |              | 24,5       | 6,3         | M       | Babcock                      | S      | Babcock                             | 480/60            |                      |
|              | 3        | 1972         |              | 22         | 7           | M       | Babcock                      | S      | Babcock                             | 480/60            |                      |
|              | 4        | 1985         |              | 22         | 7           | M       | Babcock                      | S      | Babcock                             | 480/60            |                      |
| Offenbach    | 1        | 1997         |              | 10         | 9,2         | M       | Lentjes-Kablitz              | S      | Baumgarte                           | 405/40            |                      |
|              | 2        | 1996         |              | 10         | 9,2         | M       | Lentjes-Kablitz              | S      | Baumgarte                           | 405/40            |                      |
|              | 3        | 1996         |              | 10         | 9,2         | M       | Lentjes-Kablitz              | S      | Baumgarte                           | 405/40            |                      |

## Germany

### Technical Information on the Plant

| Location     | Line No. | Flue Gas Cleaning System | ESP  |          | Flue Gas Cleaning |                 | Flue Gas Temp., °C |
|--------------|----------|--------------------------|------|----------|-------------------|-----------------|--------------------|
|              |          |                          | Year | Supplier | Year              | Supplier        |                    |
| Krefeld      | 1        | FF.WET. SCR              |      |          | 1995              | DBA             | 118                |
|              | 2        | FF.WET. SCR              |      |          | 1995              | DBA             | 118                |
|              | 3        | FF.WET. SCR              |      |          | 1995              | DBA             | 118                |
|              | 4        | FF.WET. SCR              |      |          |                   |                 |                    |
| Köln         | 1        | FF.WET.O(CAT)            |      |          | DBA/LCS/ABB       | 100             |                    |
|              | 2        | FF.WET.O(CAT)            |      |          | DBA/LCS/ABB       | 100             |                    |
|              | 3        | FF.WET.O(CAT)            |      |          | DBA/LCS/ABB       | 100             |                    |
|              | 4        | FF.WET. CAT.             |      |          | DBA/LCS/ABB       | 100             |                    |
| Landshut     | 1        | ESP.WET                  |      |          | Von Roll          | 90              |                    |
|              | 2        | ESP.WET                  |      |          | Von Roll          | 90              |                    |
|              | 3        | ESP.WET                  |      |          | Von Roll          | 90              |                    |
| Lauta        | 1        | SD + SCR                 | -    | -        | 2004              | Austrian Energy | 175                |
|              | 2        | SD + SCR                 |      |          | 2004              | Austrian Energy | 175                |
| Leuna        | 1        |                          |      |          |                   |                 |                    |
| Leverkusen   | 1        | ESP/WET.FF/O(CAT)        |      |          | Rothenmühle/LCS   | 130             |                    |
|              | 2        | ESP/WET.FF/O(CAT)        |      |          | Rothenmühle/LCS   | 130             |                    |
|              | 3        | ESP/WET.FF/O(CAT)        |      |          | Rothenmühle/LCS   | 130             |                    |
| Ludwigshafen | 1        | NO INFO                  |      |          |                   |                 |                    |
|              | 2        | NO INFO                  |      |          |                   |                 |                    |
|              | 3        | NO INFO                  |      |          |                   |                 |                    |
| Magdeburg    | 1        |                          |      |          |                   |                 |                    |
| Mainz        | 1        |                          |      |          |                   |                 |                    |
| Mannheim     | 1        |                          |      |          | DBA.EVT           | 135             |                    |
|              | 2        | ESP.WET.SCR.             |      |          |                   |                 |                    |
|              | 3        | ESP.WET.SCR.             |      |          |                   |                 |                    |
|              | 4        | FF.WET.SCR.              |      |          |                   |                 |                    |
|              | 5        | ESP.WET.SCR.             |      |          |                   |                 |                    |
| Neunkirchen  | 1        | ESP.WET.SCR              |      |          | Wamser            | 120             |                    |
|              | 2        | ESP.WET.SCR              |      |          | Martin            | 120             |                    |
|              | 3        | ESP.WET.SCR              |      |          | Martin            | 120             |                    |
| Neustadt     | 1        | SD.WET. FF.O(CAT)        |      |          | Von Roll          | 115             |                    |
| Nürnberg     | 1        | ESP.SD. FF               |      |          | Lurgi             | 120             |                    |
|              | 2        | ESP.SD. FF               |      |          | Lurgi             | 120             |                    |
|              | 3        | ESP.SD. FF               |      |          | Lurgi             | 120             |                    |
|              | 4        | SD/FF                    |      |          | Lurgi             | 120             |                    |
| Oberhausen   | 1        | WET.SCR.FF               |      |          | Babcock           | 115             |                    |
|              | 2        | WET.SCR.FF               |      |          | Babcock           | 115             |                    |
|              | 3        | WET.SCR.FF               |      |          | Babcock           | 115             |                    |
|              | 4        | WET.SCR.FF               |      |          | Babcock           | 115             |                    |
| Offenbach    | 1        | WET.ESP.O(CAT)           |      |          | Babcock. Lurgi    | 150             |                    |
|              | 2        | WET.ESP.O(CAT)           |      |          | Babcock. Lurgi    | 150             |                    |
|              | 3        | WET.ESP.O(CAT)           |      |          | Babcock. Lurgi    | 150             |                    |

## Germany

### Technical Information on the Plant

| Location     | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |                  | Boiler |                      | Steam Data oC/bar | Hours of Operat.2004 |
|--------------|----------|--------------|--------------|------------|-------------|---------|------------------|--------|----------------------|-------------------|----------------------|
|              |          |              |              |            |             | Type    | Supplier         | Type   | Supplier             |                   |                      |
| Olching      | 1        | 1975         |              | 6          | 11,5        | M       | Keller & Peukert | S      | Baumgarte            | 400/40            |                      |
|              | 2        | 1985         |              | 6          | 11,5        | M       | Von Roll         | S      | Baumgarte            | 400/40            |                      |
|              | 3        | 1985         |              | 6          | 11,5        | M       | Von Roll         | S      | Baumgarte            | 400/40            |                      |
| Pirmasens    | 1        | 1999         |              |            | 7,5         | M       | Von Roll         | R      | Baumgarte            | 400/40            |                      |
| Rosenheim    | 1        | 1988         |              | 10         | 10          | M       | W+E              | S      | Wehrle               | 410/61            | 7918                 |
| Schwandorf   | 1        | 1982         |              | 18,7       | 7,9         | M       | W+E              | S      | Steinmüller          | 410/72            |                      |
|              | 2        | 1982         |              | 18,7       | 7,9         | M       | W+E              | S      | Steinmüller          | 410/72            |                      |
|              | 3        | 1982         |              | 18,7       | 7,9         | M       | W+E              | S      | Steinmüller          | 410/72            |                      |
|              | 4        | 1994         |              | 23,2       | 10,5        | M       | W+E              | S      | Eisenw Baumgarte     | 410/72            |                      |
| Schweinfurt  | 1        | 1994         |              | 8          | 8,5         | M       | KK NOELL         | S      | NOELL                | 450/65            |                      |
|              | 2        | 1994         |              | 8          | 8,5         | M       | KK NOELL         | S      | NOELL                | 450/65            |                      |
|              | 3        | 1994         |              | 8          | 8,5         | M       | KK NOELL         | S      | NOELL                | 450/65            |                      |
| Solingen     | 1        | 1969         |              | 7,6        | 10,5        | M       | Von Roll         | S      | Von Roll             | 440/42            |                      |
|              | 2        | 1992         |              | 12         | 10,5        | M       | EVT              | S      | EVT                  | 440/42            |                      |
| Stapelfeld   | 1        | 1979         |              | 22,5       | 9           | R       | Steinmüller      | S      | Steinmüller          | 370/26            |                      |
|              | 2        | 1979         |              | 22,5       | 9           | R       | Steinmüller      | S      | Steinmüller          | 370/26            |                      |
| Stassfurt    | 1        |              |              |            |             |         |                  |        |                      | 400/40            |                      |
| Stuttgart    | 1        | 1980         |              | 3          | 11          | FB      | Raschka          | S      | Raschka              | 180/10            |                      |
| Stuttgart    | 1        | 1965         |              | 20         | 9,3         | M       | Martin           | S      | EVT                  | 520/60            |                      |
| Stuttgart    | 2        | 1992         |              | 4          | 11          | FB      | Raschka          | S      | Raschka              | 180/10            |                      |
| Stuttgart    | 2        | 1971         |              | 20         | 9,3         | M       | VKW              | S      | EVT                  | 520/60            |                      |
|              | 3        | 1994         |              | 20         | 9,3         | M       | DBA              | S      | EVT/DBA              | 520/60            |                      |
| Tornesch     | 1        | 1987         |              | 5,5        | 9           | M       | Noell            | S      | Baumgarte            | 400/40            | 7962                 |
|              | 2        | 1987         |              | 5,5        | 9           | M       | Noell            | S      | Baumgarte            | 400/40            | 8252                 |
| Ulm          | 1        | 1997         |              | 8,6        | 9,2         | M       | Von Roll         | S      | Baumgarte            | 360/40            | 7858                 |
|              | 2        | 1997         |              | 8,6        | 9,2         | M       | Von Roll         | S      | Baumgarte            | 360/40            | 7864                 |
| Unterföhring | 1        | 1964         |              | 20         | 8,4         | M       | Martin           | S      | EKW                  | 400/40            |                      |
|              | 2        | 1964         |              | 20         | 8,4         | M       | Martin           | S      | EKW                  | 400/40            |                      |
|              | 3        | 1992         |              | 35         | 8,4         | M       | Martin           | S      | EKW                  | 400/40            |                      |
|              | 4        | 1992         |              | 35         | 8,4         | M       | Martin           | S      | EKW                  | 400/40            |                      |
| Völklingen   | 1        | 1997         |              | 15         | 10          | M       | Von Roll         | S      | EWB                  | 400/40            | 7555                 |
|              | 2        | 1997         |              | 15         | 10          | M       | Von Roll         | S      | EWB                  | 400/40            | 7701                 |
| Weißenfels   | 1        | 2005         | -            | 19,6       | 10          | fixed   |                  | steam  | Von Roll             | 400/40            |                      |
|              | 2        | 2005         | -            | 19,6       | 10          | fixed   |                  | steam  | Inova/Ziomar Podolsk | 400/40            |                      |
| Weißenhorn   | 1        | 1991         |              | 6,5        | 6,3         | M       | Alistom          | S      | DBA                  | 400/40            |                      |
|              | 2        | 1991         |              | 6,5        | 6,3         | M       | Alistom          | S      | DBA                  | 400/40            |                      |
| Wuppertal    | 1        | 1998         |              | 15         | 10,5        | R       | Lentjes          | S      | Lentjes              | 340/28            |                      |
|              | 3        | 1975         |              | 10         | 10,5        | R       | VKW              | S      | VKW                  | 340/28            |                      |
|              | 4        | 1997         |              | 15         | 10,5        | R       | Lentjes          | S      | Lentjes              | 340/28            |                      |
|              | 5        | 1990         |              | 15         | 10,5        | R       | Lentjes          | S      | Lentjes              | 340/40            |                      |
|              | 6        | 1995         |              | 15         | 10,5        | R       | Lentjes          | S      | Lentjes              | 340/40            |                      |
|              | 1        | 1984         |              | 12,5       | 8,5         | M       | Stiefel          | S      | EVT                  | 415/42            |                      |
| Würzburg     | 2        | 1984         |              | 12,5       | 8,5         | M       | Martin           | S      | EVT                  | 415/42            |                      |
|              | 3        | 1998         |              | 15,5       | 8,5         | M       | Noell            | S      | Baumgarte            | 415/42            |                      |

## Germany

### Technical Information on the Plant

| Location     | Line No. | Flue Gas Cleaning System | ESP  |          | Flue Gas Cleaning |                       | Flue Gas Temp., °C |
|--------------|----------|--------------------------|------|----------|-------------------|-----------------------|--------------------|
|              |          |                          | Year | Supplier | Year              | Supplier              |                    |
| Olching      | 1        | SD.FF. O(CAT)            |      |          |                   | Fläkt                 |                    |
|              | 2        | SD.FF. O(CAT)            |      |          |                   | Fläkt                 |                    |
|              | 3        | SD.FF. O(CAT)            |      |          |                   | Fläkt                 |                    |
| Pirmasens    | 1        | ESP.WET.FF               |      |          |                   | Von Roll              | 130                |
| Rosenheim    | 1        | SD.FF. SNCR              |      |          |                   | Lurgi                 | 150                |
| Schwandorf   | 1        | SD.FF.SCR                |      |          |                   | ABB.Fläkt.LUT         | 150                |
|              | 2        | SD.FF.SCR                |      |          |                   | ABB.Fläkt.LUT         | 150                |
|              | 3        | SD.FF.SCR                |      |          |                   | ABB.Fläkt.LUT         | 150                |
|              | 4        | SD.FF.SCR                |      |          |                   | ABB.Fläkt.LUT         | 150                |
| Schweinfurt  | 1        | FF.WET.O                 |      |          |                   | KRC NOELL             | 80                 |
|              | 2        | FF.WET.O                 |      |          |                   | KRC NOELL             | 80                 |
|              | 3        | FF.WET.O                 |      |          |                   | KRC NOELL             | 80                 |
| Solingen     | 1        | SD.ESP.                  |      |          |                   | Niro Atomicer / EVT   | 140                |
|              | 2        | FF/CAT                   |      |          |                   | Niro Atomicer / EVT   | 140                |
| Stapelfeld   | 1        | ESP.WET.SCR              |      |          |                   | Rothenmühle           |                    |
|              | 2        | ESP.WET.SCR              |      |          |                   | LCS                   |                    |
| Stassfurt    | 1        |                          |      |          |                   |                       |                    |
| Stuttgart    | 1        | ESP.SD                   |      |          |                   | Lentjes GEA Wiegand   | 70                 |
| Stuttgart    | 1        | SD.SCR. WET              |      |          |                   | Von Roll              | 150                |
| Stuttgart    | 2        | ESP.SD                   |      |          |                   | Lentjes GEA Wiegand   | 70                 |
| Stuttgart    | 2        | SD.SCR. WET              |      |          |                   | Von Roll              | 150                |
|              | 3        | SD.SCR. WET              |      |          |                   | KRC NOELL             | 150                |
| Tornesch     | 1        | ESP.WET.FF.SNCR          |      |          |                   | LLUT Noell            | 100                |
|              | 2        | ESP.WET.FF.SNCR          |      |          |                   | LLUT Noell            | 100                |
| Ulm          | 1        | ESP.WET.FF               |      |          |                   | Von Roll Rothenmühle  | 120                |
|              | 2        | ESP.WET.FF               |      |          |                   | Von Roll Rothenmühle  | 120                |
| Unterföhring | 1        | SD,ESP,WET,FF,O(CAT)     |      |          |                   | Babcock               |                    |
|              | 2        | SD,ESP,WET,FF,O(CAT)     |      |          |                   | Babcock               |                    |
|              | 3        | SD,ESP,WET,FF,O(CAT)     |      |          |                   | Babcock               |                    |
|              | 4        | SD,ESP,WET,FF,O(CAT)     |      |          |                   | Babcock               |                    |
| Völklingen   | 1        | ESP.WET.O.CAT.FF         |      |          |                   | VR / LET              | 120                |
|              | 2        | ESP.WET.O.CAT.FF         |      |          |                   | VR / LET              | 120                |
| Weißenfels   | 1        | SD                       | -    | -        | 2005              | Von Roll Inova        | max. 150°C         |
|              | 2        | SD                       | -    | -        | 2005              | Von Roll Inova        | max. 150°C         |
| Weißenhorn   | 1        | SD.WET. FF. O.CAT. AC    |      |          |                   | Fläkt                 | 130                |
|              | 2        | SD.WET. FF. O.CAT. AC    |      |          |                   | Fläkt                 | 130                |
| Wuppertal    | 1        | WET / SD / ESP /SCR      |      |          |                   | Lurgi / Lentjes / BSH | 150                |
|              | 3        | WET / SD / ESP /SCR      |      |          |                   | Lurgi / Lentjes / BSH | 150                |
|              | 4        | WET / SD / ESP /SCR      |      |          |                   | Lurgi / Lentjes / BSH | 150                |
|              | 5        | WET / SD / ESP /SCR      |      |          |                   | Lurgi / Lentjes / BSH | 150                |
|              | 6        | WET / SD / ESP /SCR      |      |          |                   | Lurgi / Lentjes / BSH | 150                |
|              |          |                          |      |          |                   |                       |                    |
| Würzburg     | 1        | FF.DRY.SCR               |      |          |                   | Noell                 | 140                |
|              | 2        | FF.DRY.SCR               |      |          |                   | Noell                 | 140                |
|              | 3        | FF.DRY.O. CAT            |      |          |                   | Noell                 | 140                |

**Germany**  
**Operational data, 2004**

| Location        | Total Incinerated Waste Quantity |                       |                                    |                          |                    |                            |                             | Aux. Fuels             |
|-----------------|----------------------------------|-----------------------|------------------------------------|--------------------------|--------------------|----------------------------|-----------------------------|------------------------|
|                 | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial /Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital Waste<br>(tonnes) | Other (Specify)<br>(tonnes) |                        |
| Augsburg        | 201879                           |                       |                                    |                          |                    |                            |                             |                        |
| Bamberg         | 114000                           |                       |                                    |                          |                    |                            |                             |                        |
| Berlin-Ruhleben | 520000                           |                       |                                    |                          |                    |                            |                             |                        |
| Bielefeld       | 325000                           |                       |                                    |                          |                    |                            |                             |                        |
| BKB Hannover    | 230000                           |                       |                                    |                          |                    |                            |                             |                        |
| Bonn            | 240000                           |                       |                                    |                          |                    |                            |                             |                        |
| Bremen          | 310300                           |                       |                                    |                          |                    |                            |                             |                        |
| Bremerhaven     | 300000                           |                       |                                    |                          |                    |                            |                             |                        |
| Burgau          |                                  |                       |                                    |                          |                    |                            |                             |                        |
| Burgkirchen     | 212372                           | 117000                | 95000                              |                          |                    |                            |                             | G:198000               |
| Böblingen       | 139775                           |                       |                                    |                          |                    |                            |                             | O:524,5                |
| Coburg          | 117886                           |                       |                                    |                          |                    |                            |                             |                        |
| Darmstadt       | 177516                           |                       |                                    |                          |                    |                            |                             |                        |
| Düsseldorf      | 413000                           | 323922                | 89043                              |                          |                    |                            |                             | O:1179911              |
| Eschbach        | 150000                           |                       |                                    |                          |                    |                            |                             |                        |
| Eschweiler      | 368007                           |                       |                                    |                          |                    |                            |                             |                        |
| Essen           | 668773                           |                       |                                    |                          |                    |                            |                             |                        |
| Frankfurt       | 211000                           |                       |                                    |                          |                    |                            |                             |                        |
| Greppin         | 16600                            |                       |                                    | 12456                    |                    |                            |                             | G:546100               |
| Göppingen       | 120000                           |                       |                                    |                          |                    |                            |                             |                        |
| Hagen           | 119500                           |                       |                                    |                          |                    |                            |                             |                        |
| Hamburg         | 323400                           |                       |                                    |                          |                    |                            |                             |                        |
| Hamburg         | 325590                           |                       |                                    |                          |                    |                            |                             |                        |
| Hamburg         | 150000                           |                       |                                    |                          |                    |                            |                             |                        |
| Hameln          | 159366                           |                       |                                    |                          |                    |                            |                             |                        |
| Hamm            | 255370                           |                       |                                    |                          |                    |                            |                             |                        |
| Helmstedt       | 298000                           |                       |                                    |                          |                    |                            |                             |                        |
| Herten          | 262023                           |                       |                                    |                          |                    |                            |                             |                        |
| Ingolstadt      | 211000                           | 106665                | 57970                              |                          |                    |                            | 6183                        | G:170090<br>B:40146    |
| Iserlohn        | 230000                           |                       |                                    |                          |                    |                            |                             |                        |
| Kamp-Lintfort   | 221145                           |                       |                                    | 4700                     |                    |                            |                             | O:2100000              |
| Kassel          | 150000                           |                       |                                    |                          |                    |                            |                             |                        |
| Kassel          |                                  |                       |                                    |                          |                    |                            |                             |                        |
| Kempten         | 76661                            | 36645                 | 27922                              |                          |                    | 514                        | 11580                       | O:101000<br>G:476000   |
| Kiel            | 133000                           |                       |                                    |                          |                    |                            |                             |                        |
| Krefeld         | 346231                           | 281124                | 24542                              |                          | 16873              | 1263                       | 22429                       | O:1888000<br>G:7787083 |
| Köln            | 671698                           |                       |                                    |                          |                    |                            |                             |                        |
| Landshut        |                                  |                       |                                    |                          |                    |                            |                             |                        |
| Lauta           | 225000                           |                       |                                    |                          |                    |                            |                             | O:168                  |
| Leuna           | 195000                           |                       |                                    |                          |                    |                            |                             |                        |
| Leverkusen      | 210000                           |                       |                                    |                          |                    |                            |                             |                        |
| Ludwigshafen    | 150300                           |                       |                                    |                          |                    |                            |                             |                        |
| Magdeburg       | 300000                           |                       |                                    |                          |                    |                            |                             |                        |
| Mainz           | 200000                           |                       |                                    |                          |                    |                            |                             |                        |
| Mannheim        | 317102                           | 236115                | 80987                              |                          |                    |                            |                             | O:268527<br>G:9570321  |
| Neunkirchen     | 121000                           |                       |                                    |                          |                    |                            |                             |                        |

**Germany**  
**Operational data, 2004**

| Location        | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|-----------------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|                 | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Augsburg        | 48242                  |                           | 681100            |                      |               |                   |                      |               |
| Bamberg         | 27000                  |                           | 400000            |                      |               |                   | 9500                 | 72600         |
| Berlin-Ruhleben |                        |                           | 1000000           |                      |               |                   |                      |               |
| Bielefeld       | 82000                  |                           | 1229316           |                      |               |                   | 118402               | 299647        |
| BKB Hannover    | 60000                  |                           | 468000            |                      |               |                   | 159000               | 45000         |
| Bonn            | 62902                  |                           | 742548            |                      |               |                   |                      |               |
| Bremen          | 74700                  |                           | 1150000           |                      |               |                   | 1457                 | 190669        |
| Bremerhaven     | 95000                  |                           | 980000            |                      |               |                   | 66000                | 230000        |
| Burgau          |                        |                           |                   |                      |               |                   |                      |               |
| Burgkirchen     | 46129                  | 6600                      | 729498            | 105000               |               | 93473             | 73917                |               |
| Böblingen       | 27912                  | 3145                      | 473000            | 53375                |               |                   | 34956                | 120801        |
| Coburg          | 28218                  |                           | 336866            |                      |               |                   | 33259                | 85051         |
| Darmstadt       | 47283                  |                           | 600000            |                      |               |                   | 34024                | 62880         |
| Düsseldorf      | 94000                  | 24120                     | 1058000           |                      |               | 1019836           |                      |               |
| Eschbach        |                        |                           |                   |                      |               |                   |                      |               |
| Eschweiler      | 99269                  |                           | 1164538           |                      |               |                   |                      |               |
| Essen           | 163976                 |                           | 2009000           |                      |               |                   | 176939               | 481373        |
| Frankfurt       | 51000                  |                           | 500000            |                      |               |                   |                      |               |
| Greppin         | 8000                   |                           | 45000             |                      | 25000         |                   |                      |               |
| Göppingen       | 30000                  |                           |                   |                      |               |                   | 40000                | 70000         |
| Hagen           | 40000                  | 3767                      | 340000            |                      |               |                   |                      | 70000         |
| Hamburg         | 84,084                 | 12,202                    |                   |                      | 769520        |                   |                      | 664072        |
| Hamburg         | 72000                  |                           | 970000            |                      |               |                   | 48600                | 444270        |
| Hamburg         | 41000                  |                           | 471000            |                      |               |                   | 40500                | 64000         |
| Hameln          | 37000                  |                           | 522314            |                      |               |                   | 13590                | 285000        |
| Hamm            | 66300                  |                           | 642000            |                      |               |                   | 82000                |               |
| Helmstedt       | 80000                  |                           | 930000            |                      |               |                   | 150000               |               |
| Herten          | 64861                  |                           | 1028868           |                      |               |                   | 80539                | 9882          |
| Ingolstadt      | 54000                  | 4711                      | 690000            | 105795               |               |                   | 78000                | 128000        |
| Iserlohn        | 65357                  |                           | 457000            |                      |               |                   | 62586                | 151028        |
| Kamp-Lintfort   | 59613                  |                           | 767887            | 111000               | 111000        |                   | 81100                | 116391        |
| Kassel          | 36755                  |                           | 514912            |                      |               |                   | 72552                | 154396        |
| Kassel          |                        |                           |                   |                      |               |                   |                      |               |
| Kempten         | 19147                  |                           | 302253            | 50871                | 41078         |                   | 36345                | 41078         |
| Kiel            | 33464                  |                           |                   |                      |               |                   | 19972                | 212694        |
| Krefeld         | 96954                  | 10332                     | 993043            | 131983               | 305741        |                   | 75281                | 179431        |
| Köln            | 146147                 |                           | 2199289           |                      |               |                   | 316705               | 277279        |
| Landshut        |                        |                           |                   |                      |               |                   |                      |               |
| Lauta           | 56000                  | 10038                     | 675000            | 58000                | 0             | 0                 | 120000               | 0             |
| Leuna           | 54600                  |                           | 660000            |                      |               |                   | 120000               |               |
| Leverkusen      | 56                     | 2,3                       | 620000            | 44                   |               |                   | 9,5                  | 150           |
| Ludwigshafen    | 45000                  |                           | 470000            |                      |               |                   |                      |               |
| Magdeburg       |                        |                           |                   |                      |               |                   | 170000               | 300000        |
| Mainz           | 62000                  |                           | 720000            |                      |               |                   |                      |               |
| Mannheim        | 82690                  | 7336                      | 1250000           | 59146                | 884844        | 717958            | 65000                | 680000        |
| Neunkirchen     | 31893                  |                           | 384537            |                      |               |                   | 43779                | 41607         |

**Germany**  
**Operational data, 2004**

| Location     | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels            |
|--------------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|-----------------------|
|              | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) |                       |
| Neustadt     | 59449                            | 37544                 | 16169                                 |                          |                    | 668                           | 5068                           | G:727000              |
| Nürnberg     | 216000                           |                       |                                       |                          |                    |                               |                                |                       |
| Oberhausen   | 496000                           |                       |                                       |                          |                    |                               |                                |                       |
| Offenbach    | 190000                           |                       |                                       |                          |                    |                               |                                |                       |
| Olching      | 92961                            |                       |                                       |                          |                    |                               |                                |                       |
| Pirmasens    | 170000                           |                       |                                       |                          |                    |                               |                                |                       |
| Rosenheim    | 58568                            |                       |                                       |                          |                    |                               |                                | O:373710              |
| Schwandorf   | 388900                           |                       |                                       |                          |                    |                               |                                |                       |
| Schweinfurt  | 155000                           |                       |                                       |                          |                    |                               |                                |                       |
| Solingen     | 94500                            |                       |                                       |                          |                    |                               |                                |                       |
| Stapelfeld   | 350000                           |                       |                                       |                          |                    |                               |                                |                       |
| Stassfurt    | 300000                           |                       |                                       |                          |                    |                               |                                |                       |
| Stuttgart    | 195000                           |                       |                                       |                          |                    |                               |                                |                       |
| Stuttgart    | 27320                            |                       |                                       |                          |                    |                               |                                |                       |
| Tornesch     | 76000                            | 46200                 | 22500                                 |                          |                    |                               | 7300                           | G:590000              |
| Ulm          | 111625                           | 68412                 | 44679                                 |                          |                    |                               |                                |                       |
| Unterföhring | 644142                           |                       |                                       |                          |                    |                               |                                |                       |
| Völklingen   | 210488                           | 188132                | 19134                                 |                          | 452                | 2270                          |                                | O:227782<br>G:3060133 |
| Weissenfels  | 300000                           |                       |                                       |                          |                    |                               |                                |                       |
| Weissenhorn  | 91419                            |                       |                                       |                          |                    |                               |                                |                       |
| Wuppertal    | 389900                           |                       |                                       |                          |                    |                               |                                |                       |
| Würzburg     | 155000                           |                       |                                       |                          |                    |                               |                                |                       |

**Germany**  
**Operational data, 2004**

| Location     | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|--------------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|              | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Neustadt     | 15083                  | 1204                      | 194000            | 26000                | 29600         |                   | 17600                | 29200         |
| Nürnberg     | 46000                  |                           | 740000            |                      |               |                   |                      | 490000        |
| Oberhausen   | 130000                 |                           | 1400000           |                      |               |                   | 178000               | 150000        |
| Offenbach    | 49463                  |                           | 500000            |                      |               |                   | 44465                | 138817        |
| Olching      | 23974                  |                           | 314502            |                      |               |                   | 33234                | 9479          |
| Pirmasens    | 47400                  |                           | 554000            |                      |               |                   | 71600                | 13300         |
| Rosenheim    | 12600                  | 5929                      | 195000            |                      |               |                   | 28000                | 116000        |
| Schwandorf   | 79946                  |                           | 1334350           |                      |               |                   | 142287               | 38997         |
| Schweinfurt  | 41540                  |                           | 460000            |                      |               |                   | 42700                | 231960        |
| Solingen     | 21010                  |                           |                   |                      |               |                   | 41650                | 30061         |
| Stapelfeld   | 100000                 |                           | 980000            |                      |               |                   | 82000                | 150000        |
| Stassfurt    | 90000                  |                           | 930000            |                      |               |                   | 71836                | 156800        |
| Stuttgart    | 39452                  |                           | 566500            |                      |               |                   | 86500                | 243700        |
| Stuttgart    | 6785                   |                           |                   |                      |               |                   |                      |               |
| Tornesch     | 18050                  | 2240                      | 205000            | 28200                | 49800         |                   | 10500                | 48500         |
| Ulm          | 25665                  | 3075                      | 383792            | 51489                |               |                   | 32455                | 98899         |
| Unterföhring | 153307                 |                           |                   |                      |               |                   | 108481               | 838144        |
| Völklingen   | 56540                  | 8428                      | 646790            | 119470               |               |                   | 91629                |               |
| Weissenfels  | 80000                  |                           | 987000            |                      |               |                   | 160000               | 3100          |
| Weissenhorn  | 18456                  |                           |                   |                      |               |                   | 40000                |               |
| Wuppertal    | 106000                 |                           | 1308000           |                      |               |                   | 135700               | 30100         |
| Würzburg     | 38500                  |                           | 474000            |                      |               |                   | 62800                | 32850         |



Number of plants: 22  
Average capacity: 18 t/h  
Quantity treated 2004: 873.000 t



**Great Britain**  
**General Information**

| Location               | Name of Plant<br>Web-site  | Address of Plant  | Phone<br>Fax                                 |
|------------------------|--|---|--|
| Bexley, London         | Bexley<br><a href="http://www.coryenvironmental.co.uk">www.coryenvironmental.co.uk</a>         |   | +44 (0) 20 7417 5200<br>+44 (0) 20 7417 5222 |
| Billingham             | Teeside EfW Plant  | Haverton Hill Road, Billingham, Teesside<br>TS23 1PY  | +44 (0) 164 220 2300<br>+44 (0) 164 220 2301 |
| Birmingham             | Tyseley Waste Disposal Ltd<br><a href="http://www.onyxgroup.co.uk">www.onyxgroup.co.uk</a>     | James Road, Tyseley<br>B11 2AB  | +44 (0) 20 7812 5000                         |
| Bolton                 | Bolton Thermal Recovery Facility<br><a href="http://www.gmwaste.co.uk">www.gmwaste.co.uk</a> . |   | +44 (0) 1204 654611<br>+44 (0) 1204 653350   |
| Chineham               | Chineham<br><a href="http://www.onyxgroup.co.uk">www.onyxgroup.co.uk</a>                       | Integra North ERF, Whitmarsh Lane,<br>Chineham, Basingstoke<br>RG24 8LL   | +44 (0) 20 7812 5000                         |
| Colnbrook              | Lakeside Energy from Waste Ltd.  | Lakeside Rd, Colnbrook<br>Berkshire   | +44 870 44 38 278                            |
| Coventry               | Coventry & Solihull<br><a href="http://www.cswdc.co.uk">www.cswdc.co.uk</a>                    | Bar Road<br><br>CV3 4AN COVENTRY  | +44 (0) 2476 507 400<br>+44 (0) 2476 506 154 |
| Douglas (Isle of Man)  | Douglas (Isle of Man)<br><a href="http://www.sita.co.im">www.sita.co.im</a>                    | Richmond Hill, Douglas, Isle of Man<br><br>IM4 1JH  | +44 (0) 1624 695260<br>+44 (0) 1624 660252   |
| Dudley                 | DUDLEY<br><a href="http://www.mes-e.co.uk">www.mes-e.co.uk</a>                                 | Lister Road<br><br>DY2 8JT DUDLEY - West Midlands   | +44 (0) 1384 457 321<br>+44 (0) 1384 457 124 |
| Dundee                 | Dundee   |   | +44 (0) 1382 483600                          |
| Grimsby                | Grimsby  |   | +44 (0) 1472 500270                          |
| Huddersfield           | Kirklees<br><a href="http://www.sita.co.uk">www.sita.co.uk</a>                                 |   | +44 (0) 1484 541355<br>+44 (0) 1484 425 395  |
| London                 | SELCHP<br><a href="http://www.selchp.com">www.selchp.com</a>                                   | Landmann Way, Off Surrey Canal Road,<br>Deptford<br>SE14 5RS  | +44 (0) 207 394 4770<br>+44 (0) 207 252 2986 |
| London                 | Edmonton<br><a href="http://www.londonwaste.co.uk">www.londonwaste.co.uk</a>                   | Angel Road, Edmonton<br>N18 3AG   | +44 (0) 208 803 1322<br>+44 (0) 208 884 5512 |
| Maidstone              | Kent<br><a href="http://www.kentenviropower.com.uk">www.kentenviropower.com.uk</a>             |   | +44 (0) 845 601 5432<br>+44 (0) 1732 834 071 |
| Marchwood, Southampton | Marchwood ERF<br><a href="http://www.onyxgroup.co.uk">www.onyxgroup.co.uk</a>                  | Integra South West ERF, Oceanic Way,<br>Marchwood Industrial Park, Normandy Wa<br>SO40 4BD Marchwood, Southampton | +44 (0) 20 7812 5000                         |
| Nottingham             | Eastcroft Energy from Waste Facility<br><a href="http://www.wrg.co.uk">www.wrg.co.uk</a>       | Incinerator Road, Off Meadow Lane<br>NG2 3AF  | 00441604 826200                              |
| Portsmouth             | Portsmouth ERF<br><a href="http://www.onyxgroup.co.uk">www.onyxgroup.co.uk</a>                 | Integra South East ERF, Quartremaine Road<br>PO3 5QH Portsmouth   | +44 (0) 20 7812 5000                         |
| Sheffield              | Onyx Sheffield ERF<br><a href="http://www.onyxsheffield.co.uk">www.onyxsheffield.co.uk</a>     | Bernard Road<br>S4 7YX Sheffield  | +44 (0) 114 228 3660                         |
| Shetland Islands       | Lerwick Energy Recovery Plant<br><a href="http://www.shetland.gov.uk">www.shetland.gov.uk</a>  | Greenhead<br><br>ZE1 0NT Lerwick  | +44 (0) 1595 600448<br>+44 (0) 1595 690025   |

**Great Britain**  
**General Information**

| Location                  | Contact Person<br>E-mail                                     | Owner of plant<br>No. of inhab. served          | Owners<br>Address   |
|---------------------------|--|---|---|
| Bexley, London            |  | Riverside Resource Recovery, Cory Environmental | 2 Coldbath Square<br>EC1R 5HL London                                    |
| Billingham                | Graham Ingleson<br>graham.ingleson@sita.co.uk                | SITA UK   |   |
| Birmingham                | Stuart Sim<br>ssim@onyxgroup.co.uk                           | Onyx UK Ltd                                     | Onyx House, 154A Pentonville Road<br>N1 9PE London                      |
| Bolton                    |  | Greater Manchester Waste Ltd                    | PO Box 151, Higher Swan Lane<br>BL3 3WW Bolton                          |
| Chineham                  |  | Onyx (UK) Ltd.                                  | Onyx House, 154A Pentonville Road<br>N1 9PE London                      |
| Colnbrook                 |  | Grundon Waste Management                        |   |
| Coventry                  | Mr Mash Mistry<br>mash@cswdc.co.uk                           | Coventry & Solihull Waste Disposal Co Ltd       | Bar Road, Whitley, Coventry,<br>Warwickshire<br>CV3 4AN                 |
| Douglas (Isle of Man)     |  | SITA Isle of Man                                | Richmond Hill, Douglas, Isle of Man<br>IM4 1JH                          |
| Dudley                    | Roger Sowden (Plant Manager)<br>maria@mesenvironmental.co.uk | DUDLEY WASTE SERVICES                           | Crown Street<br>WV1 1QB WOLVERHAMPTON -<br>West Midlands                |
| Dundee                    |  | Dundee Energy Recycling Ltd                     | Forties Rd<br>DD4 0NS Dundee  |
| Grimsby                   |  | Newlincs Development Ltd                        | Fishermans Wharf/Alexandra Dock,<br>Grimsby<br>DN311UL South Humberside |
| Huddersfield              | sita-in-uk@sita.co.uk  | SITA UK   | Diamond Street , Kirklees,<br>Huddersfield<br>HD1 6BZ                   |
| London                    | Steve Tower<br>stower@onyxgroup.co.uk                        | SELCHP Ltd                                      | Landmann Way, Off Surrey Canal<br>Road<br>SE14 5RS                      |
| London                    | Wendy Lord<br>wendy.lord@londonwaste.co.uk                   | London Waste Ltd                                | Advent Way, Edmonton<br>N18 3AG   |
| Maidstone                 |  | Kent Enviropower Ltd.                           | White Ladies Office, Teston Road,<br>Offham<br>ME19 5PF Kent            |
| Marchwood,<br>Southampton |  | Onyx UK Ltd                                     | Onyx House, 154A Pentonville Road<br>N1 9PE London                      |
| Nottingham                | Keith Whittle<br>keith.whittle@wrg.co.uk                     | WRG   |   |
| Portsmouth                |  | Onyx UK Ltd                                     | Onyx House, 154A Pentonville Road<br>N1 9PE London                      |
| Sheffield                 |  | Onyx Sheffield Ltd                              | Lumley Street, Sheffield<br>S4 7ZJ                                      |
| Shetland Islands          | W. Spence<br>william.spence@sic.shetland.gov.uk              | Shetland Islands Council<br>40000               | Town Hall Lerwick<br>ZE1 0NT  |

**Great Britain****General Information**

| Location       | Name of Plant<br>Web-site  | Address of Plant   | Phone<br>Fax                                 |
|----------------|--|--|--|
| Stoke on Trent | Stoke on Trent<br><a href="http://www.mes-e.co.uk">www.mes-e.co.uk</a> | Campbell Road, Sideway<br>ST4 4DX Stoke-on-Trent         | +44 (0) 1782 412 131<br>+44 (0) 1782 747 897 |
| Wolverhampton  | Wolverhampton<br><a href="http://www.mes-e.co.uk">www.mes-e.co.uk</a>  | Crown Street<br>WV1 1QB WOLVERHAMPTON - West<br>Midlands | +44 01902 458 888<br>+44 01902 458 999       |

**Great Britain****General Information**

| Location       | Contact Person<br>E-mail                                     | Owner of plant<br>No. of inhab. served | Owners<br>Address  |
|----------------|--|--|--|
| Stoke on Trent | John Hulme (Plant Manager)<br>maria@mesenvironmental.co.uk   | HANFORD WASTE SERVICES                 | Campbell Road, Sideway<br>ST4 4DX Stoke-on-Trent         |
| Wolverhampton  | Roger Sowden (Plant Manager)<br>maria@mesenvironmental.co.uk | WOLVERHAMPTON WASTE SERVICES           | Crown Street, Wolverhampton, West<br>Midlands<br>WV1 1QB |

## Great Britain

### Technical Information on the Plant

| Location               | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace                   |                | Boiler    |                | Steam Data oC/bar            | Hours of Operat.2004 |
|------------------------|----------|--------------|--------------|------------|-------------|---------------------------|----------------|-----------|----------------|------------------------------|----------------------|
|                        |          |              |              |            |             | Type                      | Supplier       | Type      | Supplier       |                              |                      |
| Bexley, London         | 1        |              |              |            |             |                           |                |           |                |                              |                      |
| Billingham             | 1        | maj-98       | 2020         | 14         | 10          | Fixed                     | Ansaldo Volund | Steam     | Ansaldo Volund | 400°C                        | 7642                 |
|                        | 2        | maj-98       | 2020         | 14         | 10          | Fixed                     | Ansaldo Volund | Steam     | Ansaldo Volund | 400°C                        | 7466                 |
| Birmingham             | 1        |              |              |            |             |                           |                |           |                |                              |                      |
| Bolton                 | 1        |              |              |            |             |                           |                |           |                |                              |                      |
| Chineham               | 1        | 2003         |              | 12         |             |                           |                |           | CNIM           |                              |                      |
| Colnbrook              | 1        |              |              |            |             |                           |                |           |                |                              |                      |
| Coventry               | 1        | 1975         |              | 12         |             |                           |                |           |                | martin grate / babcok boiler | 208 / 17.5           |
|                        | 2        | 1975         |              | 12         |             |                           |                |           |                | martin grate / babcok boiler | 208 / 17.5           |
|                        | 3        | 1975         |              | 12         |             |                           |                |           |                | martin grate / babcok boiler | 208 / 17.5           |
| Douglas (Isle of Man)  | 1        | 2004         | 2029         | 8,25       | 10700       | Moving Gra<br>Steppe d He | Babcock        | S         | Babcock        | 400/40                       |                      |
|                        | 2        | 2005         | 2029         | 1          | 8,5         | Techtrol                  |                | S         | Techtrol       | 400/7                        |                      |
| Dudley                 | 1        |              |              |            |             |                           |                |           |                |                              |                      |
| Dundee                 | 1        | 2000         | 2025         | 8          | 10          | FB                        | Kvaerner       | S         | Kvaerner       | 400C/ 40ba                   |                      |
|                        | 2        | 2000         | 2025         | 8          | 10          | FB                        | Kvaerner       | S         | Kvaerner       | 400C/40bar                   |                      |
| Grimsby                | 1        |              |              |            |             |                           |                |           |                |                              |                      |
| Huddersfield           | 1        | apr-02       |              | 17         | 9           | Moveable                  | Lurgi          | Steam     | Lurgi          | 400/41                       | 8116                 |
| London                 | 1        | 1970         |              | 15         | 9,5         | R                         | VKW            | S         | Yarrow         | 415/43                       | 7796                 |
| London                 | 1        | 1994         |              | 29         | 8,5         | M                         | Martin         | S         | CNIM           | 395/46                       |                      |
| London                 | 2        | 1970         |              | 15         | 9,5         | R                         | VKW            | S         | Yarrow         | 415/43                       | 7453                 |
| London                 | 2        | 1994         |              | 29         | 8,5         | M                         | Martin         | S         | CNIM           | 395/46                       |                      |
| London                 | 3        | 1970         |              | 15         | 9,5         | R                         | VKW            | S         | Yarrow         | 415/43                       | 6734                 |
|                        | 4        | 1970         |              | 15         | 9,5         | R                         | VKW            | S         | Yarrow         | 415/43                       | 5031                 |
|                        | 5        | 1970         |              | 15         | 9,5         | R                         | VKW            | S         | Yarrow         | 415/43                       | 7317                 |
| Maidstone              | 1        |              |              |            |             |                           |                |           |                |                              |                      |
| Marchwood, Southampton | 1        | 2004         |              | 22         |             |                           |                |           | CNIM           |                              |                      |
| Nottingham             | 1        | 1973         |              | 10         | 9,5         | F                         |                | S         | Head           | /                            |                      |
|                        | 2        | 1973         |              | 10         | 9,5         |                           |                |           | Head           | /                            |                      |
| Portsmouth             | 1        | 2005         |              | 22         |             |                           |                |           | CNIM           |                              |                      |
| Sheffield              | 1        | 2006         |              | 29         |             |                           |                |           | CNIM           |                              |                      |
| Shetland Islands       | 1        | 2000         | 2025         | 3,3        | 9,5         | M                         | FLS Miljo      | WW        | Danfos         |                              | 7765                 |
| Stoke on Trent         | 1        | 1997         |              | 12         | 9,2         | Grille typ                | MARTIN GmbH    | verticale | CNIM SA France | 395° C, 45                   |                      |
|                        | 2        | 1997         |              | 12         | 9,2         | Grille typ                | MARTIN GmbH    | verticale | CNIM SA France | same                         |                      |
| Wolverhampton          | 1        | 1998         |              | 7          | 9,2         | Grille typ                | MARTIN GmbH    | verticale | CNIM SA France | 355°C, 45                    |                      |
|                        | 2        | 1998         |              | 7          | 9,2         | Grille typ                | MARTIN GmbH    | verticale | CNIM SA France | same                         |                      |

## Great Britain

### Technical Information on the Plant

| Location               | Line No. | Flue Gas Cleaning System                         | ESP  |                           | Flue Gas Cleaning |                                  | Flue Gas Temp., °C |
|------------------------|----------|--|------|---------------------------|-------------------|----------------------------------|--------------------|
|                        |          |  | Year | Supplier                  | Year              | Supplier                         |                    |
| Bexley, London         | 1        |  |      |                           |                   |                                  |                    |
| Billingham             | 1        | SD, FF   | -    | None                      | 01-maj            | F.L.S. Miljo                     | 130°C              |
|                        | 2        | SD, FF   | -    | None                      | 01-maj            | F.L.S. Miljo                     | 130°C              |
| Birmingham             | 1        |  |      |                           |                   |                                  |                    |
| Bolton                 | 1        |  |      |                           |                   |                                  |                    |
| Chineham               | 1        |  |      |                           |                   |                                  |                    |
| Colnbrook              | 1        |  |      |                           |                   |                                  |                    |
| Coventry               | 1        | DRY Scrubbing with fabric filter                 |      |                           | 1996              | SAS Procedair                    | 140                |
|                        | 2        | dry scrubbing with fabric filter                 |      |                           | 1996              | SAS Procedair                    | 140                |
|                        | 3        | dry scrubbing with fabric filter                 |      |                           | 1996              | SAS Procedair                    | 140                |
| Douglas (Isle of Man)  | 1        | SD   |      |                           |                   | Seghers                          |                    |
|                        | 2        | SD   |      |                           |                   | Seghers                          |                    |
| Dudley                 | 1        |  |      |                           |                   |                                  |                    |
| Dundee                 | 1        | DRY  | 2000 | N/A                       | 2000              | Procedair                        | 145C               |
|                        | 2        | DRY  | 2000 | N/A                       | 2000              | Procedair                        | 145C               |
| Grimsby                | 1        |  |      |                           |                   |                                  |                    |
| Huddersfield           | 1        | Semi Dry; SNCR deNox, Urea injection, bagfilters |      | N/A                       | 2002              | BHS Cincinnati, Lurgi and Others | 140                |
| London                 | 1        | ESP/SD/FF  | 1970 | peabody sturgevant        | 1994              | Procedair                        | 140                |
| London                 | 1        | SD   |      |                           |                   | CNIM                             | 150                |
| London                 | 2        | ESP/SD/FF  | 1970 | peabody sturgevant        | 1994              | Procedair                        | 140                |
| London                 | 2        | SD   |      |                           |                   | CNIM                             | 150                |
| London                 | 3        | ESP/SD/FF  | 1970 | peabody sturgevant        | 1994              | Procedair                        | 140                |
|                        | 4        | ESP/SD/FF  | 1970 | peabody sturgevant        | 1994              | Procedair                        | 140                |
|                        | 5        | ESP/SD/FF  |      |                           |                   | Procedaire                       | 140                |
| Maidstone              | 1        |  |      |                           |                   |                                  |                    |
| Marchwood, Southampton | 1        |  |      |                           |                   |                                  |                    |
| Nottingham             | 1        | DRY + FF   |      |                           |                   | ABB                              | 130                |
|                        | 2        | DRY + FF   |      |                           |                   | ABB                              | 130                |
| Portsmouth             | 1        |  |      |                           |                   |                                  |                    |
| Sheffield              | 1        |  |      |                           |                   |                                  |                    |
| Shetland Islands       | 1        | wet  | 2000 | Hammond Research Cottrell | 2000              | Hammond research cottrell        | 100                |
| Stoke on Trent         | 1        | semi dry flue gas cleaning process               |      |                           | 1997              | CNIM SA France                   | 135° C             |
|                        | 2        | same   |      |                           | 1997              | CNIM SA france                   | 135° C             |
| Wolverhampton          | 1        | semi dry flue gas cleaning process               |      |                           | 1998              | CNIM SA France                   | 140° C             |
|                        | 2        | semi dry flue gas cleaning process               |      |                           | 1998              | CNIM SA France                   | 140° C             |

**Great Britain**  
**Operational data, 2004**

| Location                  | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels          |
|---------------------------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|---------------------|
|                           | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) |                     |
| Bexley, London            |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Billingham                | 230361                           | -                     | -                                     | -                        | -                  | -                             | -                              | O:256568            |
| Birmingham                |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Bolton                    |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Chineham                  |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Colnbrook                 |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Coventry                  |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Douglas (Isle of Man)     |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Dudley                    |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Dundee                    |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Grimsby                   |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Huddersfield              | 135814                           | -                     | -                                     | -                        | -                  | -                             | -                              | O:410173            |
| London                    |                                  |                       |                                       |                          |                    |                               |                                |                     |
| London                    | 485111                           |                       |                                       | 0                        | 0                  |                               |                                | O:173400<br>G:13619 |
| Maidstone                 |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Marchwood,<br>Southampton |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Nottingham                |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Portsmouth                |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Sheffield                 |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Shetland Islands          | 21511                            | 17702                 | 3793                                  |                          |                    | 16                            |                                | O:23000             |
| Stoke on Trent            |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Wolverhampton             |                                  |                       |                                       |                          |                    |                               |                                |                     |

**Great Britain**  
**Operational data, 2004**

| Location                  | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|---------------------------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|                           | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Bexley, London            |                        |                           |                   |                      |               |                   |                      |               |
| Billingham                | 66642                  | 7446                      | -                 | 155579               | -             | -                 | 142360               | -             |
| Birmingham                |                        |                           |                   |                      |               |                   |                      |               |
| Bolton                    |                        |                           |                   |                      |               |                   |                      |               |
| Chineham                  |                        |                           |                   |                      |               |                   |                      |               |
| Colnbrook                 |                        |                           |                   |                      |               |                   |                      |               |
| Coventry                  |                        |                           |                   |                      |               |                   |                      |               |
| Douglas (Isle of Man)     |                        |                           |                   |                      |               |                   |                      |               |
| Dudley                    |                        |                           |                   |                      |               |                   |                      |               |
| Dundee                    |                        |                           |                   |                      |               |                   |                      |               |
| Grimsby                   |                        |                           |                   |                      |               |                   |                      |               |
| Huddersfield              | 31637                  | 5397                      | -                 | 85824                | -             | -                 | 74823                | -             |
| London                    |                        |                           |                   |                      |               |                   |                      |               |
| London                    | 118767                 | 17201                     | 1311928           | 262442               | N/A           | N/A               | 222442               | N/A           |
| Maidstone                 |                        |                           |                   |                      |               |                   |                      |               |
| Marchwood,<br>Southampton |                        |                           |                   |                      |               |                   |                      |               |
| Nottingham                |                        |                           |                   |                      |               |                   |                      |               |
| Portsmouth                |                        |                           |                   |                      |               |                   |                      |               |
| Sheffield                 |                        |                           |                   |                      |               |                   |                      |               |
| Shetland Islands          | 4936                   | 403                       |                   |                      | 51459         |                   |                      | 51459         |
| Stoke on Trent            |                        |                           |                   |                      |               |                   |                      |               |
| Wolverhampton             |                        |                           |                   |                      |               |                   |                      |               |



Number of plants: 1  
Average capacity: 60 t/h  
Quantity treated 2004: 160.000 t



**Hungary**  
**General Information**

|          |                           |                                     |                                |
|----------|---------------------------|-------------------------------------|--------------------------------|
| Location | Name of Plant<br>Web-site | Address of Plant                    | Phone<br>Fax                   |
| Budapest | Budapest                  | Mélyfüró u. 10-12.<br>1151 Budapest | +36 1 3271128<br>+36 1 3271310 |

**Technical Information on the Plant**

| Location | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |               | Boiler |                            | Steam Data oC/bar | Hours of Operat.2004 |
|----------|----------|--------------|--------------|------------|-------------|---------|---------------|--------|----------------------------|-------------------|----------------------|
|          |          |              |              |            |             | Type    | Supplier      | Type   | Supplier                   |                   |                      |
| Budapest | 1        | 1981         |              | 15         | 8           | M       | Lurgi Lentjes | S      | Lurgi Lentjes/Baumgarte BS | 405/40            | 3923                 |
|          | 2        | 1981         |              | 15         | 8           | M       | Lurgi Lentjes | S      | Lurgi Lentjes/Baumgarte BS | 405/40            | 3673                 |
|          | 3        | 1981         |              | 15         | 8           | M       | Lurgi Lentjes | S      | Lurgi Lentjes/Baumgarte BS | 405/40            | 2014                 |
|          | 4        | 1981         |              | 15         | 8           | M       | Lurgi Lentjes | S      | Lurgi Lentjes/Baumgarte BS | 405/40            | 1955                 |

**Operational data, 2004**

| Location | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels |
|----------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|------------|
|          | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) |            |
| Budapest | 160.054                          |                       |                                       |                          |                    |                               |                                | G:1952869  |

## Hungary

### General Information

|          |                          |  |                                   |
|----------|--------------------------|--|-----------------------------------|
| Location | Contact Person<br>E-mail | Owner of plant<br>No. of inhab. served | Owners<br>Address                 |
| Budapest | Mrs Dorottya Nick        | Municipality of Budapest<br>1,200,000  | Városház u. 9-11<br>1056 Budapest |

### Technical Information on the Plant

| Location | Line No. | Flue Gas Cleaning System | ESP  |          | Flue Gas Cleaning |               | Flue Gas Temp., °C |
|----------|----------|--------------------------|------|----------|-------------------|---------------|--------------------|
|          |          |                          | Year | Supplier | Year              | Supplier      |                    |
| Budapest | 1        | SD, SNCR                 | 2004 |          | 2004              | Lurgi Lentjes | 140                |
|          | 2        | SD, SNCR                 | 2004 |          | 2004              | Lurgi Lentjes | 140                |
|          | 3        | SD, SNCR                 | 2005 |          | 2005              | Lurgi Lentjes | 140                |
|          | 4        | SD, SNCR                 | 2005 |          | 2005              | Lurgi Lentjes | 140                |

### Operational data, 2004

| Location | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|----------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|          | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Budapest | 38.125                 | 4.177                     | 391.539           | 54.068               | 301.048       | 40.291            | 47.684               |               |



Number of plants: 51  
Average capacity: 14 t/h  
Quantity treated 2004: 4.454.000 t



## Italy

### General Information

| Location                      | Name of Plant<br>Web-site  | Address of Plant  | Phone<br>Fax                         |
|-------------------------------|--|---|--------------------------------------|
| Arezzo                        | Arezzo<br><a href="http://www.aisaspa.com">www.aisaspa.com</a>                   | vicinale dei Mori località San Zeno<br>52040                  | +39 0575998612<br>+39 0575998612     |
| Bergamo                       | Bergamo<br><a href="http://www.bas.bg.it">www.bas.bg.it</a>                      | via Goltara, 23<br>24100                                      | +39 035351773<br>+39 035351755       |
| Bolzano                       | Bolzano<br><a href="http://www.eco-center.it">www.eco-center.it</a>              | via Lungo Isaco 57<br>39100                                   | +39 0471915550<br>+39 0471932660     |
| Brescia                       | Brescia<br><a href="http://www.asm.brescia.it">www.asm.brescia.it</a>            | via Malta 25/R<br>25124                                       | +39 0303553 212                      |
| Busto Arsizio (VA)            | Busto Arsizio<br><a href="http://www.accam.it">www.accam.it</a>                  | Strada Comunale di Arconate, 121<br>21052                     | +39 0331341979<br>+39 0331343520     |
| Castelnuovo Garfagnana (LU)   | Castelnuovo Garfagnana<br><a href="http://www.severa.it">www.severa.it</a>       | Loc. Belvedere<br>55032                                       | +39 0583-6442-80<br>+39 0583-6443-10 |
| Colleferro (Roma)             | Colleferro 1<br><a href="http://www.consortiogaia.it">www.consortiogaia.it</a>   | Via Vittorio Emanuele snc<br>00034 Colleferro (RM)            | +39 06 972041<br>+39 06 97710007     |
| Colleferro (Roma)             | Colleferro 2<br><a href="http://www.consortiogaia.it">www.consortiogaia.it</a>   | Via Vittorio Emanuele snc<br>00034 Colleferro (Roma)          | +39 06 972041<br>+39 06 97710007     |
| Como                          | Como<br><a href="http://www.acsm.it">www.acsm.it</a>                             | Località La Guzza<br>22100                                    | +39 031529169<br>+39 031521861       |
| Coriano (RN)                  | Coriano  | via Ralbano 32<br>47040                                       | +39 0541-361305<br>+39 0541-657-710  |
| Corteolona (PV)               | Corteolona   | Loc. Manzola Fornace<br>27014 Corteolona (PV)                 | +39 0382-727611<br>+39 0382-727636   |
| Cremona                       | Cremona<br><a href="http://www.aemcremona.it">www.aemcremona.it</a>              | via Antichi Budri<br>26100                                    | +39 0372418206<br>+39 0372412720     |
| Dalmine BG)                   | Dalmine<br><a href="http://www.readalmine.it">www.readalmine.it</a>              | Via Dossi<br>24044 Dalmine (BG)                               | +39 035 4157411<br>+39 035 4157432   |
| Desio (MI)                    | Desio<br><a href="http://www.beabrianza.it">www.beabrianza.it</a>                | via Gaetana Agnesi n. 272<br>20033                            | +39 0362620643<br>+39 0362627039     |
| Ferrara                       | Ferrara Conchetta<br><a href="http://www.gruppohera.it">www.gruppohera.it</a>    | Via Conchetta, 100<br>44100 Malborghetto (FE)                 | +39 0532-780272<br>+39 0532-780276   |
| Ferrara                       | Ferrara Casal Bianco<br><a href="http://www.gruppohera.it">www.gruppohera.it</a> | Via C. Diana ,44 ZONA P.m.i.<br>44100 Cassana (Ferrara)       | +39 0532-780272<br>+39 0532-780276   |
| Forli                         | Forli<br><a href="http://www.gruppohera.it">www.gruppohera.it</a>                | via Grigioni 19<br>47100                                      | +39 0543 790832<br>+39 0543 790811   |
| Gioia Tauro (Reggio Calabria) | Gioia Tauro<br><a href="http://www.termomeccanica.it">www.termomeccanica.it</a>  | Contrada Cicerna<br>89013 Gioia Tauro (Reggio Calabria)       | +39 0966 506092<br>+39 0966 506548   |
| Granarolo Emilia (BO)         | Granarolo Emilia<br><a href="http://www.feafrullo.it">www.feafrullo.it</a>       | via Frullo 5<br>40057   | +39 051287946<br>+39 051287932       |
| Livorno                       | Livorno  | Via dell'artigianato 32<br>Livorno                            |                                      |
| Macchiareddu (CA)             | Macchiareddu<br><a href="http://www.casic.it">www.casic.it</a>                   | Strada Dorsale Consortile km 10500<br>09032 Macchiareddu (CA) | +39 070246341<br>+39 07024634301     |

## Italy

### General Information

| Location                         | Contact Person<br>E-mail                               | Owner of plant<br>No. of inhab. served                                      | Owners<br>Address  |
|----------------------------------|--|---|--|
| Arezzo                           | Ing. Marzio Lasagni<br>AISA.SANZENO@VIRGILIO.IT        | Aisa S.p.A.   | via Trento e Trieste, 163<br>52100 Arezzo                          |
| Bergamo                          | Simone Malvezzi<br>baspower@bas.bg.it                  | BAS Power S.r.l.  | via Codussi, 46<br>24100 Bergamo                                   |
| Bolzano                          | Ing. Alessandro De Carli<br>inc.bolzano@eco-center.it  | ECO-Center SpA<br>350000  | via Lungo Isaco 57<br>39100 Bolzano                                |
| Brescia                          | Lorenzo Zaniboni<br>lzaniboni@asm.brescia.it           | Asm S.p.A.<br>1100000   | via Lamarmora, 230<br>25124 Brescia                                |
| Busto Arsizio<br>(VA)            | Ing. Giosafatte Mondelli<br>accam@accam.it             | Accam S.p.A.<br>422099  | Strada Comunale di Arconate, 121<br>21052 Busto Arsizio (VA)       |
| Castelnuovo<br>Garfagnana (LU)   | Dott. Oscar Guidi<br>guidi@severa.it                   | Se.Ver.A. SpA<br>43000  | Località Belvedere, 1<br>55032 Castelnuovo di Garfagnana<br>(LU)   |
| Colleferro (Roma)                | Dott. Paolo Meaglia<br>paolo.meaglia@consorziogaia.it  | Mobilservice Srl  | Via Colledoro, 45-47<br>00034 Colleferro (Roma)                    |
| Colleferro (Roma)                | Dott. Paolo Meaglia<br>paolo.meaglia@consorziogaia.it  | EP Sistemi SpA  | Via Colledoro, 45-47<br>00034 Colleferro (Roma)                    |
| Como                             | Donatella Celsi<br>donatella.celsi@acsm.it             | ACSM S.p.A.   | via Stazzi, 2<br>22100 Como  |
| Coriano (RN)                     | Ing. Marcello Mini<br>marcello.mini@gruppohera.it      | HERA SpA<br>283239  | via C. Barti Pichat, 2/4<br>Bologna                                |
| Corteolona (PV)                  | Dott. Giuseppe Puglisi<br>b.puglisi@ecodeco.it         | ECOENERGIA Srl  | Loc. Manzola Fornace<br>27014 Corteolona (PV)                      |
| Cremona                          | Ing. Fiorenzo Bassi<br>info@aemcremona.it              | Aem S.p.A.<br>320000  | viale Trento e Trieste, 38<br>26100 Cremona                        |
| Dalmine BG)                      | rea@readalmine.it                                      | REA Rifiuti Energia Ambiente<br>670000                                      | Via Dossi snc<br>24044 Dalmine (BG)                                |
| Desio (MI)                       | Lorena Fraccaroli<br>segreteria.generale@beabrianza.it | BEA S.p.A.<br>280000  | via Gaetana Agnesi n. 272<br>20033 Desio (MI)                      |
| Ferrara                          | Andrea Carletti<br>andrea.carletti@hera.it             | HERA SpA<br>131000  | Viale C. Berti Pichat 2/4<br>40100 Bologna                         |
| Ferrara                          | Andrea Carletti<br>andrea.carletti@gruppohera.it       | HERA SpA<br>131000  | Viale C. Berti Pichat 2/4<br>40100 Bologna                         |
| Forli                            | Lorenzo Missiroli<br>lorenzo.missiroli@gruppohera.it   | HERA SpA<br>160000  | Via Berti Pichat, 2/4<br>Bologna                                   |
| Gioia Tauro<br>(Reggio Calabria) | ing. Stefano Danieli<br>tec.danieli@virgilio.it        | Ufficio del Commissario per l'emergenza<br>rifiuti della Calabria<br>630000 | Via delle Repubbliche Marinare<br>89063 Catanzaro Lido (Catanzaro) |
| Granarolo Emilia<br>(BO)         | Paolo Cecchin<br>barbara.folchi@gruppohera.it          | Frullo Energia Ambiente   | Via Berti Pichat 4<br>40127 Bologna                                |
| Livorno                          | Ing. Fabio Belluchi<br>belluchi@aamps.livorno.it       | AAMPS SpA<br>160000   | Via Bandi 15<br>57100 Livorno                                      |
| Macchiarreddu<br>(CA)            | Dott. Salvatore Montis<br>casic@casic.it               | Tecnocasic SpA  | Viale Diaz 86<br>09125 Cagliari                                    |

## Italy

### General Information

| Location                   | Name of Plant<br>Web-site   | Address of Plant  | Phone<br>Fax                         |
|----------------------------|---|---|--------------------------------------|
| Macomer (NU)               | Macomer<br><a href="http://www.tossilo.it">www.tossilo.it</a>                           | Loc. Tossilo<br>08015 Macomer                             |                                      |
| Massafra (TA)              | Massafra  | Contrada Console<br>74016 Massafra (TA)                   | +39 0998804187<br>+39 0998804168     |
| Melfi PZ)                  | Melfi<br><a href="http://www.fenicespa.com">www.fenicespa.com</a>                       | Strada Vicinale Montelungo<br>85025 Melfi (PZ)            | +39 0972 762543<br>+39 0972 78159    |
| Mergozzo (VB)              | Mergozzo<br><a href="http://www.conservco.it">www.conservco.it</a>                      | LOC. PRATO MICHELACCIO- Mergozzo<br>28028 Mergozzo (VB)   | +39 032380295<br>+39 032380838       |
| Milano                     | Milano<br><a href="http://www.amsa.it">www.amsa.it</a>                                  | via Silla 249<br>20153                                    | +39 0227298702<br>+39 0227298737     |
| Modena                     | Modena<br><a href="http://www.meta.mo.it">www.meta.mo.it</a>                            | via Cavazza 45<br>41100                                   | +39 059 407358<br>+39 059 407369     |
| Montale/Agliana (PT)       | Montale/Agliana<br><a href="http://www.cis-spa.it">www.cis-spa.it</a>                   | via W. Tobagi, 16<br>51037                                | +39 05734431<br>+39 0573443231       |
| Ospedaletto (PI)           | Ospedaletto<br><a href="http://www.geofor.it">www.geofor.it</a>                         | Via di Granuccio<br>56014 Ospedaletto (PI)                | +39 05097590<br>+39 050985375        |
| Padova                     | Padova<br><a href="http://www.acegas-aps.it">www.acegas-aps.it</a>                      | V.Le Navigazione Interna 34<br>31030                      | +39 0497-7921313<br>+39 0498-7921300 |
| Parona PV)                 | Parona  | Str. Vicinale per Vigevano<br>27020 Parona                | +39 0384 25431<br>+39 0384 2543245   |
| Piacenza                   | Piacenza  | Via Borgoforte, 22<br>29100 Piacenza                      | +39 0523 505012<br>+39 0523 505009   |
| Pietrasanta /LU)           | Falascaia<br><a href="http://www.termomeccanica.it">www.termomeccanica.it</a>           | Via delle Colmate<br>55045 Pietrasanta (Lucca)            | +39 0584283313<br>+39 0584284119     |
| Poggibonsi (SI)            | Poggibonsi<br><a href="http://www.sienambiente.it">www.sienambiente.it</a>              | Pian de Foci<br>53036 Poggibonsi (SI)                     | +39 0577 248073<br>+39 0577 248045   |
| Potenza                    | Potenza   | C.da San Luca Branca<br>85100 Potenza (PZ)                | +39 097150029                        |
| Ravenna                    | Ravenna<br><a href="http://www.gruppohera.it">www.gruppohera.it</a>                     | SS. 309 Romea<br>48100 Ravenna                            | +39 0544 541447<br>+39 0544 241324   |
| Reggio Emilia              | Reggio Emilia<br><a href="http://www.eniaspa.it">www.eniaspa.it</a>                     | via Gonzaga 46<br>42100 Reggio Emilia                     | +39 0522 297252<br>+39 0522 381396   |
| Rufina/Pontassieve (FI)    | Rufina/Pontassieve  | SS Tosco Romagnola km 103.700<br>50068 Rufina (FIRENZE)   |                                      |
| San Vittore del Lazio (FR) | San Vittore del Lazio   | Località Valle Porchio<br>3040 San Vittore del Lazio (FR) | +39 0776-344758<br>+39 0776-34223    |
| Scarlino                   | Cogeneratore di Scarlino  | ????<br>Scarlino  |                                      |
| Schio (VI)                 | Schio<br><a href="http://www.altovicentinoambiente.it">www.altovicentinoambiente.it</a> | Via Lago di Pusiano,4<br>36015 Schio (VI)                 | +39 0445 575707<br>+39 0445 575813   |
| Sesto S. Giovanni (MI).    | Sesto San Giovanni<br><a href="http://www.coresesto.it">www.coresesto.it</a>            | via Manin, 181<br>20099                                   | +39 0224417026<br>+39 022485370      |
| Statte (TA)                | Statte<br><a href="http://www.termomeccanica.it">www.termomeccanica.it</a>              | S.S. 7 Appia, km 642<br>74010 Statte (TA)                 | +39 099 4700170<br>+39 099 4717004   |
| Terni                      | Terni   | Via Ratini 6<br>05100 Terni                               | +39 0744 391306<br>+39 0744 391306   |
| Tolentino/Pollenza (MC)    | Tolentino/Pollenza<br><a href="http://www.cosmari.sinp.net">www.cosmari.sinp.net</a>    | Loc. Piane di Chienti<br>62029 Tolentino (MC)             | +39 0733 203504<br>+39 0733 204014   |

## Italy

### General Information

| Location                   | Contact Person<br>E-mail                                  | Owner of plant<br>No. of inhab. served   | Owners<br>Address                               |
|----------------------------|---|--|---|
| Macomer (NU)               | tosservice@tiscali.it                                     | Consorzio Industriale di Macomer         | 08015 Macomer                                   |
| Massafra (TA)              | Antonio Albanese  |  | Via Libertini 63<br>74016 Massafra (TA)         |
| Melfi PZ)                  | Ing. Ruggero De Fazio<br>ruggero.defazio@fenicespa.com    | Fenice SpA<br>100000                     | Via Acqui, 86<br>10090 Cascine Vica Rivoli      |
| Mergozzo (VB)              | Ing. Daniele Pasquali<br>daniele.pasquali@conservco.it    | CONSERVCO<br>101529                      | Via Olanda 55<br>28922 - Verbania Pallanza (VB) |
| Milano                     | Corrado Vicardi<br>amsa@amsa.it                           | Amsa S.p.A.                              | via Olgettina, 25<br>20132 Milano               |
| Modena                     | Dott. Roberto Paparella<br>rpaparella@meta.mo.it          | Modena Municipality<br>427000            | Via Razzaboni, 80<br>41100 Modena               |
| Montale/Agliana (PT)       | Ing. Alfredo Perruccio<br>info@cis-spa.it                 | CIS S.p.A.<br>50000                      | via W. Tobagi, 16<br>51037 Montale (PT)         |
| Ospedaletto (PI)           | Ing. Giuseppe Battiatto<br>giuseppe.battiatto@geofor.it   | Geofor SpA<br>150000                     | Via Scolmatore<br>Gello                         |
| Padova                     | ing. Giuseppe Righetti                                    | ACEGAS APS Padova                        | Via Maestri del Lavoro 8<br>34123 Trieste       |
| Parona PV)                 | Dott. Emilio Lorena<br>emilio.lorena@lomellinaenergia.it  | Lomellina Energia                        | Via Caboto , 1<br>20094 Corsico (MI)            |
| Piacenza                   | Dott. Claudio Mazzari<br>tecnoborgo@tecnoborgo.com        | Tecnoborgo SpA<br>250000                 | Via Borgoforte, 22<br>29100 Piacenza            |
| Pietrasanta /LU)           | Ing. Carlo Gasparini<br>tev.falascaia@termomeccanica.it   | Comune di Pietrasanta                    | Piazza Matteotti<br>55045 Pietrasanta (Lucca)   |
| Poggibonsi (SI)            | Dott Iacopo Vigevani<br>i.vigevani@sienambiente.it        | Siena Ambiente SpA                       | Località Salceto 55<br>53036 Poggibonsi (SI)    |
| Potenza                    | Ing. Bruno  | Comune di Potenza                        | Piazza Matteotti<br>85100 Potenza (PZ)          |
| Ravenna                    | Ruggero Panizzolo<br>ruggero.panizzolo@gruppohera.it      | HERA SpA                                 | Via Berti Pichat 2/4<br>40100 Bologna           |
| Reggio Emilia              | Ing. Luca Benassi<br>luca.benassi@eniaspa.it              | Enia SpA<br>400000                       | Strada S. Margherita, 6/A<br>43100 Parma        |
| Rufina/Pontassieve (FI)    | Ing. Santoni<br>admni@aerweb.it                           | AER SpA<br>56058                         |   |
| San Vittore del Lazio (FR) | Giordano Bruno<br>eallsrl@virgilio.it                     | E.A.L.L.                                 | 5100 Terni                                      |
| Scarlino                   |   |  | ????<br>Scarlino                                |
| Schio (VI)                 | Dott. Roberto Zanotto<br>zanotto@altovicentinoambiente.it | Alto Vicentino Ambiente s.r.l.<br>200000 | Via Lago di Pusiano,4<br>36015 Schio (VI)       |
| Sesto S. Giovanni (MI).    | Eros Busato<br>info@coresesto.it                          | Core S.p.A.<br>269000                    | via Manin, 181<br>20099 Sesto San Giovanni (MI) |
| Statte (TA)                | Ing. Francesco Taveri<br>tme.ta@termomeccanica.com        | Comune di Taranto<br>250000              | P.zza Castello, 1<br>74100 Taranto              |
| Terni                      | Leonardo Carloni  | ASM Terni SpA<br>150000                  | Via Ratini, 6<br>05100 Terni                    |
| Tolentino/Pollenza (MC)    | Ing. Gianpaoli<br>cosmari@cosmari.sinp.net                | COSMARI                                  | Loc. Piane di Chienti                           |

**Italy****General Information**

| <b>Location</b> | <b>Name of Plant<br/>Web-site</b>  | <b>Address of Plant</b>                    | <b>Phone<br/>Fax</b>               |
|-----------------|--|--|------------------------------------|
| Trezzo sull     | Trezzo sull<br><a href="http://www.termotrezzo.it">www.termotrezzo.it</a>        | Via Pastore snc<br>20056 Trezzo sull       | +39 02 92004303<br>+39 02 92994305 |
| Trieste         | Trieste<br><a href="http://www.acegas-aps.it">www.acegas-aps.it</a>              | via Errera, 11<br>34147                    | +39 0407793 901<br>+39 0407793 910 |
| Valmedrara (LC) | Valmadrera   | via Leonardo Vassena 6<br>23852 Valmadrera | +39 0341 583314<br>+39 0341 583559 |
| Venezia         | Venezia/Fusina   |  |                                    |
| Vercelli        | Vercelli<br><a href="http://www.atenapatrimonio.net">www.atenapatrimonio.net</a> | Via per Asigliano, 6<br>13100 Vercelli     | +39 0161 214544<br>+39 0161 266156 |
| Verona          | Verona<br><a href="http://www.agsm.it">www.agsm.it</a>                           | via Sasse<br>37132                         | +39 0458952211<br>+39 0458952255   |

**Italy****General Information**

| <b>Location</b> | <b>Contact Person</b><br><b>E-mail</b>                         | <b>Owner of plant</b><br><b>No. of inhab. served</b> | <b>Owners</b><br><b>Address</b>                     |
|-----------------|--|--|---|
| Trezzo sull     | Ing. Augusto Feliciani<br>feliciani.ambiente 2000@wtetrezzo.it | Prima Srl<br>750000                                  | Via G.E. Falck, 63<br>20099 Sesto San Giovanni (MI) |
| Trieste         | Ing. Stefano Gregorio<br>info.ts@acegas-aps.it                 | Acegas - Aps S.p.A.<br>483581                        | via Maestri del Lavoro, 8<br>34123 Trieste          |
| Valmedrara (LC) | info@sileaspa.it   | Silea SpA<br>310000                                  | via Leonardo Vassena 6<br>23852 Valmadrera (LC)     |
| Venezia         |  |  |   |
| Vercelli        | Ing. Stefano Danieli<br>tecnitalia@plion.it                    | A.T.En.A. Patrimonio spa<br>179836                   | Corso Palestro, 126<br>13100 Vercelli               |
| Verona          | Ing. Stefano Nicolò<br>impiantorsu@agsm.it                     | Agsm S.p.A.<br>419443                                | lungadige Galtarossa<br>37133 Verona                |

## Italy

### Technical Information on the Plant

| Location                      | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |  | Boiler |                     | Steam Data oC/bar | Hours of Operat.2004 |
|-------------------------------|----------|--------------|--------------|------------|-------------|---------|--|--------|---------------------|-------------------|----------------------|
|                               |          |              |              |            |             | Type    | Supplier   | Type   | Supplier            |                   |                      |
| Arezzo                        | 1        | 2000         |              |            |             | M       |  | S      | Crugnola            | 380/40            | 8055                 |
| Bergamo                       | 1        | 2003         |              | 9          | 15000       | FB      | CCT/EPI  | HW     | CCT                 | 280/67            | 6269                 |
| Bolzano                       | 1        | 1988         | 2010         | 5          | 10,45       | M       | Lurgi  | S      | Sices               | 42/304            |                      |
|                               | 2        | 1994         | 2010         | 7,5        | 10,45       | M       | Lurgi  | S      | Sices               | 42/304            |                      |
| Brescia                       | 1        | 1998         |              | 34,5       | 9,21        | M       | Martin   | S      | Ansaldo             | 460/70            | 7696                 |
|                               | 2        | 1998         |              | 34,5       | 9,21        | M       | Martin   | S      | Ansaldo             | 460/70            | 7791                 |
|                               | 3        | 2004         |              | 34,5       | 10,47       | M       | Martin   | S      | Ansaldo Caldaie     | 460/70            | 6609                 |
| Busto Arsizio (VA)            | 1        | 2000         |              | 10,5       | 9,2         | M       | W+E  | S      | CEI INSTEAM - COMEF | 380/40            | 266                  |
|                               | 2        | 2000         |              | 10,5       | 9,2         | M       | W+E  | S      | CEI INSTEAM - COMEF | 380/40            | 262                  |
| Castelnuovo Garfagnana (LU)   | 1        | 1997         |              | 1,5        | 10,98       | M       | Alberti Fonsar                                   | S      | Sprinco             | 40/250            | 7415                 |
| Colleferro (Roma)             | 1        | 2003         |              | 12         | 16          | O       | ATI Lurgi Pianimpianti                           | HW     | CCT Srl             | /                 | 6300                 |
| Colleferro (Roma)             | 1        | 2002         |              | 12         | 16          | O       | ATI Lurgi Pianimpianti                           | HW     | CCT Srl             | /                 | 7200                 |
| Como                          | 1        | 1967         |              | 5          | 8,372       | M       | DB   | HW     | Galleri             | 240/40            | 7713                 |
|                               | 2        | 1997         |              | 6,25       | 8,372       | M       | DB   | HW     | Galleri             | 240/40            | 7034                 |
| Coriano (RN)                  | 1        | 1994         |              | 5          | 10,46       | M       | Von Roll   | S      | Crugnola            | 45/259            | 7104                 |
|                               | 2        | 1994         |              | 5          | 10,46       | M       | Von Roll   | S      | Crugnola            | 45/259            | 7752                 |
|                               | 3        | 2001         |              | 8,33       | 10,46       | M       | Public Consult                                   | S      | Ruths               | 49/265            | 6816                 |
| Corteolona (PV)               | 1        | 2004         |              | 8,16       | 15          | F       |  | S      |                     | 40/410            | 4500                 |
| Cremona                       | 1        | 1997         |              | 6,25       | 10,99       | M       |  | S      |                     | 385/40            | 6975                 |
|                               | 2        | 2001         |              | 6,25       | 10,99       | M       |  | S      |                     | 385/40            | 7141                 |
| Dalmine BG)                   | 1        | 2001         |              | 8,33       | 10,88       | M       | NOYVALESINA ENG. SPA                             | S      | Macchi              | 67/430            | 7894                 |
|                               | 2        | 2001         |              | 8,33       | 10,88       | M       | NOYVALESINA ENG. SPA                             | S      | Macchi              | 67/430            | 7934                 |
| Desio (MI)                    | 1        | 2003         |              | 5          |             | M       | Forni ed Impianti Industriali De Bartolomeis Spa | S      | Mariotti spa        | 221/24            | 6996                 |
|                               | 2        | 2003         |              | 5          |             | M       | Forni ed Impianti Industriali De Bartolomeis Spa | S      | Mariotti spa        | 221/24            | 7152                 |
| Ferrara                       | 1        | 2002         |              | 3,9        | 10,46       | M       | De Bartolomeis                                   | S      |                     | /                 | 6864                 |
| Ferrara                       | 1        | 1999         |              | 6,25       | 10,46       | M       | De Bartolomeis                                   |        | De Bartolomeis      | 380/37            | 7176                 |
| Forli                         | 1        | 2000         | 2007         | 4,2        |             | M       | EMIT   | S      | Public Consult      | 370/40            | 6837                 |
|                               | 2        | 2000         | 2007         | 4,2        |             | M       | EMIT   | S      | Public Consult      | 370/40            | 6455                 |
| Gioia Tauro (Reggio Calabria) | 1        | 2005         |              | 8,64       | 15          | FB      | Kvaerner   | S      | Kvaerner/CGT        | 41/405            |                      |
|                               | 2        | 2005         |              | 8,64       | 15          | FB      | Kvaerner   | S      | Kvaerner/CGT        | 41/405            |                      |

## Italy

### Technical Information on the Plant

| Location                      | Line No. | Flue Gas Cleaning System        | ESP  |          | Flue Gas Cleaning |                                | Flue Gas Temp., °C |
|-------------------------------|----------|---------------------------------|------|----------|-------------------|--------------------------------|--------------------|
|                               |          |                                 | Year | Supplier | Year              | Supplier                       |                    |
| Arezzo                        | 1        | SNCR - SD - FF                  |      |          |                   | BOLDROCCHI-FUEL TECH - CMT     | 150                |
| Bergamo                       | 1        | FF - DRY - FF - SCR             |      |          |                   | AREA IMPIANTI                  | 130                |
| Bolzano                       | 1        | FF - WET - SCR - FF - WET - SCR |      |          |                   |                                | 150                |
|                               | 2        | FF - WET - SCR - FF - WET - SCR |      |          |                   |                                | 150                |
| Brescia                       | 1        | SCR - DRY - FF                  |      |          |                   | Abb                            | 133                |
|                               | 2        | SCR - DRY - FF                  |      |          |                   | Abb                            | 133                |
|                               | 3        | SCR - DRY - FF                  |      |          |                   | Alstom                         | 133                |
| Busto Arsizio (VA)            | 1        | SCR - WET - FF - WET            |      |          |                   |                                | 110                |
|                               | 2        | SCR - WET - FF - WET            |      |          |                   |                                | 110                |
| Castelnuovo Garfagnana (LU)   | 1        | DRY-FF                          |      |          |                   | Boldrocchi                     |                    |
| Colleferro (Roma)             | 1        | SD-FF-SCR                       | 2003 |          |                   | Gioia Hamon                    | 160                |
| Colleferro (Roma)             | 1        | SD-FF-SCR                       | 2002 |          | 2002              | Gioia Hamon                    | 160                |
| Como                          | 1        | ASTER                           |      |          |                   | ESP - FF - SCR                 | 85,9               |
|                               | 2        | ASTER                           |      |          |                   | ESP - FF - SCR                 | 85,9               |
| Coriano (RN)                  | 1        | SNCR-DRY-ESP-FF                 |      |          |                   | De Bartolomeis                 | 150                |
|                               | 2        | SNCR-DRY-ESP-FF                 |      |          |                   | De Bartolomeis                 | 150                |
|                               | 3        | SNCR-DRY-ESP-FF                 |      |          |                   | De Bartolomeis                 | 150                |
| Corteolona (PV)               | 1        | SCR-O-DRY-FF                    |      |          |                   | REDECAM                        |                    |
| Cremona                       | 1        | SNCR - SD - O - FF - O          |      |          |                   |                                | 125                |
|                               | 2        | SNCR - SD - O - FF - O          |      |          |                   |                                | 125                |
| Dalmine BG)                   | 1        | ESP-DRY-FF-SCR                  | 2001 |          | 2001              | NOVYALLESINA ENG. SPA          | 167                |
|                               | 2        | ESP-DRY-FF-SCR                  | 2001 |          | 2001              | NOVYALLESINA ENG. SPA          | 167                |
| Desio (MI)                    | 1        | DRY - FF - ESP - SNCR           |      |          |                   | Secit Flakt                    | 147                |
|                               | 2        | DRY - FF - ESP - SNCR           |      |          |                   | Secit Flakt                    | 147                |
| Ferrara                       | 1        | ESP+DRY+FF                      |      | AREA     |                   | AREA                           | 150                |
| Ferrara                       | 1        | SNCR+SD+FF+WS                   |      |          |                   | Termomeccanica                 | 60                 |
| Forli                         | 1        | SNCR+ESP+WS+FF                  |      |          |                   | Public Consult / Snam Progetti | 120                |
|                               | 2        | SNCR+ESP+WS+FF                  |      |          |                   | Public Consult / Snam Progetti | 120                |
| Gioia Tauro (Reggio Calabria) | 1        | SNCR+O+DRY+FF                   |      |          |                   |                                | 96                 |
|                               | 2        | SNCR+O+DRY+FF                   |      |          |                   |                                | 96                 |

## Italy

### Technical Information on the Plant

| Location              | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |                         | Boiler |                      | Steam Data oC/bar | Hours of Operat.2004 |
|-----------------------|----------|--------------|--------------|------------|-------------|---------|-------------------------|--------|----------------------|-------------------|----------------------|
|                       |          |              |              |            |             | Type    | Supplier                | Type   | Supplier             |                   |                      |
| Granarolo Emilia (BO) | 1        | 2004         |              | 12,5       | 11,7        | M       | Von Roll                |        | CCT                  | 440/50            |                      |
|                       | 2        | 2004         |              | 12,5       | 11,7        | M       | Von Roll                |        | CCT                  | 440/50            |                      |
| Livorno               | 1        | 2003         |              | 2,75       | 15          | M       | SECIT                   | S      | SECIT/FRASSI         | 370/40            | 6849                 |
|                       | 2        | 2003         |              | 2,75       | 15          | M       | SECIT                   | S      | SECIT/FRASSI         | 370/40            |                      |
| Macchiareddu (CA)     | 1        | 1995         |              | 6,25       |             | M       | Montgomery Watson       | S      | Frassi De Ferraris   |                   | 7536                 |
|                       | 2        | 1995         |              | 6,25       |             | M       | Montgomery Watson       | S      | Frassi De Ferraris   |                   | 7632                 |
|                       | 3        | 1995         |              | 3,33       |             | R       | Montgomery Watson       | S      | Frassi De Ferraris   |                   | 7512                 |
| Macomer (NU)          | 1        | 1998         |              | 3          |             | FB      | CTIP                    | HW     | KTI                  | 370/35            | 6828                 |
|                       | 2        | 1998         |              | 3          |             | FB      | Termomeccanica          | HW     | Frassi & De Ferraris | 370/35            | 6936                 |
| Massafra (TA)         | 1        |              |              |            |             |         |                         |        |                      |                   | 5670                 |
| Melfi PZ)             | 1        | 1999         |              | 5          | 15          | M       | FISIA Italimpianti      | S      | Macchi               | 35/350            | 6800                 |
|                       | 2        | 1999         |              | 4,5        | 15          | R       | FISIA Italimpianti      | S      | Macchi               | 35/350            | 6500                 |
| Mergozzo (VB)         | 1        | 1997         |              | 2,2        | 12,558      | M       | De Bartolomeis          | S      | De Bartolomeis       | 360/40            | 7606                 |
|                       | 2        | 1997         |              | 2,2        | 12,558      | M       | De Bartolomeis          | S      | De Bartolomeis       | 360/40            | 7606                 |
| Milano                | 1        | 2000         |              | 20         | 11          | M       | ABB W&E                 | S      | ABB                  | 440/52            | 6364                 |
|                       | 2        | 2000         |              | 20         | 11          | m       | ABB W&E                 | S      | ABB                  | 440/52            | 6649                 |
|                       | 3        | 2000         |              | 20         | 11          | M       | ABB W&E                 | S      | ABB                  | 440/52            | 6481                 |
| Modena                | 1        | 1994         |              | 6          | 9,63        | M       | Von Roll                | S      | CCT srl              | 20/360            | 7824                 |
|                       | 2        | 1994         |              | 6          | 9,63        | M       | Von Roll                | S      | CCT srl              | 20/360            | 8208                 |
|                       | 3        | 1995         |              | 10,41      | 10          | M       | Von Roll                | S      | MAW                  | 20/360            | 8232                 |
| Montale/Agliana (PT)  | 1        | 1978         |              | 4,5        |             |         | Tecnitalia - Secit - RK | S      | Crugnola             | 350/30            | 7656                 |
|                       | 2        | 2001         |              | 6,5        |             |         | Tecnitalia - Secit - RK | S      | Crugnola             | 350/30            |                      |
| Ospedaletto (PI)      | 1        | 2000         |              | 4,33       | 11,7        | M       | Alstom / De Bartolomeis | S      | Saporiti             | 38/377            | 7529                 |
|                       | 2        | 2000         |              | 4,33       | 11,7        | M       | Alstom / De Bartolomeis | S      | Saporiti             | 38/377            | 7252                 |
| Padova                | 1        | 2000         |              | 4,54       |             | M       | Public Consult          | S      | Fr.de Pennam         | /                 |                      |
|                       | 2        | 1970         |              | 4,54       |             | M       |                         |        |                      | /                 |                      |
| Parona PV)            | 1        | 2000         |              | 19         | 16          | F       | Forster Wheeler         | S      | Forster Wheeler      | 63/440            | 6916                 |
| Piacenza              | 1        | 2002         |              | 7,5        | 10,89       | M       | Martin                  | S      | CNIM                 | 40/390            | 8013                 |
|                       | 2        | 2002         |              | 7,5        | 10,89       | M       | Martin                  | S      | CNIM                 | 40/390            | 7039                 |
| Pietrasanta /LU)      | 1        | 2002         |              | 3,75       | 12,5        | F       | Termomeccanica          | S      | Termomeccanica       | 40/400            | 6597                 |
|                       | 2        | 2002         |              | 3,75       | 12,5        | F       | Termomeccanica          | S      | Termomeccanica       | 40/400            | 6700                 |
| Poggibonsi (SI)       | 1        | 1997         |              | 1,46       | 10,5        | M       |                         | S      |                      | 40/360            | 7500                 |
|                       | 2        | 1997         |              | 1,46       | 10,5        | M       |                         | S      |                      | 40/360            |                      |
| Potenza               | 1        |              |              | 1,5        | 8           | M       | De Bartolomeis          | S      | Frassi & De Ferari   | 40/390            |                      |
|                       | 2        |              |              | 1,5        | 8           | M       | De Bartolomeis          | S      | Frassi & De Ferari   | 40/390            |                      |
| Ravenna               | 1        | 2000         |              | 6,5        | 15          | FB      | EPI                     |        | CCT                  | 390/40            | 7383                 |

## Italy

### Technical Information on the Plant

| Location              | Line No. | Flue Gas Cleaning System | ESP  |                        | Flue Gas Cleaning |                        | Flue Gas Temp., °C |
|-----------------------|----------|--------------------------|------|------------------------|-------------------|------------------------|--------------------|
|                       |          |                          | Year | Supplier               | Year              | Supplier               |                    |
| Granarolo Emilia (BO) | 1        | FF+WS+SCR                |      |                        |                   |                        | 130                |
|                       | 2        | FF+WS+SCR                |      |                        |                   |                        | 130                |
| Livorno               | 1        | SNCR+DRY+FF              |      |                        |                   | CEFLA                  | 170                |
|                       | 2        | SNCR+DRY+FF              |      |                        |                   | CEFLA                  | 170                |
| Macchiarreddu (CA)    | 1        | WET                      |      |                        |                   |                        |                    |
|                       | 2        | WET                      |      |                        |                   |                        |                    |
|                       | 3        | WET                      |      |                        |                   |                        |                    |
| Macomer (NU)          | 1        | SD+FF+SCR                |      |                        |                   |                        | 160                |
|                       | 2        | SD+FF+SCR                |      |                        |                   |                        | 160                |
| Massafra (TA)         | 1        |                          |      |                        |                   |                        |                    |
| Melfi (PZ)            | 1        | DRY-W-FF-SCR             | 1999 | Fisia Italimpianti SpA |                   | Fisia Italimpianti SpA | 140                |
|                       | 2        | DRY-W-FF-SCR             | 1999 | Fisia Italimpianti SpA |                   | Fisia Italimpianti SpA | 140                |
| Mergozzo (VB)         | 1        | SD+FF+SNCR               |      |                        |                   | UNIECO                 | 105                |
|                       | 2        | SD+FF+SNCR               |      |                        |                   | UNIECO                 | 105                |
| Milano                | 1        | SNCR - ESP - DRY - FF    |      |                        |                   | ABB FLACKT             | 136                |
|                       | 2        | SNCR - ESP - DRY - FF    |      |                        |                   | ABB FLACKT             | 136                |
|                       | 3        | SNCR - ESP - DRY - FF    |      |                        |                   | ABB FLACKT             | 136                |
| Modena                | 1        | SNCR-ESP-DRY             |      |                        |                   | ATS                    | 100                |
|                       | 2        | SNCR-ESP-DRY             |      |                        |                   | ATS                    | 100                |
|                       | 3        | SNCR-ESP-DRY             |      |                        |                   | ATS                    | 100                |
| Montale/Aglian a (PT) | 1        | DRY - FF - ESP           |      |                        |                   | tecnitalia             | 140                |
|                       | 2        | DRY - FF - ESP           |      |                        |                   | tecnitalia             | 140                |
| Ospedaletto (PI)      | 1        | SNCR-O-DRY-FF-FGC        |      |                        |                   | ALSTOM/DANEKO          | 116                |
|                       | 2        | SNCR-O-DRY-FF-FGC        |      |                        |                   | ALSTOM/DANEKO          | 125                |
| Padova                | 1        | SNCR+DRY+ESP+WS          |      |                        |                   |                        |                    |
|                       | 2        | SNCR+ESP+DRY+FF          |      |                        |                   |                        |                    |
| Parona PV)            | 1        | DRY-FF                   | 2000 |                        | 2000              | Procedair              | 145                |
| Piacenza              | 1        | SNCR-ESP-FF              |      |                        |                   | CNIM                   | 180                |
|                       | 2        | SNCR-ESP-FF              |      |                        |                   | CNIM                   | 180                |
| Pietrasanta /LU)      | 1        | SNCR-O-FF-WS             |      |                        |                   | Termomeccanica         | 110                |
|                       | 2        | SNCR-O-FF-WS             |      |                        |                   | Termomeccanica         | 110                |
| Poggibonsi (SI)       | 1        | SNCR-DRY-FF              |      |                        |                   |                        | 147                |
|                       | 2        | SNCR-DRY-FF              |      |                        |                   |                        | 147                |
| Potenza               | 1        | SNCR-DRY-FF              |      |                        |                   | Fochi Set              | 150                |
|                       | 2        | SNCR-DRY-FF              |      |                        |                   | Fochi Set              | 150                |
| Ravenna               | 1        | SNCR+CY+DRY+FF+WS        |      |                        |                   | Procedair              |                    |

## Italy

### Technical Information on the Plant

| Location                   | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |                         | Boiler |                     | Steam Data oC/bar | Hours of Operat.2004 |
|----------------------------|----------|--------------|--------------|------------|-------------|---------|-------------------------|--------|---------------------|-------------------|----------------------|
|                            |          |              |              |            |             | Type    | Supplier                | Type   | Supplier            |                   |                      |
| Reggio Emilia              | 1        | 2004         |              | 4,16       | 10,8        | M       | De Bartolomeis          | S      | Carimati/Sprinco    | 10/280            |                      |
|                            | 2        | 2005         |              | 4,16       | 10,8        | M       | De Bartolomeis          | S      | Carimati/Sprinco    | 10/280            |                      |
| Rufina/Pontassieve (FI)    | 1        | 1995         |              | 1,5        | 7,53        | M       |                         |        |                     | /                 |                      |
| San Vittore del Lazio (FR) | 1        | 2002         |              | 12         | 15          | MGWC    | Lurgi                   |        | CCT Marcegaglia     | 415/42            | 7705                 |
| Scarlino                   | 1        |              |              | 5,7        | 9,12        | FB      |                         |        |                     |                   |                      |
|                            | 2        |              |              | 5,7        | 9,12        | FB      |                         |        |                     |                   |                      |
|                            | 3        |              |              | 5,7        | 9,12        | FB      |                         |        |                     |                   |                      |
| Schio (VI)                 | 1        | 2004         |              | 1,5        | 14,6        | M       | Snamprogetti*           | HW     |                     |                   | 2488                 |
|                            | 2        | 1992         |              | 2,5        | 14,6        | M       | Snamprogetti*           | HW     |                     | /                 | 8100                 |
|                            | 3        | 2004         |              | 4,2        | 14,6        | M       | Atzwanger-Publiconsult* | HW     |                     |                   | 6550                 |
| Sesto S. Giovanni (MI).    | 1        | 2001         |              | 3,3        | 11,352      | M       | De Bartolomeis          | S      | Grugnola Termosud   | 360/40            | 6583                 |
|                            | 2        | 2001         |              | 3,3        | 11,352      | m       | De Bartolomeis          | S      | Grugnola Termosud   | 360/40            | 6563                 |
|                            | 3        | 2001         |              | 3,3        | 11,352      | M       | De Bartolomeis          | S      | Grugnola Termosud   | 360/40            | 7122                 |
| Statte (TA)                | 1        | 2001         |              | 4,16       | 11,51       | M       | Von Roll                | S      | Fontana Sud         | 39/390            |                      |
|                            | 2        | 2001         |              | 4,16       | 11,51       | M       | Von Roll                | S      | Fontana Sud         | 39/390            |                      |
| Terni                      | 1        | 1998         |              | 2,1        | 12          | M       | SECIT                   | WW     | Crugnola            | 360/42            | 6174                 |
|                            | 2        | 1998         |              | 2,1        | 12          | M       | SECIT                   | WW     | Crugnola            | 360/42            | 5691                 |
| Tolentino/Polenzia (MC)    | 1        | 2003         |              | 1,79       | 15          | M       |                         | S      |                     | 320/30            | 3808                 |
| Trezzo sull'               | 1        | 2002         |              | 10,42      | 14,21       | M       | Von Roll                | S      | Hamon               | 40/400            | 7702                 |
|                            | 2        | 2002         |              | 10,42      | 14,21       | M       | Von Roll                | S      | Hamon               | 40/400            | 7146                 |
| Trieste                    | 1        | 2000         |              | 8,5        | 9,21        | M       | W+E                     | S      | INSTEAM             | 385/39            | 6345                 |
|                            | 2        | 2000         |              | 8,5        | 9,21        | M       | ABB                     | S      | COMEFE              | 385/39            | 6226                 |
|                            | 3        | 2004         |              | 8,5        | 9,21        | M       | MARTIN                  | S      | RUTHS               | 385/39            | 7284                 |
| Valmedrara (LC)            | 1        | 1981         |              | 5          | 8,3         | M       | De Bartolomeis          | S      | De Bartolomeis      | 20/350            | 7296                 |
|                            | 2        | 1981         |              | 5          | 8,3         | M       | De Bartolomeis          | S      | De Bartolomeis      | 20/350            | 7680                 |
|                            | 3        |              |              | 6,7        | 10,4        | M       | De Bartolomeis          | S      | De Bartolomeis      | 20/350            |                      |
| Venezia                    | 1        | 1998         |              | 7,3        | 8,58        | M       | ABB                     | S      |                     | 42/380            | 8080                 |
| Vercelli                   | 1        | 2004         |              | 3,13       | 11,3        | M       | Babcock                 | S      | Frassi e De Ferrari | 34/360            | 4296                 |
|                            | 2        | 2003         |              | 3,13       | 11,3        | M       | Babcock                 | S      | Frassi e De Ferrari | 34/360            | 7932                 |
|                            | 3        | 2004         |              | 3,13       | 11,3        | M       | Babcock                 | S      | Sices               | 32/340            | 7416                 |
| Verona                     | 1        | 1999         |              | 12         | 10,5        | FB      | Thyssen                 | S      | Fontana             | 380/54            | 3727                 |
|                            | 2        | 1999         |              | 12         | 10,5        | FB      | Thyssen                 | S      | Fontana             | 380/54            | 3352                 |

## Italy

### Technical Information on the Plant

| Location                   | Line No. | Flue Gas Cleaning System      | ESP  |             | Flue Gas Cleaning |                                 | Flue Gas Temp., °C |
|----------------------------|----------|-------------------------------|------|-------------|-------------------|---------------------------------|--------------------|
|                            |          |                               | Year | Supplier    | Year              | Supplier                        |                    |
| Reggio Emilia              | 1        | SCR-ESP-DRY-FF                |      |             |                   | EMIT/Sogeni                     | 170                |
|                            | 2        | SCR-ESP-DRY-FF                |      |             |                   | EMIT/Sogeni                     | 170                |
| Rufina/Pontassieve (FI)    | 1        | DRY+FF                        |      |             |                   |                                 |                    |
| San Vittore del Lazio (FR) | 1        | SNCR+SD+FF                    |      |             |                   |                                 | 138                |
| Scarlino                   | 1        | SNCR+DRY+WS+ESP               |      |             |                   |                                 |                    |
|                            | 2        | SNCR+DRY+WS+ESP               |      |             |                   |                                 |                    |
|                            | 3        | SNCR+DRY+WS+ESP               |      |             |                   |                                 |                    |
| Schio (VI)                 | 1        | SNCR-SD-ESP-FF                |      |             |                   |                                 | 100                |
|                            | 2        | ESP-WS                        |      |             |                   |                                 | 100                |
|                            | 3        | SNCR-ESP-FF                   |      |             |                   |                                 | 130                |
| Sesto S. Giovanni (MI).    | 1        | SNCR - ESP - WET - FF         |      |             |                   | Boldrocchi                      | 115                |
|                            | 2        | SNCR - ESP - WET - FF         |      |             |                   | Boldrocchi                      | 115                |
|                            | 3        | SNCR - ESP - WET - FF         |      |             |                   | Boldrocchi                      | 115                |
| Statte (TA)                | 1        | SNCR-ESP-SD-FF                | 2001 |             | 2001              | Termomeccanica SpA              | 140                |
|                            | 2        | SNCR-ESP-SD-FF                | 2001 |             | 2001              | Termomeccanica SpA              | 140                |
| Terni                      | 1        | SNCR+WS+FF+WS                 |      |             |                   | SECIT                           | 60                 |
|                            | 2        | SNCR+WS+FF+WS                 |      |             |                   | SECIT                           | 60                 |
| Tolentino/Polenzia (MC)    | 1        | ESP+WS+FF                     |      |             |                   |                                 |                    |
| Trezzo sull'               | 1        | SNCR-DRY-FF-WS                |      |             |                   | Hamon                           | 125                |
|                            | 2        | SNCR-DRY-FF-WS                |      |             |                   | Hamon                           | 125                |
| Trieste                    | 1        | SNCR - DRY - O - FF - WET - O |      |             |                   |                                 | 120                |
|                            | 2        | SNCR - DRY - O - FF - WET - O |      |             |                   |                                 | 120                |
|                            | 3        | SNCR - DRY - O - FF - WET - O |      |             |                   |                                 | 120                |
| Valmedrara (LC)            | 1        | ESP-WS                        |      |             |                   |                                 | 82                 |
|                            | 2        | ESP-WS                        |      |             |                   |                                 | 82                 |
|                            | 3        | ESP-WS                        |      |             |                   |                                 | 82                 |
| Venezia                    | 1        | SNCR+SD+CA+FF+WS              |      |             |                   | ECOSESTO                        | 110                |
| Vercelli                   | 1        | SNCR-ESP-FF-WS                |      | De Cardenas |                   | Area Impianti, Tecnitalia, Koch | 85                 |
|                            | 2        | SNCR-ESP-FF-WS                |      | De Cardenas |                   | Area Impianti, Tecnitalia, Koch | 85                 |
|                            | 3        | SNCR-ESP-FF-WS                |      | Flakt       |                   | Area Impianti, Tecnitalia, Koch | 85                 |
| Verona                     | 1        | SNCR - O - SD - FF            |      |             |                   | De Cardenas                     | 130                |
|                            | 2        | SNCR - O - SD - FF            |      |             |                   | De Cardenas                     | 130                |

**Italy**  
**Operational data, 2004**

| Location                      | Total Incinerated Waste Quantity |                       |                                    |                          |                    |                            |                             | Aux. Fuels            |
|-------------------------------|----------------------------------|-----------------------|------------------------------------|--------------------------|--------------------|----------------------------|-----------------------------|-----------------------|
|                               | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial /Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital Waste<br>(tonnes) | Other (Specify)<br>(tonnes) |                       |
| Arezzo                        | 38000                            | 38000                 |                                    |                          |                    |                            |                             |                       |
| Bergamo                       | 48000                            |                       |                                    | 48000                    |                    |                            |                             | G:399000              |
| Bolzano                       | 81000                            |                       |                                    |                          |                    |                            |                             | G:1378000             |
| Brescia                       | 721000                           | 420000                | 43000                              |                          |                    |                            |                             | G:2200000<br>B:258000 |
| Busto Arsizio (VA)            | 94898                            | 81955                 | 8811                               |                          |                    |                            | 4132                        | G:1324776000          |
| Castelnuovo Garfagnana (LU)   | 11600                            | 11600                 |                                    |                          |                    |                            |                             | G:1200                |
| Colleferro (Roma)             | 69000                            |                       |                                    | 69000                    |                    |                            |                             | G:785000              |
| Colleferro (Roma)             | 72000                            |                       |                                    | 72000                    |                    |                            |                             | G:749000              |
| Como                          | 72268                            | 72268                 |                                    |                          |                    |                            |                             | G:305559              |
| Coriano (RN)                  | 126027                           | 119852                |                                    |                          |                    | 0,847                      | 5,328                       | O:65000               |
| Corteolona (PV)               | 37400                            |                       |                                    | 37400                    |                    |                            |                             | G:1200                |
| Cremona                       | 64996                            | 53836                 | 10630                              |                          |                    | 529                        |                             |                       |
| Dalmine BG)                   | 137500                           | 113300                | 24200                              |                          |                    |                            |                             | G:2008                |
| Desio (MI)                    | 49019                            |                       | 10                                 |                          |                    | 3152                       | 45857                       |                       |
| Ferrara                       | 20500                            | 19887                 |                                    |                          |                    | 613                        |                             | O:87240               |
| Ferrara                       | 38840                            |                       |                                    |                          |                    |                            |                             |                       |
| Forli                         | 41400                            | 35000                 | 6400                               |                          |                    |                            |                             | G:233                 |
| Gioia Tauro (Reggio Calabria) |                                  |                       |                                    |                          |                    |                            |                             |                       |
| Granarolo Emilia (BO)         | 179676                           | 164536                |                                    |                          |                    | 2418                       | 15076                       |                       |
| Livorno                       | 44806                            |                       |                                    | 44806                    |                    |                            |                             | G:302                 |
| Macchiarreddu (CA)            | 212600                           | 190000                | 13600                              |                          | 9000               |                            |                             |                       |
| Macomer (NU)                  | 79000                            | 76800                 | 1300                               |                          | 500                |                            | 400                         |                       |
| Massafra (TA)                 | 44190                            |                       |                                    | 44190                    |                    |                            |                             |                       |
| Melfi PZ)                     | 47000                            | 25000                 |                                    |                          |                    | 2000                       | 12000                       |                       |
| Mergozzo (VB)                 | 28999                            |                       |                                    |                          |                    |                            |                             |                       |
| Milano                        | 335000                           |                       |                                    |                          |                    |                            |                             | G:1626422             |
| Modena                        | 122042                           | 115000                | 2000                               |                          |                    | 5000                       | 0,042                       | G:61380               |
| Montale/Agliana (PT)          | 33300                            | 28600                 | 3090                               |                          |                    |                            | 1340                        | G:96000               |
| Ospedaletto (PI)              | 57944                            | 52293                 | 2126                               |                          |                    | 3525                       |                             | O:113500              |
| Padova                        | 60376                            | 54999                 | 2385                               |                          |                    | 2992                       | 2804                        |                       |
| Parona PV)                    | 186800                           | 137300                | 49500                              |                          |                    |                            |                             |                       |
| Piacenza                      | 111409                           | 108866                |                                    |                          |                    | 750                        | 1793                        | G:124586              |
| Pietrasanta /LU)              | 46849                            |                       |                                    | 46849                    |                    |                            |                             | G:245                 |
| Poggibonsi (SI)               | 20436                            | 16960                 | 748                                | 2728                     |                    |                            |                             |                       |
| Potenza                       |                                  |                       |                                    |                          |                    |                            |                             |                       |
| Ravenna                       | 169954                           | 117712                | 7633                               | 44601                    |                    | 8,7                        |                             | G:192                 |
| Reggio Emilia                 |                                  |                       |                                    |                          |                    |                            |                             |                       |
| Rufina/Pontassieve (FI)       | 9878                             | 9759                  | 88                                 |                          |                    | 31                         | 100                         |                       |
| San Vittore del Lazio (FR)    | 80300                            |                       |                                    | 80300                    |                    |                            |                             | G:1717000             |
| Scarlino                      | 51600                            |                       |                                    |                          |                    |                            |                             | B:51600               |
| Schio (VI)                    | 57470                            |                       |                                    | 30900                    |                    | 4700                       | 19500                       | O:190                 |
| Sesto S. Giovanni (MI).       | 60300                            | 60300                 |                                    |                          |                    |                            |                             | G:31500               |
| Statte (TA)                   | 48700                            | 48700                 |                                    |                          |                    |                            |                             | O:20                  |

**Italy**

**Operational data, 2004**

| Location                         | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|----------------------------------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|                                  | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Arezzo                           | 9723                   | 1226                      |                   | 16800                |               |                   | 15193                |               |
| Bergamo                          |                        |                           |                   | 49352                |               |                   |                      |               |
| Bolzano                          | 21764                  | 1350                      |                   | 35577                | 24431         |                   | 23590                | 24431         |
| Brescia                          | 141200                 | 33400                     |                   | 537000               | 394000        |                   | 475000               | 394000        |
| Busto Arsizio (VA)               | 17299                  | 3702                      |                   | 51880                |               |                   | 37938                |               |
| Castelnuovo<br>Garfagnana (LU)   | 3640                   | 260                       |                   | 2420                 |               |                   | 901                  |               |
| Colleferro (Roma)                | 11000                  | 6000                      |                   | 71472                |               |                   | 63623                |               |
| Colleferro (Roma)                | 9000                   | 4000                      |                   | 31816                |               |                   | 27632                |               |
| Como                             | 16181                  | 1469                      |                   | 26091                | 712           |                   | 25945                |               |
| Coriano (RN)                     | 36964                  | 2331                      |                   | 57048                |               |                   | 46527                |               |
| Corteolona (PV)                  | 2393                   | 5345                      |                   | 40288                |               |                   | 36283                |               |
| Cremona                          |                        |                           |                   | 18380                | 47014         |                   | 18380                | 47014         |
| Dalmine BG)                      | 23800                  | 5300                      |                   | 109552               |               |                   | 102672               |               |
| Desio (MI)                       | 13761                  | 31                        |                   | 7399                 |               |                   | 1438                 |               |
| Ferrara                          | 5871                   | 480                       |                   |                      |               |                   |                      |               |
| Ferrara                          | 10374                  | 1569                      |                   | 11904                |               |                   | 11205                |               |
| Forli                            | 9900                   | 2090                      |                   | 8933                 | 7736          |                   | 8933                 | 7736          |
| Gioia Tauro (Reggio<br>Calabria) |                        |                           |                   |                      |               |                   |                      |               |
| Granarolo Emilia<br>(BO)         |                        |                           |                   | 39619                | 59391         |                   |                      |               |
| Livorno                          | 10134                  | 1392                      |                   | 18608                |               |                   | 7538                 |               |
| Macchiarreddu (CA)               |                        |                           |                   | 43880                |               |                   | 25936                |               |
| Macomer (NU)                     |                        |                           |                   | 7010                 |               |                   | 6505                 |               |
| Massafra (TA)                    | 23000                  | 7686                      |                   | 39648                |               |                   | 37488                |               |
| Melfi PZ)                        |                        |                           |                   |                      |               |                   |                      |               |
| Mergozzo (VB)                    | 7797                   | 575                       |                   | 9476                 |               |                   | 3462                 |               |
| Milano                           | 55968                  | 5681                      | 36317             | 281403               |               |                   | 232176               | 36317         |
| Modena                           | 31880                  | 3655                      |                   | 31689                |               |                   | 30511                |               |
| Montale/Agliana (PT)             | 8318                   | 1048                      |                   | 3681                 |               |                   | 3635                 |               |
| Ospedaletto (PI)                 | 14451                  | 1559                      |                   | 26242                |               |                   |                      |               |
| Padova                           |                        |                           |                   | 23269                |               |                   |                      |               |
| Parona PV)                       |                        |                           |                   | 121859               |               |                   | 102629               |               |
| Piacenza                         | 22133                  | 3131                      |                   | 63692                |               |                   | 53907                |               |
| Pietrasanta /LU)                 |                        |                           |                   | 32766                |               |                   | 29699                |               |
| Poggibonsi (SI)                  |                        |                           |                   | 4068                 |               |                   | 3054                 |               |
| Potenza                          |                        |                           |                   |                      |               |                   |                      |               |
| Ravenna                          | 685                    |                           |                   | 32109                |               |                   | 31752                |               |
| Reggio Emilia                    |                        |                           |                   |                      |               |                   |                      |               |
| Rufina/Pontassieve<br>(FI)       |                        |                           |                   |                      |               |                   |                      |               |
| San Vittore del Lazio<br>(FR)    | 12300                  | 5800                      |                   | 74392                |               |                   | 65971                |               |
| Scarlino                         |                        |                           |                   | 24860                |               |                   |                      |               |
| Schio (VI)                       | 16000                  | 2000                      |                   | 21850                |               |                   | 13800                |               |
| Sesto S. Giovanni<br>(MI).       | 13971                  | 473                       |                   | 30025                |               |                   | 21161                |               |
| Statte (TA)                      | 13250                  | 1240                      |                   | 8276                 |               |                   | 4198                 |               |

**Italy**

**Operational data, 2004**

| Location                   | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels |
|----------------------------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|------------|
|                            | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) |            |
| Terni                      | 27000                            | 25600                 | 400                                   |                          |                    | 1200                          |                                |            |
| Tolentino/Pollenza<br>(MC) | 18983                            | 18983                 |                                       |                          |                    |                               |                                |            |
| Trezzo sull                | 152540                           |                       |                                       | 152540                   |                    |                               |                                | O:438.64   |
| Trieste                    | 138200                           | 118600                | 17400                                 | 1000                     |                    |                               | 1300                           |            |
| Valmedrara (LC)            | 62300                            | 56700                 |                                       |                          |                    | 5600                          |                                |            |
| Venezia                    | 52448                            | 50357                 | 2086                                  |                          |                    |                               |                                | O:29500    |
| Vercelli                   | 58890                            | 49200                 |                                       | 1530                     |                    | 2600                          | 5560                           | O:31.78    |
| Verona                     | 131300                           | 119600                | 300                                   | 7800                     | 700                |                               | 3000                           | G:18584    |

**Italy**

**Operational data, 2004**

| Location                   | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|----------------------------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|                            | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Terni                      | 4920                   | 655                       |                   | 9863                 |               |                   | 8562                 |               |
| Tolentino/Pollenza<br>(MC) |                        |                           |                   |                      |               |                   |                      |               |
| Trezzo sull                | 29898                  | 6429                      |                   | 113599               |               |                   | 107214               |               |
| Trieste                    | 40000                  |                           |                   | 67654                |               |                   | 67564                |               |
| Valmedrara (LC)            |                        |                           |                   | 20592                |               |                   | 14414                |               |
| Venezia                    | 13041                  | 1700                      |                   | 12734                |               |                   | 9013                 |               |
| Vercelli                   | 15900                  | 1200                      |                   | 14480                |               |                   | 10690                |               |
| Verona                     | 4600                   | 3400                      |                   | 83428                | 1922          |                   | 69106                |               |



Number of plants: 11

Average capacity: 61 t/h

Quantity treated 2004: 5.159.000 t



**Netherlands**  
**General Information**

| Location   | Name of Plant<br>Web-site   | Address of Plant   | Phone<br>Fax                     |
|------------|---|--|----------------------------------|
| Alkmaar    | NV Huisvuilcentrale N-H<br><a href="http://www.huisvuilcentrale.nl">www.huisvuilcentrale.nl</a> | Jadestraat 1<br>1812RD Alkmaar                               | +317254 11311<br>+317254 11344   |
| Amsterdam  | Amsterdam<br><a href="http://www.afvalenergiebedrijf.nl">www.afvalenergiebedrijf.nl</a>         | Australiehavenweg 21<br>Amsterdam                            | +31 2058 76299<br>+31 2058 76200 |
| Dordrecht  | Gevudo Afvalverwerking<br><a href="http://www.gevudo.nl">www.gevudo.nl</a>                      | Baanhoekweg 40<br>3313 LA Dordrecht                          | +33 78 6216800<br>+33 78 6216888 |
| Duiven     | Duiven<br><a href="http://www.avr.nl">www.avr.nl</a>  | Rivierweg 20<br>6921 PZ Duiven                               | +31 2631 71111<br>+31 2631 10137 |
| Hengelo    | Hengelo<br><a href="http://www.twence.nl">www.twence.nl</a>                                     | Boelderhoekweg 51<br>7554 RT Hengelo                         | +33 74 2404496<br>+33 74 2404333 |
| Moerdijk   | Afvalverbranding Zuid-Nederland (AZN)<br><a href="http://www.nvAZN.nl">www.nvAZN.nl</a>         | Postbus 21<br>4780 AA  | +31 1683 85400                   |
| Roosendaal | SITA ReEnergy Roosendaal<br><a href="http://www.sita.nl">www.sita.nl</a>                        | Potendreef 2<br>4703 RK Roosendaal                           | +33 165 534492<br>+33 165 559270 |
| Rotterdam  | AVR Afvalverwerking Rotterdam<br><a href="http://www.avr.nl">www.avr.nl</a>                     | Brielselaan 175 (havennummer 1365)<br>3081 AC Rotterdam      | +33 181 274865<br>+33 181 274867 |
| Rozenburg  | AVR Afvalverwerking Rozenburg<br><a href="http://www.avr.nl">www.avr.nl</a>                     | Prof. Gerbandyweg 10 (havennummer 4506)<br>3197 KK Rozenburg | +33 181 275843<br>+33 181 275504 |
| Weurt      | ARN Nijmegen<br><a href="http://www.arnbv.nl">www.arnbv.nl</a>                                  | Nieuwe Pieckelaan 1<br>Nijmegen                              | +33 24 3717171<br>+33 24 3779769 |
| Wijster    | Wijster<br><a href="http://www.essent.nl">www.essent.nl</a>                                     | Vamweg 7<br>Wijster  | +31 5935 63486<br>+31 5935 63920 |

## Netherlands

### General Information

| Location   | Contact Person<br>E-mail                           | Owner of plant<br>No. of inhab. served | Owners<br>Address               |
|------------|--|--|---------------------------------|
| Alkmaar    | ing. P.J.M. Maas<br>p.maas@huisvuilcentrale.nl     | Municipalities<br>1.500.000            | Postbus 9199<br>1800GD Alkmaar  |
| Amsterdam  | Ing W. Sierhuis<br>sierhuis@afvalenergiebedrijf.nl | City of Amsterdam<br>1.800.000         | Amstel 1<br>1011 PN Amsterdam   |
| Dordrecht  | C. Schop<br>c.schop@gevudo.nl                      | ENECO                                  |                                 |
| Duiven     | ing. F.A. Smedema<br>ferry.smedema@avr.nl          | N.V. AVR-AVIRA                         | PO box 147<br>6920 AC Duiven    |
| Hengelo    | J.A. Bruggeman<br>j.bruggeman@twence.nl            | Municipalities Twente, 30% Essent      |                                 |
| Moerdijk   | T.G.J. van den Ham<br>t.vd.ham@nvAZN.nl            | 49,9% Essent, 30% Deltan, 20,1% BOM    | Middenweg 34<br>Moerdijk        |
| Roosendaal | C.J. Stuart<br>casper.stuart@sita.nl               | SITA                                   |                                 |
| Rotterdam  | S. Rutten<br>stefan.rutten@avr.nl                  | AVR                                    |                                 |
| Rozenburg  | R. Oosschot<br>rini.oosschot@avr.nl                | AVR                                    |                                 |
| Weurt      | A.A.F. van Winden<br>T.vanWindien@arnbv.nl         | ARN BV                                 | PO Box 7006<br>6503 GM Nijmegen |
| Wijster    | Ir. D.J. Spanjaard<br>dick.spanjaard@essent.nl     | Essent Milieu<br>unknown               | PO Box 5<br>9418 ZG Wijster     |

## Netherlands

### Technical Information on the Plant

| Location   | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |                     | Boiler |                                     | Steam Data oC/bar | Hours of Operat.2004 |
|------------|----------|--------------|--------------|------------|-------------|---------|---------------------|--------|-------------------------------------|-------------------|----------------------|
|            |          |              |              |            |             | Type    | Supplier            | Type   | Supplier                            |                   |                      |
| Alkmaar    | 1        | 1996         | 2021         | 18,5       | 10          | M       | De Schelde          | S      | Von Roll / De Schelde               | 400/40            | 7933                 |
|            | 2        | 1996         | 2021         | 18,5       | 10          | M       | De Schelde          | S      | Von Roll / De Schelde               | 400/40            | 8191                 |
|            | 3        | 1996         | 2021         | 18,5       | 10          | M       | De Schelde          | S      | Von Roll / De Schelde               | 400/40            | 8152                 |
|            | 4        | 2005         |              | 27,5       | 9,8         |         | EisenWerk Baumgarte | S      | Von Roll / EisenWerk Baumgarte      | 400/              |                      |
| Amsterdam  | 1        | 1993         |              | 26         | 9,7         | M       | W&E                 | S      | NEM                                 | 430/43            | 8573                 |
|            | 2        | 1993         |              | 26         | 9,7         | M       | W&E                 | S      | NEM                                 | 430/43            | 7879                 |
|            | 3        | 1993         |              | 26         | 9,7         | M       | W&E                 | S      | NEM                                 | 430/43            | 8011                 |
|            | 4        | 1993         |              | 26         | 9,7         | M       | W&E                 | S      | NEM                                 | 430/43            | 8547                 |
| Dordrecht  | 1        | 1992         |              | 8          | 8,4         | M       | Martin              | S      | Wehrle                              | 400/40            | 8110                 |
|            | 2        | 1973         |              | 7          | 8,4         | M       | Martin              |        | Wehrle                              |                   | 8110                 |
|            | 3        | 1973         |              | 7          | 8,4         | M       | Martin              |        | Wehrle                              |                   | 8110                 |
|            | 4        | 1990         |              | 8          | 8,4         | M       | Martin              | S      | Wehrle                              | 400/40            | 8110                 |
| Duiven     | 1        | 1975         |              | 15         | 8,4         | R       | De Schelde          | S      | Durr/DBA                            | 400/40            | 7454                 |
|            | 2        | 1975         |              | 15         | 8,4         | R       | De Schelde          | S      | Durr/DBA                            | 400/40            | 8163                 |
|            | 3        | 1975         |              | 15         | 8,4         | R       | Stork Ketels        | HW     | Durr/DBA                            | 180/15            | 7858                 |
| Hengelo    | 1        | 1997         |              | 18         | 10          | M       |                     | S      |                                     | 415/40            | 8150                 |
|            | 2        | 1997         |              | 18         | 10          | M       |                     | S      |                                     | 415/40            | 8150                 |
| Moerdijk   | 1        | 1997         |              | 26,5       | 11          | M       | Von Roll            | s      | vRoll/De Schelde (KMS)              | 400/100           | 7949                 |
| Roosendaal | 1        | 1995         |              | 4          | 8,4         | M       |                     | WW     |                                     | /                 | 8032                 |
|            | 2        | 1995         |              | 4          | 8,4         | M       |                     | WW     |                                     | /                 | 8033                 |
| Rotterdam  | 1        | 1962         |              | 13,5       | 8,4         | M       | Martin              | S      | Wehrle                              | 360/30            | 8168                 |
|            | 2        | 1962         |              | 13,5       | 8,4         | M       | Martin              | S      | Wehrle                              | 360/30            | 7682                 |
|            | 3        | 1962         |              | 13,5       | 8,4         | M       | Martin              | S      | Wehrle                              | 360/30            | 7916                 |
|            | 4        | 1962         |              | 13,5       | 8,4         | M       | Martin              | S      | Wehrle                              | 360/30            | 8134                 |
| Rozenburg  | 1        | 1972         |              | 25         | 7,5         | M       | Babcock Dürr        | S      | Babcock Dürr                        | 370/27            |                      |
|            | 2        | 1972         |              | 25         | 7,5         | M       | Babcock Dürr        | S      | Babcock Dürr                        | 370/27            |                      |
|            | 3        | 1972         |              | 25         | 7,5         | M       | Babcock Dürr        | S      | Babcock Dürr                        | 370/27            |                      |
|            | 4        | 1972         |              | 25         | 7,5         | M       | Babcock Dürr        | S      | Babcock Dürr                        | 370/27            |                      |
|            | 5        | 1972         |              | 25         | 7,5         | M       | Babcock Dürr        | S      | Babcock Dürr                        | 370/27            |                      |
|            | 6        | 1972         |              | 25         | 7,5         | M       | Babcock Dürr        | S      | Babcock Dürr                        | 370/27            |                      |
|            | 7        | 1994         |              | 31,3       | 9,3         | M       | Babcock             | S      | Babcock NEM                         | 370/27            |                      |
| Weurt      | 1        | 1987         |              | 9          | 15,5        | M       | Noell               | S      | Standaard Fasel                     | 400/40            | 8060                 |
|            | 2        | 1995         |              | 21         | 13,5        | M       | Noell               | S      | NEM                                 | 400/40            | 8060                 |
| Wijster    | 1        | 1996         |              | 24         | 9           | M       | Lurgi (Lentjes)     | S      | J. Stiefel/ Lentjes Industriekessel | 405/41 (g)        | 8240                 |
|            | 2        | 1996         |              | 24         | 9           | M       | Lurgi (Lentjes)     | S      | J. Stiefel/ Lentjes Industriekessel | 405/41 (g)        | 7640                 |
|            | 3        | 1996         |              | 24         | 9           | M       | Lurgi (Lentjes)     | S      | J. Stiefel/ Lentjes Industriekessel | 405/41 (g)        | 8073                 |

## Netherlands

### Technical Information on the Plant

| Location   | Line No. | Flue Gas Cleaning System | ESP  |             | Flue Gas Cleaning |                    | Flue Gas Temp., °C |
|------------|----------|--------------------------|------|-------------|-------------------|--------------------|--------------------|
|            |          |                          | Year | Supplier    | Year              | Supplier           |                    |
| Alkmaar    | 1        | ESP/SD/WET/O/FF/SCR      | 1996 | Lurgi       | 1996              | Von Roll           | 140                |
|            | 2        | ESP/SD/WET/O/FF/SCR      | 1996 | Lurgi       | 1996              | Von Roll           | 140                |
|            | 3        | ESP/SD/WET/O/FF/SCR      | 1996 | Lurgi       | 1996              | Von Roll           | 140                |
|            | 4        |                          | 2005 | Elex        | 2005              | Von Roll           |                    |
| Amsterdam  | 1        | ESP/SD/WET/AC/SNCR       | 1993 | Lurgi       | 1993              | LAB                | 60                 |
|            | 2        | ESP/SD/WET/AC/SNCR       | 1993 | Lurgi       | 1993              | LAB                | 60                 |
|            | 3        | ESP/SD/WET/AC/SNCR       | 1993 | Lurgi       | 1993              | LAB                | 60                 |
|            | 4        | ESP/SD/WET/AC/SNCR       | 1993 | Lurgi       | 1993              | LAB                | 60                 |
| Dordrecht  | 1        | ESP/WET/DeNOx            |      |             |                   | Lurgi              |                    |
|            | 2        | ESP/WET/DENOX            |      |             |                   | Lurgi              |                    |
|            | 3        | ESP/WET/DENOX            |      |             |                   | Lurgi              |                    |
|            | 4        | ESP/WET/DENOX            |      |             |                   | Lurgi              |                    |
| Duiven     | 1        | SNCR/ESP/WET             | 1975 | Lurgi       | 1994              | von Roll           | 65                 |
|            | 2        | SNCR/ESP/WET             | 1975 | Lurgi       | 1994              | von Roll           | 65                 |
|            | 3        | SNCR/ESP/WET             | 1975 | Lurgi       | 1994              | von Roll           | 70                 |
| Hengelo    | 1        | ESP/SD/WET/FF/SCR        |      |             |                   |                    |                    |
|            | 2        | ESP/SD/WET/FF/SCR        |      |             |                   |                    |                    |
| Moerdijk   | 1        | ESP/WET/SNCR/AC+FF       |      | Rothemuehle |                   | Von Roll / Thyssen | 100                |
| Roosendaal | 1        | ESP, SD, FF, AC, SCR     |      |             |                   |                    |                    |
|            | 2        | ESP, SD, FF, AC, SCR     |      |             |                   |                    |                    |
| Rotterdam  | 1        | ESP/WET/AC/DeNOx         |      |             |                   | Steinmüller        |                    |
|            | 2        | ESP/WET/AC/DENOX         |      |             |                   | Steinmüller        |                    |
|            | 3        | ESP/WET/AC/DENOX         |      |             |                   | Steinmüller        |                    |
|            | 4        | ESP/WET/AC/DENOX         |      |             |                   | Steinmüller        |                    |
| Rozenburg  | 1        | ESO/WET/AC/SCR           |      |             |                   |                    | 300                |
|            | 2        | ESO/WET/AC/SCR           |      |             |                   |                    | 300                |
|            | 3        | ESO/WET/AC/SCR           |      |             |                   |                    | 300                |
|            | 4        | ESO/WET/AC/SCR           |      |             |                   |                    | 300                |
|            | 5        | ESO/WET/AC/SCR           |      |             |                   |                    | 300                |
|            | 6        | ESO/WET/AC/SCR           |      |             |                   |                    | 300                |
|            | 7        | ESO/WET/AC/SCR           |      |             |                   |                    | 300                |
| Weurt      | 1        | ESP/SD/WET/SCR/FF        |      |             |                   | Noell              |                    |
|            | 2        | ESP/SD/WET/SCR/FF        |      |             |                   | Noell              |                    |
| Wijster    | 1        | ESP/SD/FF/WET/SCR/O(CAT) | 1996 | Lurgi       | 1996              | Lurgi              | 235                |
|            | 2        | ESP/SD/FF/WET/SCR/O(CAT) | 1996 | Lurgi       | 1996              | Lurgi              | 235                |
|            | 3        | ESP/SD/FF/WET/SCR/O(CAT) | 1996 | Lurgi       | 1996              | Lurgi              | 235                |

**Netherlands**  
**Operational data, 2004**

| Location   | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels |
|------------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|------------|
|            | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) |            |
| Alkmaar    | 458218                           |                       |                                       |                          | 0                  | 0                             | 0                              | G:5445906  |
| Amsterdam  | 877351                           | 528963                | 283552                                | 0                        | 23981              | 9733                          | 31122                          |            |
| Dordrecht  | 206991                           | 123100                | 83891                                 |                          |                    |                               |                                |            |
| Duiven     | 335738                           | 207815                | 127923                                |                          |                    |                               |                                | O:110075   |
| Hengelo    | 307029                           | 216029                | 91000                                 |                          |                    |                               |                                |            |
| Moerdijk   | 655791                           | 478553                | 177238                                | 0                        | 0                  | 0                             | 0                              | G:979459   |
| Roosendaal | 55166                            | yes                   | yes                                   | none                     | 99                 | none                          | none                           | G:1071950  |
| Rotterdam  | 385000                           | 75%                   | 25%                                   | 0                        | 0                  | some                          | some                           |            |
| Rozenburg  | 1125000                          | 80%                   | 20%                                   | none                     | none               | none                          | liquid was                     |            |
| Weurt      | 269585                           |                       |                                       | 269585                   |                    |                               |                                |            |
| Wijster    | 483119                           | not specif            | not specif                            |                          | 0                  | 0                             | 0                              | 0          |

**Netherlands**  
**Operational data, 2004**

| Location   | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|------------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|            | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Alkmaar    | 117789                 | 6013                      | 1449557           | 311114               | 0             | 0                 | 233777               | 0             |
| Amsterdam  | 261203                 | 10965                     | 2649987           | 591568               | 39512         |                   | 508080               | 39512         |
| Dordrecht  | 53900                  | 4140                      | 331000            | 65433                |               |                   |                      |               |
| Duiven     | 85247                  | 6539                      |                   | 159524               |               |                   | 113707               |               |
| Hengelo    | 73800                  | 8461                      | 941000            | 181000               |               |                   | 153000               |               |
| Moerdijk   | 150721                 | 15886                     | 2118344           | 0                    | 0             | 2118344           | 0                    | 0             |
| Roosendaal | 35042                  | 1230                      | none              | 140000               |               | none              |                      | 52806         |
| Rotterdam  | 80000                  | 5400                      | 850000            | 183000               | none          | none              | 115000               | none          |
| Rozenburg  | 253000                 | 42000                     | 2952000           | 497000               | none          | not known         | 429000               | 567500        |
| Weurt      | 60701                  | 16080                     | 982000            | 190838               |               |                   | 158677               |               |
| Wijster    | 140104                 | 9600                      | 1645448           | 355971               | 7180          | 0                 | 299016               | 0             |



Number of plants: 13

Average capacity: 6 t/h

Quantity treated 2004: 767.000 t



## Norway

### General Information

| Location          | Name of Plant<br>Web-site   | Address of Plant                           | Phone<br>Fax                         |
|-------------------|---|--|--------------------------------------|
| Averøy            | Nordmøre Energigjenvinning KS<br><a href="http://www.norenergy.no">www.norenergy.no</a>                     | Kristvika<br>6530 Averøy                   | +47 71 51 44 44<br>+47 71 51 44 45   |
| Bergen            | BIR Avfallsenergi, Bergen<br><a href="http://www.bir.no">www.bir.no</a>                                     | Fanavegen 217<br>5239 Rådal                | +4755527116<br>+475552 7101          |
| Frederikstad      | Frederikstad<br><a href="http://www.frevar.com">www.frevar.com</a>  | Postboks 1430<br>1632 Gml. Frederikstad    | +47 6935 7300<br>+47 6935 7301       |
| Lenvik            | Serja Avfallselskap IKS   | Botnhägen<br>9300 Finnsnes                 | +4777850650<br>+4777850651           |
| Oslo (Brobekk)    | Brobekk Energigjenvinningsanlegg<br><a href="http://www.ege.oslo.kommune.no">www.ege.oslo.kommune.no</a>    | Brobekkveien 87<br>0583 Oslo               | +4723483800<br>+4723483801           |
| Oslo (Klemetsrud) | Klemetsrud Energigjenvinningsanlegg<br><a href="http://www.ege.oslo.kommune.no">www.ege.oslo.kommune.no</a> | Klemetsrudveien 1<br>1278 Oslo             | +4723483900<br>+4723483901           |
| Oslo (Viken)      | Oslo/Viken<br><a href="http://www.vikenfjernvarme.no">www.vikenfjernvarme.no</a>                            | Brobekkveien 87<br>0582 Oslo               | +4721626217<br>+4721626201           |
| Sandnes           | Forus Energigjenvinning KS<br><a href="http://www.forusenergi.no">www.forusenergi.no</a>                    | Forusbeen 202<br>N-4313 Sandnes            | +47 51678400<br>+47 51630039         |
| Sarpsborg         | Sarpsborg Energigjenvinning AS<br><a href="http://www.ostfoldenergi.no">www.ostfoldenergi.no</a>            | Oskar Petersens vei 10<br>N-1701 Sarpsborg | + 47 69 11 25 00<br>+ 47 69 15 65 12 |
| Spjelkavik        | Ålesund<br><a href="http://www.kraftvarme.no">www.kraftvarme.no</a>   | Serviceboks 1<br>6025 Ålesund              | + 47 70 10 07 00<br>+ 47 7010 07 10  |
| Trondheim         | Trondheim<br><a href="http://www.tev.no">www.tev.no</a>   | Østre Rosten 82<br>7075 Tiller             | +47 73961015<br>+47 73961605         |
| Ål                | Ål<br><a href="http://www.hallingdalrenovasjon.no">www.hallingdalrenovasjon.no</a>                          | Kleivi<br>3570 Ål                          | +47 3208 6110<br>+47 3208 6119       |
| Årdal             | Årdal   | Postboks 40<br>6881 Årdalstangen           | +47 57 66 51 11                      |

## Norway

### General Information

| Location          | Contact Person<br>E-mail                                     | Owner of plant<br>No. of inhab. served                              | Owners<br>Address                            |
|-------------------|--|---|--|
| Averøy            | Odd Willy Sakshaug<br>ows@norenergy.no                       | Energos AS, Nordmøre Interkommunale<br>renovasjonsselskap<br>65 700 |  |
| Bergen            | Jan Egil Bredsten<br>bir@bir.no                              | BIR AS<br>300000  | Postboks 6004 Postterminalen<br>N5892 Bergen |
| Frederikstad      | Pål Mikkelsen<br>pama@fredrikstad.kommune.no                 | FREVAR KF<br>300000   | postboks 1430<br>1602 Fredrikstad            |
| Lenvik            | Are Lorentsen<br>are@senja-avfall.no                         | Senja avfallsselskap IKS<br>27000                                   | Botnhägen<br>9300 Finnsnes                   |
| Oslo (Brobekk)    | Runar Madsen<br>Runar.Madsen@ege.oslo.kommune.no             | Oslo Kommune Energigjenvinningsetaten                               | Postboks 54, Mortensrud<br>1215 OSLO         |
| Oslo (Klemetsrud) | Thorbjørn Løkkevik<br>thorbjorn.lokkevik@ege.oslo.kommune.no | Oslo Kommune Energigjenvinningsetaten                               | Postboks 54, Mortensrud<br>1215 OSLO         |
| Oslo (Viken)      | Rune Volla<br>rune.volla@vikenfjernvarme.no                  | Viken Fjernvarme AS<br>520000                                       | Postboks 7034 St. Olavs Plass<br>0130 Oslo   |
| Sandnes           | Rune Dirdal<br>rune.dirdal@forusenergi.no                    | Forus Energigjenvinning KS<br>275000                                | Forusbeen 202<br>N-4313 Sandnes              |
| Sarpsborg         | Johnny Pedersen<br>johnny.pedersen@ostfoldenergi.no          | Østfold Energi AS<br>N/A  | P.O.Box 17<br>N-1701 Sarpsborg               |
| Spjelkavik        | Odd Helland<br>odd.helland@tafjord-kraft.no                  | Tafjord Kraftvarme AS<br>120 000                                    | Serviceboks 1<br>6025 Ålesund                |
| Trondheim         | Egil Evensen<br>egil.evensen@tev.no                          | Trondheim Energiverk Fjernvarme AS                                  | Sluppenveien 6<br>N-7005 Trondheim           |
| Ål                | Birger Sorteberg<br>firmapost@hallingdalrenovasjon.no        | Hallingdal renovasjon IKS<br>20000                                  | Kleivi<br>3570 Ål                            |
| Årdal             | Arne Kjos<br>akj@ardal.kommune.no                            | Årdal kommune   |  |

## Norway

### Technical Information on the Plant

| Location          | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace    |                | Boiler |                           | Steam Data oC/bar | Hours of Operat.2004 |   |      |
|-------------------|----------|--------------|--------------|------------|-------------|------------|----------------|--------|---------------------------|-------------------|----------------------|---|------|
|                   |          |              |              |            |             | Type       | Supplier       | Type   | Supplier                  |                   |                      |   |      |
| Averøy            | 1        | 2000         | 2020         | 4          | 10,5        | G          | Energos        | S      | Parat Anders Halvorsen AS | 375/21            | 748                  |   |      |
| Bergen            | 1        | 1999         |              | 14         | 10,5        | M          | von Roll       | S      | Moss                      | 400/40            | 7855                 |   |      |
| Frederikstad      | 1        | 1984         | 2025         | 10         | 12          | M          | Wimer&Ernst    | S      | Moss Rosenberg            | 400/40            | 8415                 |   |      |
| Lenvik            | 1        | 1985         | 2006         | 1,92       | 11,5        | O, fast bu | Envikraft AS   | S      | Envikraft                 | mettet/13         | 5000                 |   |      |
| Oslo (Brobekk)    | 1        | 1967         |              |            |             | 6,5        | 8,3            | M      | W&E                       | HW                | Moss-Rosenberg       | / | 8248 |
|                   | 2        | 1967         |              |            |             | 6,5        | 8,3            | M      | W&E                       | HW                | Moss-Rosenberg       | / | 8342 |
| Oslo (Klemetsrud) | 1        | 1985         |              | 10         | 8,3         | M          | Moss-Rosenberg | S      | W&E/Moss-Rosenberg        | 360/40            | 8150                 |   |      |
|                   | 2        | 1985         |              |            |             | M          | Moss-Rosenberg | S      | W&E/Moss-Rosenberg        | 360/40            | 8153                 |   |      |
| Oslo (Viken)      | 1        | 2002         |              | 7,3        | 14,8        | FB         | Foster Wheeler | HW     | Foster Wheeler            |                   | 4053                 |   |      |
| Sandnes           | 1        | 2002         | 2022         | 5          | 10,5        | G          | Energos        | S      | Boiler : PARAT Halvorsen  | 380/21            | 7451                 |   |      |
| Sarpsborg         | 1        |              |              |            |             |            |                |        |                           |                   |                      |   |      |
| Spjelkavik        | 1        |              |              |            |             |            |                |        |                           |                   | 8200                 |   |      |
| Trondheim         | 1        |              |              |            |             |            |                |        |                           |                   | 8330                 |   |      |
| ÅI                | 1        | 1984         |              | 3          | 10,5        | M          | Vølund         | WW     | Vølund                    | /                 | 7720                 |   |      |
| Årdal             | 1        |              |              |            |             |            |                |        |                           |                   |                      |   |      |

## Norway

### Technical Information on the Plant

| Location          | Line No. | Flue Gas Cleaning System | ESP  |          | Flue Gas Cleaning |  | Flue Gas Temp., °C |
|-------------------|----------|--------------------------|------|----------|-------------------|--|--------------------|
|                   |          |                          | Year | Supplier | Year              | Supplier                                       |                    |
| Averøy            | 1        | FF                       | -    | -        | 2000              | Simatek AS                                     | 140                |
| Bergen            | 1        | ESP, WET, FF             |      |          |                   | von Roll                                       | 125                |
| Frederikstad      | 1        | ESP-WET-FF               | 1984 | Rico     | 1984              | Rico (1982)-von Roll (1989)-Flebu Ticon (1998) | 100                |
| Lenvik            | 1        | DRY                      |      |          |                   | Envikraft                                      |                    |
|                   | 2        |                          |      |          |                   |  |                    |
| Oslo (Brobekk)    | 1        | FF/WET/SNCR              |      |          |                   | Babcock Borsig Power                           | 60                 |
|                   | 2        | FF/WET/SNCR              |      |          |                   | Babcock Borsig Power                           | 60                 |
| Oslo (Klemetsrud) | 1        | FF/WET/SNCR              |      |          |                   | Babcock Borsig Power/Peabody                   | 60                 |
|                   | 2        | FF/WET/SNCR              |      |          |                   | Babcock Borsig Power/Peabody                   | 60                 |
| Oslo (Viken)      | 1        |                          | 2002 |          | 2002              |  |                    |
| Sandnes           | 1        | FF                       | 2002 | NA       | 2002              | SIMATEK  | 140                |
| Sarpsborg         | 1        |                          |      |          |                   |  |                    |
| Spjelkavik        | 1        |                          |      |          |                   |  |                    |
| Trondheim         | 1        |                          |      |          |                   |  |                    |
| ÅI                | 1        | SD + FF                  |      |          | 1995/             | FLS-miljø + Simatek                            | 150                |
| Ardal             | 1        |                          |      |          |                   |  |                    |

**Norway**  
**Operational data, 2004**

| Location          | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels |
|-------------------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|------------|
|                   | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) |            |
| Averøy            | 32124                            |                       |                                       |                          |                    |                               |                                | O:13360    |
| Bergen            | 105000                           | 85000                 | 18700                                 |                          |                    | 1300                          |                                | O:225000   |
| Frederikstad      | 80381                            | 3424                  | 76957                                 |                          |                    | 760                           |                                | O:195000   |
| Lenvik            | 5050                             | 2250                  | 2803                                  |                          |                    | 120                           |                                |            |
| Oslo (Brobekk)    | 110268                           | 95492                 | 10961                                 |                          |                    |                               | 3815                           | O:210300   |
| Oslo (Klemetsrud) | 148161                           | 114912                | 23537                                 |                          |                    | 1677                          | 8035                           | O:336400   |
| Oslo (Viken)      | 34356                            |                       |                                       |                          |                    |                               | 34356                          | O:157280   |
| Sandnes           | 38596                            | 30737                 | 7859                                  |                          |                    |                               |                                | G:392000   |
| Sarpsborg         | 62517                            |                       |                                       |                          |                    |                               |                                | O:140000   |
| Spjelkavik        | 34658                            | 30121                 | 4328                                  |                          |                    | 210                           |                                | O:232      |
| Trondheim         | 97012                            | 57509                 | 39503                                 |                          |                    |                               |                                |            |
| ÅI                | 18600                            | 12400                 | 6200                                  |                          |                    |                               |                                | O:24800    |
| Årdal             |                                  |                       |                                       |                          |                    |                               |                                |            |

## Norway

### Operational data, 2004

| Location          | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|-------------------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|                   | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Averøy            | 4963                   | 1375                      |                   | 6672                 | 72000         |                   | 6672                 | 21578         |
| Bergen            | 17400                  | 2200                      |                   | 41250                | 276000        |                   | 41250                | 96271         |
| Frederikstad      | 15000                  | 1600                      | 240000            | 4000                 | 208000        | 207000            | 4000                 | 173           |
| Lenvik            | 880                    | 94                        |                   |                      | 10000         |                   |                      | 2200          |
| Oslo (Brobekk)    | 17717                  | 3289                      |                   |                      | 282507        |                   |                      | 246803        |
| Oslo (Klemetsrud) | 26574                  | 5470                      |                   | 68318                | 288691        |                   | 68318                | 176987        |
| Oslo (Viken)      | 6314                   | 3504                      |                   |                      | 109994        |                   |                      | 101775        |
| Sandnes           | 7346                   | 1558                      | 105000            | 12353                | 89858         |                   | 12353                | 15081         |
| Sarpsborg         | 9322                   | 3615                      |                   | N/A                  | 165000        |                   | N/A                  | 154000        |
| Spjelkavik        | 4185                   | 1048                      |                   |                      | 81120         |                   |                      | 60000         |
| Trondheim         | 19661                  | 1848                      |                   |                      | 242065        |                   |                      | 201804        |
| ÅI                | 3460                   | 425                       |                   | 0                    | 31200         |                   |                      | 7             |
| Årdal             |                        |                           |                   |                      |               |                   |                      |               |



Number of plants: 3  
Average capacity: 68 t/h  
Quantity treated 2004: 648.000 t



## Portugal

### General Information

| Location         | Name of Plant<br>Web-site                                    | Address of Plant                           | Phone<br>Fax                         |
|------------------|--|--|--------------------------------------|
| Funchal          | Madeira<br>www.valorambiente.pt                              | Rua dos Murças 15<br>9000 - 058 Funchal    | +351 291 214 860<br>+351 291 214 861 |
| Moreira da Maia  | Central de Valorização Energética - LIPOR<br>www.lipor.pt    | Lugar de Cretins P.O. Box 3102<br>4471-907 | +351 22 977 0100<br>+351 22 975 6038 |
| S. Joao de Talha | Central de Tratamento de Resíduos Sólidos<br>www.valorsul.pt | Plataforma Ribeirinha da CP<br>2696-801    | +351 219535900<br>+351 219535935     |

### Technical Information on the Plant

| Location         | Line No. | Establis.<br>Year | Closure Year | Capac.<br>t/h | Nom CV<br>GJ/t | Furnace |   | Boiler |   | Steam Data<br>oC/bar | Hours of<br>Operat.2004 |
|------------------|----------|-------------------|--------------|---------------|----------------|---------|---|--------|---|----------------------|-------------------------|
|                  |          |                   |              |               |                | Type    | Supplier                                      | Type   | Supplier                                    |                      |                         |
| Funchal          | 1        | 2004              | 2027         | 8             | 7,5            | F       | Lurgi<br>(Walzenrost<br>system -<br>Wupertal) | HW     | Roller<br>Grate/EWBeisenwer<br>ke Banmgarte | 400/40               | 805                     |
|                  | 2        | 2004              | 2027         | 8             | 7,5            | F       | Lurgi<br>(Walzenrost<br>system -<br>Wupertal) | HW     | Roller<br>Grate/EWBeisenwer<br>ke Banmgarte | 400/40               | 775                     |
| Moreira da Maia  | 1        | 1999              |              | 24,7          | 7,7            | M       | Martin  | S      | CNIM  | 395/43               |                         |
|                  | 2        | 1999              |              | 24,7          | 7,7            | M       | Martin  | S      | CNIM  | 395/43               |                         |
| S. Joao de Talha | 1        | 2000              |              | 28            | 7,8            | M       | Detroit Stoker                                | S      | Foster Wheeler                              | 420/52.7             | 6960                    |
|                  | 2        | 2001              |              | 28            | 7,8            | M       | Detroit Stoker                                | S      | Foster Wheeler                              | 420/52.7             | 6827                    |
|                  | 3        | 2002              |              | 28            | 7,8            | M       | Detroit Stoker                                | S      | Foster Wheeler                              | 420/52.7             | 7077                    |
|                  | 4        | 2003              |              | 28            | 7,8            | M       | Detroit Stoker                                | S      | Foster Wheeler                              | 420/52.7             |                         |
|                  | 5        | 2004              |              | 28            | 7,8            | M       | Detroit Stoker                                | S      | Foster Wheeler                              | 420/52.7             |                         |

### Operational data, 2004

| Location         | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels  |
|------------------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|---|
|                  | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) |   |
| Funchal          | 113.823                          |                       |                                       |                          |                    |                               |                                | O: Oil (l)<br>G: Gas (Nm3)<br>B: Biomass (t)<br>S: Sundry (spec.) |
| Moreira da Maia  |                                  |                       |                                       |                          |                    |                               |                                | O:286071  |
| S. Joao de Talha | 534.640                          | 534.640               |                                       |                          |                    |                               |                                | G:912671  |

## Portugal

### General Information

| Location         | Contact Person<br>E-mail                       | Owner of plant<br>No. of inhab. served | Owners<br>Address                                   |
|------------------|--|--|---|
| Funchal          | Engª Joana Rodrigues<br>geral@valorambiente.pt | Estação de Tratamento de Resíduos S    | Sítio da Meia Serra<br>9135 - 400 Camacha           |
| Moreira da Maia  | Paula Mendes<br>paula.mendes@lipor.pt          | LIPOR - Serviço Intermunicipalizado d  | P.O.Box 1510<br>970.000<br>4435-996 Baguim do Monte |
| S. Joao de Talha | Dra. Ana Loureiro<br>ana.loureiro@valorsul.pt  | Valorsul, SA.                          | Plataforma Ribeirinha da CP<br>2696-801             |

### Technical Information on the Plant

| Location         | Line No. | Flue Gas Cleaning System | ESP  |          | Flue Gas Cleaning |                           | Flue Gas Temp., °C |
|------------------|----------|--------------------------|------|----------|-------------------|---------------------------|--------------------|
|                  |          |                          | Year | Supplier | Year              | Supplier                  |                    |
| Funchal          | 1        | SNCR, SD, FF             | 2004 | ---      | 2004              | BHS / Lurgi / Gutsche     | 140                |
|                  | 2        | SNCR, SD, FF             | 2004 | ---      | 2004              | BHS / Lurgi / Gutsche     | 140                |
| Moreira da Maia  | 1        | SD/FF                    |      |          |                   | CNIM/Hamon Reach-Contrell | 155                |
|                  | 2        | SD/FF                    |      |          |                   | CNIM/Hamon Reach-Contrell | 155                |
| S. Joao de Talha | 1        | SNCR+SD+FF               |      |          |                   | EXXON/Alstrom             | 140-190            |
|                  | 2        | SNCR+SD+FF               |      |          |                   | EXXON/Alstrom             | 140-190            |
|                  | 3        | SNCR+SD+FF               |      |          |                   | EXXON/Alstrom             | 140-190            |
|                  | 4        | SNCR+SD+FF               |      |          |                   | EXXON/Alstrom             | 140-190            |
|                  | 5        | SNCR+SD+FF               |      |          |                   | EXXON/Alstrom             | 140-190            |

### Operational data, 2004

| Location         | Residues            |                        | Energy Produced |                   |            | Energy Sold    |                   |            |
|------------------|---------------------|------------------------|-----------------|-------------------|------------|----------------|-------------------|------------|
|                  | Bottom Ash (tonnes) | Flue Gas Res. (tonnes) | Steam (tonnes)  | Electricity (MWh) | Heat (MWh) | Steam (tonnes) | Electricity (MWh) | Heat (MWh) |
| Funchal          | 22.638              | 3.477                  | 260.240         | 48.475            |            | 35.070         |                   |            |
| Moreira da Maia  |                     |                        |                 |                   |            |                |                   |            |
| S. Joao de Talha | 100.076             | 19.132                 | 1.498.936       | 286.408           |            | 247.656        |                   |            |



Number of plants: 10  
Average capacity: 25 t/h  
Quantity treated 2004: 2.221.000 t



**Spain**  
**General Information**

| Location               | Name of Plant<br>Web-site   | Address of Plant  | Phone<br>Fax                            |
|------------------------|---|---|---|
| Barcelona              | Planta Energética de Sant Adrià del Besòs<br><a href="http://www.tersa.com">www.tersa.com</a> |   | +34 93 462 78 70<br>+34 93 462 78 72/73 |
| Bilbao                 | Zabalgarbi<br>en construcción   | Camino de Artigas, 10<br>48002 Bilbao                             | +34 94 4155288<br>+34 94 4151969        |
| Cerceda (A Coruña)     | Sogama<br><a href="http://www.sogama.es">www.sogama.es</a>                                    | Morzos, 10 bajos<br>15187 San Román - Encrovas. Cerceda, A Coruña | +34 981 698500<br>+34 981 586064        |
| Girona                 | TRARGISA  | Paratge De Campdorà, S/N<br>17461 GIRONA                          | +34 972 217433<br>+34 972 223153        |
| Madrid                 | TIRMADRID   | Cañada Real De Merinas, S/N<br>(Valdemingomez)<br>28051 Madrid    | +34 91 3324131<br>+34 91 3322780        |
| Mataró                 | TRM<br><a href="http://www.plantabrossa-maresme.com">www.plantabrossa-maresme.com</a>         | C/ de la Teixidora, 83 PI Les Hortes del Camí Ral<br>08302        | +34 93 7411515<br>+34 93 7995216        |
| Melilla                | REMESA<br><a href="http://www.remesa.es">www.remesa.es</a>                                    | Horcas Doradas C/D, s/n<br>52002 MELILLA                          | +34 952 680561<br>+34 952 685808        |
| Meruelo<br>(Cantabria) | Cantabria<br><a href="http://www.urbaser.com">www.urbaser.com</a>                             | Bº La Verna, s/n<br>39192   | +34 942 674898<br>+34 942 637073        |
| Palma De Mallorca      | TIRME<br><a href="http://www.tirme.com">www.tirme.com</a>                                     | Ctra. De Sóller, KM 8,2<br>07120 Palma                            | +34 971 435050<br>+34 971 438672        |
| Tarragona              | SIRUSA<br><a href="http://www.sirusa.es">www.sirusa.es</a>                                    | C/ Coure s/n. Polg.Ind.Riu Clar<br>43206 Tarragona                | +34 977 550696<br>+34 977 546647        |

## Spain

### General Information

| Location               | Contact Person<br>E-mail  | Owner of plant<br>No. of inhab. served                              | Owners<br>Address  |
|------------------------|---|---|--|
| Barcelona              | Sr. Francesc Gatuellas  | TERSA   | Avda. Eduard Maristany<br>08930 Sant Adrià del Besòs                 |
| Bilbao                 | General: Fidel Bikandi/<br>Medioambiente: Inés Alonso<br>General: dcfb@zabalgarbi.com<br>Medioamb.: ines.alon | Zabalgarbi, S.A.<br>670000  | 48002 Bilbao   |
| Cerceda (A<br>Coruña)  |   | Unión Fenosa (49%) y Xunta de Galicia<br>(51%)<br>2054190           | Morzos, 10 bajos<br>15187 San Román - Encrovas.<br>Cerceda, A Coruña |
| Girona                 | D. Alfred Viñas i Folch (gerente)<br><br>a.vinas@eic.ictnet.es  | Ayuntamientos de Girona, Salt i Sarrià de<br>Ter<br>110.000         |  |
| Madrid                 | María Jesús Ramírez Gonzalo<br><br>tirmadrid@tirmadrid.es   | TIRMADRID, SA<br><br>1.000.000                                      | Cañada Real De Merinas, S/N<br>(Valdemingomez)<br>28051 Madrid       |
| Mataró                 | Juan Balagué Pons<br><br>trm@trm.es   | Consorci Per Al Tractament De Rsu Del<br>Maresme<br>350.000         | C/ de la Teixidora, 83 PI Les Hortes<br>del Camí Ral<br>08302        |
| Melilla                | D. Miguel Moralejo Vidal<br><br>mmoralejo@remesa.es   | Residuos de Melilla, S.A.<br>80000                                  | Horcas Doradas C/D, s/n<br>52002 MELILLA                             |
| Meruelo<br>(Cantabria) | Jose Antonio Gomez<br><br>acanoc@urbaser.com  | Public franchise<br><br>550.000                                     | 39001 Santander  |
| Palma De<br>Mallorca   | Angel Fernández Homar<br><br>gerencia@tirme.com   | Consell Insular De Mallorca /TIRME<br><br>732.000                   |  |
| Tarragona              | Sr. Ramón Nadal<br><br>sirusa@sirusa.es   | Mancomunitat D'Incineracio De Residus<br>Urbans - SIRUSA<br>300.000 | 43206 Tarragona  |

## Spain

### Technical Information on the Plant

| Location            | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |                  | Boiler      |                             | Steam Data oC/bar | Hours of Operat.2004 |
|---------------------|----------|--------------|--------------|------------|-------------|---------|------------------|-------------|-----------------------------|-------------------|----------------------|
|                     |          |              |              |            |             | Type    | Supplier         | Type        | Supplier                    |                   |                      |
| Barcelona           | 1        | 1975         |              | 15         | 8,4         |         |                  |             |                             | 400/40            | 8000                 |
|                     | 2        | 1975         |              | 15         | 8,4         |         |                  |             |                             | 400/40            | 8000                 |
|                     | 3        | 1975         |              | 15         | 8,4         |         |                  |             |                             | 400/40            | 8000                 |
| Bilbao              | 1        | 2005         | 2030         | 30         | 8,3         | M       | CNIM             | AQUOTUBULA  | MARTIN/CNIM                 | 326/103           | 5760                 |
| Cereda (A Coruña)   | 1        | 2002         |              | 23         |             | FB      |                  |             |                             |                   | 6500                 |
|                     | 2        | 2002         |              | 23         |             | FB      |                  |             |                             |                   |                      |
| Girona              | 1        | 1984         |              | 3          |             | M       | Martin           | S           | Aitesa                      | /                 |                      |
| Madrid              | 1        | 1997         | 2020         | 9,17       | 14,65       | FB      | EBARA            | S           | Vulcano/ERK                 | 420/48            | 7849                 |
|                     | 2        | 1997         | 2020         | 9,17       | 14,65       | FB      | EBARA            | S           | Vulcano/ERK                 | 420/48            |                      |
|                     | 3        | 1997         | 2020         | 9,17       | 14,65       | FB      | EBARA            | S           | Vulcano/ERK                 | 425/48            |                      |
| Mataró              | 1        | 1994         |              | 10         | 8,38        | M       | Martin           | S           | MARTIN/CNIM                 | 380/61            | 7395                 |
|                     | 2        | 1994         |              | 10         | 8,38        | M       | Martin           | S           | MARTIN/CNIM                 | 380/61            | 7428                 |
| Melilla             | 1        | 1996         |              | 4,5        | 9,1         | M       | Von Roll         | S           | Von Roll                    | 400/40            | 8000                 |
| Meruelo (Cantabria) | 1        | 2005         |              | 12         | 11,72       |         | LURGI LENTJES    | ACUT UBULAR | LURGI LENTJES               | 420/48            |                      |
| Palma De Mallorca   | 1        | 1997         | 2025         | 18,75      | 6.4-7.5     | M       | DEUTSCHE BABCOCK | S           | DEUTSCHE BABCOCK / MACHIDBA | 396/42            | 8735                 |
|                     | 2        | 1997         | 2025         | 18,75      | 6.4-7.5     | M       | DEUTSCHE BABCOCK | S           | DEUTSCHE BABCOCK / MACHIDBA | 396/42            | 8646                 |
| Tarragona           | 1        | 1990         |              | 9,6        |             | M       | DBA              | S           | DBA/Eckrokessel             | 360/40            | 8064                 |
|                     | 2        | 1990         |              | 9,6        |             | M       | DBA              | S           | DBA/Eckrokessel             | 360/40            | 8016                 |

## Spain

### Technical Information on the Plant

| Location            | Line No. | Flue Gas Cleaning System | ESP  |          | Flue Gas Cleaning |                                      | Flue Gas Temp., °C |
|---------------------|----------|--------------------------|------|----------|-------------------|--------------------------------------|--------------------|
|                     |          |                          | Year | Supplier | Year              | Supplier                             |                    |
| Barcelona           | 1        | SD                       | 1975 | DEFISA   | 1998              | SEGHERS                              | 150                |
|                     | 2        | SD                       | 1975 | DEFISA   | 1998              | SEGHERS                              | 150                |
|                     | 3        | SD                       | 1975 | DEFISA   | 1998              | SEGHERS                              | 150                |
| Bilbao              | 1        | SNCR+SD+FF               |      |          | 2005              | CNIM                                 | 140                |
| Cerdeña (A Coruña)  | 1        | SD+FF                    |      |          |                   |                                      | 140                |
|                     | 2        | SD+FF                    |      |          |                   |                                      | 140                |
| Girona              | 1        | ESP + DRY + FF           |      |          |                   | Defisa                               | 140                |
| Madrid              | 1        | SD+FF                    |      |          | 1997              | H-ABT                                | 180                |
|                     | 2        | SD+FF                    |      |          | 1997              | H-ABT                                | 180                |
|                     | 3        | SD+FF                    |      |          | 1997              | H-ABT                                | 180                |
| Mataró              | 1        | SD/FF                    |      |          | 1994              | ABB Fläkt (reactor); DEFISA (filter) | 160                |
|                     | 2        | SD/FF                    |      |          | 1994              | ABB Fläkt (reactor); DEFISA (filter) | 160                |
| Melilla             | 1        | SD                       |      |          |                   | Procedair                            | 130                |
| Meruelo (Cantabria) | 1        | ABSORBEDOR +FF           |      |          |                   | LURGI LENTJES                        | 140'               |
| Palma De Mallorca   | 1        | SD+FF                    |      |          | 1997              | ABB Fläkt                            | 145-150            |
|                     | 2        | SD+FF                    |      |          | 1997              | ABB Fläkt                            | 145-150            |
| Tarragona           | 1        | SD                       |      |          | 1996              | FL Miljø                             | 140                |
|                     | 2        | SD                       |      |          | 1996              | FL Miljø                             | 140                |

**Spain**  
**Operational data, 2004**

| Location            | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels |
|---------------------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|------------|
|                     | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) |            |
| Barcelona           | 328832                           | 328832                |                                       |                          |                    |                               |                                | G:118892   |
| Bilbao              | 157808                           | 157808                | -                                     | -                        | -                  | -                             |                                |            |
| Cereda (A Coruña)   | 506247                           |                       |                                       |                          |                    |                               |                                |            |
| Girona              | 30620                            |                       |                                       |                          |                    |                               |                                |            |
| Madrid              | 291675                           |                       |                                       | 291675                   |                    |                               |                                | O:1128600  |
| Mataró              | 149218                           |                       |                                       |                          |                    |                               |                                | G:62876    |
| Melilla             | 46227                            |                       |                                       |                          |                    |                               |                                |            |
| Meruelo (Cantabria) | 244639                           | 244639                |                                       | 90                       |                    |                               |                                |            |
| Palma De Mallorca   | 328747                           | 326691                |                                       |                          | 2056               |                               |                                | O:418628   |
| Tarragona           | 137205                           | 137205                |                                       |                          |                    |                               |                                | O:47750    |

**Spain**  
**Operational data, 2004**

| Location            | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|---------------------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|                     | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Barcelona           | 69388                  | 11516                     | 704858            | 174037               | -             | 30859             | 135366               | -             |
| Bilbao              | 34828                  | 6312                      | -                 | 521785               | -             | -                 | 494295               | -             |
| Cereda (A Coruña)   | 68647                  | 32180                     |                   | 319909               |               |                   | 288069               |               |
| Girona              | 6736                   | 798                       |                   | 5985000              |               |                   | 2959700              |               |
| Madrid              | 15540                  | 28547                     |                   | 228501               |               |                   | 173377               |               |
| Mataró              | 36772                  | 6382                      | 365138            | 75521                |               |                   | 64462                |               |
| Melilla             | 11094                  | 739                       |                   | 12459                |               |                   | 9086                 |               |
| Meruelo (Cantabria) | 4290                   | 7485                      | 300000            | 81000                |               |                   | 66000                |               |
| Palma De Mallorca   | 78721                  | 26684                     | 796666            | 173887               |               |                   | 145810               |               |
| Tarragona           | 32775                  | 3292                      |                   | 55594                | 342999        |                   | 44895                |               |



Number of plants: 30  
Average capacity: 17 t/h  
Quantity treated 2004: 3.078.000 t



## Sweden

### General Information

| Location   | Name of Plant<br>Web-site   | Address of Plant  | Phone<br>Fax  |
|------------|---|---|---|
| Avesta     | Källhagsverket i Avesta<br><a href="http://www.fortum.se">www.fortum.se</a>   | Ab Fortum Värme Industrigatan 40<br>774 35 AVESTA           | +46 226 360 00<br>+46 226 360 13                      |
| Boden      | Värmeverket i Boden<br><a href="http://www.bodensenergi.se">www.bodensenergi.se</a>   | Degerbergsvägen 2<br>961 40 BODEN                           | +46 0921 621 92<br>+46 0921 521 35                    |
| Bollnäs    | Säverstaverket i Bollnäs<br><a href="http://www.bollnas.se">www.bollnas.se</a>  | Bollnäs kommun Värmeverket<br>821 80 BOLLNÄS                | +46 027825 519<br>+46 027825 690                      |
| Borlänge   | Bäckelundsverket<br><a href="http://www.borlange-energi.se">www.borlange-energi.se</a>  | Ritargatan 1<br>781 78 BORLÄNGE                             | +46 243 73 000<br>+46 243 86 304                      |
| Eksjö      | Eksjö Energi AB<br><a href="http://www.eksjo.se/kommun">www.eksjo.se/kommun</a>   | Eksjö Energi AB<br>575 80 Eksjö                             | +46 0381 - 36 000 /<br>0381 - 36<br>+46 0381 - 135 48 |
| Göteborg   | Sävenäsverket i Göteborg<br><a href="http://www.renova.se">www.renova.se</a>  | Renova Box 156<br>401 22 Göteborg                           | +46 03161 80 01<br>+46 03161 86 27                    |
| Halmstad   | Kristinehedsverket i Halmstad<br><a href="http://www.renhallningsbolaget.halmstad.se">www.renhallningsbolaget.halmstad.se</a> | Renhållningsbolaget Box 8005<br>300 08 Halmstad             | +46 035190 190<br>+46 035190 110                      |
| Haninge    | Bollmora Värmeverk<br><a href="http://www.vattenfall.se">www.vattenfall.se</a>  | Vattenfall Drefviken Värme AB Box 606<br>136 26 Haninge     | +46 08 707 08 00<br>+46 08 742 32 12                  |
| Hässleholm | Beleverket i Hässelholm<br><a href="http://www.hfab.nu">www.hfab.nu</a>   | Hässleholm Fjärrvärme AB Tippvägen 7<br>281 41 HÄSSLEHOLM   | +46 0451 26 70 00<br>+46 0451 843 60                  |
| Jönköping  | Jönköping Energi<br><a href="http://www.jonkopingenergi.se">www.jonkopingenergi.se</a>  |   | +46 036 10 82 00<br>+46 036 19 07 32                  |
| Karlskoga  | Karlskoga Kraftvärmeverk<br><a href="http://www.karlskogaenergi.se">www.karlskogaenergi.se</a>                                | Karlskoga Kraftvärmeverk AB Box 155<br>691 23 Karlskoga     | +46 0586617 90<br>+46 0586620 10                      |
| Karlstad   | Avfallsvärmeverket på Heden<br><a href="http://www.karlstadsenergi.se">www.karlstadsenergi.se</a>                             | Hedenverket<br>651 84 Karlstad                              | +46 54295000<br>+46 54297362                          |
| Kil        | Kils Energi AB<br><a href="http://www.kils-energi.se">www.kils-energi.se</a>  | Kils Energi AB Box 88<br>665 23 Kil                         | +46 0554 191 00<br>+46 0554 191 97                    |
| Kiruna     | Kiruna Värmeverk<br><a href="http://www.kiruna.se">www.kiruna.se</a>  | Kiruna Värmeverk AB Box 60<br>981 21 Kiruna                 | +46 0980707 15<br>+46 0980181 25                      |
| Kumla      | Sydkraft SAKAB<br><a href="http://www.sydkraft.se">www.sydkraft.se</a>  | Sydkraft SAKAB AB<br>692 85 Kumla                           | +46 019 30 51 00<br>+46 019 57 70 27                  |
| Köping     | Norsaverket<br><a href="http://www.vafab.se">www.vafab.se</a>   | Norsavägen 13<br>731 98 KÖPING                              | +46 0221252 24<br>+46 022115770                       |
| Landskrona | Hetvattencentralen i Landskrona   | Landskrona kommun Tekniska verken<br>261 80 Landskrona      | +46 0418 47 08 53<br>+46 0418 47 08 56                |
| Lidköping  | Lidköpings Värmeverk<br><a href="http://www.lidkoping.se">www.lidkoping.se</a>  | Lidköpings Värmeverk AB Sjöhagsvägen 8<br>531 88 Lidköping  | +46 0510770 290<br>+46 0510770 882                    |
| Linköping  | Gärdstaderket i Linköping<br><a href="http://www.tekniskaverken.linkoping.se">www.tekniskaverken.linkoping.se</a>             | Tekniska Verken i Linköping AB Box 1500<br>581 15 Linköping | +46 01320 80 00<br>+46 01320 80 06                    |
| Ljungby    | Ljungsjöverket i Ljungby<br><a href="http://www.ljungby-energi.se">www.ljungby-energi.se</a>                                  | Ljungsjöverket Märta Ljungbergsvägen 61<br>341 35 Ljungby   | +46 0372 789 591,<br>0733 739 591<br>+46 0372 827 65  |
| Malmö      | SYSAV Sydkånes Avfallsaktiebolag<br><a href="http://www.sysav.se">www.sysav.se</a>  | Box 503 44<br>203 13 Malmö                                  | +46 40 635 18 50<br>+46 40 635 18 90                  |

## Sweden

### General Information

| Location   | Contact Person<br>E-mail   | Owner of plant<br>No. of inhab. served                 | Owners<br>Address                                |
|------------|--|--|--|
| Avesta     | Bernt-Ove Ohman<br><a href="mailto:bernt-ove.ohman@fortum.com">bernt-ove.ohman@fortum.com</a>  | AB Fortum Värme samägt med<br>Stockholms stad<br>12000 | Industrigatan 40<br>774 35 Avesta                |
| Boden      | Ulf Öberg<br><a href="mailto:ulf.oberg@bodensenergi.se">ulf.oberg@bodensenergi.se</a>  | Bodens Energi AB<br>150 000                            | Slipvägen 7<br>961 38 Boden                      |
| Bollnäs    | Mikael Strandberg<br><a href="mailto:mikael.strandberg@bollnas.se">mikael.strandberg@bollnas.se</a>  | Bollnäs Kommun<br>26000                                | 821 80 Bollnäs                                   |
| Borlänge   | Anders Åberg<br><a href="mailto:anders.aberg@borlange-energi.se">anders.aberg@borlange-energi.se</a>   | AB Borlänge Energi<br>48 000                           | Box 834<br>781 28 Borlänge                       |
| Eksjö      | Bo Axelsson / Hans-Åke Tilly<br><a href="mailto:bo.axelsson@eksjo.se">bo.axelsson@eksjo.se</a> /<br><a href="mailto:hansake.tilly@eksjo.se">hansake.tilly@eksjo.se</a> |  |  |
| Göteborg   | Christer Lundgren<br><a href="mailto:christer.lundgren@renova.se">christer.lundgren@renova.se</a>  |  |  |
| Halmstad   | Lars Jacobsson<br><a href="mailto:lars.jacobsson@rhb.halmstad.se">lars.jacobsson@rhb.halmstad.se</a>   | Halmstad kommun<br>95                                  |  |
| Haninge    | Sten Gustavsson<br><a href="mailto:sten.gustavsson@vattenfall.com">sten.gustavsson@vattenfall.com</a>  |  |  |
| Hässleholm | Alf Persson<br><a href="mailto:alf.persson@hassleholm.se">alf.persson@hassleholm.se</a>  | Hässleholm Fjärrvärme AB<br>7770                       | Tippvägen 7<br>281 41 Hässleholm                 |
| Jönköping  | Inger Andersson<br><a href="mailto:inger.andersson@en.jonkoping.se">inger.andersson@en.jonkoping.se</a>  | Jönköping Energi AB                                    | Jönköping Energi AB Box 5150<br>550 05 JÖNKÖPING |
| Karlskoga  | Lennart Johansson<br><a href="mailto:lennart.johansson@karlskogaenergi.se">lennart.johansson@karlskogaenergi.se</a>  | 50<br>125000   | BOX 155<br>691 23                                |
| Karlstad   | Peter Lind<br><a href="mailto:peter.lind@karlstad.se">peter.lind@karlstad.se</a>   | Karlstads Energi AB                                    | 651 84 KARLSTAD                                  |
| Kil        | Jan-Erik Dahlström<br><a href="mailto:jan-erik.dahlstrom@kils-energi.se">jan-erik.dahlstrom@kils-energi.se</a>   |  |  |
| Kiruna     | Kenneth Larsson<br><a href="mailto:kenneth.larsson@tekniskaverkenkiruna.se">kenneth.larsson@tekniskaverkenkiruna.se</a>  |  |  |
| Kumla      | Raimo Huhtala<br><a href="mailto:raimo.huhtala@sydkraft.se">raimo.huhtala@sydkraft.se</a>  |  |  |
| Köping     | Sven Englund<br><a href="mailto:sven.englund@vafabmiljo.se">sven.englund@vafabmiljo.se</a>   | Vafab Miljö AB<br>47000                                | 721 87 Västerås                                  |
| Landskrona | Bengt Hansson<br><a href="mailto:bengt.hansson@tv.landskrona.se">bengt.hansson@tv.landskrona.se</a>  |  |  |
| Lidköping  | Jan-Eric Isaksson<br><a href="mailto:jan-eric.isaksson@lidkoping.se">jan-eric.isaksson@lidkoping.se</a>  |  |  |
| Linköping  | Henrik Lindstähl<br><a href="mailto:henrik.lindstahl@tekniskaverken.se">henrik.lindstahl@tekniskaverken.se</a>   |  |  |
| Ljungby    | Peter Salomonsson<br><a href="mailto:peter.salomonsson@ljungby-energi.se">peter.salomonsson@ljungby-energi.se</a>  | Ljungby Energi AB                                      | BOX 262<br>341 25 Ljungby                        |
| Malmö      | Jonas Eek<br><a href="mailto:jonas.eek@sysav.se">jonas.eek@sysav.se</a>  | Sysav<br>650000  | Box 503 44<br>202 13 Malmö                       |

## Sweden

### General Information

| Location   | Name of Plant<br>Web-site  | Address of Plant  | Phone<br>Fax                           |
|------------|--|---|--|
| Mora       | Utmelandsverket<br><a href="http://www.sydkraft.se">www.sydkraft.se</a>                                  | Box 183<br>792 23 Mora  | +46 250 297 01<br>+46 250 297 19       |
| Norrköping | Sydkraft P14 AB, Händelöverket<br><a href="http://www.eon.se">www.eon.se</a>                             | Sydkraft Östvärme AB 601 71 NORRKÖPING<br>Energigatan 5       | +46730499301<br>+46 011 23 44 91       |
| Stockholm  | Högdalenverket i Stockholm<br><a href="http://www.fortum.se">www.fortum.se</a>                           | Kvicksundsvägen 16<br>124 59 Bandhagen                        | +46 08 671 70 00<br>+46 08 671 82 82   |
| Sundsvall  | Korstaverket i Sundsvall<br><a href="http://www.sundsvallenenergi.com">www.sundsvallenenergi.com</a>     | Sundsvall Energi Box 823<br>851 23 Sundsvall                  | +46 060 19 22 00<br>+46 060 56 64 43   |
| Södertälje | Igelstaverket<br><a href="http://www.soderenergi.se">www.soderenergi.se</a>                              | Nynäsvägen 43<br>152 07 Södertälje                            | +46 08 553 05 500<br>+46 08 553 05 690 |
| Uddevalla  | Lillesjöverket<br><a href="http://www.uddevallaenergi.se">www.uddevallaenergi.se</a>                     | Uddevalla Energi AB Strömberget<br>451 81 UDDEVALLA           | +46 0522 69 60 00<br>+46 0522 69 62 00 |
| Umeå       | Ålidhemsanläggningen och Dåva kraftvärmeverk<br><a href="http://www.umeaenergi.se">www.umeaenergi.se</a> | Doktorsvägen 6, Energivägen 1<br>Box 224, 901 05 UMEÅ         | +46 90 16 38 00<br>+46 90 16 48 77     |
| Uppsala    | Vattenfall Värme Uppsala AB<br><a href="http://www.vattenfall.se">www.vattenfall.se</a>                  | Vattenfall Värme AB<br>753 82 Uppsala                         | +46 018 26 90 00<br>+46 018 14 66 57   |
| Västervik  | Stegeholmsverket i Västervik<br><a href="http://www.vastervik.se">www.vastervik.se</a>                   | Västerviks Värmeverk AB Värmeverksgatan 5<br>593 50 Västervik | +46 0490 25 70 20<br>+46 0490 25 70 21 |

## Sweden

### General Information

| Location   | Contact Person<br>E-mail   | Owner of plant<br>No. of inhab. served        | Owners<br>Address                      |
|------------|--|---|--|
| Mora       | Kjell-Åke Wallström, Sydkraft<br>MälarVärme<br>kjell-ake.wallstrom@sydkraft.se | SAKAB EcoPlus AB<br>45 000                    | 205 09 Malmö                           |
| Norrköping | Bengt Heikne<br><br>bengt.heikne@eon.se  | Sydkraft Östvärme AB                          | Energigatan 5<br><br>601 71 Norrköping |
| Stockholm  | Julia Sundberg, Fortum<br><br>julia.sundberg@fortum.com                        | AB Fortum Värme samägt med<br>Stockholms stad | 115 77 STOCKHOLM                       |
| Sundsvall  | Maria Vamling<br><br>maria.vamling@serva.se                                    |   |  |
| Södertälje | Katarina Ferbeek<br><br>katrina.ferbeek@soderenergi.se                         | Söderenergi AB                                | Box 7074<br>152 07 Södertälje          |
| Uddevalla  | Bo Kvartsberg<br><br>bo.kvartsberg@uddevallaenergi.se                          | Uddevalla Energi AB<br>30 000                 | Strömberget<br>451 81 Uddeavalla       |
| Umeå       | Ulf Kullh<br><br>ulf.kullh@umeaenergi.se                                       | Umeå Energi AB<br><br>ca 73 000               | Box 224<br><br>901 05 UMEÅ             |
| Uppsala    | Hans Sollenberg<br><br>hans.sollenberg@vattenfall.com                          |   |  |
| Västervik  | Bo Thunström<br><br>bo.thunstrom@vastervik.se                                  |   |  |

## Sweden

### Technical Information on the Plant

| Location   | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |                                   | Boiler |                                    | Steam Data oC/bar | Hours of Operat.2004 |
|------------|----------|--------------|--------------|------------|-------------|---------|-----------------------------------|--------|------------------------------------|-------------------|----------------------|
|            |          |              |              |            |             | Type    | Supplier                          | Type   | Supplier                           |                   |                      |
| Avesta     | 1        | 1980         |              | 3          | 10          | M       | Bruun & Sørensen                  | HW     | Maskinverken                       | /                 | 1935                 |
|            | 2        | 1980         |              | 3          | 10          | M       | Bruun & Sørensen                  | HW     | Maskinverken                       | /                 | 0                    |
|            | 3        |              |              | 9          | 10          | M       | Babcock & Wilcox Völund           | HW     | Babcock & Wilcox Völund            |                   | 7168                 |
| Boden      | 1        | 1997         |              | 8          | 14          | M       | Generator/Völund                  | WW     |                                    |                   | 7200                 |
| Bollnäs    | 1        | 1983         |              | 5          | 10,1        | FB      | Generator                         | HW     | Generator                          | 200/21            | 4224                 |
|            | 2        | 1983         |              | 5          | 10,1        | FB      | Generator                         | HW     | Generator                          | 200/21            | 4484                 |
| Borlänge   | 1        | 1982         |              | 5,5        | 12,5        | M       | K+K Noell                         | HW     | Maskinverken                       | /                 | 6500                 |
| Eksjö      | 1        |              |              |            |             |         |                                   |        |                                    |                   |                      |
| Göteborg   | 1        | 1972         | 2001         | 15         | 9,4         | M       | von Roll                          | S      | (Kvaerner) von Roll, Generator AB  | 212/20            | 7725                 |
|            | 4        | 1994         |              | 22         | 10,9        | M       | von Roll                          |        | Kvaerner                           | 400/40            | 7752                 |
|            | 5        | 1995         |              | 22         | 10,9        | M       | von Roll                          |        | Kvaerner                           | 400/40            | 7509                 |
|            | 6        | 2001         |              | 15         | 10,9        | M       | MARTIN GmbH                       |        | MARTIN GmbH                        | 400/40            |                      |
| Halmstad   | 1        | 1971         |              | 5          | 11,5        | M       | Martin                            | HW     | Martin/Generator                   |                   | 4215                 |
|            | 2        | 1971         |              | 5          | 11,5        | M       | Martin                            | HW     | Martin/Generator                   |                   | 3705                 |
|            | 3        | 2003         |              | 15         | 12          | M       | Fisia Babcock Environment GmbH    | HW     | Fisia Babcock Environment GmbH     | 400/40            | 7489                 |
| Haninge    | 1        | 1968         |              | 25         | 17          | M       |                                   | WW     |                                    | /                 |                      |
| Hässleholm | 1        | 2003         | -            | ca 5       |             | roster  | Völund                            | S      | Völund                             | 217/16            | 7400                 |
| Jönköping  | 1        | 2006         |              | 20         | 11          | M       | FBE                               | S      | FBE                                | 380/40            |                      |
| Karlskoga  | 1        | 1986         | -            | 5          | 9,7         | M       | Noell                             | S      | Götaverken                         | 300/25            | 8100                 |
| Karlstad   | 1        | 1986         |              | 7          | 11,3        | M       | Noell                             | HW     | Generator                          | /                 | 8080                 |
|            | 2        | 1986         |              | 7          | 10,5        | M       | Babcock & Wilcox Völund Aps ('02) | HW     | Generator ('86) / Conv. B&WV ('02) |                   |                      |
| Kil        | 1        |              |              |            |             |         |                                   |        |                                    |                   |                      |
| Kiruna     | 1        | 1985         |              | 2,2        | 6,1         | m       | Völund                            |        |                                    | /                 |                      |
|            | 2        | 1985         |              | 2,2        | 6,1         | M       | Völund                            |        |                                    | /                 |                      |
| Kumla      | 1        |              |              |            |             |         |                                   |        |                                    |                   |                      |
| Köping     | 1        |              |              |            |             |         |                                   |        |                                    | /                 |                      |
|            | 2        | 1972         |              | 5          | 10,5        | M       | Kockum                            | HW     | ÅPS                                | /                 | 7141                 |
| Landskrona | 1        |              |              |            |             |         |                                   |        |                                    |                   |                      |
| Lidköping  | 1        | 1985         |              | 6          | 10          | FB      | Kvaerner                          | HW     | Kvaerner                           | /                 |                      |
|            | 2        | 1984         |              | 6          | 10          | FB      | Kvaerner                          | HW     | Kvaerner                           | /                 |                      |
| Linköping  | 1        | 1981         |              | 5,7        | 10,44       | M       | von Roll                          | S      | Generator                          | /                 | 7923                 |
|            | 2        | 1982         |              | 9,3        | 10,44       | M       | von Roll                          | S      | Generator                          | /                 | 7712                 |
|            | 3        | 1983         |              | 9,5        | 10,44       | M       | von Roll                          | S      | Generator                          | /                 | 7544                 |
| Ljungby    | 1        |              |              |            |             |         |                                   |        |                                    |                   | 6271                 |
| Malmö      | 1        | 1973         |              | 12         | 10,2        | M       | Martin                            | HW     | Wehrle Werk                        | /                 | 6765                 |
|            | 2        | 1973         |              | 12         | 10,2        | M       | Martin                            | HW     | Wehrle Werk                        | /                 | 7535                 |
|            | 3        | 2003         |              | 25         | 12,5        | M       | Martin                            | S      | Wehrle Werk                        | 400/40            | 7631                 |
| Mora       | 1        | 1981         |              | 3,15       | 8           | M       | B&S                               | WW     | Danstoker                          | /                 | 8344                 |

## Sweden

### Technical Information on the Plant

| Location   | Line No. | Flue Gas Cleaning System | ESP  |                      | Flue Gas Cleaning |   | Flue Gas Temp., °C |
|------------|----------|--------------------------|------|----------------------|-------------------|---|--------------------|
|            |          |                          | Year | Supplier             | Year              | Supplier                                    |                    |
| Avesta     | 1        | ESP, FF, WET             | 1980 |                      |                   | ABB   | 65                 |
|            | 2        | ESP, FF, WET             | 1980 |                      |                   | ABB   | 65                 |
|            | 3        | ESR,FF,WET               | 2002 |                      | 1988              | ABB   | 65                 |
| Boden      | 1        | Wet,ESP,SNCR,FGS         |      |                      | 1997              | Pronea Miljöteknik/ FLS Miljö               | 55                 |
| Bollnäs    | 1        | FF,WET,SNCR              |      |                      |                   | AAF, Radscan Intervex                       | 170                |
|            | 2        | FF,WET,SNCR              |      |                      |                   | AAF, Radscan Intervex                       | 170                |
| Borlänge   | 1        | FGC+FF                   | 1982 | Elex, industrifilter | 90 /              | Fagersta Energetics, ABB                    | 90                 |
| Eksjö      | 1        |                          |      |                      |                   |   |                    |
| Göteborg   | 1        | SNCR+ESP+WET FGC+FF      |      | Svenska Fläkt AB     | 1988              | von Roll+Svenka Fläkt AB+Götaverken+ABB     | 100                |
|            | 4        | SNCR+ESP+WET FGC+FF      |      | Rothenmuhle          | 1989              | von Roll+Svenka Fläkt AB+Götaverken+ABB     | 95                 |
|            | 5        | SNCR+ESP+WET FGC+FF      |      | Rothenmuhle          | 1989              | von Roll+Svenka Fläkt AB+Götaverken+ABB     | 95                 |
|            | 6        | SNCR+ESP+WET FGC+FF      |      | Rothenmuhle          | 1988              | von Roll+Svenka Fläkt AB+Götaverken+ABB     | 95                 |
| Halmstad   | 1        | ESP/FF/WET/FGC           |      |                      |                   | Götaverken Fagersta                         | 65                 |
|            | 2        | ESP/FF/WET/FGC           |      |                      |                   | Götaverken Fagersta                         | 65                 |
|            | 3        | ESP/WET/FF/SCR           |      |                      |                   | Fisia Babcock Environment GmbH              | 90                 |
| Haninge    | 1        | DRY                      |      |                      |                   | ABB Fläkt                                   | 120                |
| Hässleholm | 1        | SNCR + FF + (DRY; NID)   | 2003 | -                    | 2003              | ALSTOM (FF, NID) & PETRO (SNCR)             | 130 -150           |
| Jönköping  | 1        | DRY/FF(NID)/WET/SNCR/FGC |      |                      | 2006              | Alstom                                      | <65                |
| Karlskoga  | 1        | DRY                      |      |                      | 1993              | ABB, Fläkt                                  | 135                |
| Karlstad   | 1        | FF                       |      |                      |                   | ABB/Fläkt                                   | 135                |
|            | 2        | FF ('86) + FGC ('04)     |      |                      | 1986              | ABB Fläkt ('86) + Götaverkan Miljö AB ('04) | 35                 |
| Kil        | 1        |                          |      |                      |                   |   |                    |
| Kiruna     | 1        | Wet                      |      |                      |                   | Götaverken Miljö                            | 70                 |
|            | 2        | Wet                      |      |                      |                   | Götaverken Miljö                            | 70                 |
| Kumla      | 1        |                          |      |                      |                   |   |                    |
| Köping     | 1        | NO INFO                  |      |                      |                   |   | 110                |
|            | 2        | FF                       |      |                      |                   | Fläkt                                       | 110                |
| Landskrona | 1        |                          |      |                      |                   |   |                    |
| Lidköping  | 1        | DRY                      |      |                      |                   | IF  | 140                |
|            | 2        | DRY                      |      |                      |                   | IF  | 140                |
| Linköping  | 1        | WET+ESP+FF               |      |                      |                   | Fagersta Energetiks, Rothenmühle, Fläkt     | 70                 |
|            | 2        | WET+ESP+FF               |      |                      |                   | Fagersta Energetiks, Rothenmühle, Fläkt     | 70                 |
|            | 3        | WET+ESP+FF               |      |                      |                   | Fagersta Energetiks, Rothenmühle, Fläkt     | 70                 |
| Ljungby    | 1        |                          |      |                      |                   |   |                    |
| Malmö      | 1        | DRY+WET+FF+SNCR          |      |                      | 2005              | ABB+Götaverken                              | 80                 |
|            | 2        | DRY+WET+FF+SNCR          |      |                      | 2005              | ABB+Götaverken                              | 80                 |
|            | 3        | WET+ESP+SCR              | 2003 | Rotemühle            | 2003              | LAB + SA                                    | 70                 |
| Mora       | 1        | DRY                      |      |                      |                   | Fläkt                                       | 140                |

## Sweden

### Technical Information on the Plant

| Location   | Line No. | Establ. Year   | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace  |                | Boiler |   | Steam Data oC/bar | Hours of Operat.2004 |
|------------|----------|----------------|--------------|------------|-------------|----------|----------------|--------|---|-------------------|----------------------|
|            |          |                |              |            |             | Type     | Supplier       | Type   | Supplier                                  |                   |                      |
| Norrköping | 1        | 2002           |              | 24         | 12,6        | CFB      | Kvaerner Power | S      | Kvaerner Power                            | 470/65            | 6667                 |
| Stockholm  | 1        | 1970           |              | 11         | 10          | R        | VKW            | S      |   | 430/35            | 7706                 |
|            | 2        | 1970           |              | 11         | 10          | R        | VKW            | S      |   | 430/35            | 6930                 |
|            | 3        | 1986           |              | 15         | 10          | M        | Martin         | S      |   | 430/35            | 7662                 |
|            | 4        | 2000           |              | 34         | 10          | CFB      | Foster Wheeler | S      |   | 480/60            | 6313                 |
|            | 5        | 2005           |              | 34         | 10          | M        | Völund         | S      |   | 430/35            | -                    |
| Sundsvall  | 1        | 1984           |              | 6          |             | CFB      | Götaverket     | S      | Götaverket                                | /                 |                      |
| Södertälje | 1        | (1982)<br>1994 |              |            | 18,5        | M        | Alström        | HW     | Svenska<br>Maskinverken<br>ombyg av Noell | /                 | 7115                 |
| Uddevalla  | 1        | 2009           |              | 11         | 12,6        | Moveable |                | S      |   | 400°C / 40        |                      |
| Umeå       | 1        |                |              |            |             | M        | K+K            | HW     | Götaverken                                |                   |                      |
|            | 3        | 1985           |              | 7,8        |             | M        | von Roll       | S      | von Roll                                  | 400/40            | 5359                 |
| Uppsala    | 1        | 1983           |              | 15         | 11          | M        | W+E            | S      | BWE                                       | 200/16            |                      |
|            | 2        | 1965           |              | 5          | 11          | M        | Völund         | S      | SMV                                       | 200/16            |                      |
|            | 3        | 1971           |              | 5          | 11          | M        | B&S            | S      | SMV                                       | 200/16            |                      |
|            | 4        | 1982           |              | 10         | 11          | M        | W+E            | S      | BWE                                       | 200/16            |                      |
| Västervik  | 1        |                |              |            |             |          |                |        |   |                   |                      |

## Sweden

### Technical Information on the Plant

| Location   | Line No. | Flue Gas Cleaning System | ESP  |          | Flue Gas Cleaning         |          | Flue Gas Temp., °C |
|------------|----------|--------------------------|------|----------|---------------------------|----------|--------------------|
|            |          |                          | Year | Supplier | Year                      | Supplier |                    |
| Norrköping | 1        | O, NID+SNCR on boiler    |      |          | 2002                      | Alstom   | 145                |
| Stockholm  | 1        | DRY, WET, FF, FGC        |      |          | ABB Fläkt                 | 80       |                    |
|            | 2        | DRY, WET, FF, FGC        |      |          | ABB Fläkt                 | 80       |                    |
|            | 3        | DRY, WET, FF, FGC        |      |          | ABB Fläkt                 | 80       |                    |
|            | 4        | DRY, WET, FF, FGC        |      |          | ABB Environmental Systems | 80       |                    |
|            | 5        | ESP,WET,FGC              | LAB  |          | LAB                       | 80       |                    |
| Sundsvall  | 1        | FF                       |      |          | Sv Fläkt                  |          |                    |
| Södertälje | 1        | ESP+SD+FF                |      |          | Fläkt                     | 30       |                    |
| Uddevalla  | 1        | WET,ESP, SCR, FGC        | 2009 |          | 2009                      |          |                    |
| Umeå       | 1        |                          |      |          |                           |          |                    |
|            | 3        | DRY+FF                   |      |          | Svenska Fläkt             | 135      |                    |
|            | 4        | SNCR+DRY+FF+WET+FGC      |      |          | Götaverken                | 60       |                    |
| Uppsala    | 1        | ESP+WET+FF               |      |          | FLS+Fagersta+ABB          | 60       |                    |
|            | 2        | ESP+WET+FF               |      |          | FLS+Fagersta+ABB          | 60       |                    |
|            | 3        | ESP+WET+FF               |      |          | FLS+Fagersta+ABB          | 60       |                    |
|            | 4        | ESP+WET+FF               |      |          | FLS+Fagersta+ABB          | 60       |                    |
| Västervik  | 1        |                          |      |          |                           |          |                    |

**Sweden**  
**Operational data, 2004**

| Location   | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels          |
|------------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|---------------------|
|            | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) |                     |
| Avesta     | 46800                            | 25600                 | 21300                                 |                          |                    |                               |                                |                     |
| Boden      | 58000                            | 48000                 | 10000                                 |                          |                    |                               |                                |                     |
| Bollnäs    | 37099                            | 25963                 | 11136                                 |                          |                    |                               |                                |                     |
| Borlänge   | 34951                            | 13353                 | 21598                                 |                          |                    |                               |                                |                     |
| Eksjö      | 19080                            |                       |                                       |                          |                    |                               |                                |                     |
| Göteborg   | 433700                           |                       |                                       |                          |                    |                               | O:581000                       |                     |
| Halmstad   | 146804                           | 76396                 | 68714                                 |                          | 1224               |                               | 470                            | O:580000            |
| Haninge    | 14110                            |                       |                                       |                          |                    |                               |                                |                     |
| Hässleholm | 34137                            | 22044                 | 12093                                 |                          |                    |                               |                                |                     |
| Jönköping  |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Karlskoga  | 42600                            | 30000                 | 10400                                 |                          |                    | 200                           |                                |                     |
| Karlstad   | 50408                            |                       |                                       |                          |                    |                               |                                | O:519000            |
| Kil        |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Kiruna     | 53120                            |                       |                                       |                          |                    |                               |                                |                     |
| Kumla      | 136970                           |                       |                                       |                          |                    |                               |                                |                     |
| Köping     | 25653                            | 13478                 | 12175                                 |                          |                    |                               |                                |                     |
| Landskrona | 30330                            |                       |                                       |                          |                    |                               |                                |                     |
| Lidköping  | 82000                            |                       |                                       |                          |                    |                               |                                |                     |
| Linköping  | 217214                           |                       |                                       |                          |                    |                               |                                | O:2315<br>B:6824    |
| Ljungby    |                                  | 40550                 |                                       | 2000                     |                    |                               |                                | O:119000            |
| Malmö      | 385879                           | 202206                | 156160                                |                          |                    | 1700                          | 25813                          | O:270000<br>G:490   |
| Mora       | 16455                            | 11500                 | 4955                                  | 0                        | 0                  | 0                             | 0                              |                     |
| Norrköping | 163700                           | 98535                 | 59091                                 |                          |                    |                               |                                | O:1117000<br>B:6074 |
| Stockholm  | 520221                           | 339306                | 180915                                |                          |                    |                               |                                | O:1565000<br>B:5788 |
| Sundsvall  | 44790                            |                       |                                       |                          |                    |                               |                                |                     |
| Södertälje | 249211                           |                       | 113538                                | 135673                   |                    |                               |                                | O:486000            |
| Uddevalla  |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Umeå       | 188074                           |                       |                                       |                          |                    |                               |                                | O:795000            |
| Uppsala    |                                  |                       |                                       |                          |                    |                               |                                |                     |
| Västervik  | 46600                            |                       |                                       |                          |                    |                               |                                |                     |

**Sweden**  
**Operational data, 2004**

| Location   | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|------------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|            | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Avesta     | 7600                   | 1124                      |                   |                      | 136000        |                   |                      |               |
| Boden      | 10000                  | 1000                      |                   |                      | 158000        |                   | 247000               |               |
| Bollnäs    | 1883                   | 4393                      | 16200             |                      | 81806         | 16180             |                      | 118884        |
| Borlänge   | 3703                   | 609                       |                   |                      | 116382        |                   |                      | 116382        |
| Eksjö      |                        |                           |                   | 3670                 | 47650         |                   |                      |               |
| Göteborg   | 77532                  | 14915                     |                   | 213150               | 1172660       |                   | 153351               | 1057672       |
| Halmstad   | 2490                   | 373                       |                   | 55277                | 344173        |                   | 41014                | 283658        |
| Haninge    |                        |                           |                   | 0                    | 61950         |                   |                      |               |
| Hässleholm | 5659                   | 1378                      |                   | 4536                 | 92136         |                   |                      |               |
| Jönköping  |                        |                           |                   |                      |               |                   |                      |               |
| Karlskoga  |                        |                           |                   |                      |               |                   |                      |               |
| Karlstad   | 7794                   | 1610                      |                   |                      | 144217        |                   |                      | 144217        |
| Kil        |                        |                           |                   |                      |               |                   |                      |               |
| Kiruna     |                        |                           |                   | 11430                | 98890         |                   |                      |               |
| Kumla      |                        |                           |                   | 41340                | 229210        |                   |                      |               |
| Köping     | 4461                   | 458                       |                   |                      | 75149         |                   |                      | 75149         |
| Landskrona |                        |                           |                   | 0                    | 103070        |                   |                      |               |
| Lidköping  |                        |                           |                   | 11400                | 227770        |                   |                      |               |
| Linköping  | 46639                  | 6570                      |                   | 14463                | 634688        |                   | 0                    | 568050        |
| Ljungby    | 6177                   | 802                       |                   | 6500                 | 79500         |                   | 4030                 | 70000         |
| Malmö      | 82680                  | 15996                     |                   | 137677               | 1030136       |                   | 107516               | 996962        |
| Mora       | 2634                   | 378                       | 0                 | 0                    | 41494         | 0                 |                      | 39860         |
| Norrköping | 14920                  | 13805                     |                   | 57717                | 352319        |                   | 40252                | 349197        |
| Stockholm  | 63666                  | 27287                     |                   | 219700               | 1404900       |                   |                      |               |
| Sundsvall  |                        |                           |                   | 19570                | 90870         |                   |                      |               |
| Södertälje | 12000                  | 25000                     | 75000             |                      | 938086        | 75000             |                      | 1810451       |
| Uddevalla  |                        |                           |                   |                      |               |                   |                      |               |
| Umeå       | 30181                  | 6810                      |                   | 64658                | 470189        |                   | 30886                | 457590        |
| Uppsala    |                        |                           |                   |                      |               |                   |                      |               |
| Västervik  |                        |                           |                   | 0                    | 116220        |                   |                      |               |



Number of plants: 30  
Average capacity: 16 t/h  
Quantity treated 2004: 3.025.000 t



## Switzerland

### General Information

| Location          | Name of Plant<br>Web-site   | Address of Plant                               | Phone<br>Fax                           |
|-------------------|---|--|--|
| Aire-la-ville     | UIOM Cheneviers<br><a href="http://www.sig-ge.ch">www.sig-ge.ch</a>                                 | Route de Verbois 40<br>1288 Aire-la-ville      | +41 22 727 41 11<br>+41 22 727 41 12   |
| Basel             | KVA Basel<br><a href="http://www.iwb.ch">www.iwb.ch</a>   | Margarethenstrasse 40<br>4008 Basel            | +41 61 275 51 11<br>+41 61 322 61 71   |
| Bazenheid         | KVA Bazenheid<br><a href="http://www.zab.ch">www.zab.ch</a>   | Zwizach<br>9602 Bazenheid                      | +41 71 932 12 12<br>+41 71 932 12 10   |
| Bern              | KVA Bern<br><a href="http://www.ewb.ch">www.ewb.ch</a>  | Warmbächliweg 2<br>3008 Bern                   | +41 31 321 95 11<br>+41 31 321 95 95   |
| Biel              | KVA Biel<br><a href="http://www.mueve.ch">www.mueve.ch</a>  | Portstrasse 40<br>2503 Biel                    | +41 032 366 50 70<br>+41 032 366 50 75 |
| Brig-Gils         | KVA Oberwallis<br>n.a.  | Kiesweg 1<br>3900 Gamsen                       | +41 027 923 12 33<br>+41 027 923 09 50 |
| Buchs AG          | KVA Buchs AG<br><a href="http://www.kva-buchs.ch">www.kva-buchs.ch</a>                              | Postfach<br>5033 Buchs AG                      | +41 62 834 77 00<br>+41 62 834 77 01   |
| Buchs SG          | KVA Buchs SG<br><a href="http://www.vfa-buchs.ch">www.vfa-buchs.ch</a>                              | Langäulistrasse 24<br>9470 Buchs SG            | +41 81 756 73 91<br>+41 81 756 16 84   |
| Colombier         | UIOM Colombier<br><a href="http://www.saiod.ch">www.saiod.ch</a>                                    | Cottendarf<br>2013 Colombier                   | +41 32 843 82 11<br>+41 32 843 82 10   |
| Dietikon          | KVA Limmattal<br><a href="http://www.kvdietikon.ch">www.kvdietikon.ch</a>                           | Reservatstrasse 5<br>8953 Dietikon             | +41 44 745 64 64<br>+41 44 745 64 60   |
| Emmenbrücke       | KVA Luzern<br><a href="http://www.kva-luzern.ch">www.kva-luzern.ch</a>                              | Reusseggerstrasse 15<br>6020 Emmenbrücke       | +41 41 429 12 12<br>+41 41 429 12 13   |
| Horgen            | KVA Horgen<br><a href="http://www.kvahorgen.ch">www.kvahorgen.ch</a>                                | Zugerstrasse 165<br>8810 Horgen                | +41 44 718 24 24<br>+41 44 718 24 44   |
| Kezo              | KVA Hinwil<br><a href="http://www.kezo.ch">www.kezo.ch</a>  | Wildbachstrasse 2<br>8340 Hinwil               | +41 44 938 31 02<br>+41 44 938 31 08   |
| La Chaux-de-Fonds | UIOM La Chaux-de-Fonds<br><a href="http://www.cridor.ch">www.cridor.ch</a>                          | Rue du Collège 31<br>2300 La Chaux-de-Fonds    | +41 32 967 6801<br>+41 32 967 6656     |
| Lausanne          | UIOM Lausanne<br><a href="http://www.lausanne.ch/assainissement">www.lausanne.ch/assainissement</a> | Place du Vallon 7<br>1005 Lausanne             | +41 021 315 79 61<br>+41 021 315 79 65 |
| Lausanne          | Centre TRIDEL<br><a href="http://www.lausanne.ch/assainissement">www.lausanne.ch/assainissement</a> | Rue du Vallon 35<br>1005 Lausanne              | +41 21 315 79 11<br>+41 21 315 79 65   |
| Monthey           | UIOM Monthey<br><a href="http://www.satommonthey.ch">www.satommonthey.ch</a>                        | Zone Industrielle Boeu Ferrant<br>1870 Monthey | +41 24 427 77 77<br>+41 24 427 82 02   |
| Niederurnen       | KVA Linthgebiet<br><a href="http://www.kva-linthgebiet.ch">www.kva-linthgebiet.ch</a>               | im Fennen 1A<br>8867 Niederurnen               | +41 55 617 2740<br>+41 55 617 2749     |
| Oftringen         | KVA Oftringen<br><a href="http://www.erzo.ch">www.erzo.ch</a>                                       | Alte Strasse 40<br>4665 Oftringen              | +41 62 789 50 25<br>+41 62 789 50 22   |
| Posieux           | UIOM Fribourg<br><a href="http://www.saidef.ch">www.saidef.ch</a>                                   | Route de Châtillon 70<br>1725 Posieux          | +41 26 409 73 33<br>+41 26 409 73 39   |
| St. Gallen        | KVA St. Gallen<br><a href="http://www.kva.stadt.sg.ch">www.kva.stadt.sg.ch</a>                      | Rechenwaldstrasse 30<br>9014 St. Gallen        | +41 71 274 31 11<br>+41 71 274 31 10   |
| Thun              | KVA Thun<br><a href="http://www.avag.ch">www.avag.ch</a>  | Allmendstrasse 166<br>3600 Thun                | +41 33 226 56 56<br>+41 33 226 56 10   |

## Switzerland

### General Information

| Location          | Contact Person<br>E-mail                   | Owner of plant<br>No. of inhab. served                                | Owners<br>Address                             |
|-------------------|--|---|---|
| Aire-la-ville     | Hervé Guignand<br>herve.guignand@sig-ge.ch | Service de l'environnement, SIG<br>n.a.                               | Case postale 25<br>1288 Aire-la-ville         |
| Basel             | Jörg Stoltz<br>joerg.stoltz@iwb.ch         | Industrielle Werke Basel<br>700'000                                   | Margarethenstrasse 40<br>Basel                |
| Bazenheid         | Dr. Rainer Heiniger<br>info@zab.ch         | Zweckverband Abfallverwertung<br>Bazenheid ZAB<br>165'000             | Zwizach<br>9602 Bazenheid                     |
| Bern              | Peter Magnaguagno<br>info@ewb.ch           | Fernwärmeverversorgung und<br>Kehrichtverwertung<br>310'000           | Monbijoustrasse 11, Postfach<br>3001 Bern     |
| Biel              | Stephan Birbaumer<br>info@mueve.ch         | Müve Biel-Seeland AG<br>131'480                                       | Portstrasse 40<br>2503 Biel                   |
| Brig-Gils         | Kurt Ruppen<br>n.a.                        | Gemeindeverband Oberwallis für die<br>Abfallbewirtschaftung<br>66'000 | Postfach 679<br>3900 Brig-Gils                |
| Buchs AG          | Hans Suter<br>info@kva-buchs.ch            | Gemeindeverband für Kehrichtbeseitigung<br>GEKAL<br>255'000           | Postfach<br>5033 Buchs AG                     |
| Buchs SG          | Karl Hollenstein<br>vfa-buchs@rheintal.ch  | Verein für Abfallbeseitigung VFA<br>170'000                           | Langäulistrasse 24<br>9470 Buchs SG           |
| Colombier         | Giovanni Tarantino<br>info@saiod.ch        | S.A. pour l'incinération des ordures et<br>déchets, SAIOD<br>169'000  | Cottendarf<br>2013 Colombier                  |
| Dietikon          | E. Schönmann<br>info@kvldietikon           | Kläranlageverband Limmattal<br>150'000                                | Reservatstrasse 5<br>8953 Dietikon            |
| Emmenbrücke       | Meyer Jürg<br>info@kva-luzern.ch           | Gemeindeverband für Kehrichtbeseitigung<br>Region Luzern<br>196'000   | Reusseggrasse 15<br>6020 Emmenbrücke          |
| Horgen            | Romano Wild<br>Info@kvahorgen.ch           | Zweckverband für Abfallverwertung im<br>Bezirk Horgen<br>90'000       | Zugerstrasse 165<br>8810 Horgen               |
| Kezo              | Daniel Böni<br>info@kezo.ch                | KEZO Kehrichtverbrennungsanlage<br>Zürcher Oberland<br>295'000        | Wildbachstrasse 2<br>8340 Hinwil              |
| La Chaux-de-Fonds | Emmanuel Maitre<br>info@cridor.ch          | Centre régional d'incinération des ordures,<br>CRIDOR<br>169'000      | Rue du Collège 31<br>2300 La Chaux-de-Fonds   |
| Lausanne          | Armand Claus<br>armand.claus@lausanne.ch   | Usine d'incinération des ordures<br>ménagères<br>147'000              | Place du Vallon 7<br>1005 Lausanne            |
| Lausanne          | Armand Claus<br>armand.claus@lausanne.ch   | TRIDEL SA<br>147000   | Rue des Terreaux 33<br>1000 Lausanne 9        |
| Monthey           | Blatter Edi<br>info@satom-monthey.ch       | SATOM<br>230'000  | Zone Industrielle Boeuferrant<br>1870 Monthey |
| Niederurnen       | Rico Bertini<br>info@kva-linthgebiet.ch    | KVA Linthgebiet<br>240'000  | im Fennen 1A<br>8867 Niederurnen              |
| Oftringen         | Thomas Müller<br>info@erzo.ch              | Entsorgung Region Oftringen<br>188'000                                | Alte Strasse 40<br>4665 Oftringen             |
| Posieux           | René Lambert<br>info@saidef.ch             | SAIDEF<br>280'000   | 1725 Posieux<br>Posieux                       |
| St. Gallen        | Markus Walser<br>kva.sg@stadt.sg.ch        | Entsorgungsamt der Stadt St. Gallen<br>210'000                        | Rechenwaldstrasse 30<br>9014 St. Gallen       |
| Thun              | Heiner Straubhaar<br>info@avag.ch          | AG für Abfallverwertung AVAG<br>315'000                               | Allmendstrasse 166<br>3600 Thun               |

## Switzerland

### General Information

| Location   | Name of Plant<br>Web-site  | Address of Plant                       | Phone<br>Fax                           |
|------------|--|--|--|
| Turgi      | KVA Turgi<br><a href="http://www.kvaturgi.ch">www.kvaturgi.ch</a>                          | Region Baden-Brugg<br>5300 Turgi       | +41 56 201 9111<br>+41 56 223 26 65    |
| Untervaz   | KVA Trimmis<br>n.a.  | 7201 Untervaz-Bahnhof                  | +41 81 300 01 90<br>+41 81 300 01 99   |
| Uvrier     | UIOM Uvrier<br><a href="mailto:uto.direction@tvs2net.ch">uto.direction@tvs2net.ch</a>      | Promenade des Berges 10<br>1958 Uvrier | +41 27 203 19 41<br>+41 27 203 61 34   |
| Weinfelden | KVA Thurgau<br><a href="http://www.kvatg.ch">www.kvatg.ch</a>                              | Rüteliholzstrasse 5<br>8570 Weinfelden | +41 71 626 96 00<br>+41 71 626 96 10   |
| Winterthur | KVA Winterthur<br><a href="http://www.energie-winterthur.ch">www.energie-winterthur.ch</a> | Scheideggstrasse 50<br>8404 Winterthur | +41 052 233 16 21<br>+41 052 232 45 10 |
| Zuchwil    | KVA Zuchwil<br><a href="http://www.kebag.ch">www.kebag.ch</a>                              | Emmenspitz<br>4528 Zuchwil             | +41 32 686 54 54<br>+41 32 686 54 40   |
| Zürich     | ERZ Heizkraftwerk Hagenholz<br><a href="http://www.erz.ch">www.erz.ch</a>                  | Hagenholzstrasse 110<br>8050 Zürich    | +41 44 645 77 77<br>+41 44 645 77 78   |
| Zürich     | ERZ Heizkraftwerk Josefstrasse<br><a href="http://www.erz.ch">www.erz.ch</a>               | Josefstrasse 211<br>8005 Zürich        | +41 044 645 77 77<br>+41 044 645 77 78 |

## Switzerland

### General Information

| Location   | Contact Person<br>E-mail                         | Owner of plant<br>No. of inhab. served                             | Owners<br>Address                          |
|------------|--|--|--|
| Turgi      | Peter Ender<br><br>info@kvaturgi.ch              | Gemeindeverband Kehrichtverwertung<br><br>190'000                  | 5300 Turgi<br><br>5300 Turgi               |
| Untervaz   | Jürg Looser<br><br>gevag@grischavision.ch        | GEVAG Gemeindeverband für<br>Abfallentsorgung in GR<br><br>120'000 | 7201 Untervaz-Bahnhof                      |
| Uvrier     | Jules Dayer<br><br>uto.administration@tvs2net.ch | Usine de traitement des ordures UTO<br><br>110'000                 | Promenade des Berges 10<br><br>1958 Uvrier |
| Weinfelden | Peter Schmid<br><br>staeheli@kvatg.ch            | Verband KVA Thurgau<br><br>189'000                                 | Rüteliholzstrasse 5<br><br>8570 Weinfelden |
| Winterthur | Eugen Meile<br><br>eugen.meile@win.ch            | Städtische Werke Winterthur<br><br>300'000                         | Scheideggstrasse 50<br><br>8404 Winterthur |
| Zuchwil    | Hans Häfeli<br><br>info@kebag.ch                 | KEBAG Kehrichtbeseitigungs-AG<br><br>250'000                       | Emmenspitz<br><br>4528 Zuchwil             |
| Zürich     | Oswald Looser<br><br>info@erz.stzh.ch            | Entsorgung und Recycling Zürich<br><br>320'000                     | Hagenholzstrasse 110<br><br>8050 Zürich    |
| Zürich     | Oswald Looser<br><br>info@erz.stzh.ch            | Entsorgung und Recycling Zürich<br>incl. in 0                      | Hagenholzstrasse 110<br><br>8050 Zürich    |

## Switzerland

### Technical Information on the Plant

| Location          | Line No. | Establ. Year  | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |                | Boiler |              | Steam Data oC/bar | Hours of Operat.2004 |
|-------------------|----------|---------------|--------------|------------|-------------|---------|----------------|--------|--------------|-------------------|----------------------|
|                   |          |               |              |            |             | Type    | Supplier       | Type   | Supplier     |                   |                      |
| Aire-la-ville     | 1        |               |              |            |             | M       | Martin         | S      | Wehrle       | 400/40            | 4648                 |
|                   | 3        | 1978          | n.a.         | 14         | 13,1        | M       | Von Roll       | S      | ABB          | 400/40            | 7398                 |
|                   | 5        | 1993          | n.a.         | 18         | 11,6        | M       | Von Roll       | S      | ABB          | 400/40            |                      |
|                   | 6        | 1993          | n.a.         | 18         | 11,6        | M       | Von Roll       | S      | ABB          | 400/40            |                      |
| Basel             | 1        |               |              |            |             | M       | ABB            | S      | ABB          | 400/40            | 8177                 |
|                   | 2        | 1998          | n.a.         | 14         | 12,1        | M       | ABB            | S      | ABB          | 400/40            | 8164                 |
|                   | 3        | 1998          | n.a.         | 14         | 12,1        | M       | Wamser         | S      | Wamser       | 210/20            | 8000                 |
| Bazenheid         | 1        | 1976          | n.a.         | 3,5        | 12,5        | M       | Martin         | S      | Wamser       | 210/20            | 8000                 |
|                   | 2        | 1976          | n.a.         | 3,5        | 12,5        | M       | Martin         | S      | Wamser       | 210/20            | 8000                 |
|                   | 3        | 1984          | n.a.         | 3,5        | 12,5        | M       | Martin         | S      | Sulzer       | 210/20            | 8000                 |
| Bern              | 1        | 1975          | n.a.         | 7,5        | 9,6         | M       | Von Roll       | S      | Wamser       | 400/60            | 7800                 |
|                   | 2        | 1975          | n.a.         | 7,5        | 9,6         | M       | Von Roll       | S      | Wamser       | 400/60            | 7800                 |
| Biel              | 1        | 1991          | n.a.         | 4,89       | 14,4        | M       | Noell          | S      | Baumgartner  | 350/25            | 8439                 |
| Brig-Gils         | 1        |               |              |            |             | M       | Noell          | S      | Noell KRC    | /                 | 0                    |
|                   | 2        | 1998          | n.a.         | 5          | n.a.        | M       | W+E            | S      | Wamser       | 400/40            | 7500                 |
| Buchs AG          | 1        | 1994          | n.a.         | 8          | 12,6        | M       | Martin         | S      | Martin       | 400/40            | 8205                 |
|                   | 2        | 1984          | 2010         | 7,2        | 12,6        | M       | Martin         | S      | Martin       | 400/40            | 8200                 |
| Buchs SG          | 1        | 1974/2<br>002 | n.a.         | 6,6        | 9,6         | M       | Von Roll       | S      | KRB          | 400/40            | 4000                 |
|                   | 2        | 1982          | n.a.         | 6,6        | 10,1        | M       | W+E            | S      | Wamser       | 400/40            | 8005                 |
|                   | 3        | 1995          | n.a.         | 9          | 10,44       | M       | Von Roll       | S      | Sulzer       | 400/40            | 8015                 |
| Colombier         | 1        | 1991          | n.a.         | 3,7        | 14,2        | M       | Noell          | S      | Wamser       | /                 | 8052                 |
|                   | 2        | 1988          | n.a.         | 3,7        | 14,2        | M       | Noell          | S      | Lentjes      | /                 | 7958                 |
| Dietikon          | 1        | 1993          | n.a.         | 4,73       | 13,3        | M       | Martin         | S      | Sulzer       | 400/40            | n.a.                 |
|                   | 2        | 1995          | n.a.         | 4,73       | 13,3        | M       | Martin         | S      | Sulzer       | 400/40            | n.a.                 |
| Emmenbrücke       | 1        | 1989/1<br>998 | n.a.         | 3          | 12          | M       | Stiefel        | S      | Sulzer       | /                 | 8190                 |
|                   | 2        | 1988/1<br>997 | n.a.         | 3          | 12          | M       | Stiefel        | S      | Sulzer       | /                 | 8280                 |
|                   | 3        | 1983/1<br>999 | n.a.         | 4          | 12,6        | M       | Stiefel        | S      | Sulzer       | /                 | 7820                 |
| Horgen            | 1        | 1993          | n.a.         | 3          | 9,3         | M       | NOELL          | S      | NOELL        | /                 | 8200                 |
|                   | 2        | 1991          | n.a.         | 4          | 9,6         | M       | NOELL          | S      | NOELL        | /                 | 8200                 |
| Kezo              | 1        | 1996          | n.a.         | 11,3       | 12,6        | M       | Martin         | S      | ABB          | /                 | 7440                 |
|                   | 2        | 1976          | n.a.         | 6,25       | 12,5        | M       | Martin         | S      | Sulzer       | /                 | 1577                 |
|                   | 3        | 1976          | n.a.         | 6,25       | 12,5        | M       | Martin         | S      | Sulzer       | /                 | 5441                 |
| La Chaux-de-Fonds | 1        | 1994          | n.a.         | 6,3        | 12,6        | M       | Martin         | S      | ABB          | 360/40            | 8000                 |
| Lausanne          | 1        | 2006          | n.a.         | 10         | 14,4        | M       | Von Roll Inova | S      | Duro Dakovic | 400/50            | 8000                 |
| Lausanne          | 1        | 1958          | 2006         | 2,8        | 12,3        | M       | Von Roll       | S      | SLM          | 250/20            | 8200                 |
| Lausanne          | 2        | 2006          | n.a.         | 10         | 14,4        | M       | Von Roll Inova | S      | Duro Dakovic | 400/50            | 8000                 |
| Lausanne          | 2        | 1958          | 2006         | 2,8        | 12,3        | M       | Von Roll       | S      | SLM          | 250/20            | 8400                 |
| Monthei           | 1        | 2003          | n.a.         | 10,5       | 13,1        | M       | Martin         | S      | Wehrle       | /                 | 6320                 |
|                   | 2        | 1996          | n.a.         | 10,5       | 12,9        | M       | Martin         | S      | Wehrle       | /                 | 7712                 |
| Niederurnen       | 1        | 2000          | n.a.         | 7,5        | 12,7        | M       | Stiefel        | S      | ABB          | 390/38            | 8000                 |
|                   | 2        | 1984          | n.a.         | 7,5        | 12,7        | M       | Martin         | S      | Wehrle       | 390/38            | 8000                 |
| Oftringen         | 1        | 1992          | n.a.         | 8          | 11,6        | M       | Noell          | S      | Wamser       | 400/40            | 8000                 |
| Posieux           | 1        | 2001          | n.a.         | 11,4       | 12,6        | M       | Martin         | S      | Wehrle       | /                 | 7700                 |
| St. Gallen        | 1        | 1987          | n.a.         | 5,2        | 9,7         | M       | Martin         | S      | Wehrle       | 400/40            | 8170                 |
|                   | 2        | 1988          | n.a.         | 5,2        | 9,7         | M       | Martin         | S      | Wehrle       | 400/40            | 8360                 |
| Thun              | 1        | 2004          | n.a.         | 13         | 12,6        | M       | Von Roll       | S      | Wehrle       | 400/40            | 8000                 |

## Switzerland

### Technical Information on the Plant

| Location          | Line No. | Flue Gas Cleaning System | ESP  |                     | Flue Gas Cleaning |                      | Flue Gas Temp., °C |
|-------------------|----------|--------------------------|------|---------------------|-------------------|----------------------|--------------------|
|                   |          |                          | Year | Supplier            | Year              | Supplier             |                    |
| Aire-la-ville     | 1        |                          |      |                     |                   |                      |                    |
|                   | 3        | WET SCR                  |      | Fläkt               | 1995              | Lurgi / CTU          | 60                 |
|                   | 5        | WET SCR                  |      | Lurgi               | 1993              | Lurgi / CTU          | 60                 |
|                   | 6        | WET SCR                  |      | Lurgi               | 1993              | Lurgi / CTU          | 60                 |
| Basel             | 1        |                          |      |                     |                   |                      |                    |
|                   | 2        | WET                      | 1998 | Deutsche Babcock    | 1998              | Lab                  | 60                 |
|                   | 3        | WET                      | 1998 | Deutsche Babcock    | 1998              | Lab                  | 60                 |
| Bazenheid         | 1        | WET                      | 2002 | ELEX                | 1991              | Lurgi                | 60                 |
|                   | 2        | WET                      | 2001 | ELEX                | 1991              | Lurgi                | 60                 |
|                   | 3        | WET                      | 1984 | ELEX                | 1991              | Lurgi                | 60                 |
| Bern              | 1        | WET SNCR                 | 1975 | Rothenmühle         | 1985              | GFE Von Roll         | 60                 |
|                   | 2        | WET SNCR                 | 1975 | Rothenmühle         | 1986              | GFE Von Roll         | 60                 |
| Biel              | 1        | WET SCR                  | 1976 | Lurgi               | 1991              | Lurgi / ELEX         | 60                 |
| Brig-Gils         | 1        |                          |      |                     |                   |                      |                    |
|                   | 2        | WET SCR                  | 1998 | Lurgi               | 1998              | Lurgi                |                    |
| Buchs AG          | 1        | WET SCR                  | 1994 | ELEX                | 1992              | Babcock - AEE_Sulzer | 60                 |
|                   | 2        | WET SCR                  | 1984 | ELEX                | 1992              | Babcock - AEE-Sulzer | 60                 |
| Buchs SG          | 1        | WET SNCR                 | 1974 | ELEX                | 1988              | Von Roll             | 60                 |
|                   | 2        | WET SNCR                 | 1982 | ELEX                | 1988              | Von Roll             | 60                 |
|                   | 3        | WET SNCR                 | 1995 | ELEX                | 1988              | Von Roll             | 60                 |
| Colombier         | 1        | WET SNCR                 | 1991 | Lurgi Fabric Filter | 1991              | Von Roll             | 60                 |
|                   | 2        | WET SNCR                 | 1988 | Lurgi Fabric Filter | 1988              | Von Roll             | 60                 |
| Dietikon          | 1        | WET SNCR                 | 1993 | ELEX                | 1995              | Von Roll             | 60                 |
|                   | 2        | WET SNCR                 | 1995 | ELEX                | 1995              | Von Roll             | 60                 |
| Emmenbrücke       | 1        | WET SCR                  | 1989 | Lurgi               | 1996              | ABB-Fläkt            | 60                 |
|                   | 2        | WET SCR                  | 1988 | Lurgi               | 1996              | ABB-Fläkt            | 60                 |
|                   | 3        |                          | 1983 | Lurgi               |                   |                      |                    |
| Horgen            | 1        | WET SCR                  | 1990 | NOELL               | 1990              | NOELL/KRC            | 60                 |
|                   | 2        | WET SCR                  | 1991 | KRC                 | 1991              | NOELL/KRC            | 60                 |
| Kezo              | 1        | WET SCR                  | 1996 | ELEX                | 1996              | Sulzer / ELEX        | 120                |
|                   | 2        | WET SCR                  | 1990 | ELEX                | 1991              | Sulzer / ELEX        | 120                |
|                   | 3        | WET SCR                  | 1990 | ELEX                | 1991              | Sulzer / ELEX        | 120                |
| La Chaux-de-Fonds | 1        | WET SCR                  | 1994 | NOELL               | 1999              | LAB                  | 60                 |
| Lausanne          | 1        | WET - SCR                | 2006 | ELWO                | 2006              | Von Roll Inova       | 150                |
| Lausanne          | 1        | WET                      | 1958 | ELEX                | 1982              | LAB                  | 60                 |
| Lausanne          | 2        | WET - SCR                | 2006 | ELWO                | 2006              | Von Roll Inova       | 150                |
| Lausanne          | 2        | WET                      | 1958 | ELEX                | 1982              | LAB                  | 60                 |
| Monthei           | 1        | WET SCR                  | 1989 | ELEX                | 1998              | LAB                  |                    |
|                   | 2        | WET SCR                  | 1989 | ELEX                | 1996              | LAB                  |                    |
| Niederurnen       | 1        | WET SCR and wet ESP      | 2000 | ABB                 | 2000              | AEE - CTU            | 60                 |
|                   | 2        | WET SCR and wet ESP      | 2000 | ELEX                | 2000              | AEE - CTU            | 60                 |
| Oftringen         | 1        | WET SCR                  | 1992 | ELEX                | 1998              | LAB                  |                    |
| Posieux           | 1        | WET SCR                  | 2001 | Walther             | 2001              | LAB                  | 60                 |
| St. Gallen        | 1        | WET                      | 1987 | ELEX                | 1987              | Von Roll             | 60                 |
|                   | 2        | WET                      | 1988 | ELEX                | 1988              | Von Roll             | 60                 |
| Thun              | 1        | WET SCR                  | 2004 | ELEX                | 2004              | Von Roll             | 130                |

## Switzerland

### Technical Information on the Plant

| Location   | Line No. | Establ. Year | Closure Year | Capac. t/h | Nom CV GJ/t | Furnace |                | Boiler |              | Steam Data oC/bar | Hours of Operat.2004 |
|------------|----------|--------------|--------------|------------|-------------|---------|----------------|--------|--------------|-------------------|----------------------|
|            |          |              |              |            |             | Type    | Supplier       | Type   | Supplier     |                   |                      |
| Turgi      | 1        |              |              |            |             | M       | ABB            | S      | Wamser       | 400/40            | 7160                 |
|            | 3        | 1983         | n.a.         | 4,6        | 13,3        | M       | ABB            | S      | ABB          | 400/40            |                      |
|            | 4        | 1996         | n.a.         | 8,3        | 13,9        |         |                |        |              |                   |                      |
| Untervaz   | 1        | 1990         | n.a.         | 6,4        | 12          | M       | ABB/W+E        | S      | Sulzer       | 400/40            | 8300                 |
|            | 2        | 2005         | n.a.         | 7,8        |             | M       | Stiefel        | S      | Wehrle       | 400/40            |                      |
| Uvrier     | 1        | 1971         | n.a.         | 3,5        | 9,48        | M       | De Bartolomeis | S      | Wehrle       | 340/32            |                      |
|            | 2        | 1976         | n.a.         | 4          | 7,11        | M       | De Bartolomeis | S      | Wehrle       | 340/32            |                      |
| Weinfelden | 1        | 1996         | n.a.         | 8,4        | 12,6        | M       | ABB Enertech   | S      | ABB Enertech | 400/40            | 8100                 |
|            | 2        | 1997         | n.a.         | 8,4        | 12,6        | M       | ABB Enertech   | S      | ABB Enertech | 400/40            |                      |
| Winterthur | 1        | 1978         | n.a.         | 12,5       | 10,4        | M       | Martin         | S      | Sulzer       | 400/40            | 7500                 |
|            | 2        | 1993         | n.a.         | 12,5       | 12          | M       | Martin         | S      | Sulzer / ABB | 400/40            |                      |
| Zuchwil    | 1        | 1993         | n.a.         | 10         | 10,3        | M       | Von Roll       | S      | Sulzer       | 375/37            | 6575                 |
|            | 2        | 1992         | n.a.         | 10         | 10,3        | M       | Von Roll       | S      | Sulzer       | 375/37            |                      |
|            | 3        | 1990         | n.a.         | 11         | 10,3        | M       | Von Roll       | S      | Sulzer       | 375/37            |                      |
|            | 4        | 2002         | n.a.         | 10         | 10,3        | M       | Von Roll       | S      | Alstom       | 375/37            |                      |
| Zürich     | 1        |              |              |            |             |         |                |        |              |                   | n.a.                 |
| Zürich     | 1        | 1995         | n.a.         | 13,9       | 11,3        | M       | W+E            | S      | Wehrle       | 420/37            | n.a.                 |
|            | 2        | 1978         | n.a.         | 13,4       | 11,7        | M       | Martin         | S      | EVT          | 420/37            |                      |

## Switzerland

### Technical Information on the Plant

| Location   | Line No. | Flue Gas Cleaning System | ESP  |             | Flue Gas Cleaning |                             | Flue Gas Temp., °C |
|------------|----------|--------------------------|------|-------------|-------------------|-----------------------------|--------------------|
|            |          |                          | Year | Supplier    | Year              | Supplier                    |                    |
| Turgi      | 1        |                          |      |             |                   |                             |                    |
|            | 3        | WET                      | 1983 | ELEX        | 1989              | Lurgi                       | 60                 |
|            | 4        | WET                      | 1996 | ELEX        | 1996              | Von Roll                    | 60                 |
| Untervaz   | 1        | WET SCR and wet ESP      | 1990 | Lurgi       | 1988              | Lurgi                       | 140                |
|            | 2        | WET SCR and wet ESP      | 2005 | ELEX        | 2005              | Lurgi                       |                    |
| Uvrier     | 1        | WET SCR                  | 1994 | ELEX        | 1994              | LAB one unit for line 1 & 2 | 80                 |
|            | 2        | WET SCR                  | 1994 | ELEX        | 1999              | LAB one unit for line 1 & 2 |                    |
| Weinfelden | 1        | WET                      | 1996 | RCD         | 1996              | AEE - CTU                   | 160                |
|            | 2        | WET                      | 1997 | RCD         | 1997              | AEE - CTU                   | 160                |
| Winterthur | 1        | WET SNCR                 | 1978 | Bischoff    | 1993              | Von Roll/Sulzer             | 60                 |
|            | 2        | WET SNCR                 | 1993 | ELEX        | 1993              | Von Roll/Sulzer             | 60                 |
| Zuchwil    | 1        | WET SNCR                 | 1976 | Rothenmühle | 1993              | Von Roll                    | 60                 |
|            | 2        | WET SNCR                 | 1976 | Rothenmühle | 1992              | Von Roll                    | 60                 |
|            | 3        | WET SNCR                 | 1990 | Rothenmühle | 1990              | Von Roll                    | 60                 |
|            | 4        | WET SNCR                 | 2002 | Rothenmühle | 2002              | Von Roll                    | 60                 |
| Zürich     | 1        |                          |      |             |                   |                             |                    |
| Zürich     | 1        | WET SCR                  | 1995 | ELEX        | 1995              | Von Roll / ELEX             | 120                |
|            | 2        | SD SCR                   | 1978 | ELEX        | 1986              | Niro / ELEX                 | 120                |

**Switzerland**  
**Operational data, 2004**

| Location          | Total Incinerated Waste Quantity |                       |                                       |                          |                    |                               |                                | Aux. Fuels |
|-------------------|----------------------------------|-----------------------|---------------------------------------|--------------------------|--------------------|-------------------------------|--------------------------------|------------|
|                   | Total<br>(tonnes)                | Household<br>(tonnes) | Commercial<br>/Industrial<br>(tonnes) | RFD, Pellets<br>(tonnes) | Sludge<br>(tonnes) | Hospital<br>Waste<br>(tonnes) | Other<br>(Specify)<br>(tonnes) |            |
| Aire-la-ville     | 314002                           |                       |                                       |                          |                    |                               |                                |            |
| Basel             | 189624                           |                       |                                       |                          |                    |                               |                                |            |
| Bazenheid         | 75233                            |                       |                                       |                          |                    |                               |                                |            |
| Bern              | 109300                           |                       |                                       |                          |                    |                               |                                |            |
| Biel              | 40993                            |                       |                                       |                          |                    |                               |                                |            |
| Brig-Gils         | 27434                            |                       |                                       |                          |                    |                               |                                |            |
| Buchs AG          | 119500                           |                       |                                       |                          |                    |                               |                                |            |
| Buchs SG          | 71535                            |                       |                                       |                          |                    |                               |                                |            |
| Colombier         | 60513                            |                       |                                       |                          |                    |                               |                                |            |
| Dietikon          | 81180                            |                       |                                       |                          |                    |                               |                                |            |
| Emmenbrücke       | 84316                            |                       |                                       |                          |                    |                               |                                |            |
| Horgen            | 59242                            |                       |                                       |                          |                    |                               |                                |            |
| Kezo              | 163132                           |                       |                                       |                          |                    |                               |                                |            |
| La Chaux-de-Fonds | 50552                            |                       |                                       |                          |                    |                               |                                |            |
| Lausanne          | 44117                            |                       |                                       |                          |                    |                               |                                |            |
| Lausanne          | 120000                           | 50-100%               | 0-40%                                 | 0-20%                    | 0-10%              | 0-10%                         | n.a.                           |            |
| Monthey           | 98805                            |                       |                                       |                          |                    |                               |                                |            |
| Niederurnen       | 99400                            |                       |                                       |                          |                    |                               |                                |            |
| Oftringen         | 68362                            |                       |                                       |                          |                    |                               |                                |            |
| Posieux           | 88401                            |                       |                                       |                          |                    |                               |                                |            |
| St. Gallen        | 75362                            |                       |                                       |                          |                    |                               |                                |            |
| Thun              | n.a.                             |                       |                                       |                          |                    |                               |                                |            |
| Turgi             | 113945                           |                       |                                       |                          |                    |                               |                                |            |
| Untervaz          | 50396                            |                       |                                       |                          |                    |                               |                                |            |
| Uvrier            | 52480                            |                       |                                       |                          |                    |                               |                                |            |
| Weinfelden        | 113097                           |                       |                                       |                          |                    |                               |                                |            |
| Winterthur        | 145327                           |                       |                                       |                          |                    |                               |                                |            |
| Zuchwil           | 196534                           |                       |                                       |                          |                    |                               |                                |            |
| Zürich            | 163613                           |                       |                                       |                          |                    |                               |                                |            |
| Zürich            | 148452                           |                       |                                       |                          |                    |                               |                                |            |

**Switzerland**  
**Operational data, 2004**

| Location          | Residues               |                           | Energy Produced   |                      |               | Energy Sold       |                      |               |
|-------------------|------------------------|---------------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|                   | Bottom Ash<br>(tonnes) | Flue Gas Res.<br>(tonnes) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) | Steam<br>(tonnes) | Electricity<br>(MWh) | Heat<br>(MWh) |
| Aire-la-ville     | 72247                  | 7095                      | 1115625           | 172328               |               | 0                 | 129092               | 0             |
| Basel             | 34000                  | 4720                      |                   | 43830                | 545083        |                   | 19195                | 443091        |
| Bazenheid         | 17000                  | 2300                      |                   | 35600                | 350000        |                   | 27000                | 25000         |
| Bern              | 21500                  | 2150                      | 413700            | 30400                | 198000        |                   | 12400                | 191100        |
| Biel              | 8788                   | 1419                      | 164825            | 20208                |               |                   | 14789                | 15507         |
| Brig-Gils         | n.a.                   | n.a.                      | n.a.              | n.a.                 | n.a.          |                   | n.a.                 |               |
| Buchs AG          | 23100                  | 2670                      |                   |                      |               |                   | 47600                | 61500         |
| Buchs SG          | 35000                  | 5560                      | 542000            | 100000               |               | 81000             | 80000                |               |
| Colombier         | 17000                  | 2531                      | 198367            | 31668                | 26530         |                   | 21985                | 20771         |
| Dietikon          | 20000                  | 2500                      | n.a.              | 57000                | n.a.          | 0                 | 43000                | 18000         |
| Emmenbrücke       | 18600                  | 1520                      | 265600            | 43800                | 43600         | 0                 | 34500                | 43100         |
| Horgen            | n.a.                   | n.a.                      | 130000            | 20000                | 71000         |                   | 10000                | 47000         |
| Kezo              | 35000                  | 7000                      | 680000            | 100000               | 308000        |                   | 70000                | 20000         |
| La Chaux-de-Fonds | 10000                  | 1200                      |                   | 27000                | 52000         |                   |                      |               |
| Lausanne          | 9846                   | 1004                      | 140502            |                      | 93855         | 118108            |                      | 78872         |
| Lausanne          | 24600                  | 2400                      | 548000            | n.a.                 | n.a.          | 0                 | 0                    | 0             |
| Monthey           | 20800                  | 4960                      | n.a.              | 60756                | n.a.          | 0                 | 45000                | 0             |
| Niederurnen       | n.a.                   | 1000                      | 190000            | 64000                |               | 0                 | 50000                |               |
| Oftringen         | 18000                  | 1900                      | 200000            | 54000                | 160000        | 0                 | 41000                | 0             |
| Posieux           | 20000                  | 6000                      |                   | 6500                 | 65000         |                   | 6000                 | 55000         |
| St. Gallen        | 19000                  | 2200                      |                   | 34200                | 55000         |                   | 24300                | 55000         |
| Thun              | 20000                  | 600                       | n.a.              | n.a.                 |               | n.a.              | n.a.                 | n.a.          |
| Turgi             | 23433                  | 2985                      | 441500            | 86950                |               |                   | 70260                | 36080         |
| Untervaz          | 11300                  | 800                       | 213670            | 18118                | 160252        | 74702             | 9733                 | 60122         |
| Uvrier            | 10350                  | 1260                      | 153400            | 23700                |               | 0                 | 14600                |               |
| Weinfelden        | 13885                  | n.a.                      | 470000            | 46000                | 417000        | 164100            | 31000                | 183300        |
| Winterthur        | 31750                  | 4621                      | 580000            | 80000                | 420000        |                   | 62000                | n.a.          |
| Zuchwil           | 49606                  | N.A.                      | 727168            | 656625               |               |                   | 40807                | 233816        |
| Zürich            |                        |                           |                   |                      |               |                   | 32728                | 325711        |
| Zürich            |                        |                           |                   |                      |               |                   | 56993                | 107002        |



Number of plants: 89  
Average capacity: 43 t/h  
Quantity treated 2004: 28.700.000 t



# The 2004 IWSA Directory Of Waste-To-Energy Plants



INTEGRATED  
WASTE SERVICES  
ASSOCIATION

By Jonathan V. L. Kiser  
& Maria Zannes

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**T**he 2004 IWSA<sup>1</sup> Directory provides updated information about the U.S. Waste-to-Energy industry based on email and telephone surveys with individual facilities and waste-to-energy communities during January 2004 through April 2004. State and federal environmental agencies were also consulted.

There are 89 waste-to-energy facilities<sup>2</sup> operating in 27 states in the U.S. (See Table 1) generating the energy equivalent of nearly 2,700 megawatt-hours (MWh) of electricity and disposing of nearly 29 million tons of trash. Waste-to-energy facilities include the following technologies:

- **Mass Burn (MB)** waste-to-energy plants generate electricity and/or steam from trash by feeding mixed municipal waste into large furnaces dedicated solely to burning trash and producing power.
- **Refuse-Derived Fuel (RDF)** waste-to-energy plants remove recyclable or unburnable materials and shred or process the remaining trash into a uniform fuel. A dedicated combustor, or furnace, may be located on-site to burn the fuel and generate power; or the RDF may be transported off site for use as a fuel in boilers that also burn fossil fuels.
- **Modular (MCU)** waste-to-energy plants are similar to mass burn facilities, but the modular units typically are smaller, prefabricated off-site, and more quickly assembled where they are needed.

Waste-to-energy remains a steady, viable, and environmentally sound method to dispose of trash. Of the 89 waste-to-energy facilities, 65 employ mass burn technology; nine are modular plants; and 10 utilize the RDF process, including processing and combustion on-site. An additional five facilities were identified as generating

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<sup>1</sup>Integrated Waste Services Association (IWSA) was formed in 1991 to promote integrated solutions to municipal solid waste management problems. Within this capacity, the association strives to encourage the use of waste-to-energy technology as a key component of community programs. IWSA Board members include American Ref-Fuel Company; Covanta Energy Corporation; Montenay Power Corporation; and Wheelabrator Technologies Inc.

<sup>2</sup>The Directory does not report on incinerators that combust trash but do not recover energy from waste.

**TABLE 1****Operating U.S. Waste-to-Energy Plants by Technology**

| Technology                     | No. of Operating Plants | Daily Design Capacity (TPD) | Annual Capacity <sup>1</sup> (Million Tons) |
|--------------------------------|-------------------------|-----------------------------|---|
| Mass Burn                      | 65                      | 71,354                      | 22.1  |
| Modular                        | 9                       | 1,342                       | 0.4   |
| RDF-Processing & Combustion    | 10                      | 15,428                      | 4.8   |
| RDF-Processing                 | 5                       | 6,075                       | 1.9   |
| RDF-Combustion                 | 5                       | 4,592                       | 1.4   |
| Total U.S. Plants <sup>2</sup> | 94                      | 98,791                      | 30.6  |
| Waste-to-Energy Facilities     | 89                      | 92,716                      | 28.7  |

<sup>1</sup> Annual Capacity equals daily tons per day (TPD) of design capacity multiplied by 365 (days/year) multiplied by 85 percent. Eighty-five percent of design capacity is a typical system guarantee of annual facility throughput.

<sup>2</sup> Total U.S. Plants include RDF Processing Facilities that do not generate power on-site.

Source: J. V. L. Kiser and M. Zannes, Integrated Waste Services Association, April 2004.

power from RDF that was processed at facilities off-site. Also, five facilities are listed in this Directory as processing RDF for combustion off-site. These processing facilities do not burn the RDF, nor is power generated on-site. Therefore, the RDF processing facilities are not included in waste-to-energy facility total of 89 plants.

Nearly 29 million tons of trash, or about 13 percent of America's solid waste, is being used as fuel to generate the energy equivalent to meet the power needs of nearly 1.98 million homes across the country.<sup>3</sup> Waste-to-energy plants have 2,493 megawatts (MW) of rated electricity generating capacity (i.e., 59,832 MWh of electricity output capability over a 24-hour period) and generate more than 2.5 million pounds of steam per hour. See Table 2.

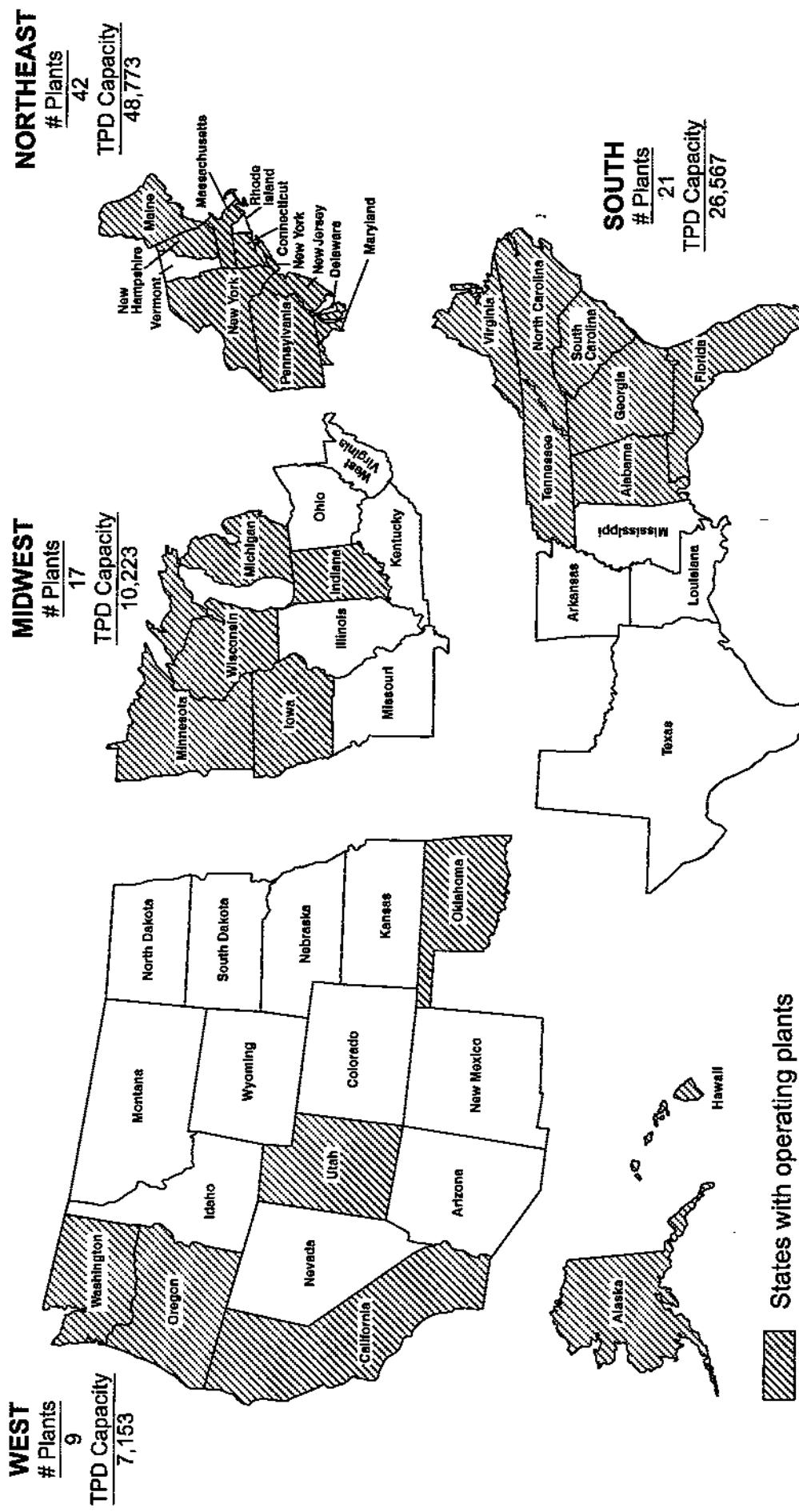
**TABLE 2****Key Facts Pertaining to Operating Waste-to-Energy Facilities**

|  |                   |
|--|-------------------|
| Percent of U.S. Waste Managed by Waste-to-Energy       | 13 percent        |
| Annual Disposal Capacity of Waste-to-Energy Facilities | 28.7 million tons |
| Number of Waste-to-Energy Facilities                   | 89                |
| Waste Disposal Needs Met by Waste-to-Energy            | 36 million people |
| States with Waste-to-Energy Plants                     | 27                |
| Homes Served by Power from Waste-to-Energy Facilities  | 1.98 million      |
| Total Megawatts Generated <sup>1</sup>                 | 2,689 MW          |

<sup>1</sup> Includes 2,493 MW of rated electricity generation capacity and the equivalent of 196 MW of rated generation capacity from steam-generating waste-to-energy facilities. Source: J. V. L. Kiser and M. Zannes, Integrated Waste Services Association, April 2004.

<sup>3</sup> The power estimate is based on 2,493 MW of rated waste-to-energy electricity generating capacity, plus an estimated 196 MW of waste-to-energy electricity generating capacity derived from converting 2.51 million pounds of steam per hour currently generated by various waste-to-energy plants. Electrical consumption per household is based on Department of Energy, Energy Information Administration 2001 data that reports 993 kilowatt-hours (kWh)/household/month (i.e., 1.36 kWh/household/hr). This reflects an increasing demand for electricity per household over previous years and corresponds to a 50 MW waste-to-energy facility serving about 36,800 households.

**Figure 1**  
**Operating WTE Plants in the U.S. – By Region**



Source: J. V. L. Kiser and M. Zannes, Integrated Waste Services Association, April 2004.

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## **Energy and Greenhouse Gas Benefits of Waste-to-Energy in the U.S.**

By Dr. Nickolas J. Themelis, Director, Earth Engineering Center, Columbia University, New York

America's waste-to-energy facilities convert non-recyclable trash to electricity and steam. Combusting one ton of trash in a modern waste-to-energy power plant supplies the grid with 500 kWh of electricity, thus avoiding mining a quarter of a ton of coal or importing one barrel of oil. Waste-to-energy also is the only alternative disposal method to landfill where the decomposing trash generates methane, a potent greenhouse gas, some of which escapes to the atmosphere. Taking into account both of these factors has led several independent studies, including one by U.S. E. P. A. researchers, to conclude that waste-to-energy reduces U.S. greenhouse gas emissions by an estimated 1.3 tons of carbon dioxide per ton of trash combusted in modern waste-to-energy facilities.

In 2003, nearly 30 million tons of trash were combusted in America's waste-to-energy power plants and generated a net of 15 billion kWh of electricity, greater than all other renewable sources of energy, with the exception of hydroelectric and geothermal power. For comparison, wind power amounted to 5.6 billion kWh and solar energy to 0.49 billion kWh (2000 data, [www.eia.doe.gov](http://www.eia.doe.gov)). In addition to the energy benefits, combusting these municipal solid wastes contributed to reducing U.S. greenhouse gas emissions by about forty million tons of carbon dioxide.

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Nearly 36 million people in 27 states safely dispose of their trash at waste-to-energy facilities. Communities with waste-to-energy plants recycle an average of 34 percent of their trash, compared with the national average of 30 percent as reported by the U.S. EPA.<sup>1</sup> Waste-to-energy facilities nationwide recover more than 705,700 tons of ferrous metal on-site annually for recycling, before and after the combustion process. Further, more than three million additional tons of material is recovered on-site at waste-to-energy plants for recycling (e.g., nearly 2.94 million tons of this totals is attributed to the reuse of ash). See Figure 2.

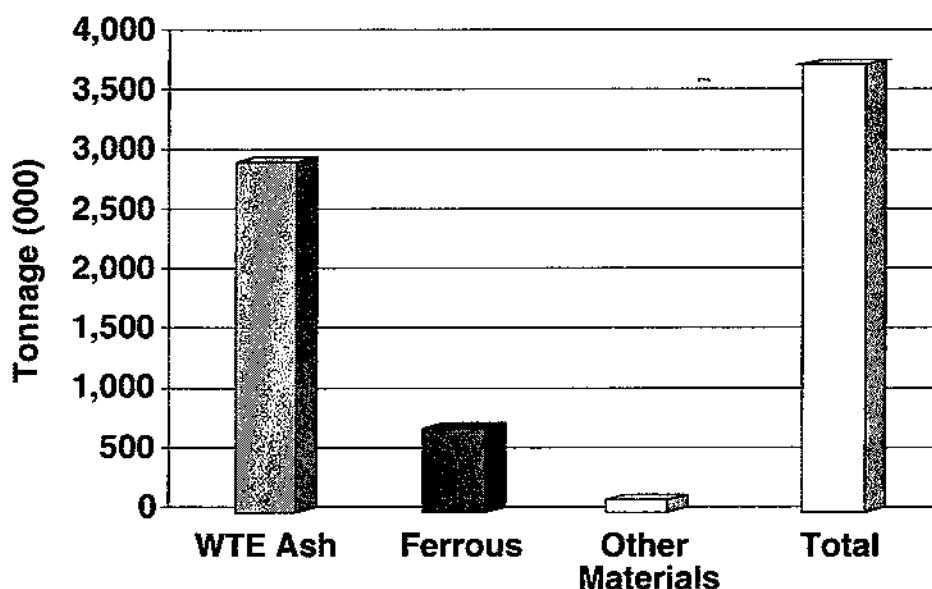
Table 3 provides a detailed breakdown of the type and quantity of materials recovered on-site at waste-to-energy plants for recycling. Combustion ash is by far the material recovered most often for beneficial use from waste-to-energy operations. Ferrous metals are a distant second. Green waste, non-ferrous metals, and a full range of other recyclables are also collected on-site for subsequent recycling.

Since the 2002 IWSA Directory was released, the number of waste-to-energy facilities operating in the U.S. decreased by nine to 89. There was a corresponding drop of 0.65 million tons of annual disposal capacity, which is the equivalent of about 2,100 tons per day of daily design capacity. Accounting for this drop was the closure of three mass burn facilities (Key West, FL, Central Wayne in Dearborn Heights, MI, and Harrisburg, PA—which is undergoing retrofit and is scheduled to reopen by 2006), three modular facilities (Blytheville, AR, Osceola, AR, and Cleburne, TX), and two refuse-derived fuel operations (Lakeland, FL and Tacoma, WA). AG Processing in Eagle Grove, IA, was also removed from the Directory since it was determined that they combust industrial-type waste.

Table 4 summarizes the contribution of IWSA member plants and their role in managing the nation's municipal solid waste. More than thirty-one million people in 23 states safely dispose of more than 25 million tons of garbage and trash annually at IWSA member facilities. The 68 IWSA member plants represent 76 percent of the U.S. total and have 88 percent of the U.S. waste-to-energy processing capacity. These facilities have the equivalent rated electricity generating capacity of more than 2,300 MW, which is enough power to meet the power needs of about 1.71 million homes.

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<sup>1</sup>This reflects the most recent data reported by U.S. EPA in the agency report titled Municipal Solid Waste in The United States: 2001 Facts and Figures.

**FIGURE 2****On-Site Materials Recovery For Recycling at Waste-to-Energy Facilities**

Source: J. V. L. Kiser and M. Zannes, Integrated Waste Services Association, April 2004.

**TABLE 3****On-Site Waste-to-Energy Materials Recovery Details**

| Material Recovered           | Annual Tons Recovered | Percent of Total |
|------------------------------|-----------------------|------------------|
| Ash <sup>1</sup>             | 2,936,346             | 78%              |
| Ferrous                      | 705,707               | 19%              |
| Green Waste                  | 42,697                | 1%               |
| Non-Ferrous                  | 20,956                | <1%              |
| Fiber                        | 5,448                 | <1%              |
| Construction & Demolition    | 5,400                 | <1%              |
| White Goods                  | 5,052                 | <1%              |
| Tires                        | 887                   | <1%              |
| Glass                        | 412                   | <1%              |
| Plastic                      | 144                   | <1%              |
| Antifreeze                   | 37                    | <1%              |
| Batteries                    | 37                    | <1%              |
| Used Oil                     | 17                    | <1%              |
| Carpet Pads                  | 2                     | <1%              |
| Other Materials <sup>2</sup> | 28,125                | <1%              |
| <b>Total</b>                 | <b>3,751,267</b>      | <b>100%</b>      |

<sup>1</sup> Ash is beneficially used primarily as a daily landfill cover material. Other uses include: as a landfill berm and gas-venting layer material, and as a base fill material for concrete and asphalt roads.

<sup>2</sup> A specific material breakdown was not available for these tonnages.

Source: J. V. L. Kiser and M. Zannes, Integrated Waste Services Association, April 2004.

## **Beneficial Waste-to-Energy Ash Usage**

By Jonathan V. L. Kiser

The 2004 IWSA Directory reports upon a significant increase in beneficial use of ash residue from waste-to-energy facilities. All waste-to-energy plants responded to the survey question regarding what happens to the ash generated by the combustion process. Thirty plants (34 percent of the total U. S. facilities) responded that ash from their operation is being beneficially used in some manner. These 30 plants process an estimated 11.95 million tons of municipal solid waste annually (42 percent of the total waste managed by waste-to-energy) and generate 2.94 million tons of ash. Of the thirty plants that beneficially use ash, 80 percent of the operations direct all of their ash for use, while the remaining 20 percent use only a portion of the ash and landfill the remaining portion. Assuming an average 70 percent weight reduction transforming trash into ash, more than one-third of the ash generated by waste-to-energy facilities in the United States is beneficially used.

The types of beneficial use, the annual tonnage associated with each application, and the relative percentage of each type of use are summarized in the following table:

### **Waste-to-Energy Ash Use Summary Statistics**

| Beneficial Use Application         | Annual Tonnage | Percent of Total Used |
|------------------------------------|----------------|-----------------------|
| Daily Landfill Cover               | 2,557,119      | 87%                   |
| Construction (Road Fill, Sub-base) | 337,131        | 11%                   |
| Landfill Grading Closure Material  | 35,672         | >1%                   |
| Landfill Gas Venting Layer         | 6,424          | <1%                   |
| Total                              | 2,936,346      | 100%                  |

Source: J. V. L. Kiser and M. Zannes, Integrated Waste Services Association, April 2004.

Eighty-seven percent of the waste-to-energy ash that is designated for beneficial use is applied as an alternative daily landfill cover. Most of the remainder is used in construction applications such as a sub-base material for parking lots, fill material for roads, and similar applications. A small portion of waste-to-energy ash is used for other purposes at municipal landfills, including as a grading material for landfill closure and as a gas-venting layer.

Depending upon the state in which the waste-to-energy plant is located, communities can receive credit toward their recycling goals for using ash in a beneficial manner. For example, California and Maryland do allow ash that is beneficially used to be included in the recycling formula, while states like Florida and Minnesota do not. More specifically, the Maryland Recycling Act (MRA) Tonnage Reporting System form, that is submitted by counties to the Maryland Department of the Environment, includes a line for reporting the amount of ash recycled. In addition, while metal scrap not ordinarily disposed of at a solid-waste facility are not allowed to count toward the MRA recycling rate, ferrous and non-ferrous metals pulled post combustion at waste-to-energy operations do count.

By comparison, the Florida Department of Environmental Protection reports that ash used as an alternative daily landfill cover is viewed as a form of disposal. In addition, Florida allows use of waste-to-energy ash on outside landfill slopes and as part of roadway applications so long as provisions are taken to prevent any migration of ash residues. Florida also has an official beneficial use guidance document.

An important development on the ash utilization front took place during 2003 when the Waste-to-Energy Research & Technology (WTERT) Council established the University Ash Consortium at the Earth Engineering Center at Columbia University, New York. The Consortium researches, analyzes, reviews, and reports upon ash reuse issues, technologies, and projects. For more information, go to [www.columbia.edu/cu/wtert](http://www.columbia.edu/cu/wtert).

**TABLE 4****Contribution of IWSA Members in Managing U.S. Waste Disposal**

|   |                    |
|---|--------------------|
| Operating IWSA Waste-to-Energy Plants           | 68                 |
| Combined Daily Combustion Plant Design Capacity | 81,158 tons        |
| Annual Net Processing Capacity                  | 25 million tons    |
| IWSA Percent of U.S. Waste-to-Energy Plants     | 76 percent         |
| IWSA Percent of U.S. Waste-to-Energy Capacity   | 88 percent         |
| States with IWSA Plants                         | 23                 |
| Waste Disposal Needs Met by IWSA Plants         | 31 million people  |
| Homes Served with Power from IWSA Plants        | 1.71 million homes |
| Total Megawatts Generated <sup>1</sup>          | 2,327 MW           |

<sup>1</sup> Includes 2,164 MW of rated electricity generation capacity and the equivalent of 163 MW of rated generation capacity from steam-generating waste-to-energy facilities.  
Source: J. V. L. Kiser and M. Zannes, Integrated Waste Services Association, April 2004.

IWSA was formed in 1991 to promote integrated solutions to municipal solid waste management problems. Within this capacity, the association strives to encourage the use of waste-to-energy technology as a key component of community programs. IWSA Board members include American Ref-Fuel Company; Covanta Energy Corporation; Montenay Power Corporation; and Wheelabrator Technologies Inc. In addition, IWSA includes more than fifty organizations and local governments who support waste-to-energy.

IWSA membership offers many benefits, including direct access to a Washington, D.C., staff that offers up-to-the-minute information about the industry. For more information about becoming an IWSA member, call (202) 467-6240, or contact IWSA's website at [www.wte.org](http://www.wte.org).

**TABLE 5****Type of Air Pollution Control (APC) Devices on Operating Waste-to-Energy Plants**

| Plant Rated Daily Tonnage (Percentage) Equipped With Various APC Devices By Technology Class <sup>1</sup> |                                      |   |  |                                     |
|---|--------------------------------------|---|--|-------------------------------------|
| Technology  | Acid Gas Control Device <sup>2</sup> | Particulate Control Device <sup>3</sup> | Nitrogen Oxides (NO <sub>x</sub> ) Device <sup>4</sup> | Mercury Control Device <sup>5</sup> |
| <b>Mass Burn</b>  |                                      |   |  |                                     |
| 71,354 TPD<br>(100%)  | 71,154<br>(99.7%)                    | 71,354<br>(100%)                        | 60,845<br>(85.3%)                                      | 64,553<br>(90.5%)                   |
| <b>Modular</b>  |                                      |   |  |                                     |
| 1,342 TPD<br>(100%)   | 1,342<br>(100%)                      | 1,342<br>(100%)                         | 0<br>(0%)  | 1,342<br>(100%)                     |
| <b>RDF-P&amp;C</b>  |                                      |   |  |                                     |
| 15,428 TPD<br>(100%)  | 15,418<br>(99.9%)                    | 15,428<br>(100%)                        | 5,190<br>(33.6%)                                       | 5,688<br>(36.9%)                    |
| <b>RDF-C</b>  |                                      |   |  |                                     |
| 4,592 TPD<br>(100%)   | 4,442<br>(96.7%)                     | 4,592<br>(100%)                         | 0<br>(0%)  | 0<br>(0%)                           |
| <b>Total WTE</b>  |                                      |   |  |                                     |
| 92,716 TPD<br>(100%)  | 92,356<br>(99.6%)                    | 92,716<br>(100%)                        | 66,035<br>(71.2%)                                      | 71,583<br>(77.2%)                   |

<sup>1</sup> Waste-to-Energy plants typically employ a combination of air pollution control devices to control acid gases, particulates, nitrogen oxides, metals, and organic emissions. The table reflects both operating air pollution control equipment and specified equipment that will be installed prior to the 2005 deadline established by U.S. EPA to be in compliance with new Clean Air Act standards for small unit facilities.

<sup>2</sup> Includes: Spray Dryer Absorber (SDA), Wet Scrubber, Gas Suspension Absorber (GSA), Duct Sorbent (dry) Injection (DSI), Furnace Sorbent (dry) Injection (FSI), Lime Injection, Flue Gas Recirculation, and Cyclone Separator control devices. These devices also aid in the control of heavy metals (e.g., lead, cadmium, etc.), dioxins, and other trace organics (e.g., hydrocarbons, etc.).

<sup>3</sup> Includes: Compressed Hybrid Particulate Control Device (COHPAC), Fabric Filter, and Electrostatic Precipitator (ESP) control devices. These devices aid in the control of heavy metals (e.g., lead, cadmium, etc.), dioxins, and other trace organics (e.g., hydrocarbons, etc.).

<sup>4</sup> Includes: Select Non-Catalytic Reduction (SNCR) control devices.

<sup>5</sup> Includes: Carbon Injection (CI) control devices. These devices also aid in the control of dioxins and other trace organics (e.g., hydrocarbons, etc.).

Source: J. V. L. Kiser and M. Zannes, Integrated Waste Services Association, April 2004.

U.S. EPA's maximum achievable control technology (MACT) requirements dictated that waste-to-energy facilities with large units (i.e., >250 TPD) comply with new Clean Air Act standards on or before December 19, 2000. Small unit facilities (i.e., 35 TPD to 250 TPD) will meet similar MACT rules no later than November 6, 2005. MACT technologies include advanced air pollution control for acid gases, particulates, and other pollutants. The combination of modern air pollution control works synergistically to lower all plant emissions. In response to MACT requirements, Table 5 illustrates the following:

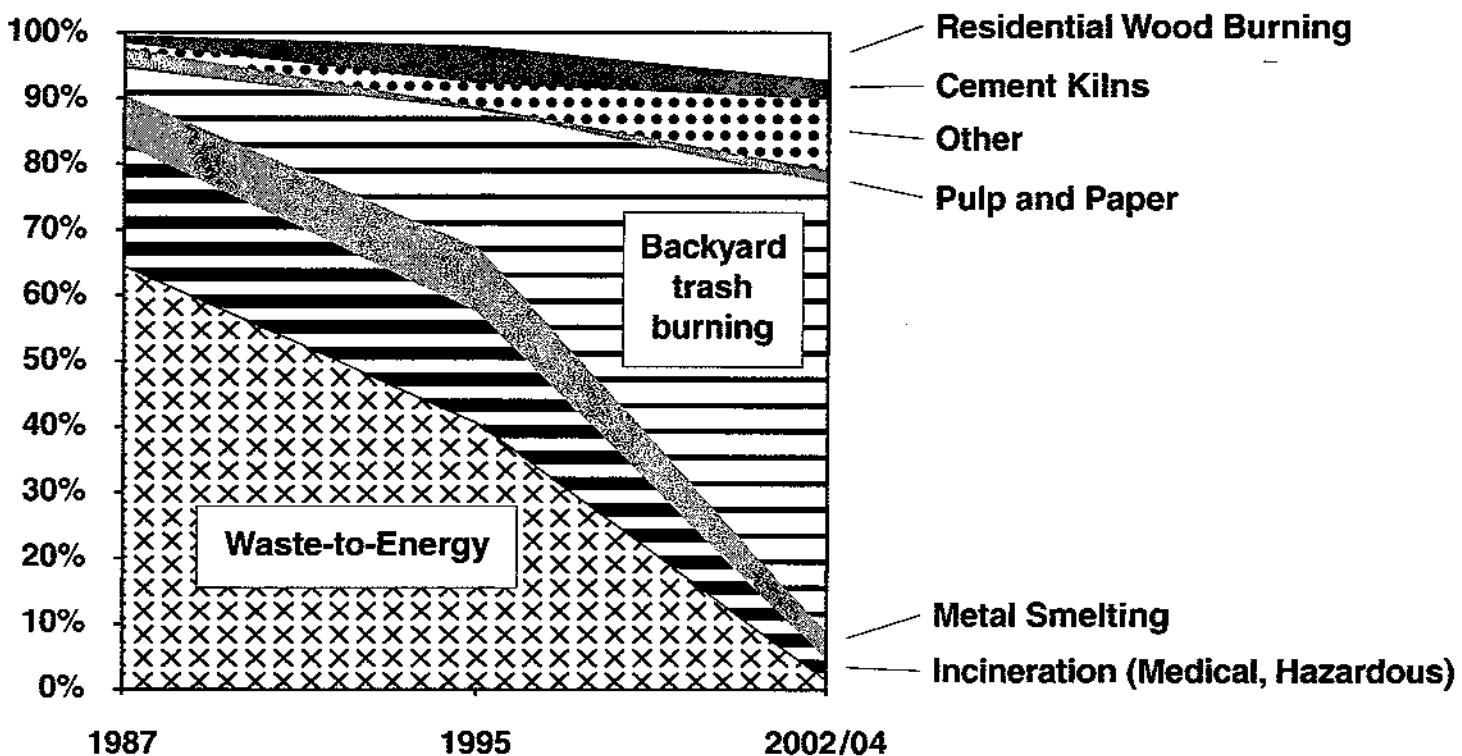
- Nearly all of the material processed at waste-to-energy plants across the country is subject to acid gas controls;
- 100 percent of the materials are subject to particulate control;
- More than 85 percent of the materials handled by mass burn plants are subject to additional NO<sub>x</sub> control through the use of Select Non-Catalytic Reduction;
- More than 90 percent of the mass burn plant materials are subject to additional mercury control through the use of Carbon Injection; and
- 100 percent of the modular plant materials are subject to additional mercury control.

## Waste-to-Energy Dioxin and Mercury Emissions Drop Significantly

By Dr. Nickolas J. Themelis, Director, Earth Engineering Center, Columbia University

The toxic effects of dioxins and furans became the topic of scientific investigation both in the United States and in Europe in the late 1980s. The Congress in 1990 reauthorized the Clean Air Act, seeking to control dioxin and other emissions from industrial sources. This required existing waste-to-energy facilities to retrofit their air pollution control to meet today's MACT systems, consisting of dry scrubbers, activated carbon injection and fabric bag filters. Retrofits have made these facilities one of the cleanest sources of electricity in the nation, according U.S. EPA data. These data indicate that the "toxic equivalent" emissions of U.S. waste-to-energy plants decreased by a factor of 1,000 to about 12 grams total. In comparison, dioxin emissions from backyard trash burning are estimated at more than 600 grams annually.

### Decrease In U.S. Dioxin Emissions

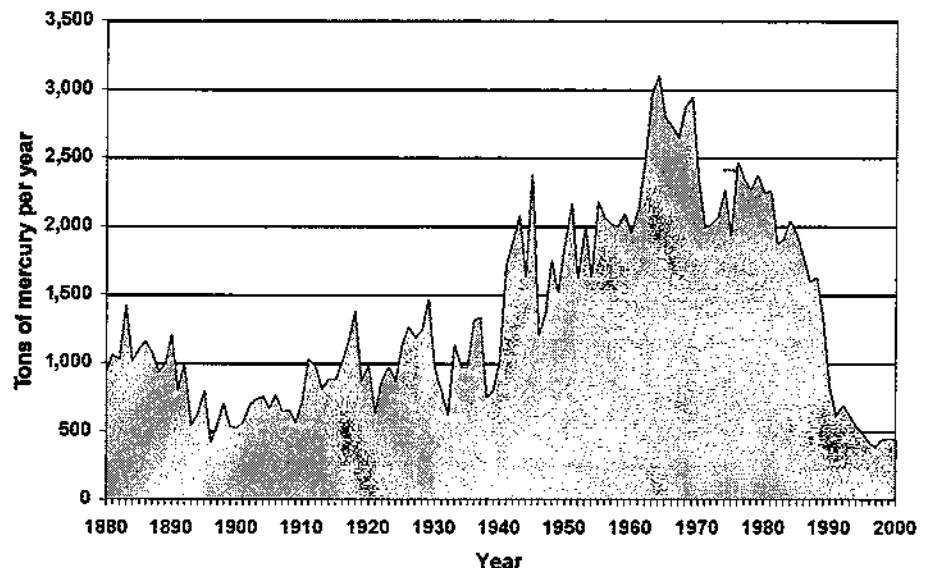


Source: P. M. S. Deriziotis, Thesis in Earth Resources Engineering, Columbia University, 2004.

With regard to mercury, its use in U.S. processes and products reached a high of 3,000 tons per year in the 1970s. Its use decreased to less than 400 tons by 2002, due to the phasing out of most applications of this metal as mandated by U.S. EPA. For example, mercury activated switches and thermostats have been substituted. Many communities have put in place strong recycling programs that keep older mercury-containing products out of the trash sent for disposal. This downward trend in mercury use, in addition to the implementation of the MACT regulations, have decreased the mercury emissions of the waste-to-energy facilities from 89 tons of mercury in 1989 to less than one ton in 2004.

## U.S. Mercury Consumption—1880 to 2000

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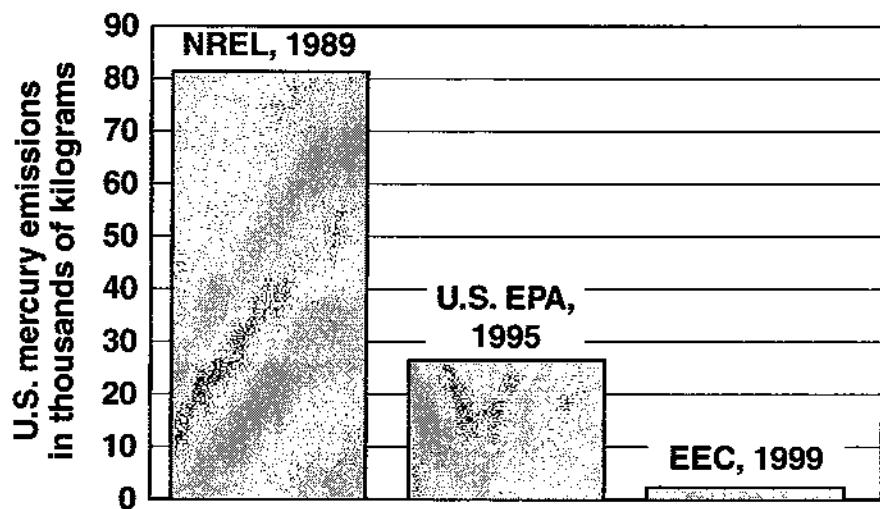


Sources: Themelis and Gregory (2001) using data of Rod, Ayres, and Small (1989), and Sznopek and Goonan (2000).

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## Decrease in U.S. WTE Mercury Emissions—1989 to 1999

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Sources: As shown in the figure.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

FEB 14 2003

Maria Zannes, President  
Integrated Waste Services Association  
1401 H Street N.W., Suite 220  
Washington, DC 20005

Dear Ms. Zannes:

EPA recognizes the vital role of the nation's municipal waste-to-energy industry, and wishes to thank you for your environmental efforts.

Upgrading of the emission control systems of large combustors to exceed the requirements of the Clean Air Act Section 129 standards is an impressive accomplishment. The completion of retrofits of the large combustion units enables us to continue to rely on municipal solid waste as a clean, reliable, renewable source of energy. With the capacity to handle approximately 15 percent of the waste generated in the US, these plants produce 2800 megawatts of electricity with less environmental impact than almost any other source of electricity. With fewer and fewer new landfills being opened, and capacity controls being imposed on many existing landfills, our communities greatly benefit from the dependable, sustainable capacity of municipal waste-to-energy plants.

We applaud the leadership taken by the Integrated Waste Services Association in coordinating research needs to continue to improve the performance of these plants. Your willingness to work with EPA and the State governments on responses to natural or man-made emergencies, including anthrax, is greatly appreciated. Our staff in the Office of Solid Waste and Emergency Response and the Office of Air and Radiation look forward to working with you on defining your research agenda and in addressing our national security concerns.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Marianne Lamont Horinko".

Marianne Lamont Horinko  
Assistant Administrator  
Office of Solid Waste and  
Emergency Response

A handwritten signature in black ink, appearing to read "Jeffrey R. Holmstead".

Jeffrey R. Holmstead  
Assistant Administrator  
Office of Air and Radiation



Recycled/Recyclable  
Printed with Soy/Canola Ink on paper that

**TABLE 6****Waste-To-Energy Companies<sup>1</sup>**

|   |   |
|---|---|
| American Ref-Fuel Company<br>155 Chestnut Ridge Road<br>Mount Vaile, New Jersey 07645<br>(201) 690-4800, or<br>(800) 727-3835<br><a href="http://www.ref-fuel.com">www.ref-fuel.com</a>   | Martin GmbH<br>Leopoldstrasse 248<br>D-80807 Munich, Germany<br>+49-89-356-17<br>fax: +49-89-356-17299  |
| Barlow Projects, Inc.<br>2000 Vermont Drive, Suite 200<br>Ft. Collins, Colorado 80525<br>(970) 226-8557<br><a href="http://www.barlowgroup.com">www.barlowgroup.com</a>   | Montenay Power Corporation<br>1 Pennsylvania Plaza<br>New York, New York 10119<br>(212) 947-5824<br>fax: (212) 947-5828<br><a href="http://www.vivendi.com">www.vivendi.com</a> |
| Covanta Energy Corporation<br>40 Lane Road<br>Fairfield, New Jersey 07007<br>(973) 882-9000<br><a href="http://www.covantaenergy.com">www.covantaenergy.com</a>   | Wheelabrator Technologies Inc.<br>4 Liberty Lane West<br>Hampton, New Hampshire 03842<br>(800) 682-0026<br><a href="http://www.wastemanagment.com">www.wastemanagment.com</a>   |
| Energy Answers Corporation<br>79 North Pearl Street<br>Albany, New York 12207-2289<br>(518) 434-1227<br><a href="http://www.energyanswers.com">www.energyanswers.com</a><br>email: <a href="mailto:info@energyanswers.com">info@energyanswers.com</a> |   |

**The Research Resource: The WTERT Council**

The Waste-to-Energy Research and Technology (WTERT) Council brings together engineers and scientists from universities, industry, and government who are concerned with the recovery of materials and energy from used solids. In particular, the mission of the WTERT Council is to advance both the economic and environmental performance of various waste-to-energy technologies. The Council is headquartered at Columbia University in New York City, and its academic consortium includes the Universities of Stony Brook-SUNY, Temple, Sheffield (U.K.), Delft (Netherlands), Patras (Greece), and Zhejiang (China). The WTERT webpage, <http://www.columbia.edu/cu/wtert>, links to WTE companies around the world and maintains an information database (WTERT email: [earth@columbia.edu](mailto:earth@columbia.edu)). The IWSA is a co-founder of the WTERT Council.

<sup>1</sup>This Table reflects IWSA Members that provide waste-to-energy technology. IWSA includes more than fifty organizations and local governments supporting waste-to-energy.

## Waste-to-Energy Directory: Key Terms

|  |  |   |
|--|--|---|
| <b>State/Plant Name/Location:</b> States and localities are listed in alphabetical order.  | <i>MCU:</i> Modular Combustion Unit<br><i>RWW:</i> Rotary Water Wall combustor<br><i>RRW:</i> Rotary bed combustion chamber, Refractory Wall<br><i>RDF:</i> Refuse-Derived Fuel facility that processes and then burns the RDF made from trash<br><i>RDF-PROCESSING:</i> Refuse-Derived Fuel facility that processes, but does not combust the RDF<br><i>SSWW:</i> Spreader Stoker, Water Wall furnace   | <i>WESPHIX:</i> Fly Ash Stabilization<br><i>WS:</i> Wet Scrubber<br><b>Energy Output:</b> Expressed in rated gross megawatts (MW) of capacity for electric (ELE)-generating facilities or pounds of steam per hour for steam (STM)-generating facilities. Facilities that generate both electricity and steam are cogeneration (COG) facilities.  |
| <b>Design Capacity (Unit &amp; Total TPD):</b> The design capacity is the rated capacity for each unit housed at a facility. The number of units at a facility is provided, followed by the capacity for each unit (i.e., 2x250 represents a facility with two units, each designed to process 250 tons per day, reflective of a 500 ton-per-day facility). The total daily design capacity is also provided. Annual capacity, as expressed in Table 1 and elsewhere, equals the daily design capacity multiplied by 365 days per year, multiplied by 85%. Eighty five percent is a typical system guarantee of annual throughput. | <b>Project Status/Startup Year:</b> Actual year of commercial startup is listed, unless otherwise noted. Abbreviation is explained below:<br><i>OP:</i> Operational  | <b>Owner/Operator:</b> The owner and operator of a facility are listed. In cases where an owner and operator are the same, only one name is listed in this column.  |
| <b>Continuous Emissions Monitors (CEMS):</b> Facilities with operating or planned continuous emissions monitoring systems are noted, as well as the emissions and other elements monitored on a continuous basis, when available. Also, references to <i>Link</i> in this category means those facilities who are connected to the state regulatory agency by way of computer for emissions-monitoring purposes.   | <b>APC System:</b> This column reflects the Air Pollution Control System in use or planned at the facility. In plants with SDA, DSI, or FSI, calcium-based lime is typically injected to control acid gases. Exceptions are noted. Abbreviations are listed below:<br><i>CI:</i> Activated Carbon Injection<br><i>COHPAC:</i> Compressed Hybrid Particulate Collection Device<br><i>CYC:</i> Cyclone Separator<br><i>DSI:</i> Duct Sorbent (dry) Injection (downstream of furnace)<br><i>ESP:</i> Electrostatic Precipitator<br><i>FF:</i> Fabric Filter<br><i>FGR:</i> Flue Gas Recirculation<br><i>FSI:</i> Furnace Sorbent (dry) Injection<br><i>GSA:</i> Gas Suspension Absorber<br><i>SDA:</i> Spray Dryer Absorber, or Scrubber<br><i>SNCR:</i> Select Non-Catalytic Reduction for NO <sub>x</sub> Control (e.g., aqueous ammonia) | <b>On-Site Ferrous Recovered (TPY):</b> The tons per year of ferrous metals recovered for recycling as part of plant operations. Refer to Table 3 for more details.<br><b>Other On-Site Materials Recovery (TPY):</b> The amount of other recyclable materials recovered for recycling as part of plant operations, including non-ferrous metals, fiber, combustion ash, and other recyclable goods. Refer to Table 3 for more details. |
| <b>Technology Type:</b> An abbreviated summary of the furnace technology employed at a facility is provided. The following technologies are listed in their abbreviated form:<br><i>MBWW:</i> Mass Burn, Water Wall furnace<br><i>MBRW:</i> Mass Burn, Refractory Wall furnace   |  | <b>Community Recycling Percentage:</b> The percent of materials diverted from the total waste stream for recycling by the primary service area community disposing of waste at the listed waste-to-energy plant.  |

# The 2004 IWSA Directory Of U.S. Waste-To-Energy Plants

| State/Plant Name/<br>Location  | Design Capacity<br>(Unit & Total TPD)                     | Continuous Emissions<br>Monitors (CEMS)   | Technology Type                  | Project Status/<br>Startup Year |
|--|---|---|----------------------------------|---------------------------------|
| <b>ALABAMA</b>   |   |   |                                  |                                 |
| Huntsville WTE Facility/<br>Huntsville                               | 2x345=690   | CO; CO <sub>2</sub> ; NO <sub>x</sub> ;<br>O <sub>2</sub> ; Opacity; SO <sub>2</sub>                            | MBWW                             | OP/1990                         |
| <b>ALASKA</b>  |   |   |                                  |                                 |
| Eielson Airforce Base/<br>North Pole                                 | 5x2=10<br>(RDF Portion)<br>5x10<br>(Coal Boiler Capacity) | Opacity   | RDF<br>(Co-Fired in Coal Boiler) | OP/1995                         |
| <b>CALIFORNIA</b>  |   |   |                                  |                                 |
| Commerce Refuse-to-Energy Facility/<br>Commerce (Los Angeles County) | 1x360=360   | CO; NO <sub>x</sub> ; O <sub>2</sub><br>Opacity; SO <sub>2</sub>  | MBWW                             | OP/1986                         |
| Long Beach (SERRF)/<br>Long Beach                                    | 3x460=1,380   | CO; CO <sub>2</sub> ; NO <sub>x</sub> ;<br>O <sub>2</sub> ; Opacity; SO <sub>2</sub>                            | MBWW                             | OP/1988                         |
| Stanislaus County<br>Resource Recovery Facility/<br>Modesto          | 2x400=800   | CO; CO <sub>2</sub> ; Link;<br>NO <sub>x</sub> ; Opacity; SO <sub>2</sub>                                       | MBWW                             | OP/1989                         |
| <b>CONNECTICUT</b>   |   |   |                                  |                                 |
| Bristol Resource Recovery<br>Facility/Bristol                        | 2x325=650   | CO; CO <sub>2</sub> ; Link; NO <sub>x</sub> ;<br>Opacity; SO <sub>2</sub> ; VOC<br>(Volatile Organic Compounds) | MBWW                             | OP/1988                         |
| Mid-Connecticut Resource Recovery<br>Facility/Hartford               | 3x675=2,000   | CO; CO <sub>2</sub> ; NO <sub>x</sub> ;<br>O <sub>2</sub> ; Opacity;<br>SO <sub>2</sub>                         | RDF-SSWW                         | OP/1987                         |
| Riley Energy Systems<br>of Lisbon Connecticut<br>Corp./Lisbon        | 2x251=502   | CO; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>  | MBWW                             | OP/1995                         |

| APC System           | Energy Capacity/<br>Output   | Owner/Operator   | On-Site ~<br>Ferrous Recovered<br>(TPY) | Other On-Site<br>Materials Recovery<br>(TPY) | Community<br>Recycling<br>Percentage <sup>1</sup> |
|----------------------|--|--|---|--|---|
| SDA; FF; SNCR;<br>CI | STM: 180,000 Lbs/Hr  | SWDA of the City of<br>Huntsville/Covanta<br>Huntsville, Inc.  |   |  | 11%   |
| FF                   | COG;<br>STM: 2,775 Lbs/Hr;<br>ELE: 0.2 MW<br>(RDF Attributed-Peak) | Eielson Airforce Base  | 60                                      | 490 <sup>2</sup>                             | 28%   |
| SDA; FF; SNCR        | ELE: 11.5 MW   | Commerce Refuse-to-Energy<br>Authority/L.A. Sanitation District  | 2,718                                   | 30,400 <sup>2</sup>                          | 50%   |
| SDA; FF; SNCR        | ELE: 38 MW   | Joint Powers Authority<br>(LA County Sanitation District<br>& City of Long Beach)/Montenay<br>Pacific Power Corporation  | 6,600                                   | 167,735 <sup>2</sup>                         | 50%   |
| SDA; FF; SNCR;<br>CI | ELE: 22 MW   | Covanta Stanislaus, Inc.   | 5,152                                   |  | 52%   |
| SDA; FF; SNCR;<br>CI | ELE: 16 MW   | Covanta Bristol, Inc.  | 6,157                                   |  | 23%   |
| SDA; FF; SNCR        | ELE: 68 MW   | Connecticut Resources<br>Recovery Authority/<br>Covanta Mid-Conn., Inc.  | 23,698                                  |  | 24%   |
| SDA; FF; SNCR;<br>CI | ELE: 15 MW   | Eastern Connecticut Resources<br>Recovery Authority/Riley Energy<br>Systems of Libson Corp.<br>(Wheelabrator Subsidiary) | 4,110                                   |  | 20%   |

<sup>1</sup>Reflects the total amounts recycled in the waste-to-energy community. This includes the residential stream, a combination of residential and commercial streams, reduction credits, etc., depending upon how the data is collected and reported by each community

<sup>2</sup>Includes WTE Ash reused in some fashion (i.e., typically for daily landfill cover)

| <b>State/Plant Name/<br/>Location</b>                                     | <b>Design Capacity<br/>(Unit &amp; Total TPD)</b>              | <b>Continuous Emissions<br/>Monitors (CEMS)</b>                                   | <b>Technology Type</b> | <b>Project Status/<br/>Startup Year</b> |
|---|--|---|------------------------|---|
| <b><i>CONNECTICUT (continued)</i></b>                                     |  |   |                        |   |
| Southeastern Connecticut Resource Recovery Facility/Preston               | 2x345=689  | CO; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>                   | MBWW                   | OP/1992                                 |
| Wallingford Resource Recovery Facility/Wallingford                        | 3x140=420  | CO; CO <sub>2</sub> ; NO <sub>x</sub> ; Opacity; SO <sub>2</sub> ; VOC            | MBRW                   | OP/1989                                 |
| Wheelabrator Bridgeport Company, L.P./Bridgeport                          | 3x750=2,250  | CO; CO <sub>2</sub> ; NO <sub>x</sub> ; Opacity; SO <sub>2</sub>                  | MBWW                   | OP/1988                                 |
| <b><i>FLORIDA</i></b>   |  |   |                        |   |
| Bay Resource Mgt. Center/Panama City                                      | 2x245=490  | CO; O <sub>2</sub>  | RWW                    | OP/1987                                 |
| Dade County (Expansion)–Biomass Fuel Export/Miami                         | 1x1,200=1,200  |   | RDF–PROCESSING         | OP/1997                                 |
| Dade County Resource Recovery Facility<br>Greater Miami Metro Area/ Miami | 4x672=2,688<br>(RDF Combusted)<br>3,000<br>(TPD MSW Processed) | CO; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>                   | RDF–SSWW               | OP/1982                                 |
| Hillsborough County Solid Waste Energy Facility/Tampa                     | 3x400=1,200  | CO; CO <sub>2</sub> ; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub> | MBWW                   | OP/1987                                 |
| Lake County Resource Recovery Facility/ Okahumpka                         | 2x264=528  | CO; CO <sub>2</sub> ; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub> | MBWW                   | OP/1991                                 |
| Lee County Solid Waste Resource Recovery Facility/Fort Myers              | 2x600=1,200  | CO; CO <sub>2</sub> ; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub> | MBWW                   | OP/1994                                 |
| McKay Bay Refuse-to-Energy Facility/Tampa                                 | 4x251=1,004  | CO; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>                   | MBWW                   | OP/1985                                 |
| North County Resource Recovery Facility/ West Palm Beach                  | 2x1,000=2,000  | CO; HCl; NO <sub>x</sub> ; Opacity; SO <sub>2</sub> ; Temperature                 | RDF–SSWW               | OP/1989                                 |
| Pasco County Resource Recovery Facility/Hudson                            | 3x350=1,050  | CO; CO <sub>2</sub> ; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub> | MBWW                   | OP/1991                                 |
| Pinellas County Resource Recovery Facility/ St. Petersburg                | 3x1,000=3,000  | CO; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>                   | MBWW                   | OP/1983                                 |
| Wheelabrator North Broward Inc./ Pompano Beach                            | 3x750=2,250  | CO; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>                   | MBWW                   | OP/1991                                 |

| APC System               | Energy Capacity/<br>Output | Owner/Operator   | On-Site<br>Ferrous Recovered<br>(TPY) | Other On-Site<br>Materials Recovery<br>(TPY) | Community<br>Recycling<br>Percentage <sup>1</sup> |
|--------------------------|----------------------------|--|---------------------------------------|--|---|
| SDA; FF; CI              | ELE: 17 MW                 | American Ref-Fuel Co. of Southeastern CT   | 4,741                                 | 118  | 22%   |
| SDA; FF; FGR; CI         | ELE: 11 MW                 | Covanta Projects of Wallingford, L.P.  | -                                     | -  | 28%   |
| SDA; FF; CI              | ELE: 67 MW                 | Ford Motor Company/Wheelabrator  | 13,620                                | 391  | 20%   |
| SDA; FF; CI <sup>3</sup> | ELE: 12 MW                 | Bay County/Montenay Bay L.L.C.   | -                                     | -  | 22%   |
| FF                       | Biomass Fuel               | Miami-Dade County/Montenay-ONYX  | -                                     | -  | 21%   |
| SDA; FF; SNCR; CI        | ELE: 77 MW                 | Miami-Dade County/Montenay-ONYX  | 35,450                                | 3,880  | 21%   |
| SDA; FF; SNCR; CI        | ELE: 29 MW                 | Hillsborough County/Covanta Hillsborough, Inc.   | 8,289                                 | 86,796 <sup>2</sup>                          | 30%   |
| SDA; FF; SNCR; CI        | ELE: 16 MW                 | Covanta Lake, Inc.   | 2,433                                 | -  | 18%   |
| SDA; FF; SNCR; CI        | ELE: 40 MW                 | Lee County/Covanta Lee, Inc.   | 9,370                                 | 105,948 <sup>2</sup>                         | 30%   |
| SDA; FF; SNCR; CI        | ELE: 22 MW                 | City of Tampa/Wheelabrator   | 8,616                                 | 96,193 <sup>2</sup>                          | 21%   |
| SDA; ESP                 | ELE: 60 MW                 | Solid Waste Authority of Palm Beach County/Palm Beach Co. Resource Recovery Corp. (Subsidiary of Babcock and Wilcox) | 35,985                                | 121,097 <sup>2</sup>                         | 50%   |
| SDA; FF; SNCR; CI        | ELE: 31 MW                 | Pasco County/Covanta Pasco, Inc.   | 2,706                                 | -  | 16%   |
| SDA; FF; SNCR; CI        | ELE: 65 MW                 | Pinellas County/Wheelabrator   | 17,200                                | 270,019 <sup>2</sup>                         | 28%   |
| SDA; FF; SNCR; CI        | ELE: 68 MW                 | Wheelabrator   | 5,705                                 | -  | 25%   |

<sup>1</sup>Reflects the total amounts recycled in the waste-to-energy community. This includes the residential stream, a combination of residential and commercial streams, reduction credits, etc., depending upon how the data is collected and reported by each community

<sup>2</sup>Includes WTE Ash reused in some fashion (i.e., typically for daily landfill cover)

<sup>3</sup>Upgrades underway to include all items listed to meet the November 6, 2005 Clean Air Act compliance deadline for small unit facilities

| <b>State/Plant Name/<br/>Location</b>   | <b>Design Capacity<br/>(Unit &amp; Total TPD)</b> | <b>Continuous Emissions<br/>Monitors (CEMS)</b>   | <b>Technology Type</b>                          | <b>Project Status/<br/>Startup Year</b> |
|---|---|---|---|---|
| <b>FLORIDA (continued)</b>  |   |   |   |   |
| Wheelabrator South<br>Broward Inc./<br>Ft. Lauderdale                               | 3x750=2,250                                       | CO; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>                            | MBWW  | OP/1991                                 |
| <b>GEORGIA</b>  |   |   |   |   |
| Montenay Savannah<br>Operations, Inc./Savannah                                      | 2x251=502   | CO; HCl; NO <sub>x</sub> ;<br>Particulate; SO <sub>2</sub>                                    | MBWW  | OP/1987                                 |
| <b>HAWAII</b>   |   |   |   |   |
| Honolulu Resource Recovery<br>Venture—HPOWER/<br>Honolulu                           | 2x854=1,708                                       | CO; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>                            | RDF—SSWW  | OP/1990                                 |
| <b>INDIANA</b>  |   |   |   |   |
| Indianapolis Resource Recovery<br>Facility/Indianapolis                             | 3x787=2,362                                       | CO; CO <sub>2</sub> ; Link; NO <sub>x</sub> ;<br>O <sub>2</sub> ; Opacity; SO <sub>2</sub>    | MBWW  | OP/1988                                 |
| <b>IOWA</b>   |   |   |   |   |
| Ames (Generates RDF for<br>Ames MEU)/Ames   | 1x175=175   |   | RDF—PROCESSING                                  | OP/1975                                 |
| Ames Municipal Electric Utility<br>(MEU—Receives RDF From Ames)/Ames                | 1x97 +<br>1x53=150                                | CO <sub>2</sub> ; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>              | RDF—Pulverized<br>Coal WW                       | OP/1975                                 |
| <b>MAINE</b>  |   |   |   |   |
| Maine Energy Recovery Co./<br>Biddeford   | 2x300=600   | CO; Link; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub> ; Temperature        | RDF—SSWW  | OP/1987                                 |
| Mid-ME Waste Action Corporation/<br>Auburn  | 2x100=200   | CO; CO <sub>2</sub> ; NO <sub>x</sub> ;<br>Opacity; SO <sub>2</sub> ;<br>Temperature          | RRW (Laurent Bouillet<br>Oscillating Combustor) | OP/1992                                 |
| Penobscot Energy Recovery<br>Company/Orrington                                      | 2x375=750 (Design)<br>2x360=720 (Permit)          | CO; CO <sub>2</sub> ; NO <sub>x</sub> ;<br>O <sub>2</sub> ; Opacity; SO <sub>2</sub>          | RDF   | OP/1988                                 |
| Regional Waste Systems, Inc./<br>Portland   | 2x251=502   | CO; CO <sub>2</sub> ; Link;<br>NO <sub>x</sub> ; Opacity; SO <sub>2</sub>                     | MBWW  | OP/1988                                 |
| <b>MARYLAND</b>   |   |   |   |   |
| Harford County Waste-to-Energy<br>Facility/Joppa<br>(Aberdeen Proving Grounds—Army) | 4x90=360  | CO; CO <sub>2</sub> ; Link;<br>NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub> | MCU   | OP/1988                                 |

| APC System   | Energy Capacity/<br>Output                  | Owner/Operator  | On-Site<br>Ferrous Recovered<br>(TPY) | Other On-Site<br>Materials Recovery<br>(TPY) | Community<br>Recycling<br>Percentage <sup>1</sup> |
|--|---|---|---------------------------------------|--|---|
| SDA; FF; SNCR; CI                                    | ELE: 66 MW                                  | Wheelabrator  | 579                                   | ~  | 25%   |
| SDA, FF; SNCR; CI                                    | COG;<br>STM:130,000 Lbs/Hr;<br>ELE: 6 MW    | Montenay Savannah Operations, Inc.  | ~                                     | ~  | 5%  |
| SDA; ESP   | ELE: 57 MW                                  | Ford Motor Credit Corporation/<br>Covanta Honolulu Resource<br>Recovery Venture | 19,786                                | 2,475  | 29%   |
| SDA; FF; SNCR; CI                                    | STM: 558,000 Lbs/Hr                         | Covanta Indianapolis, Inc.  | 16,447                                | 187,737 <sup>2</sup>                         | 7%  |
| FF; CYC  | RDF Fuel<br>(Fluff)                         | City of Ames/Ames Public Works  | 2,200                                 | 108  | 54%   |
| ESP  | ELE: 10 MW<br>(RDF Attributed)              | City of Ames/<br>Ames Municipal Electric System                                 | ~                                     | 175 <sup>2</sup>                             | 54%   |
| SDA; FF  | ELE: 22 MW                                  | Maine Energy Recovery Company/<br>Casella Waste Systems                         | 8,000                                 | 351  | 47%   |
| SDA; FF; CI  | ELE: 3.6 MW                                 | Mid-Maine Waste Action<br>Corporation   | 2,286                                 | 183  | 24%   |
| SDA; FF  | ELE: 25.3 MW                                | NRG Energy, Inc./<br>ESOCO Orrington, Inc.                                      | 11,000                                | ~  | 21%   |
| SDA; ESP; SNCR;<br>CI                                | ELE: 14 MW                                  | Regional Waste Systems, Inc.  | ~                                     | 191  | 53%   |
| DSI (Sodium<br>Bicarbonate); ESP;<br>CI <sup>3</sup> | COG;<br>STM: 100,000 Lbs/Hr;<br>ELE: 1.2 MW | N.E. Maryland Waste Disposal<br>Authority/Energy Recovery<br>Operations, Inc.   | 211                                   | 47,060 <sup>2</sup>                          | 56%   |

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<sup>2</sup>Includes WTE Ash reused in some fashion (i.e., typically for daily landfill cover)

<sup>3</sup>Upgrades underway to include all items listed to meet the November 6, 2005 Clean Air Act compliance deadline for small unit facilities

| <b>State/Plant Name/<br/>Location</b>                                  | <b>Design Capacity<br/>(Unit &amp; Total TPD)</b>   | <b>Continuous Emissions<br/>Monitors (CEMS)</b>  | <b>Technology Type</b> | <b>Project Status/<br/>Startup Year</b> |
|--|---|--|------------------------|---|
| <b>MARYLAND (continued)</b>  |   |  |                        |   |
| Montgomery County Resource Recovery Project/<br>Dickerson              | 3x600=1,800   | CO; CO <sub>2</sub> ; HCl;<br>Link; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>                 | MBWW                   | OP/1995                                 |
| Wheelabrator Baltimore Company, L.P./<br>Baltimore                     | 3x750=2,250   | CO; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>   | MBWW                   | OP/1985                                 |
| <b>MASSACHUSETTS</b>   |   |  |                        |   |
| Haverhill Resource Recovery Facility/<br>Haverhill                     | 2x825=1,650   | CO; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>   | MBWW                   | OP/1989                                 |
| Pioneer Valley Resource Recovery Facility (eco/Springfield)/<br>Agawam | 3x136=408 (Design)<br>3x120=360 (Permit)            | CO; CO <sub>2</sub> ; NO <sub>x</sub> ;<br>Opacity; SO <sub>2</sub>  | MBRW                   | OP/1988                                 |
| Pittsfield Resource Recovery Facility/<br>Pittsfield                   | 3x120=360 (Design)<br>3x80=240<br>(Actual Practice) | CO; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>   | MBRW                   | OP/1981                                 |
| SEMASS Resource Recovery Facility/<br>Rochester                        | 3x1,000=3,000                                       | CO; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>   | RDF-SSWW               | OP/1988                                 |
| Wheelabrator Millbury Inc./<br>Millbury                                | 2x750=1,500   | CO; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>   | MBWW                   | OP/1987                                 |
| Wheelabrator North Andover, Inc./<br>North Andover                     | 2x750=1,500   | CO; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>   | MBWW                   | OP/1985                                 |
| Wheelabrator Saugus, Inc./<br>Saugus                                   | 2x750=1,500   | CO; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>   | MBWW                   | OP/1975                                 |
| <b>MICHIGAN</b>  |   |  |                        |   |
| Greater Detroit Resource Recovery Facility/Detroit                     | 3x1,100=3,300 (Design)<br>2x1,100=2,200 (Permit)    | CO; CO <sub>2</sub> ; Link;<br>NO <sub>x</sub> ; O <sub>2</sub> ; Opacity;<br>SO <sub>2</sub>                      | RDF-SSWW               | OP/1989                                 |
| Jackson County Resource Recovery Facility/Jackson                      | 2x100=200   | CO; CO <sub>2</sub> ; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub> ;<br>Temperature <sup>3</sup> | MBWW                   | OP/1987                                 |

<sup>3</sup>Upgrades underway to include all items listed to meet the November 6, 2005 Clean Air Act compliance deadline for small unit facilities

| APC System   | Energy Capacity/<br>Output   | Owner/Operator   | On-Site<br>Ferrous Recovered<br>(TPY) | Other On-Site<br>Materials Recovery<br>(TPY) | Community<br>Recycling<br>Percentage <sup>1</sup> |
|--|--|--|---------------------------------------|--|---|
| FSI; SDA; FF;<br>SNCR; CI  | ELE: 68 MW   | N.E. Maryland Waste Disposal<br>Authority/Covanta<br>Montgomery, Inc.              | 19,953                                | -  | 35%   |
| SDA; ESP; SNCR;<br>CI  | ELE: 60 MW   | John Hancock Life Insurance<br>Company/Wheelabrator                                | 7,291                                 | 206,369 <sup>2</sup>                         | 42%   |
| SDA; FF; SNCR; CI  | ELE: 49 MW   | Covanta Haverhill Associates/<br>Covanta Haverhill, Inc.                           | 14,565                                | -  | 24%   |
| FGR;<br>DSI (Dry Lime); FF   | COG;<br>STM: 96,000 Lbs/Hr;<br>ELE: 9.4 MW                             | eco/Springfield L.L.C.   | 2,950                                 | -  | 35%   |
| FGR; WS; ESP;<br>Packed Tower<br>Scrubber (Sodium<br>Bicarbonate-<br>Injected); CI | STM: 66,000 Lbs/Hr   | eco/Pittsfield, L.L.C.   | 1,051                                 | 8,034 <sup>2</sup>                           | 21%   |
| SDA; ESP; FF<br>(COHPAC); CI<br>(Units 1 & 2); SDA;<br>FF (COHPAC)<br>(Unit 3)     | ELE: 78 MW   | SEMASS Partnership/<br>American Ref-Fuel Co. of<br>SEMASS, L.P.                    | 44,520                                | 93,224 <sup>2</sup>                          | 22%   |
| SDA; ESP; SNCR;<br>CI  | ELE: 46 MW   | CIT/Wheelabrator   | 10,361                                | 295  | 42%   |
| SDA; FF; SNCR; CI  | ELE: 40 MW   | Wheelabrator   | 8,160                                 | -  | 35%   |
| SDA; FF; SNCR; CI  | ELE: 37.5 MW   | Wheelabrator   | 6,590                                 | 23   | 33%   |
| SDA; FF  | COG;<br>STM: 15,000Lbs/Hr;<br>ELE: 65 MW                               | Phillip Morris Leasing Corp.<br>& G.E. Credit Corp./Michigan<br>Waste Energy, Inc. | 32,278                                | -  | 9%  |
| SDA; FF; CI <sup>3</sup>   | COG;<br>STM: 49,200 Lbs/Hr<br>(For Southern MI Prison);<br>ELE: 3.7 MW | Jackson County/U.S. Filter, Inc..  | -                                     | -  | 15%   |

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<sup>3</sup>Upgrades underway to include all items listed to meet the November 6, 2005 Clean Air Act compliance deadline for small unit facilities

| <b>State/Plant Name/<br/>Location</b>   | <b>Design Capacity<br/>(Unit &amp; Total TPD)</b> | <b>Continuous Emissions<br/>Monitors (CEMS)</b>                                     | <b>Technology Type</b> | <b>Project Status/<br/>Startup Year</b> |
|---|---|---|------------------------|---|
| <b>MICHIGAN (continued)</b>   |   |   |                        |   |
| Kent County/<br>Grand Rapids  | 2x312.5=625                                       | CO; Link; NO <sub>x</sub> ;<br>O <sub>2</sub> ; Opacity;<br>SO <sub>2</sub>         | MBWW                   | OP/1990                                 |
| <b>MINNESOTA</b>  |   |   |                        |   |
| Elk River Resource Recovery Facility<br>(Generates RDF for Great River Energy<br>in Elk River, Xcel Energy Wilmarth Plant<br>in Mankato, & Xcel Energy<br>Red Wing Plant)/Elk River | 2x750=1,500                                       |   | RDF-PROCESSING         | OP/1989                                 |
| Fergus Falls Resource Recovery Facility/<br>Fergus Falls  | 2x47=94   | CO; O <sub>2</sub> ; Opacity; SO <sub>2</sub> ;<br>Temperature                      | MCU                    | OP/1988                                 |
| Great River Energy–Elk River Station<br>(Receives RDF from Elk River RRF)/<br>Elk River   | 2x251 +<br>1x500=1,002                            | CO; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub> ;<br>Temperature | RDF-SSWW               | OP/1989                                 |
| Hennepin Energy Resource Co./<br>Minneapolis  | 2x606=1,212 (Design)<br>1,000 (Permit)            | CO; CO <sub>2</sub> ; NO <sub>x</sub> ;<br>Opacity; SO <sub>2</sub>                 | MBWW                   | OP/1989                                 |
| NRG Energy, Inc.–Newport<br>(Ramsey–Washington)<br>(Generates RDF for Xcel Energy<br>Red Wing Plant & Xcel Energy<br>Wilmarth Plant in Mankato)/<br>Newport                         | 1x1,200=1,200                                     |   | RDF-PROCESSING         | OP/1987                                 |
| Olmsted Waste-to-Energy Facility/<br>Rochester  | 2x100=200   | CO; CO <sub>2</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>                  | MBWW                   | OP/1987                                 |
| Perham Resource Recovery Facility/<br>Perham  | 2x58=116  | O <sub>2</sub> ; Opacity; SO <sub>2</sub> ;<br>Steam Flow; Temperature              | MCU                    | OP/1986; 2002<br>(Upgrade)              |
| Polk County Resource Recovery Plant/<br>Fosston   | 2x40=80   | CO; O <sub>2</sub> ;<br>Opacity   | MCU                    | OP/1988                                 |
| Pope–Douglas Solid Waste Management/<br>Alexandria  | 2x40=80   | CO; CO <sub>2</sub> ; O <sub>2</sub> ;<br>Opacity                                   | MCU                    | OP/1987                                 |
| Red Wing Waste Recovery<br>Facility/Red Wing  | 2x36=72   | CO; CO <sub>2</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub> ;<br>Temperature | MCU                    | OP/1982                                 |
| Xcel Energy–Red Wing (Receives RDF<br>From NRG Energy in Newport &<br>Elk River RRF)/Red Wing   | 2x360=720   | CO; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity;<br>SO <sub>2</sub>                  | RDF-SSWW               | OP/1988                                 |

| APC System   | Energy Capacity/<br>Output                 | Owner/Operator   | On-Site<br>Ferrous Recovered<br>(TPY) | Other On-Site<br>Materials Recovery<br>(TPY) | Community<br>Recycling<br>Percentage <sup>1</sup> |
|--|--|--|---------------------------------------|--|---|
| SDA; FF; SNCR; CI                                      | COG;<br>STM: 76,000 Lbs/Hr;<br>ELE: 8 MW   | Kent County/Covanta Kent, Inc.                                       | 4,211                                 | --   | 50%   |
| FF (Dust Collection)                                   | RDF Fuel<br>(3-inch Pieces)                | NRG & Great River Energy/<br>NRG Energy, Inc.                        | 15,000                                | --   | 39%   |
| SDA; FF; CI  | STM: 22,000 Lbs/Hr                         | City of Fergus Falls   | 26                                    | --   | 65%   |
| SDA; FF  | ELE: 48 MW                                 | United Power Association/<br>Great River Energy                      | --                                    | --   | 39%   |
| SDA; FF; SNCR; CI                                      | ELE: 38 MW                                 | Hennepin County/Covanta<br>Hennepin Energy Resource<br>Company, L.P. | 11,000                                | 33   | 46%   |
| FF   | RDF Fuel<br>(Fluff)                        | NRG Energy, Inc.   | 16,800                                | 1,000  | 47%   |
| SDA; FF; CI  | COG;<br>STM: 60,000 Lbs/Hr;<br>ELE: 4 MW   | Olmsted County   | 144                                   | 900  | 40%   |
| DSI; FF; CI  | COG;<br>STM: 37,000 Lbs/Hr;<br>ELE: 2.5 MW | City of Perham/Barlow Projects                                       | 64                                    | --   | 65%   |
| DSI; ESP; CI   | STM: 22,000 Lbs/Hr                         | Polk County  | 1,027                                 | 881  | 52%   |
| DSI; FF; CI  | COG;<br>STM: 35,000 Lbs/Hr;<br>ELE: 0.4 MW | Pope-Douglas Joint<br>Solid Waste Board                              | 700                                   | 700  | 44%   |
| GSA (Between<br>Boiler Outlet & ESP<br>Inlet); ESP; CI | STM: 15,000 Lbs/Hr                         | City of Red Wing   | 168                                   | 1,221  | 37%   |
| DSI; FF  | ELE: 21 MW                                 | Xcel Energy  | 566                                   | --   | 37%   |

<sup>1</sup>Reflects the total amounts recycled in the waste-to-energy community. This includes the residential stream, a combination of residential and commercial streams, reduction credits, etc., depending upon how the data is collected and reported by each community

| <b>State/Plant Name/<br/>Location</b>  | <b>Design Capacity<br/>(Unit &amp; Total TPD)</b> | <b>Continuous Emissions<br/>Monitors (CEMS)</b>  | <b>Technology Type</b> | <b>Project Status/<br/>Startup Year</b> |
|--|---|--|------------------------|---|
| <b>MINNESOTA (continued)</b>   |   |  |                        |   |
| Xcel Energy–Wilmarth Plant<br>(Receives RDF from Elk River RRF,<br>MN Waste Processing Center in<br>Mankato & NRG Energy in Newport)/<br>Mankato | 2x360=720   | CO <sub>2</sub> ; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>   | RDF-SSWW               | OP/1987                                 |
| <b>NEW HAMPSHIRE</b>   |   |  |                        |   |
| Wheelabrator Claremont<br>Company, L.P./Claremont  | 2x100=200   | CO; O <sub>2</sub> ; Opacity   | MBWW                   | OP/1987                                 |
| Wheelabrator Concord Company, L.P./<br>Penacook  | 2x288=575   | CO; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity;<br>SO <sub>2</sub>   | MBWW                   | OP/1989                                 |
| <b>NEW JERSEY</b>  |   |  |                        |   |
| Camden Resource Recovery Facility/<br>Camden   | 3x350=1,050                                       | CO; HCl; Link;<br>Nonmethane Hydrocarbons;<br>NO <sub>x</sub> ; O <sub>2</sub> ; Opacity;<br>SO <sub>2</sub> ; Temperature         | MBWW                   | OP/1991                                 |
| Essex County Resource Recovery<br>Facility/Newark  | 3x900=2,700                                       | CO; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>   | MBWW                   | OP/1990                                 |
| Union County Resource<br>Recovery Facility/<br>Rahway  | 3x480=1,440                                       | CO; CO <sub>2</sub> ; HCl; Link;<br>NH <sub>3</sub> ; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity;<br>SO <sub>2</sub> ; Temperature | MBWW                   | OP/1994                                 |
| Warren Energy Resource Company/<br>Oxford Township,<br>Warren County   | 2x224=448   | CO; Link; NO <sub>x</sub> ;<br>O <sub>2</sub> ; Opacity;<br>SO <sub>2</sub> ; Temperature  | MBWW                   | OP/1988                                 |
| Wheelabrator Gloucester Company, L.P./<br>Westville  | 2x288=575   | CO; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>   | MBWW                   | OP/1990                                 |
| <b>NEW YORK</b>  |   |  |                        |   |
| Babylon Resource Recovery Facility/<br>Babylon   | 2x375=750   | CO; CO <sub>2</sub> ; NO <sub>x</sub> ;<br>Opacity; SO <sub>2</sub>  | MBWW                   | OP/1989                                 |
| Dutchess County RRF (Montenay<br>Dutchess L.L.C.)/Poughkeepsie   | 2x225=450   | CO; NO <sub>x</sub> ; Opacity;<br>Particulate; SO <sub>2</sub> ;<br>Temperature; Stack Moisture                                    | RWW                    | OP/1988                                 |
| Hempstead Resource Recovery Facility/<br>Westbury  | 3x835=2,505                                       | CO; CO <sub>2</sub> ; NO <sub>x</sub> ;<br>Opacity; SO <sub>2</sub>  | MBWW                   | OP/1989                                 |
| Huntington Resource Recovery Facility/<br>East Northport   | 3x251=753   | CO; NH <sub>3</sub> ; NO <sub>x</sub> ;<br>O <sub>2</sub> ; Opacity; SO <sub>2</sub>   | MBWW                   | OP/1991                                 |

| APC System                               | Energy Capacity/<br>Output                  | Owner/Operator   | On-Site<br>Ferrous Recovered<br>(TPY) | Other On-Site<br>Materials Recovery<br>(TPY) | Community<br>Recycling<br>Percentage <sup>1</sup> |
|--|---|--|---------------------------------------|--|---|
| SDA; FF                                  | ELE: 22 MW                                  | Xcel Energy  | ~                                     | ~  | 66%   |
| DSI; FF                                  | ELE: 4.5 MW                                 | Wheelabrator   | ~                                     | ~  | 7%  |
| SDA; FF; SNCR; CI                        | ELE: 14 MW                                  | Wheelabrator   | 1                                     | ~  | 11%   |
| SDA; ESP; CI                             | ELE: 27 MW                                  | Camden County Energy Recovery<br>Associates, L.P./Camden County<br>Energy Recovery Corporation | 5,500                                 | 700  | 33%   |
| SDA; ESP; SNCR;<br>CI; WESPHIX           | ELE: 70 MW                                  | American Ref-Fuel Company of<br>Essex County   | 16,680                                | 15,000 <sup>2</sup>                          | 54%   |
| SDA; FF; SNCR; CI                        | ELE: 44 MW                                  | Covanta Union, Inc.  | 14,348                                | 121,777 <sup>2</sup>                         | 50%   |
| SDA; FF; NOx<br>Control; CI <sup>3</sup> | ELE: 13 MW                                  | Covanta Warren Energy Resource<br>Company, L.P.  | 5,270                                 | ~  | 33%   |
| SDA; FF; SNCR; CI                        | ELE: 14 MW                                  | Wheelabrator   | 4,670                                 | ~  | 63%   |
| SDA; FF; SNCR; CI                        | ELE: 17 MW                                  | Covanta Babylon, Inc.  | 3,942                                 | ~  | 30%   |
| DSI; FF                                  | COG;<br>STM: 50,000 Lbs/Hr;<br>ELE: 10.5 MW | Dutchess County R.R. Agency/<br>Montenay Dutchess L.L.C.                                       | 8,606                                 | 45,663 <sup>2</sup>                          | 57%   |
| SDA; FF; SNCR                            | ELE: 72 MW                                  | American Ref-Fuel Co.<br>of Hempstead  | 18,543                                | 1,019  | 31%   |
| SDA; FF; SNCR; CI                        | ELE: 25 MW                                  | Covanta Huntington, L.P.   | 9,655                                 | ~  | 44%   |

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<sup>2</sup>Includes WTE Ash reused in some fashion (i.e., typically for daily landfill cover)

<sup>3</sup>Upgrades underway to include all items listed to meet the November 6, 2005 Clean Air Act compliance deadline for small unit facilities

| <b>State/Plant Name/<br/>Location</b>                      | <b>Design Capacity<br/>(Unit &amp; Total TPD)</b> | <b>Continuous Emissions<br/>Monitors (CEMS)</b>   | <b>Technology Type</b> | <b>Project Status/<br/>Startup Year</b>    |
|--|---|---|------------------------|--|
| <b>NEW YORK (continued)</b>                                |   |   |                        |  |
| Islip (MacArthur Resource Recovery Facility)/Ronkonkoma    | 2x243=486   | CO; CO <sub>2</sub> ; HCl; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>              | RWW                    | OP/1990                                    |
| Niagara Falls Resource Recovery Facility/Niagara Falls     | 2x1,125=2,250                                     | CO; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>                                     | MBWW                   | OP/1996                                    |
| Onondaga County Resource Recovery Facility/Onondaga County | 3x330=990   | CO; CO <sub>2</sub> ; NH <sub>3</sub> ; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub> | MBWW                   | OP/1995                                    |
| Oswego County Energy Recovery Facility/Fulton              | 4x50=200  | CO; O <sub>2</sub> ; Opacity; SO <sub>2</sub>   | MCU                    | OP/1986                                    |
| Wheelabrator Hudson Falls Inc./Hudson Falls                | 2x255=510   | CO; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>                                     | MBWW                   | OP/1991                                    |
| Wheelabrator Westchester Company, L.P./Peekskill           | 3x750=2,250                                       | CO; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>                                     | MBWW                   | OP/1984                                    |
| <b>NORTH CAROLINA</b>                                      |   |   |                        |  |
| New Hanover County—Wastec/Wilmington                       | 2x100 (Units 1 & 2) + 1x300 (Unit 3)=500          | CO; CO <sub>2</sub> ; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>                   | MBWW                   | Op/1984<br>(Units 1 & 2);<br>1991 (Unit 3) |
| <b>OKLAHOMA</b>  |   |   |                        |  |
| W.B. Hall Resource Recovery Facility/Tulsa                 | 3x375=1,125                                       | CO; O <sub>2</sub> ; Opacity  | MBWW                   | OP/1986                                    |
| <b>OREGON</b>  |   |   |                        |  |
| Marion County Solid Waste-to-Energy Facility/Brooks        | 2x275=550   | CO; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>                                     | MBWW                   | OP/1986                                    |
| <b>PENNSYLVANIA</b>  |   |   |                        |  |
| Delaware Valley Resource Recovery Facility/Chester         | 6x448=2,688                                       | CO; HCl; Link; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>                          | RWW                    | OP/1992                                    |
| Lancaster County Resource Recovery Facility/Bainbridge     | 3x400=1,200                                       | CO; CO <sub>2</sub> ; HCl; Link; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>        | MBWW                   | OP/1991                                    |

| APC System  | Energy Capacity/<br>Output                 | Owner/Operator   | On-Site<br>Ferrous Recovered<br>(TPY) | Other On-Site<br>Materials Recovery<br>(TPY) | Community<br>Recycling<br>Percentage <sup>1</sup> |
|---|--|--|---------------------------------------|--|---|
| DSI (Hydrated Lime/Tesisorb); FF  | ELE: 12 MW                                 | Islip Resource Recovery Agency/Montenay  | 8,350                                 |  | 25%   |
| SDA; FF; SNCR; CI   | COG;<br>STM: 350,000 Lbs/Hr;<br>ELE: 50 MW | American Ref-Fuel Co. of Niagara, L.P.   | 21,323                                | 61,311 <sup>2</sup>                          | 13%   |
| SDA; FF; SNCR; CI   | ELE: 40 MW                                 | Onondaga County Resource Recovery Agency/Covanta Onondaga, L.P.                      | 10,858                                | 91,065 <sup>2</sup>                          | 68%   |
| SDA; FF; CI   | COG;<br>STM: 50,000 Lbs/Hr;<br>ELE: 4 MW   | Oswego County  |                                       | 25,300 <sup>2</sup>                          | 40%   |
| SDA; ESP; CI  | ELE: 14.5 MW                               | Warren & Washington Counties Industrial Development Agency/Wheelabrator Hudson Falls | 2,150                                 | 16,568 <sup>2</sup>                          | 26%   |
| SDA; FF; SNCR; CI   | ELE: 60 MW                                 | Wheelabrator   | 17,005                                | 55   | 42%   |
| SDA; FF; CI <sup>3</sup><br>(Units 1 & 2);<br>SDA; FF; SNCR; CI<br>(Unit 3) | ELE: 10.5 MW                               | New Hanover County   | 1,000                                 | 50,276 <sup>2</sup>                          | 3%  |
| SDA; FF; SNCR; CI   | STM: 240,000 Lbs/Hr;<br>or ELE: 16.8 MW    | CIT Group/Barlow Projects  | 5,870                                 |  | 5%  |
| SDA; FF; SNCR; CI   | ELE: 13 MW                                 | Covanta Marion, Inc.   | 4,352                                 |  | 57%   |
| SDA; FF; SNCR; CI   | ELE: 78 MW                                 | American Ref-Fuel Co. of Delaware County, L.P.                                       | 31,358                                | 333,000 <sup>2</sup>                         | 54%   |
| SDA; FSI; FF;<br>SNCR; CI   | ELE: 36 MW                                 | Lancaster County Solid Waste Management Authority/Covanta Lancaster, Inc.            | 6,413                                 | 84,513 <sup>2</sup>                          | 40%   |

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<sup>3</sup>Upgrades underway to include all items listed to meet the November 6, 2005 Clean Air Act compliance deadline for small unit facilities

| <b>State/Plant Name/<br/>Location</b>   | <b>Design Capacity<br/>(Unit &amp; Total TPD)</b> | <b>Continuous Emissions<br/>Monitors (CEMS)</b>  | <b>Technology Type</b> | <b>Project Status/<br/>Startup Year</b> |
|---|---|--|------------------------|---|
| <b>PENNSYLVANIA (continued)</b>   |   |  |                        |   |
| Montenay Energy Resources of Montgomery County, Inc./Conshohocken                                 | 2x608=1,216                                       | CO; HCl; NO <sub>x</sub> ; O <sub>2</sub> ; SO <sub>2</sub> ; Moisture; Opacity; Temperature               | MBWW                   | OP/1991                                 |
| Montenay York Energy Resource Systems, L.L.C. (York County)/Manchester Township                   | 3x448=1,344                                       | CO; CO <sub>2</sub> ; HCl; Link; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub> ; Temperature | MBWW                   | OP/1989                                 |
| Wheelabrator Falls, Inc./Morrisville  | 2x750=1,500                                       | CO; HCl; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>                                       | MBWW                   | OP/1994                                 |
| <b>SOUTH CAROLINA</b>   |   |  |                        |   |
| Montenay Charleston RRI/Charleston County   | 2x300=600   | CO; CO <sub>2</sub> ; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>                          | MBWW                   | OP/1989                                 |
| <b>TENNESSEE</b>  |   |  |                        |   |
| Sumner County Resource Authority/Gallatin   | 2x100=200   |  | RWW                    | OP/1981                                 |
| <b>UTAH</b>   |   |  |                        |   |
| Davis Energy Recovery Facility (Wasatch Energy Systems)/Layton                                    | 2x210=420   | CO; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>  | MBRW                   | OP/1988                                 |
| <b>VIRGINIA</b>   |   |  |                        |   |
| Alexandria/Arlington Resource Recovery Facility/Alexandria  | 3x325=975   | CO; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>  | MBWW                   | OP/1988                                 |
| Hampton–NASA Steam Plant/Hampton  | 2x120=240   | CO; O <sub>2</sub> ; Opacity   | MBWW                   | OP/1980                                 |
| Harrisonburg Resource Recovery Facility/Harrisonburg  | 2x100=200   | CO; CO <sub>2</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub> ; Temperature                              | MBRW                   | OP/1982                                 |
| I-95 Energy–Resource Recovery Facility (Fairfax)/Lorton   | 4x750=3,000                                       | CO; Link; NO <sub>x</sub> ; O <sub>2</sub> ; Opacity; SO <sub>2</sub>                                      | MBWW                   | OP/1990                                 |
| Southeastern Public Service Authority of Virginia (Generates RDF for SPSA Power Plant)/Portsmouth | 3x1,000=2,000<br>(Only Use 2 Units at a Time)     | Dust Collection  | RDF–PROCESSING         | OP/1988                                 |

| APC System                       | Energy Capacity/<br>Output                  | Owner/Operator   | On-Site<br>Ferrous Recovered<br>(TPY) | Other On-Site<br>Materials Recovery<br>(TPY) | Community<br>Recycling<br>Percentage <sup>1</sup> |
|----------------------------------|---|--|---------------------------------------|--|---|
| SDA; FF; SNCR; CI                | ELE: 32 MW                                  | Montenay Montgomery Limited Partnership  | 3,634                                 | 124,696 <sup>2</sup>                         | 29%   |
| SDA; FF; CI                      | ELE: 42.5 MW                                | York County Solid Waste Authority/Montenay York Energy Resource Systems, L.L.C.      |                                       | 170,303 <sup>2</sup>                         | 53%   |
| SDA; FF; SNCR; CI                | ELE: 53 MW                                  | Wheelabrator   | 3,493                                 | 190,559 <sup>2</sup>                         | 28%   |
| SDA; ESP; CI                     | COG;<br>STM: 50,000 Lbs/Hr;<br>ELE: 13 MW   | AT&T/Montenay Charleston RRI   | 758                                   | 44,800 <sup>2</sup>                          | 36%   |
| ESP                              | COG;<br>STM: 54,000 Lbs/Hr;<br>ELE: 0.5 MW  | Sumner County & Cities of Gallatin & Hendersonville/Sumner County Resource Authority | 2,980                                 | 7,420  | 52%   |
| GSA; ESP                         | COG;<br>STM: 104,000 Lbs/Hr;<br>ELE: 1.4 MW | Wasatch Energy Systems   | 896                                   | 39,861 <sup>2</sup>                          | 52%   |
| SDA; FF; SNCR; CI                | ELE: 22 MW                                  | Covanta Alexandria/Arlington, Inc.   |                                       |  | 28%   |
| SDA; FF <sup>3</sup>             | STM: 66,000 Lbs/Hr                          | NASA & City of Hampton/<br>City of Hampton   |                                       |  | 36%   |
| DSI; FF                          | COG;<br>STM: 43,000 Lbs/Hr;<br>ELE: 2.5 MW  | City of Harrisonburg   |                                       |  | 35%   |
| SDA; FF; SNCR; CI                | ELE: 79 MW                                  | Covanta Fairfax, Inc.  | 24,264                                | 249  | 32%   |
| FF; Deodorizer<br>(Odor Control) | RDF Fuel                                    | SPSA   | 8,500                                 |  | 32%   |

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|---|---|--|---|---|
| <b>VIRGINIA (continued)</b>   |   |  |   |   |
| Southeastern Public Service Authority<br>of Virginia—Power Plant<br>(Receives RDF from SPSA)/<br>Portsmouth | 4x500=2,000                                       | CO; CO <sub>2</sub> ; HCl;<br>NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub> | RDF-SSWW                                  | OP/1988                                 |
| <b>WASHINGTON</b>   |   |  |   |   |
| Spokane Regional Solid Waste Disposal<br>Facility/Spokane   | 2x400=800   | CO <sub>2</sub> ; NO <sub>x</sub> ; O <sub>2</sub> ;<br>Opacity; SO <sub>2</sub>             | MBWW                                      | OP/1991                                 |
| <b>WISCONSIN</b>  |   |  |   |   |
| Barron County Waste-to-Energy &<br>Recycling Facility/Almena  | 2x50=100  | Opacity;<br>Temperature  | MCU                                       | OP/1986                                 |
| Xcel Energy Resource Recovery<br>Facility (La Crosse County)/<br>French Island                              | 2x251=502   | CO; Opacity; NO <sub>x</sub> ; SO <sub>2</sub>   | RDF-SSWW<br>(Co-Fired with<br>Wood Waste) | OP/1988                                 |

| APC System       | Energy Capacity/<br>Output                   | Owner/Operator               | On-Site<br>Ferrous Recovered<br>(TPY) | Other On-Site<br>Materials Recovery<br>(TPY) | Community<br>Recycling<br>Percentage <sup>1</sup> |
|------------------|--|------------------------------|---------------------------------------|--|---|
| SDA; FF          | COG;<br>STM: 25,000 Lbs/Hr;<br>ELE: 50 MW    | SPSA                         | 750                                   | 148,920 <sup>2</sup>                         | 32%   |
| SDA;FF; SNCR; CI | ELE: 26 MW                                   | City of Spokane/Wheelabrator | 10,453                                | 37,315                                       | 45%   |
| DSI; ESP; CI     | COG;<br>STM: 19,000 Lbs/Hr;<br>ELE: 0.265 MW | Barron County/ZAC, Inc.      | 1,242                                 | 1,162  | 20%   |
| DSI; FF; SNCR    | ELE: 32 MW                                   | Xcel Energy                  | 2,300                                 |  | 18%   |

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# **Energy from Waste**

## **State-of-the-Art- Report**

5<sup>th</sup> Edition  
Data 2006

This is the fifth edition of the report on waste incineration.  
The report presents a comparison of the situation in:  
Austria, Belgium, Czech Republic, Denmark, Finland,  
France, Germany, Great Britain, Hungary, Italy, Nether-  
lands, Norway, Poland, Spain, Sweden and Switzerland.

**ISWA Working group on Thermal Treatment of Waste**

### **ISWA General Secretariat**

The International Solid Waste Association

Vesterbrogade 74, 3rd floor

DK-1620 Copenhagen V

Denmark

Phone: +45 3296 1588

Fax: +45 3296 1584

e-mail: [iswa@iswa.dk](mailto:iswa@iswa.dk)

Website: [www.iswa.org](http://www.iswa.org)