

BEFESA

Befesa Zinc Aser

2006 Environmental Statement

The validated version of this document is the Spanish version of the Environmental Statement for 2006 verified and validated by Lloyd's Register Quality Assurance on March 23rd, 2007.



Certificados No.: SGI 1942018

The Integrated Management System (Quality and Environment) operating in Befesa Zinc Aser is certified, among others, by the International Standard ISO 14001:2004 and meets the requirements of Regulation (CEE) N° 761/2001, Community System of Ecomanagement and Ecoauditing.

Among the additional requirements demanded in the said Regulation, is the preparation and publication of an Environmental Statement. The content of this Environmental Statement must be validated by an independent, accredited Environmental Verifier.

The data provided in this statement are from 2006.
Classification CNAE: 37.100

1. Description of the Company's Activity.

The activity of Befesa Zinc Aser, S.A. is recovery and recycling.

Befesa Zinc Aser, owned by Abengoa, is located close to Bilbao and is the only plant in Spain for recycling of the dust generated in steelworks with electric arc furnaces, recovering the zinc and the lead that they contain.

Since 1987, the year in which our industrial began activity, we have recycled more than 1,750,000 wet tonnes of steelworks dust, recovering for various applications more than 640,000 wet tonnes of concentrates of zinc and lead –Double Leached Waelz Oxide (D-L.W.O.)-.

This activity has a double environmental benefit: on one hand it avoids the pollution caused by tipping the steelworks dust and on the other it is an

inexhaustible source for obtaining metals compared with mining extraction, consequently prolonging the pace of exhaustion of the resources of the planet.

The process of recycling and recovery as carried out in Befesa Zinc Aser is by means of two processes: one pyrometallurgical, "the Waelz process ", and the hydrometallurgical, "the Double Leaching Waelz Oxide" process. Both processes are considered as BAT (Best



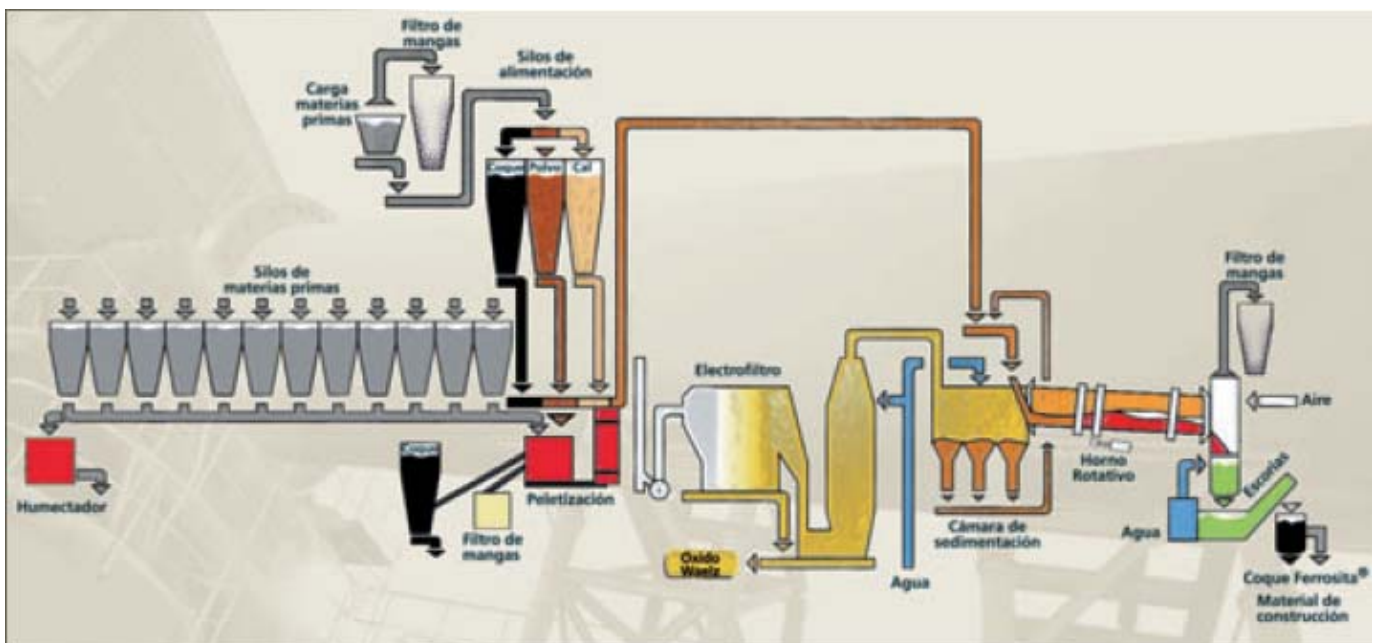
Galvanised steel zinc recycling circuit

Available Technology) in the "Reference Document of for the Best Available Technologies for Non-Ferrous Metallurgy" prepared at the request of the European Commission.

The residual dusts of the steelworks are fed into a Waelz furnace where the necessary reduction/oxidation reactions are produced to separate the heavy metals, fundamentally Zn and Pb, which are reoxidised forming the Waelz Oxide, of the rest of the elements of the steelworks dusts.

These other elements, fundamentally oxides of iron, lime and silica, give rise to non-ecotoxic inert slags which, when transformed, make up a subproduct called Ferrosite®, with a number of applications such as natural aggregate and filling material in the construction industry.

The Waelz Oxide is transported by the gaseous current that flows from the furnace to the gas leaching system, consisting of a sedimentation chamber, a conditioning tower, an electrofilter and a bag filter.

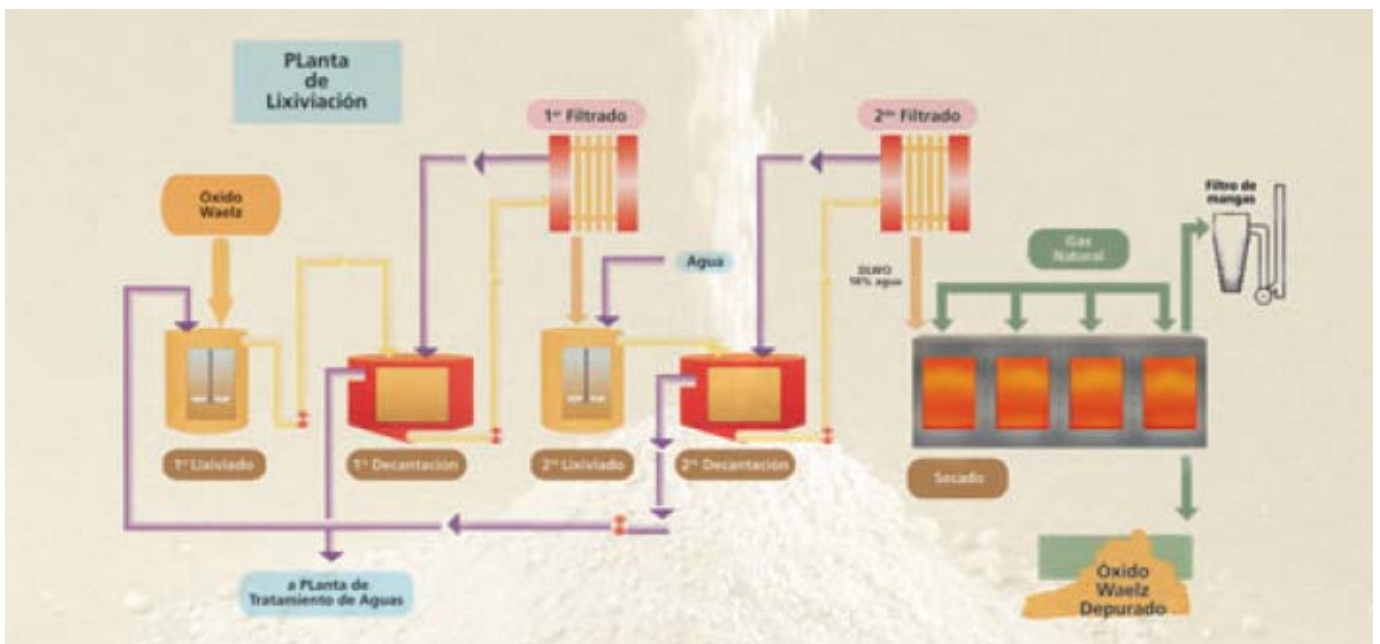


Waelz Plant
Asúa-Erandio (Vizcaya)

The leached gases are evacuated through the chimney with continuous measurement of the presence of particles, thus complying with the environmental regulations applicable to the Company.

When the W.O. has been captured, it undergoes a process of lixiviation, to eliminate the halogens (predominantly chlorides) and the alkalines that it contains.

The water used in the lixiviation process is pumped to the water treatment plant where it undergoes a physical-chemical treatment that causes the precipitation and separation of the residual metals.



Waelz Oxide Leaching Plant
Asúa-Erandio (Vizcaya)

The Waelz furnace process in Befesa Zinc Aser has a Zn recovery level of more than 90%, while the Double Leaching is capable of eliminating more than 95% of Cl content, this producing a leached Waelz Oxide.

This leached Waelz Oxide, called D-L.W.O., can be used in zinc and lead pyrometallurgical or in electrolytic zinc companies.

These requirements and the operations carried out to ensure the quality of our products, processes and services are managed through our Quality Management System with ISO 9001 certification, since 1995 by Lloyd's Register Quality Assurance.

As our activity is aimed at the conservation of natural resources and the protection of the environment, we feel that it is necessary to do it with the least possible local environmental impact.

Being aware of this necessity we decided in 1995 to introduce an Environmental Management System. On February 25th, 1997 we obtained the ISO 14.001 certification through the services of Lloyd's Register Quality Assurance.

The certificate number for both Management Systems is SGI 1942018.

Later, in June 1998, Befesa Zinc Aser voluntarily joined the Community System of Ecomanagement and Environmental Ecoauditing with the registration number ES-EU-000002.

In the framework of the Voluntary agreement for environmental improvement in the Autonomous Community of the Basque Country signed with the Department of Environment and Territorial Organisation of the Basque Government, Befesa Zinc Aser has complied with all the commitments made for 2006, particularly the following:

- The elimination of the tipping of sewage to the river through its connection to the sewer of the Water Consortium.
- Reduction in emissions by means of the installation of a bag filter in the Waelz line.

In 2006 the period of validity of this Voluntary Agreement ended.



Control Panel Closure

2. Integrated Management System.

The Integrated Environmental Management System introduced in Befesa Zinc Aser has three main objectives:

- The commitment to comply with the legal and other requirements that apply to this installation.
- To carry out our recycling activity in a manner that respects the environment, paying special attention to activities and products that could involve risks to the environment.
- Continual improvement from the environmental point of view.

These bases come from the guidelines set by our management policy and their development is to be seen in the processes identified by the company.

Each process is defined by different flows of the activities and managers who make it up as well as its input and output elements.



Management Policy

Revision nº: 2 Date: 11.04.06

The activity of **Befesa Zinc Aser, S.A. and Befesa Zinc Comercial, S.A.** is centred on the recovery of zinc and lead from the residual dusts of electric arc furnace steelworks and foundries, obtaining a quality product with high zinc and lead content.

Befesa Zinc Aser and Befesa Zinc Comercial state, with this Policy, their objective that their products, services, systems and processes should be oriented to the full satisfaction of all customers and interested parties.

This Policy is based fundamentally on the following aspects:

- The commitment to comply with all legislation and other requirements applicable to this installation in all its activities.
- The commitment to reduce the environmental impacts by means of a programme of continual improvement, in accordance with the economically viable application of the best available technology.
- The commitment to improve continually in the products and services that the market demands.
- The commitment, by each and every one of us, to meet the needs, expectations and requirements of customers and interested parties. All of us who make up this company are at the same time suppliers and customers.
- The maintenance of the Integrated Management System that has been introduced, in accordance with standards ISO 9001, ISO 14001 and the EMAS Regulation.

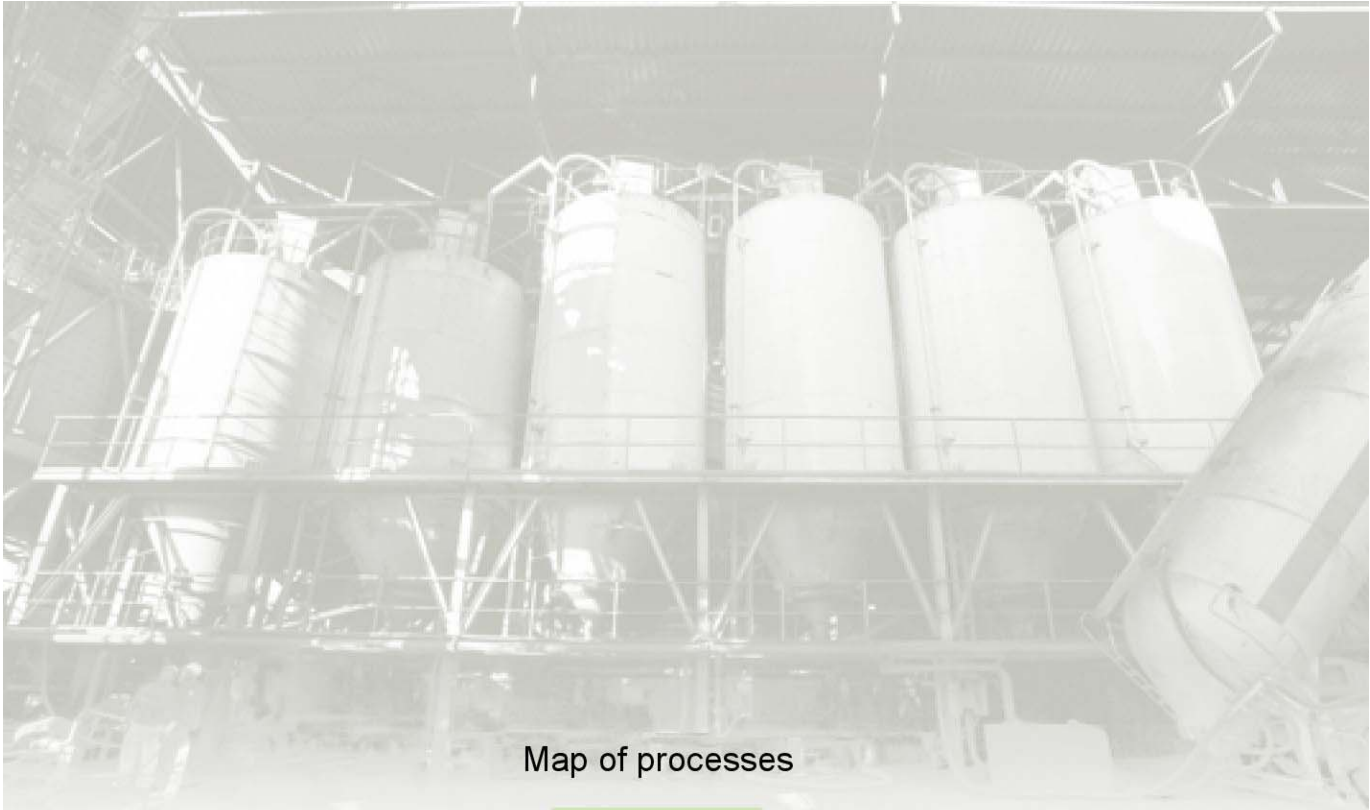
In particular Befesa Zinc Aser and Befesa Zinc Comercial undertakes to:

- ❖ Evaluate, control and reduce the level of atmospheric emissions, liquids spills, noise and polluting waste and to improve the visual impact and dust in its installations, to a reasonably possible degree, especially for new projects.
- ❖ Manage properly the use of energy, water and the movement of raw materials.
- ❖ To have and maintain emergency plans, wherever there are significant risks for health and the environment.
- ❖ Co-operate with appropriate organisations for the protection of the Environment.
- ❖ Make it possible for any member of the staff of **Befesa Zinc Aser and Befesa Zinc Comercial** to report his concerns.
- ❖ Supervise and keep in good condition the boundaries of **Befesa Zinc Aser**.
- ❖ Assign rational human and material resources for the control of the various services, systems and processes. Each and every person who makes up the company is responsible for managing these means and resources to achieve the proposed objective.

Therefore, Management will be responsible for:

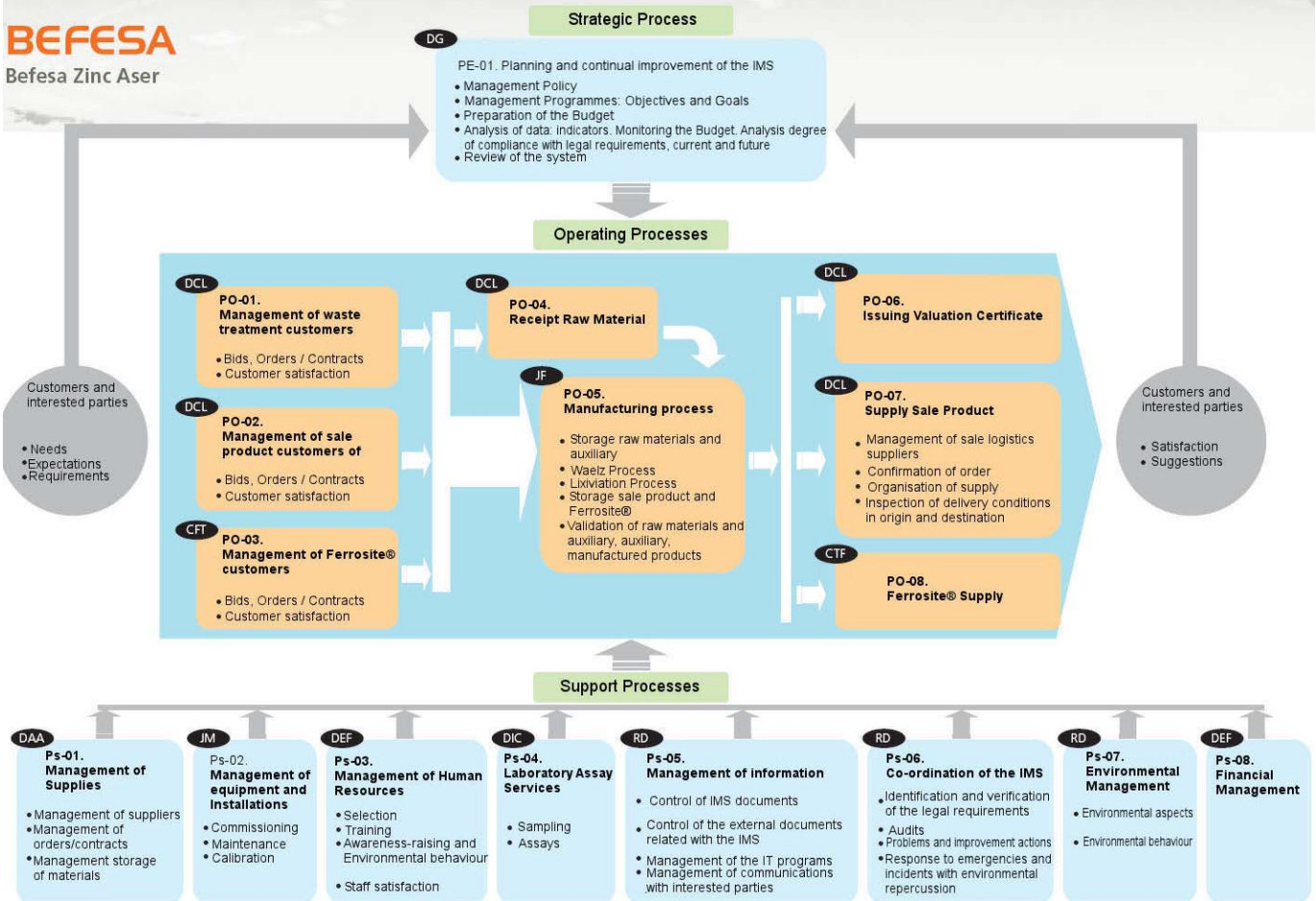
- Communicating this Policy to all employees, sub-contractors and suppliers and introducing it and implementing it at all levels of the organisation.
- Developing training plans among the employees with the aim of increasing their preparation and motivation with respect to the good development of their work in correct harmony with the environment.
- Communicating to the organisation the importance of meeting both the customer's requirements and the legal and regulatory requirements.
- Providing suitable information about the manufactured products and drawing up Environmental Reports to be published annually, in setting out the Policy and the objectives.

It is necessary therefore, for every single one of us who work in **Befesa Zinc Aser and Befesa Zinc Comercial** to identify with the policy set out here. As a consequence, all the work force of **Befesa Zinc Aser and Befesa Zinc Comercial** must take an active part to the limits of their possibilities in the Integrated Management System.



Map of processes

BEFESA
Befesa Zinc Aser



3. Summary of Objectives and Programmes 2006.

Every year the Management Committee selects a series of objectives and goals with the aim of advancing towards continual improvement in our installation.

During 2006 work has been done on ten improvement objectives. The people in charge of each of them drew up specific Objectives Files to reach the associated goals.

Below we describe the improvement objectives of that work that has been done in 2006 and a summary of their corresponding environmental programmes.

- **50% reduction in losses of material in the pelletisation trommel**

All equipment has been replaced in accordance with the needs of the new furnace, but once installed it was found that their capacity is not sufficient for a feed of 30 tonnes/hour, so it is necessary to install equipment with greater capacity. As a result the period for completing this objective has been extended to 2007.

- **Adaptation to the IPPC standard.**

The application for Environmental Integrated Authorisation was published in the Official Gazette of the Basque Country on February 3rd, 2006 for public presentation.

In November the Authorisation Proposal was received and since then work has been done on drawing up the claims. In December it was not possible to close this objective as the pace is being set by the public authorities.

- **Reduction in emission of solid particles in the chimney of the Waelz furnace.**

The bag filter has been put in place and connected to the process as well as some measurements in the chimney to verify its efficacy. The emissions of particles in the chimney of the Waelz furnace with the new filter installed is normally <5 mg/Nm³. Objective closed satisfactorily.

- **Reduction in the volume of tap water tipped to the public system.**

In June 2006 the connection was made to the Internal Network of the Water Consortium. Objective closed satisfactorily.



Pelletisation Trommel

• Improvement in operational control and installations.

The operational improvement of the process has been very important and appreciable with each and every one of the set goals being achieved.

Goal 1: 50% decrease in the number of jams in the alimentation to the washer dryer.

The washer dryer has been replaced by an infrared drying system of the DLWO up to production, with the elimination of the feed pipe and consequently the jams in it. Goal closed satisfactorily.

Indicator: Number of jams per year in the feed to the dryer.

Target value: 0 Achieved value: 0

Goal 2: Modernisation of the current plant control system.

This goal has been achieved with the development of the engineering of the plant control system for the network of offmatics, data filing and peripheral PLCs. Goal closed satisfactorily.

Indicator: Plant control IT system.

Target value: 1 Achieved value: 1

Goal 3: Assuring 100% storage capacity of rainwater for use in process.

This goal has been achieved with the installation of a new sedimentation box that has improved the operability of the rainwater collection system as well as a system for quantifying the consumption of this water in process. Goal closed satisfactorily.

Indicator: Amount of water collected and used in process.

Target value: 100%
Achieved value: 100%

Goal 4: 80% decrease with respect to 2004 of the number of stoppages of the bag filter of the Waelz furnace.

This goal has been achieved by quantifying the decrease in the number of stoppages of the bag filter of the Waelz furnace. Goal closed satisfactorily.

Indicator: Percentage of stoppages of the bag filter with respect to the previous year.

Target value: $\leq 20\%$ Achieved value: 0%

Goal 5: Elimination of the slag cooling tower.

The cooling tower has been uninstalled and deregistered in the Registry of Industrial Installations. Goal closed satisfactorily.

Indicator: Number of cooling towers installed.

Target value: 0 Achieved value: 0

Goal 6: Increase in the number of plant control equipment.

The equipment installed in the Scada control system. In total 15 new equipment items have been installed. Goal closed satisfactorily.

Indicator: Number of new control equipment items installed.

Target value: 15 Achieved value: 15

With the achievement of these 6 goals, the objective was closed satisfactorily.



Infrared dryer.

• Increase in raw material treatment capacity.

Installation and commissioning have been completed on the new large Waelz furnace (4.4 x 65 m.) awaiting verification, during 2007, of the increased capacity.

• Reduction in diffuse dust emissions.

Of the 3 goals that make up this objective, 2 on which work has been done are still outstanding:

Goal 2: To eliminate the external diffuse emission of the finished product during loading on to lorries.

As expected, at the start of 2006, work was completed on mounting the access doors to the lorry loading shed for the finished product. Goal closed satisfactorily.

Indicator: Number of lorries loaded outdoors.

Target value: 0 Achieved value: 0

Goal 3: To eliminate the diffuse emissions in the feed pipe of the washer dryer.

The washer dryer has been replaced by an infrared drying system of the DLWO up to production, with the elimination of the feed pipe and consequently the jams in it. Goal closed satisfactorily.

Indicator: Quantity of material per day collected in the areas of influence of the dryer.

Target value: 0 Achieved value: 0



New Waelz furnace



Scada Control System



New Waelz furnace

• **Reduction of spillages material to the soil.**

This objective was closed satisfactorily with the achievement of goal 2:

Goal 2: 50% reduction in spillages of product in the transport system of the Waelz Oxide.

All the product (D-L.W.O.) transport to the finished product store has been replaced. To that end a new infrared dryer was installed that discharges directly in the product store, thus eliminating the intermediate store and the transfers of material by spade between the two stores. Goal closed satisfactorily.

Indicator: Quantity of material per day (raw material and product) collected in the areas affected by the objective.

Target value: <50 kg/day
Achieved value: 0 kg/day

• **Reduction of emissions in the process chimneys caused by power outage.**

To complete and finalise the installation of an auxiliary generator, an emergency start-up sequence has been installed and implemented in the operational system of the plant that facilitates operative intervention in case of power outage, achieving the elimination of emissions in the process chimney of when there is a power outage. Objective closed satisfactorily.

Indicator: Annual emissions in the process chimneys caused by power outage.

Target value: 0 Achieved value: 0

• **Modernisation of the gas cooling process of the Waelz furnace.**

A spillback water cooling system has been assembled and put into operation. Its operability is expected to be verified during 2007.



Lorry loading shed

4. Environmental Aspects.

The reason for drawing up a register of significant environmental aspects is to identify the main areas of work so as to minimise the environmental impact of the Company, to ensure the continual improvement and the awareness-raising and training of the work force.

A new system has been introduced for identifying and evaluating the environmental aspects, entering them in a data base. The new system identifies the aspects by process/activity. The identification includes direct and indirect aspects, as well as normal and abnormal operational situations, incidents and emergencies.

The new management system for environmental aspects has brought about a change in the criteria and levels of importance of the environmental aspects.

The criteria applied in Befesa Zinc Aser to assess the significance of the environmental aspects of incidence and emergency situations are:

- Probability (prevention measures and level of exposure)
- Seriousness

The criteria applied in Befesa Zinc Aser to assess the significance of the environmental aspects of normal and abnormal operating situations are:

- Magnitude/Frequency
- Nature
- Closeness to limits
- Extent/Scope/Reversibility

The significant direct environmental aspects resulting from the assessment of all the environmental aspects in 2006 are as follows:

a) Normal operating situations

1. Consumption of energy resources. Coke and anthracite.

The significance of this aspect is due to the significant quantity consumed and to its nature as an energy resource that is hard to reverse. However, it is an essential resource for the operation of the production process and its control is adjusted to the real needs of the same. For that reason, it is not necessary to set any objective for improvement, although an objective has been set for maintenance of the level of consumption per quantity of raw material treated in the furnace.

2. Consumption of natural resources. Tap water.

The significance of this aspect comes principally from the significant increase in its consumption compared to the previous year.

This increased consumption was due to considerable increase in contract staff who have been working in company premises during the operations before, during and after the change of furnace and complementary activities. That meant a much higher consumption of tap water for the hygiene of these personnel. Taking into account that in 2007 the contract workers who will use the company premises will be similar to years before 2006, it is estimated that consumption will return to normal in its usual values. So it is not thought necessary to set an improvement objective.

3. Spillage of dust to own land.

This aspect is significant because the transport and storage of process materials are done principally in bulk. That generates the spillage of dust to own land and its dispersion within the plant by the vehicles used for transport in the interior of the plant. Its quantification is difficult to decide. However, this aspect is managed with minimisation and prevention practices such as periodical cleaning with a sweeping machine of the area used by vehicles and the flooring of all storage and transit areas. These management practices are so considered appropriate and thus it is not thought necessary to set a specific improvement objective. In any event, this aspect will be affected positively with the achievement of other objectives set out below.

4. Dispersion of dust. Outdoors.

The significance of this aspect is due principally to the dispersion of dust in the pelletisation zone (trommel). It is hard to quantify. An improvement objective has been set to minimise this aspect: to improve the quality of the air in the plant, reducing the diffuse emissions in loading area originating from various equipment and activities.

5. Generation of hazardous waste.

Non-metallic packaging and containers that have contained hazardous waste.

This aspect is significant due to the large quantity of this waste that is generated and the increase in its generation over the previous year. The main origin of this waste is big-bags and plastics used for the transport of the raw materials received. An objective has been set to minimise it: reducing the quantity of hazardous waste produced, especially the plastics and big-bags.

b) Abnormal operating situations

6. Generation of hazardous waste. Asbestos

This aspect is significant because of the quantity of this waste generated in 2006 and the increase in its generation compared to the previous year. The cause of the generation of this waste is the elimination of the fibre-cement roofs of the Waelz furnace building.

This is waste that is generated only when it is removed from premises that contain it and in these cases it is delivered to an authorised handler. Considering its sporadic generation and its delivery to an authorised handler, it is not thought necessary to set any improvement objective.

7. Generation of hazardous waste. Filter bags.

The significance of this aspect is because it is not quantified or managed specifically but together with the non-metallic packaging and containers that have contained hazardous waste. Therefore, the treatment of this aspect is the same as for the said waste

c) Incidence operating situations

8. Dispersion of dust. Under cover.

This aspect is significant because the prevention measures are improvable and the level of exposure is continual. For that reason an improvement objective has been set: to improve the quality of the air in the plant, reducing the diffuse emissions in the loading area originating from various equipment and activities.

No identified indirect environmental aspect proved significant after its evaluation. In any event, management practices are being performed on some of them.

5. Objectives for 2007.

The improvement objectives initiated in previous years that are still running in 2007 according to deadlines are:

Objective	Deadline
50% reduction in losses of material in the pelletisation trommel	2007
Increase in raw material treatment capacity	2007
Adaptation to the IPPC standard	2007
Modernisation of the furnace gases cooling process	2007

The improvement objectives that require special actions and that have been approved to start in 2007 are:

Objective	Deadline	Reason for selection
Reduce the quantity of hazardous waste produced. Reduce by 25% the quantity of plastics and big-bags compared with the mean for 2005 and 2006.	2008	Significant environmental aspect
Increase the actual capture of rainwater and its use in the lixiviation process. Increase the number of rainwater capture points to 7.	2007	Improvement in environmental behaviour
Improvement in the operational control and installations by replacement and improvement of certain equipment. Renewal of two installations and control systems.	2007	Improvement in process
To improve the quality of the air in the plant, reducing the diffuse emissions in the loading area originating from various equipment and activities. Reduce by 50% the number of fugitive emission points.	2008	Significant environmental aspect
Adaptation to all the requirements of the Integrated Environmental Authorisation.	2008	Legislative compliance
Elimination of the focus of emission of slag, incorporating this emission into process.	2008	Improvement in environmental behaviour
Search for new commercial applications for the slag (Ferrosita®). To achieve at least one new technically validated application.	2008	Improvement of product
To obtain a DLWO product with a humidity of less than 13.5%.	2008	Improvement of product

Also, other maintenance or improvement objectives have been set in the process indicators that do not require special actions of entity for which reason they are not shown as objectives in the management programme. These indicator objectives are shown in the data base of the Integrated Management System.

6. Environmental behaviour of the Company.

a) Emission to the atmosphere.

During 2006 the new process situation generated by the change of the Waelz furnace meant, among other things, the elimination of the lixiviation chimney of in June 2006. So, at the end of 2006, Befesa Zinc Aser has a chimney in the Waelz plant that incorporates an opacimeter that indicates and continuously records the opacity and the quantity of solid particles emitted to the atmosphere.

The leaching system of the Waelz plant consists of a cooling tower, an electrostatic filter and a new bag filter with incorporation of additives.

Samples have been taken of the emissions in each chimney by an approved laboratory, analysing the compounds required by the Toxic and Hazardous Waste Managing Authorisation (Nº EU/2/001-90) of Befesa Zinc Aser. The reports of these measurements are sent periodically to the Basque Government.

The following tables show the values measured in 2006 of the parameters limited in the Authorisation and comparison with maximum permitted limit values.

It can be seen that the limits set for all parameters have been met.

Waelz plant chimney			Values measured 2006					
Parameter	Units	Limit Value	1	2	3	4	5	6
Solid particles	mg/m ³ N	50	<5	<5	<5	<5	<5	<5
SO ₂	mg/m ³ N	300	<29	<29	<29	<29	<29	<29
Pb+Cr+Cu+Mn	mg/m ³ N	5	0.031	0.010	0.018	0.134	0.143	0.157
Ni+As	mg/m ³ N	1.00	0.000	0.000	0.000	0.000	0.000	0.000
Cd+Hg	mg/m ³ N	0.20	0.000	0.000	0.000	0.000	0.000	0.000
Chimney of lixiviation plant			Values measured 2006					
Parameter	Units	Limit Value	1	2	3			
Solid particles	mg/m ³ N	50	<5	5,0	7,0			
SO ₂	mg/m ³ N	300	<29	<29	<29			
Pb+Cr+Cu+Mn	mg/m ³ N	5	0.074	0.096	0.125			
Ni+As	mg/m ³ N	1.000	0.006	0.000	0.000			
Cd+Hg	mg/m ³ N	0.200	0.000	0.000	0.000			

Notes: Considerations for the values and calculations

Gases Leaching System



The values shown refer to data obtained in the measurements made by the approved laboratory.

Following one of the criteria set in the Monitoring BREF "Reference Document on the General Principles on Monitoring" published in July 2003, the values below the detection limit were taken as 0 in performing calculations with them.

The annual average is made only considering the measured values.

The graphs below show the evolution of the annual averages for the parameters in which their values have some relevance.

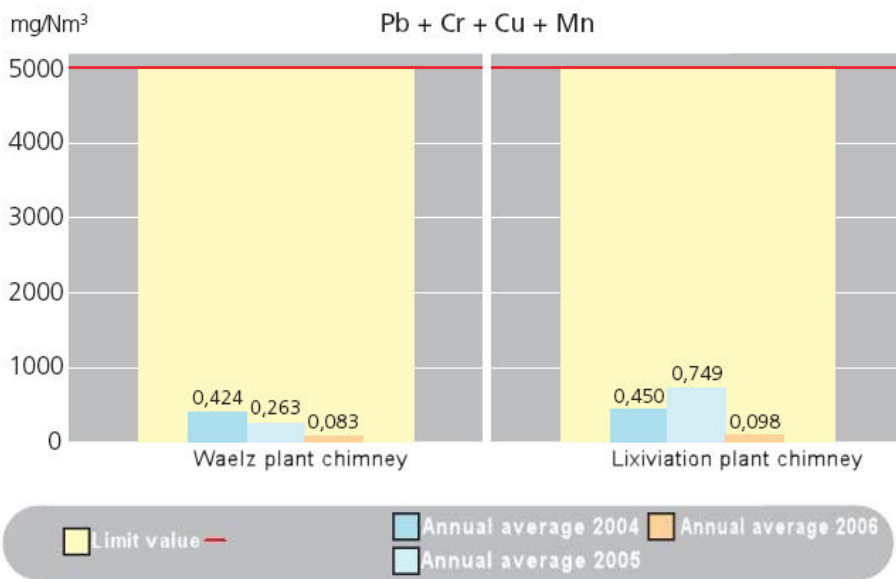
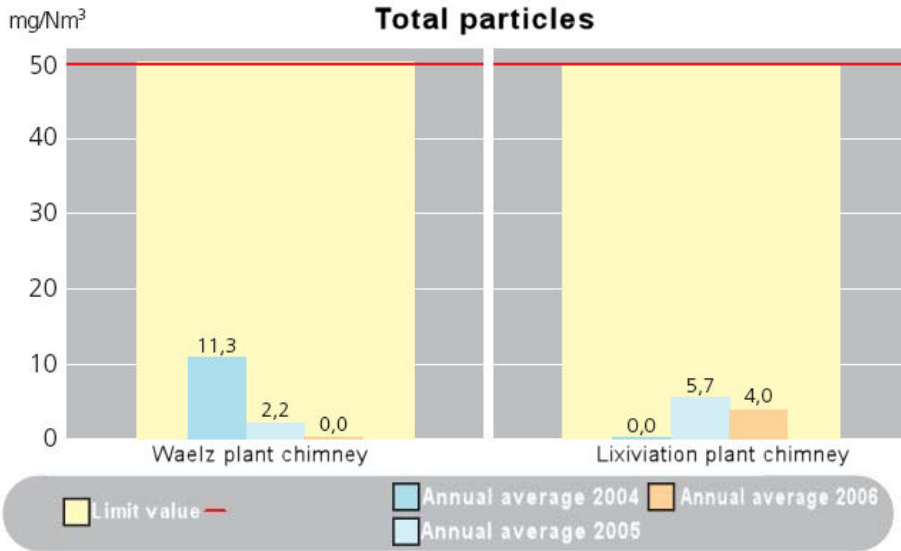
b) Emissions to Asúa Estuary.

The lixiviation plant of generated a spillage of 147,014 m³ in 2006. These waters underwent a process of physical-chemical depuration in the Water Treatment Plant of Befesa Zinc Aser, where the metallic compounds that they might contain are depurate.

Every quarter samples are taken of this water for analysis in an approved laboratory, analysing the required by the Emissions Water Permit of Befesa Zinc Aser. The reports of these measurements are sent periodically to the Basque Government.

Also, the plan for monitoring and control of the receiving medium runs every quarter.

The following table shows the values measured in 2006 of the parameters limited in the Authorisation and comparison with maximum permitted limit values.



The graphs show very low values with respect to the limit set with slight fluctuations that are considered normal bearing in mind such a low level emission. However, it is important to mention the decrease in particles and metals observed in the chimney of the Waelz plant due to the putting into operation of a new bag filter.

Values measured 2006						
Parameter	Units	Limit Value	1	2	3	4
pH	-					
Coarse floating solids	-	Absence	Absence	Absence	Absence	Absence
Floating oils and fats	-	Absence	Absence	Absence	Absence	Absence
Colour (dilution 1/20)	-	Inappreciable	Inappreciable	Inappreciable	Inappreciable	Inappreciable
Sedimentary Solids	ml/l	0.5	<0.1	<0.1	<0.1	<0.1
Solids in Suspension	mg/l	80	43.0	20.0	12.0	26.0
Lead	mg/l	0.2	0.19	<0.05	0.17	<0.05
Zinc	mg/l	3	0.72	<0.05	<0.05	<0.05
Aluminium	mg/l	1	0.40	0.07	<0.05	0.06
Arsenic	mg/l	0.5	0.09	<0.05	0.22	0.26
Cadmium	mg/l	0.2	<0.02	<0.02	<0.02	<0.05
Total Chromium	mg/l	0.2	<0.05	<0.05	<0.15	<0.05
Copper	mg/l	0.2	<0.05	<0.05	<0.05	<0.05
Iron	mg/l	2	<0.05	<0.05	<0.05	<0.05
Manganese	mg/l	2	<0.05	<0.05	<0.05	<0.05
Mercury	mg/l	0.05	<0.005	<0.005	<0.005	<0.005
Nickel	mg/l	2	<0.05	<0.05	<0.05	<0.05

It can be seen that the limits set for all the parameters have been met.

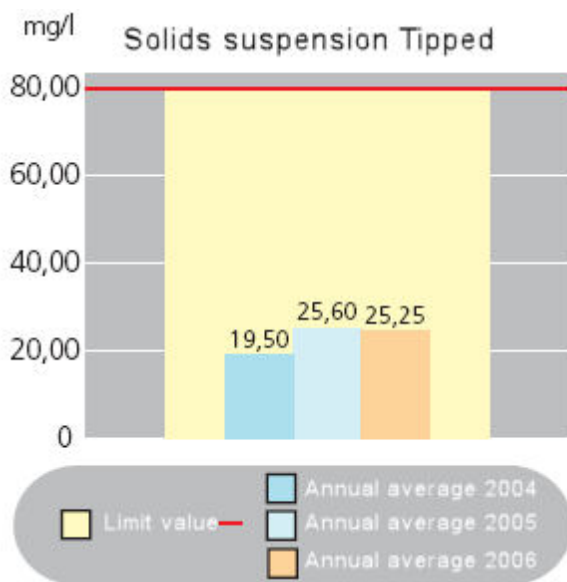
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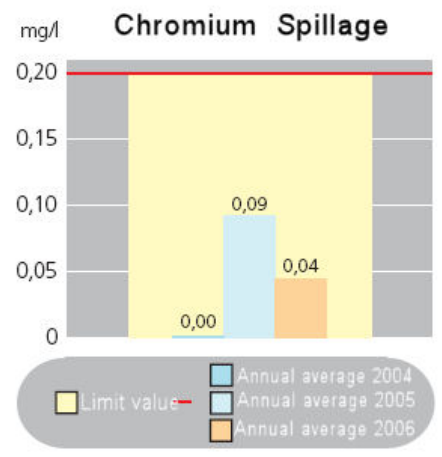
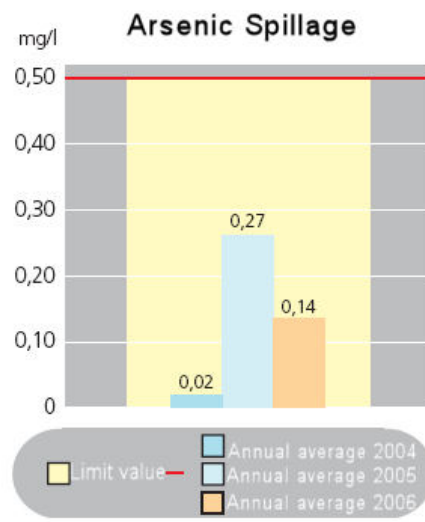
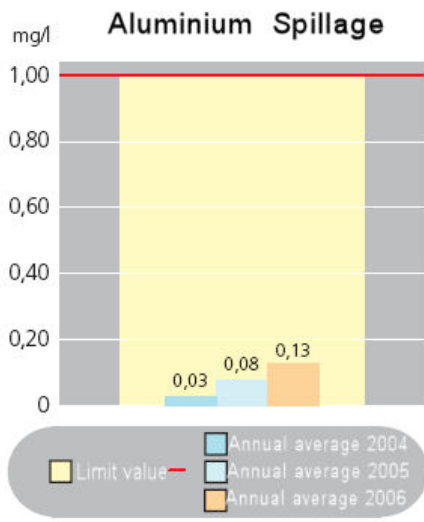
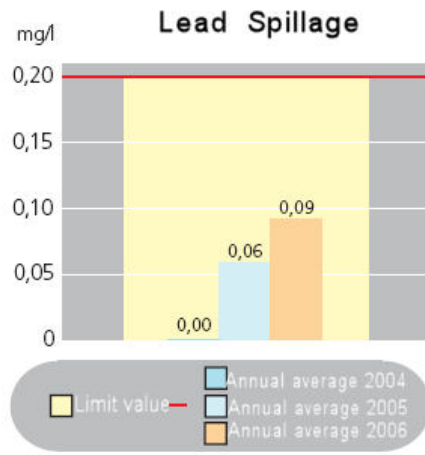
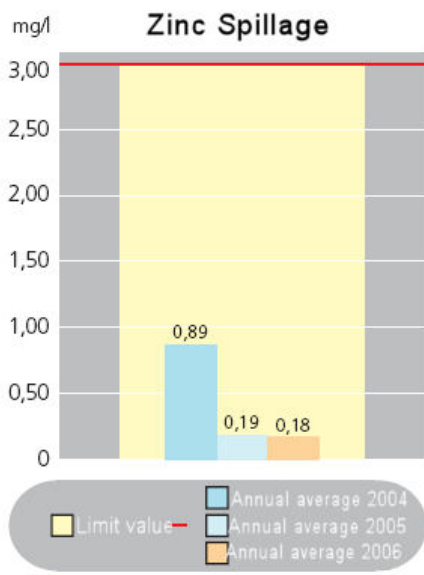
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The annual average is made only considering the measured values.

The graph shows values of solids in suspension stabilised around 20-25 mg/l that are considered normal and characteristic of the effluent treatment installations with which Befesa Zinc operates Aser (Densadeg Decanter with dosification of flocculant-coagulant).





The graphs show values with slight fluctuations that are considered normal and characteristic of the lixiviation process bearing in mind the nature of our spillage. That is to say, the spillage present these elements principally as cations, but a part may be in the form of anions, which makes it impossible to precipitate them with sulfur. So, the variability of these elements, within a small range, is normal.



Recycling paper and cardboard

Management of generated waste.

a) Inert industrial waste.

Befesa Zinc Aser is registered in the Registry of Inert Industrial Residues Producers.

The RAU (solid waste, similar to that produced within an urban environment) are selectively collected in a container and are sent to a controlled tip by an Authorised Handler.

The paper and cardboard are selectively deposited in containers special and are collected and recycled by an authorised company.

The scrap metals are taken and classified at the scrap metal selection point, from where they are sent to plants for recycling.

The sporadically generated fire brick is sent to an authorised manager.

The toners and cartridges from printers and photocopiers are stored in a specific place and are sent to an authorised manager for recovery.

b) Hazardous waste.

During 2006 the integrated management of all hazardous waste was consolidated with a single authorised manager, except where the characteristics prevent this, in which case it is delivered to an appropriate authorised manager.

For the first time, in 2006, four new types of waste were sent to an authorised manager, waste plant, oil contaminated with PCBs, acid dissolution of chemical cleaning and fibre-cement, making a total of 24 kinds of hazardous waste classified.



Laboratory.

Evolution of the wastes managed with external bodies since 2004:

Non-Hazardous Wastes	2004	2005	2006
RAU (solid waste - similar to that produced within an urban environment) in container (m ³)	150	220	350
Paper and cardboard (kg.)	1.820	1.600	1.480
Scrap metal (Mt.)	50	96	326
Refractory brick (Mt.)	0	0	30
Toner and cartridges (units)	24	33	21

Hazardous Wastes	2004	2005	2006
Used oil (kg.)	360	911	440
Fluorescent tubes (kg.)	40	50	83
Filters and hoses with oil (kg.)	92	165	152
Gloves and cloths with oil and grease (kg.)	0	47	86
Chemical laboratory wastes (kg.)*	1,102	1,187	1,023.5
Empty paint cans (kg.)	70	271	331
Big-bags and plastics (kg.)	37,120	99,660	122,320
Used diesel (kg.)	0	68	169
WEEE (kg.) (waste from electric and electronic equipment)	0	438	1,338
Paint (kg.)	0	0	89
Oil contaminated with PCBs (kg.)	0	0	1,880
Hydrochloric acid (kg.)	0	0	2,040
Fibre-cement (kg.)	0	0	7,640

Note: The figures expressed in volume are approximate depending on the degree of filling of the containers.

* The chemical laboratory wastes are stored and classified in various different types.

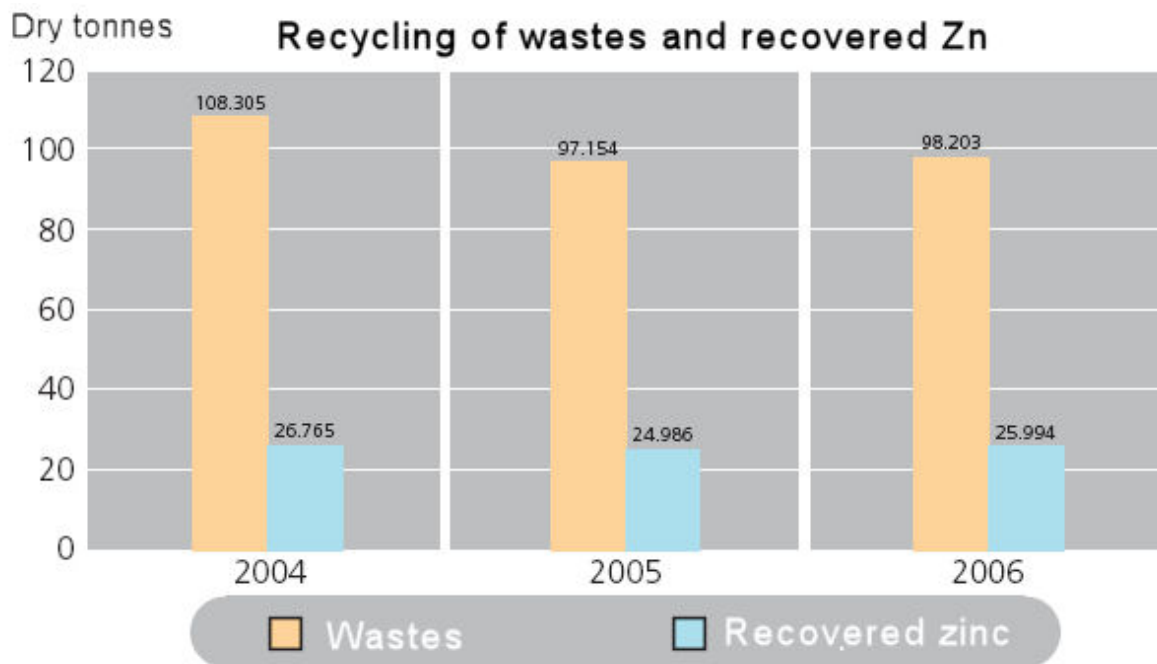
Other Environmental data.

a) Recycling of steelworks dust for recovery of Zn and Pb.

The residual dust generated in the electric arc steelworks (EAF dust) with high metal contents, fundamentally Zn, Fe and Pb, is catalogued as hazardous waste for the environment by the legislations of all developed countries, because in natural conditions its lixiviates solubilise heavy metals.

The main motivation of Befesa Zinc Aser is to recover these metals (principally Zn) from these wastes for reincorporation to the market, when otherwise they would have to be extracted from natural mine resources.

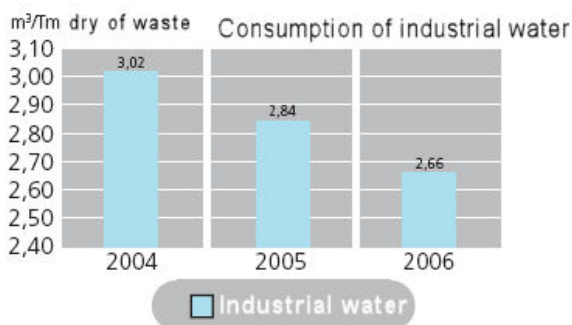
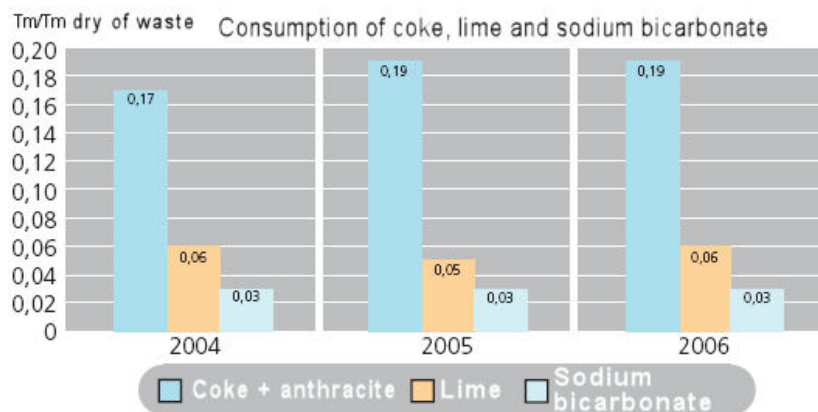
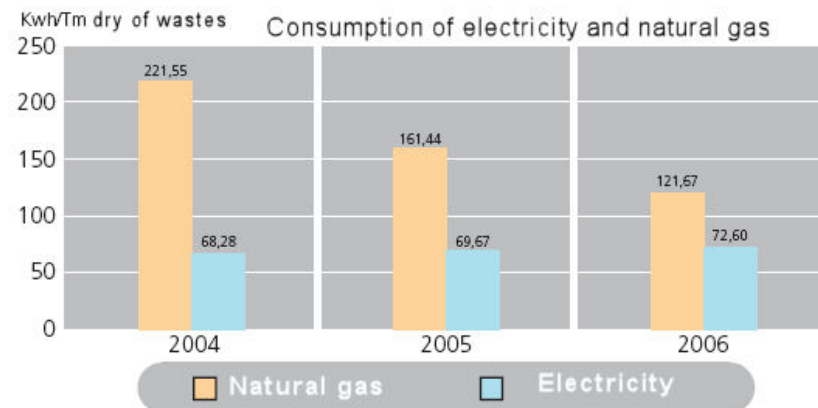
Below is an evolution of the last three years in the treatment of wastes and recovered Zn.



It is important to point out that the Zn content in the wastes is variable for which reason an increase in the quantity of waste recycled does not always mean an increase in recovered Zn, or vice versa.

b) Consumption of auxiliary materials, energy and water.

Below are shown the relative consumptions (quantity per MT. of waste) of the principal resources used in the production process for the last three years.



The increase in the specific consumption of electricity is basically due to the introduction of new equipment and auxiliary installations, where consumption is independent of the quantity of waste treated in the process. For example, the new depuration system of gases or treatment of the tipping.

However, slight fluctuations in the specific consumptions in the process are considered normal due to variability with regard to their elements contained in the wastes to be recovered.

The consumption of coke and/or anthracite depends on the chemical composition of elements contained in the wastes, especially Zn and Fe.

The consumption of lime depends of the basicity of the wastes treated, i.e., on the quantity of Ca, Si and Mg that they contain.

Thus, slight fluctuations in the specific consumptions in the process are considered normal due to the variability of the chemical composition of the wastes that are received.

The specific consumption of industrial water has been reduced, among other factors, because of the collection and use of rain and cleaning water for its use in process.

7. Complaints and Claims.

During this year one verbal complaint was received from a customer. The complaint referred to the appearance of metal carcasses in a batch of Ferrosita. The causes were assessed and it has been decided to initiate an improvement action.

8. Audits.

Auditing is a key element in verifying both the validity of the data that the various departments obtain over the year, and of the processes, procedures and instructions designed to lead to proper management.

When in the course of the audits Problems are detected with the Integrated Management System, Solutions and/or Corrective Actions are activated to resolve these situations.

Integrated audits of the system were carried out in all the processes between December 2006 and January 2007. In them 15 findings were identified.

The internal auditing programme has been completed satisfactorily though with slight deviations fundamentally due to the non-coincidence of dates between auditor and auditees.

Befesa Zinc Aser has an Emergencies and Incidents Plan with environmental repercussion as well as the Instructions for Action in response to these events. In November 2006 fire evacuation practices were held.

9. Environmental Legislation.

The Company has hired a service for identification, supply and updating of legal texts every quarter.

With this information the new requirements or their modifications are found and legislative data base is updated with the requirements applicable to the Company.

10. Training and Co-operation with Environmental Organisations.

During 2006 33 training actions took place with the participation of 110 attendees and a total of 1,252 hours of training.

Among the training activities those with reference to the environment were:

- Internal Auditor of Environment.
- Integrated Environmental Authorisation
- Sustainability Reports.
- Drawing up the Annual Report of the Safety and Security Director.

The training plan for 2007 was approved with at least 26 training activities for 39 attendees, totalling 1,568 hours.



Evacuation practice at Befesa Zinc Aser

Furthermore, Befesa Zinc Aser co-operates actively with numerous environmental bodies.

Of the various Associations that work on behalf of the environment and in which the Company participates directly, we can mention:

Asegre: "Association of Management Companies of Special Wastes and Resources". Brings together companies in Spain whose activity is the management of hazardous wastes.

Aclima: "Cluster Association of Environment Industries of Euskadi". Brings together companies and institutions in the Basque Country whose aim is carrying out actions that it considers appropriate for the improvement of the competitiveness of the Basque eco-industry and related industries.

Environmental information is received through these Associations. This information is classified and distributed among the staff concerned.

In Befesa Zinc Aser in 2006 visits were received from the School of Engineers of Bilbao and the University of Deusto, among others.

11. Next Environmental Statement.

This Environmental Statement is intended to inform the collaborators, public authorities, customers, suppliers, media and neighbours about our Management Policy and also to propose a constructive dialogue.

This Environmental Statement will be valid until March 2008.



Students visiting Befesa Zinc Aser

12. Plan of the Installations.



Approximate scale: 1:1,500

Glossary:

IPPC: Directive for the Prevention and the Integrated Control of Pollution

O.W.: Waelz Oxide

D-L.W.O.: Leached Waelz Oxide

Zn: Zinc

Pb: Lead

Cl: Chlorine

SO₂: Sulfur dioxide

Cr: Chromium

Cu: Copper

Mn: Manganese

Ni: Nickel

As: Arsenic

Cd: Cadmium

Hg: Mercury

Fe: Iron

Se: Selenium

Al: Aluminium

Cr (VI): Hexavalent chromium

pH: used to measure basicity or acidity

D.Q.O.: Chemical Demand for Oxygen

BREF: BAT Reference Best Available Techniques



If you wish to know more about Befesa Zinc Aser and its products consult our web site www.befesa.es If you require additional information in the future please contact Ms Sofia Barrenechea, Befesa Zinc Aser External Relations, on telephone: +34 94 4535030, fax: +34 94 4533380 or e-mail: sofia.barrenechea@befesa.abengoa.com



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