

# Environmental Declaration 2008

This document is the Environmental Declaration of Befesa Escorias Salinas, S.A. for the year 2008. It was prepared taking into account the requirements of the ISO14001:2004 Environmental Management Standards and Regulation 761/2001 of the European Union Eco-Management and Audit Scheme (EMAS). It is a public document validated by Bureau Veritas Certification, SAU, an ENAC-accredited environmental verifier whose registration number is ES-V-0003 and whose headquarters are at Calle Valportillo Primera , 22-24, Edificio Caoba- P.I. La Granja, 28108 Alcobendas (Madrid, Spain).

The Environmental Declaration now being submitted has a validity of 12 months, with the following statement being validated in May 2010.

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# Index

1. Description of the registration of the organization in the EMAS
  - 1.1. European Union Regulation N 761/2001
  - 1.2. Environmental Declaration
  - 1.3. Adhesion of Befesa Escorias Salinas, S.A. to the system
2. Location and site
3. Description of activity
4. Integrated Occupational Risk, Environmental and Quality Control System
5. Significant environmental aspects of the Company
  - 5.1. Air Emissions
    - Atmospheric impact
    - Measures implemented for the prevention, reduction and control of atmospheric emissions
  - 5.2. Noise
  - 5.3. Discharges into Water
    - Water quality
    - Measures implemented for the prevention, reduction and control of spillages
  - 5.4. Waste generation
    - Measures implemented for the prevention, reduction and control of generated waste
  - 5.5. Indirect environmental aspects
6. Non-significant environmental aspects
  - 6.1 Water consumption
  - 6.2 Power consumption
  - 6.3 Raw materials
  - 6.4 Consumption of additives
  - 6.5 Waste generation
7. Accident prevention
8. Technology used and comparisons with the best available implementation techniques
9. Environmental targets 2008
10. Environmental targets 2008
11. Other relevant activities in the field of environment
12. Complaints and allegations
13. Next environmental declaration

## **1. Description of the registration of the organization in the EMAS**

### **1.1 European Union Regulation N 761/2001**

Regulation No 761/2001 (which repealed previous Regulation No 1836/93) on the Eco-Audit or known by its acronym in English, EMAS (Environmental Management Audit Scheme) is a system that enables organizations to voluntarily join to a community environmental management and audit system.

This regulation has three core commitments:

- Internal control of environmental impacts of the process and its corresponding registration under core compliance with applicable environmental legislation.
- A continuing reduction in such impacts, defining and publishing the objectives to be reached and the actions to be taken, as well as control measures and results through continuous environmental audits.
- Commitment to total transparency towards society and other organizations.

### **1.2 Environmental Statement**

It is an essential element of the system, since it offers society environmental data about the company:

- Consumption of raw materials, water, electricity, fuel, emissions, effluents, etc.
- The company's environmental policy, ensuring compliance with applicable rules and in turn a commitment to continuous improvement based on measurable objectives.
- Validation of the system's audit and compliance with regulations, all carried out through an authorized verifier.

In short, to make society aware of our business, provide vital data and ensure our company's compliance of environmental standards.

### **1.3 Adhesion of Befesa Escorias Salinas, S.A. to the system**

According to the Order of 17<sup>th</sup> December 2008, the Directorate General for Environmental Protection and Planning of the Castilla Leon Regional Government's Ministry of the Environment has registered Befesa Escorias Salinas in the Registry of Centres adhering to the Eco-Management and Audit Scheme (EMAS), with registration number ES-000028-CYL.

Befesa Escorias Salinas S.A. conducts its activities in a way that respects the environment.

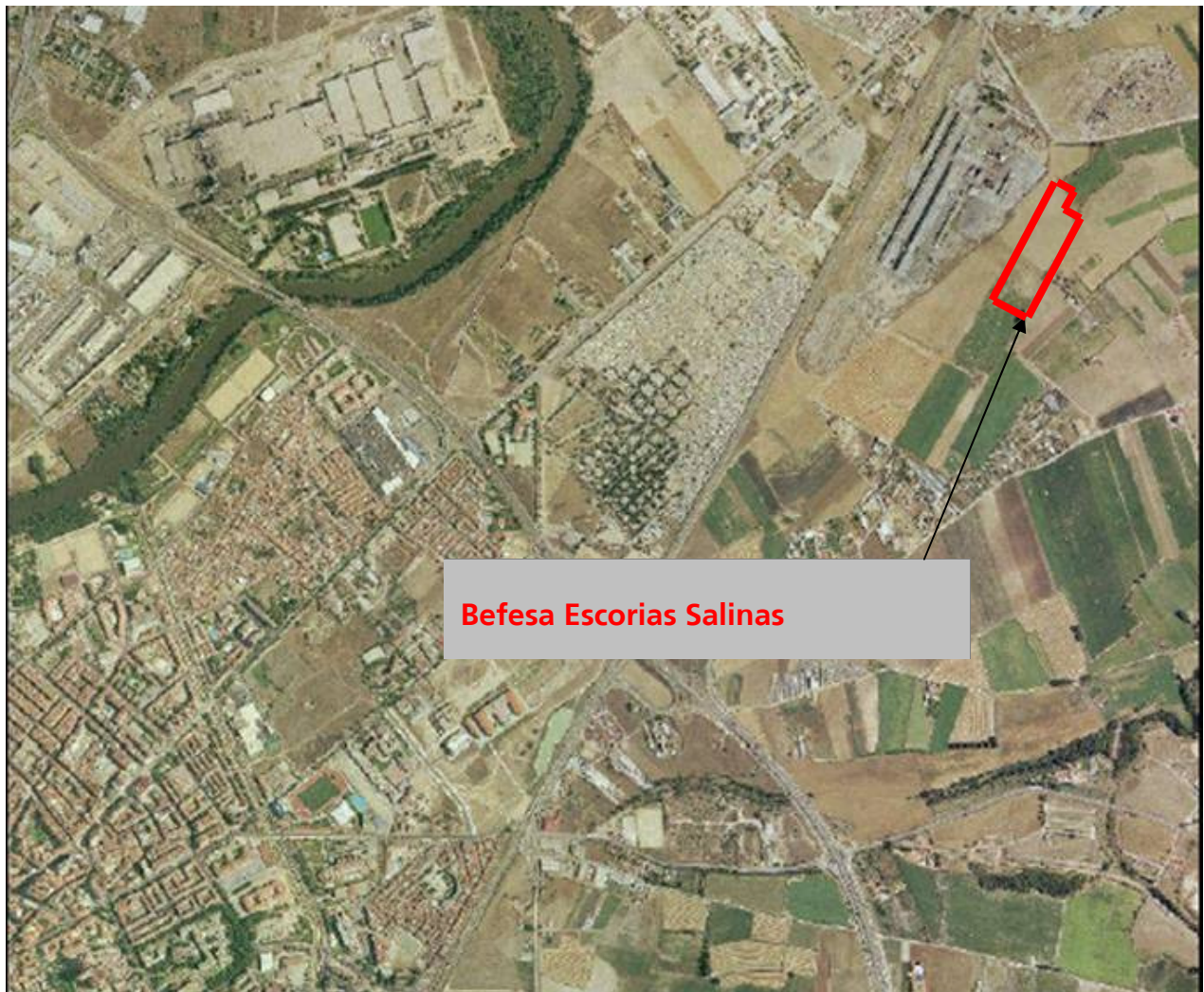
From the moment industrial waste is received, including its storage and subsequent treatment, the company always tries to minimise the possible effects or environmental impacts that our business generates. This has encouraged Befesa Escorias Salinas S.A. to adhere to Regulation 761/2001, even though such adhesion is not obligatory and has been carried out on a voluntary basis.

In adopting the Regulation, the company has better understanding of the different activities of the centre, thus permitting greater control and minimising the potential environmental effects that arise.

The Regulation is a good tool to demonstrate to society the various commitments made by Befesa Escorias Salinas S.A. in the field of environmental protection.

## 2. Location and site

Befesa Escorias Salinas, S.A. is located in the municipality of Valladolid. Specifically, it is located about 5 kilometres from the centre of Valladolid occupying an area of approximately 29,100 m<sup>2</sup> of the former grounds of ENDASA. The closest population areas to Befesa Escorias Salinas, S.A. facilities are the neighbourhood of San Pedro Regalado, in the city of Valladolid, 1,400 metres away and the population core of Santovenia de Pisuerga which is 1,900 metres away.



### **3. Description of the activity**

The main activity of Befesa Escorias Salinas is the production of aluminium concentrate, aluminium oxides and crystallized salts from the residue of secondary aluminium production (salt slag, aluminium slag and filter powder). Therefore, the industrial activity of Befesa Escorias Salinas SA is recycling, recovery and evaluation of waste from secondary aluminium melting. It has the Status of Approved Handler of Hazardous Wastes (G.R. CL 4/96) and Non-Hazardous Wastes (G.R.N.P. C.L. 8/02).

The salt slag recycling process operated by Befesa Escorias Salinas SA enables the recovery of free metal and flux salts, thus creating a new product made up mostly of aluminium oxide.

The activities of Befesa Escorias Salinas SA constitute an important and vital link in the lifecycle of aluminium. Aluminium is easily oxidized with air, so the metal is always associated with its oxide. For this reason, the aluminium recycling process is complicated and we can speak of refined aluminium.

Traditionally, the most important aluminium recovery process has been metal smelting (first cycle). Nowadays, the treatment of slag obtained from this operation is also carried out. The recycling of fluxes (second cycle) used for melting metal completes the recycling process in refineries. Finally, the aluminium oxide that inevitably accompanies the metal is recovered (third and last cycle). It is in this way that the total recycling process unfolds. The aluminium recycling industry is an activity that is beneficial to the environment since it recovers waste from the primary industry as well as from its processing and consumption, with zero discharge.

The salt slag treatment is carried out in specific, modern facilities since it is a recent activity in the recovery cycle. The production process consists of a mechanical grinding treatment, a stage of metal separation, the aqueous dissolution of salts, filtering of inert material and the crystallization of salts. This process produces an aluminium concentrate which then returns to the metal recycling cycle, flux which is also used again in the fusion, and an aluminium oxide which is used in different ways. This product is known on the market under various names as secondary raw materials with an aluminium oxide base.

The products obtained in the process are the following:

- Salts, a mixture of ClNa y ClK in a proportion of 70/30, 50/50 or the proportion that comes from the origin with more than a 99% recovery rate of the salt content of salt slag, estimated at some 52,000 t/year of salts produced from 130,000 t/year of salt slag.
- High alumina concentrate, with a richness of 60% to 70%, with an estimated 80,000 t/year with an average humidity of 20%.
- Aluminium concentrate, with a wealth of 78%, estimated at 7,000 t for 130,000 t of salt slag.

The following are the processes carried out in each of the aforementioned facilities.

- Mechanical grinding of Material: The goal of this treatment is, first, the extraction of metallic aluminium from the salt slag and, secondly, the reduction of particles to an optimum size to ensure the perfect dissolution of the salts. This dissolution is important because chlorides not dissolved that leave the process in aluminium oxide become a pollutant of it thereby reducing its use and value.
- Dissolution, reaction and filtering: In this part of the process, water is first added to the powder from grinding in order to dissolve the ClNa y ClK salts. As well as the salts, there are other aluminous compounds in the salt slag, which, on contact with water, react by releasing certain gases. In order to control the emission of these gases, the slurry resulting from the dissolution is taken to reactors until the reaction is complete. Subsequently, the two existing phases, brine and inert solids, are separated using a vacuum filtration.
- Crystallization: The separation of the salts from the water is done through evaporation and subsequent condensation of the steam. In this way we obtain a mixture of ClNa y ClK and some condensates which are reused in the process.
- Drying: The last step of the process consists of an optional drying stage in which the salts in the earlier stage of crystallization or the aluminium oxide can be dried in a rotating dryer, consisting essentially of a cylindrical trommel which, due to its slant and its rotating-blade system, makes the product go forwards inside it, thus bringing it into contact with hot gases. The material thereby dries slowly and moisture-laden gases leave the trommel sucked up through a fan.

The products supplied by Befesa Escorias Salinas SA undergo quality control and are easily identifiable so that they maintain full traceability with respect to the manufacturing process, raw materials used and checks made. All this is managed through our Quality Management System which has been ISO 9001 certified since 2003.

Additionally, in line with efforts aimed at preserving natural resources and protecting the environment, we believe our business must be carried out with the lowest possible local environmental impact. Aware of this need, in the year 2000 we decided to introduce an Environmental Management System certified under ISO 14001.

Within the framework of current legislation, Befesa Escorias Salinas SA has fulfilled all commitments it acquired for 2008, highlighting the following:

- Regular reporting of pollutants to the PRTR Registry.
- The awarding of the Integrated Environmental Authorization:
  - At the time of writing this Memory, Befesa Escorias Salinas had obtained the Integrated Environmental Authorization, according to Regional Environmental Ministry Order of 30 June.
- The Dangerous Goods Report, the Annual Management Statement as well as the analyses of air emissions, water discharges and cooling towers have all been created and submitted to the relevant administrations.

- We have also fulfilled the legal requirements set out in the Law on the Prevention of Labour Risks and the corresponding Royal Decrees relating to safety, industrial hygiene and ergonomics.

#### **4. Integrated Occupational Risk, Environmental and Quality Control System**

Our Management System is mainly made up of:

- Integrated Policy on Occupational Risk Prevention, Quality Control and the Environment: This is a formal description of the guidelines and commitments adopted by Befesa Escorias Salinas SA; this policy is reviewed periodically based on changes in organization, legislation, interested parties, etc.
- The latest revision and amendment of the Policy was undertaken in February 2009.
- Management Program, which sets out the activities required in order to fulfil the objectives.

Documentation of the Management System, which is made up of:

- Management Handbook: This describes corporate responsibility as well as the control of activities and of all parties involved that have, or are likely to have, an environmental impact.
- Management Procedures: These describe the development of activities outlined in the Management Handbook.
- Instructions and records.
- Internal audits, such as tools used by Company Management to assess the development and effectiveness of the implemented management system and to identify opportunities for improvement.
- Annual review of the system by Company Management to assess the implementation and effectiveness and to set new goals for the continual improvement of the protection of the environment.
- Evaluation of environmental aspects.
- Records of legislation and applicable legal requirements.

It has three main objectives:

- The commitment to meet legal and other requirements applicable to these installations.
- To conduct our business recycling in a way that is respectful to the environment, paying particular attention to those activities and products that could be unsafe for the environment.
- A continuous improvement from the environmental viewpoint.

These bases come from the guidelines established in our management policy.

**Policy**

As a leading company in the recovery of waste from the industry of primary and secondary aluminium (salt slag, aluminium slag, filter dust, etc.), Befesa Escorias Salinas focuses its activity on the pursuit of excellence through safe, efficient and effective management, thus contributing to sustainable development.

The Board of Befesa Escorias Salinas SA is aware that the essential factor for its successful operation is the complete satisfaction of all interested parties (customers, suppliers, shareholders, direct and indirect employees, the social surroundings, etc.), and according to this philosophy, it has adopted the following policy in order to develop the mission and vision of the company.

- Create value for shareholders and owners of the company in a sustainable and sustained way, ensuring the continuity of the company. To take advantage of its leadership position to achieve the best results.
- Offer a comprehensive service in the treatment of waste from the aluminium industry, which guarantees the satisfaction of our internal and external customers through the use of the best available technology and adequate resources.
- Offer quality products and advisory services to our customers through the development of new applications.
- Promote sustainable development by minimizing waste generation and air pollution, and by promoting the saving of natural resources.
- Promote the greater awareness, knowledge and contribution of all employees, providing adequate human resource management to facilitate their work performance and enhance their participation and ensure the management knowledge.
- Optimise all the activities of the organization by managing the same processes, always working towards the maximum safety of our workers and facilities and continuous improvement by setting measurable objectives and evaluating results periodically.
- Establish effective communication channels to facilitate stable and lasting relationships, especially with our customers, stakeholders and suppliers.

The Board of Befesa Escorias Salinas will ensure that this policy is maintained and interpreted as well as understood and accepted by all of its own staff as well as external workers.

This policy will be available to any other interested party upon request.

Director-General

Valladolid, February, 2009

In line with the requirements of internationally recognized ISO standard 14001:2004, the Director General of Befesa Escorias Salinas SA has appointed the following person to ensure the implementation and maintenance of the Environmental Management System that has been set up:

- Inmaculada Paños Casteleiro, Manager for Quality Control, Occupational Risk Prevention and Environmental Protection, as a delegate of the Board in order to set up, implement and maintain the Management System and to similarly ensure compliance with all applicable environmental requirements.

It should be noted that the integrated management which currently being carried out with respect to the Quality Control, Occupational Risk Prevention and Environment Protection Systems is being undertaken in order to move forward together in all three areas, streamlining efforts, while maintaining the rigor and seriousness characteristic of the three individualized concepts so as not to endanger the welfare of future generations.

## 5. Significant environmental aspects of the Company

In this section we have selected each element of the activities of Befesa Escorias Salinas which can interact with the environment. The identification of the issues refers to those which may have negative or positive consequences on the environment.

**The following list is a reference:**

- Wastewater.
- Air emissions.
- Other emissions.
- Generation of waste similar to urban waste.
- Generation of hazardous waste.
- Consumption of natural resources.
- Accidents.
- Emergency situations.
- Other.

For each of the areas identified, the changes that can be made on the environment are determined (environmental impacts).

The methodology to undertake such assessment has undergone major changes in order to increase its objectivity.

The environmental aspects under normal conditions are valued based on the following three environmental parameters: quantity, duration and danger.

- Quantity: Weight, volume, concentration or extent of the environmental aspect.
- Duration: Continuance or actual duration in time of the environmental aspect.
- Danger: A property that can characterize a substance and/or residue or the negative effect or impact that this aspect can have; the closer this is to the legal limits or applicable references, the greater it is.

The environmental aspects in abnormal or emergency conditions are valued based on the following environmental parameters: probability and environmental impact.

- Probability: The chance that the event could take place on the basis of a study of historical emergencies.
- Environmental impact: Environmental impact intensity occurring due to an accident or emergency situation associated with security measures that the facilities have.

Once the system indicated in the previous sections has been applied to all identified environmental aspects and the final value obtained, any aspect whose score equals or is greater than 6 shall be regarded as a significant environmental aspect both in normal and in abnormal and emergency conditions. Should

there not be at least 3 aspects which exceed that score, the 3 with the highest score will be considered significant.

Environmental aspects	Classification of the aspect	Environmental impact
NO <sub>x</sub> in boiler	Significant	Atmospheric pollution
Generation of dangerous and non-dangerous waste	Significant	Depending on its final destination - Use of land - recycling
Ammonia in suction, sedimentation and solution	Significant	Atmospheric contamination
Wastewater spillage	Significant	contamination of lakes & rivers
Noise emmision at night	Significant	Noise contamination
Use of gases from the boiler torch <b>(Positive impact)</b>	Significant	Reduction in the consumption of natural resources and a reduction in the emission of greenhouse gases
Treatment of salt slag and PF <b>(Positive impact)</b>	Significant	Elimination of dangerous watse
Consumption of NaOH	Not significant	Reduction in natural resources
Consumption of flocculant agents	Not significant	Use of Chemical products
Consumption of defoamer	Not significant	Use of Chemical products
Consumption of natural gas	Not significant	Reduction in natural resources
Consumption of electrical energy	Not significant	Reduction in natural resources
Consumption of water	Not significant	Reduction in natural resources
Emissions of contaminating gases	Not significant	Atmospheric pollution
Consumption of diesel	Not significant	Reduction in natural resources
Consumption of biocides, algaecides and biodispersers in refrigeration towers	Not significant	Use of Chemical products

List of aspects corresponding to the year 2008.

The system applied in the preceding paragraphs shall also apply to indirect environmental aspects, i.e. those on which the company does not have full control over.

Indirect environmental aspects	Environmental incidence		
	Low	Medium	High
	1	2	4
Freight	Use of electric transport systems (train)	Use of means of transport greater than 25t	Use of means of transport less than 25t
Use of Salt by clients	In processes as a substitute for natural resources	In processes mixed with natural resources	No substitution of natural resources
Use of aluminium oxide by clients	In processes as a substitute for natural resources	In processes mixed with natural resources	No substitution of natural resources
Use of Aluminium by clients	In processes as a substitute for natural resources	In processes mixed with natural resources	No substitution of natural resources
Control of subcontractors	Acceptance and control of internal requirements being fulfilled	Acceptance and partial control of internal requirements being fulfilled	Acceptance and no control of internal requirements being fulfilled

### 5.1 Atmospheric emissions

The plant currently has six authorised points associated with its main facilities that are part of the productive process:

- Point No. 1: Boiler.
- Point No. 2: Boiler.
- Point No. 3: Extraction through band filters.
- Point No. 4: Torch duct.
- Point No. 5: Extraction through grinding sleeve filters.
- Point No. 6: Extraction through drying sleeve filters.

Emissions from the boilers are solely gases from the combustion of natural gas.

At the third point, the vacuum band filters, steam is captured from the washing of aluminium oxides.

Gases produced in reactors are incinerated at the fourth point.

In the latter two cases, emissions of particulate matter are controlled by a vacuum system at all points of possible emission of dust and by treating such suction through a sleeve filter, thereby reaching air emissions below 5 mg/Nm<sup>3</sup>, well below the 40 mg/Nm<sup>3</sup> allowed by the integrated environmental authorization.

Emissions are monitored quarterly by an approved inspection body and data is sent promptly to the environmental authorities of the Region.

#### - Atmospheric impact

On a quarterly basis, an officially approved laboratory performs sampling of emissions at each point which is described by analyzing the compounds set out in each case in the Authorization of Hazardous Waste Manager. Information on the following pollutants is reported: Opacity, Chloride, NH<sub>3</sub>, SH<sub>2</sub>, COVs, CO, SO<sub>2</sub> and NO<sub>x</sub>.

After obtaining the integrated environmental authorization, the parameters and frequency of measurements have changed, so that emissions reported have in some cases become annual and biennial due to the tight control which Befesa Escorias Salinas maintains over its process in order to minimize environmental impacts, as shown in the following tables:

Points no. 1 and no. 2: Boilers			
Parameter	ELVs (1)		Regularity
	Amount	Unit	
NO <sub>x</sub>	200	mg/ Nm <sup>3</sup>	Biennial
CO	100	mg/Nm <sup>3</sup>	Biennial

(1)ELV: Emission limit value.

<b>Point no. 3: Suction through band filter</b>			
<b>Parameter</b>	ELVs (1)		<b>Regularity</b>
	Amount	Unit	
<b>NH<sub>3</sub></b>	40	mg/ Nm <sup>3</sup>	Annual
<b>Cl<sup>-</sup></b>	230	mg/ Nm <sup>3</sup>	Annual

(1)ELV: Emission limit value.

<b>Point no. 5: Grinding extraction</b>			
<b>Parameter</b>	ELVs (1)		<b>Regularity</b>
	Amount	Unit	
<b>Particles</b>	40	mg/ Nm <sup>3</sup>	Annual

(1)ELV: Emission limit value.

<b>Point no. 6: Drying extraction</b>			
<b>Parameter</b>	ELVs (1)		<b>Regularity</b>
	Amount	Unit	
<b>NO<sub>x</sub></b>	200	mg/ Nm <sup>3</sup>	Biennial
<b>CO</b>	100	mg/ Nm <sup>3</sup>	Biennial
<b>Particles</b>	40	mg/ Nm <sup>3</sup>	Annual

(1)ELV: Emission limit value.

With respect to Point no. 4 (Torch), the AAI includes the point of emission but does not set emission limits. This is because the point was previously a controlled pipeline, i.e. before the final treatment of the gases.

However Befesa Escorias Salinas takes the commitment to periodically measure that point.

Inspection chimneys all fulfil the requirements of Governmental Order of October 18th, 1976 on the prevention and correction of pollution. The installations, arrangement and dimensions of connections and access-pints are suitable for measurements and sampling. The results of the last inspection are entirely within the requirements of existing legislation.

Parameter evaluated	2006	2007	2008	Units	Applicable legislation	Limit value
CO	<48	<60	2	ppm	Pto. 27, appendix IV, D833/75	500
Maximum daily amount of CO	<50	457	4			
SO <sub>2</sub>	<140	<160	2	mg/Nm <sup>3</sup>	Pto. 27, appendix IV, D833/75	4,300
Maximum daily amount of SO <sub>2</sub>	140	140	5			
NO <sub>x</sub>	87.6	<100	86	ppm	Pto. 27, appendix IV, D833/75	300
Maximum daily amount of NO <sub>x</sub>	100	84.33	104			
Opacity	<1	<1	<1	Bacharach	Pto. 27, appendix IV, D833/75	2
Maximum daily amount of opacity	<1	<1	<1			

Annual average results (January to December inclusive, for the reference year) for inspections of Point no. 1: Boiler. The "daily maximum" is the maximum value obtained in each reference year.

Parameter evaluated	2006	2007	2008	Units	Applicable legislation	Limit value
HCl	<1.6	<1.6	<1.6	mg/Nm <sup>3</sup>	Pto. 27, appendix IV, D833/75	460
Maximum daily amount of HCl	<1.6	<1.6	<1.6			
NH <sub>3</sub>	186	228	27.32	mg/Nm <sup>3</sup>	--	--
Maximum daily amount of NH <sub>3</sub>	304	456	107			

Annual average results (January to December inclusive, for the reference year) for inspections of Point no. 3: Band Filter Extraction. The "daily maximum" is the maximum value obtained in each reference year.

Parameter evaluated	2006	2007	2008	Units	Applicable legislation	Limit value
HCl	<1.6	<1.6	<1.6	mg/Nm <sup>3</sup>	Pto. 27, appendix IV, D833/75	460
Maximum daily amount of HCl	33	<1.6	<1.6			
NH <sub>3</sub>	<38	<0.76	<0.76	mg/Nm <sup>3</sup>	--	--

<b>Maximum daily amount of NH<sub>3</sub></b>	3,036	<0.76	<0.76			
<b>SH<sub>2</sub></b>	<3.8	<3.8	<3.8	mg/Nm <sup>3</sup>	Pto. 27, appendix IV, D833/75	10
<b>Maximum daily amount of SH<sub>2</sub></b>	<3.8	<3.8	<3.8			
<b>Organic carbon</b>	14,260	13,395.4	12,692.2	mg C/Nm <sup>3</sup>	--	-
<b>Maximum daily amount of organic carbon</b>	15,511	14,688	13,331			

Annual average results (January to December inclusive, for the reference year) for inspections of Point no. 4: Torch duct. The "daily maximum" is the maximum value obtained in each reference year.

Parameter evaluated	2006	2007	2008	Units	Applicable legislation	Limit value
<b>Particles</b>	<5	<20	2.25	mg/Nm <sup>3</sup>	Pto. 27 del anexo IV del D833/75	150
<b>Maximum daily amount of particles</b>	20	1.5	4			

Annual average results (January to December inclusive, for the reference year) for inspections of Point no. 5: Grinding sleeve filter extraction. The "daily maximum" is the maximum value obtained in each reference year.

Parameter evaluated	2006	2007	2008	Units	Applicable legislation	Limit value
<b>Particles</b>	<5	<20	3	mg/Nm <sup>3</sup>	Pto. 27 del anexo IV del D833/75	150
<b>Maximum daily amount of particles</b>	<5	<20	3			
<b>NH<sub>3</sub></b>	<0.76	<0.76	<0.76	mg/Nm <sup>3</sup>	--	
<b>Maximum daily amount of NH<sub>3</sub></b>	0.76	0.76	0.76			
<b>HCl</b>	<1.6	<1.6		mg/Nm <sup>3</sup>	Pto. 27 del anexo IV del D833/75	460
<b>Maximum daily amount of HCl</b>	1.6	3.1				
<b>CO</b>	<48	<48	71	ppm	Pto. 27 del anexo IV del D833/75	500
<b>Maximum daily amount of CO</b>	48	5	71			

<b>SO<sub>2</sub></b>	<140	0	0	mg/Nm <sup>3</sup>	Pto. 27 del anexo IV del D833/75	4,300
<b>Maximum daily amount of SO<sub>2</sub></b>	140	0	0			
<b>NO<sub>x</sub></b>	<10	<100	16	ppm	Pto. 27 del anexo IV del D833/75	300
<b>Maximum daily amount of NO<sub>x</sub></b>	10	9.6	16			
<b>Opacity</b>	<1	<1	<1	Bacharach	Pto. 27 del anexo IV del D833/75	2
<b>Maximum daily amount of opacity</b>	<1	<1	<1			

Annual average results (January to December inclusive, for the reference year) for inspections of Point no. 6: Drying sleeve filter extraction. The "daily maximum" is the maximum value obtained in each reference year.

The emissions to the atmosphere, so far as the limits of current legislation are concerned, which were not significant in some cases have become significant due to the reduction of limits in the integrated environmental authorization, as has been the case of the NO<sub>x</sub> in the boiler and ammonia in the band filter extraction. This authorization is valid from 01/20/2009; therefore, from this date onwards, measures will be taken to reduce these emissions, although it should be noted that we are within legal limits set and measurements have still not been made using these new parameters.

- **Measures implemented for the prevention, reduction and control of atmospheric emissions**

Thanks to its Integrated Management System, Befesa Escorias Salinas SA has defined a set of procedures which indicate measures for the prevention, reduction and control of atmospheric emissions and how to act in abnormal operating conditions due either to leakage or malfunctions, as well as in case of any emergency that may occur in the plant:

- Identification, evaluation and updating of environmental aspects (PG-01).
- Monitoring and measurement of operations (PG-05).
- Operational control (PG-06).
- Prevention and control of environmental emergencies (PG-04).
- Self-Protection Plan (PG-29).

In addition, throughout its history the company has implemented a series of measures to reduce the pollutant load of emissions. These measures which have been implemented are listed in the table below:

Measures implemented	Objectives	Year
Paving the entire expanse of the factory with aluminium oxide	Reduction of diffused dust emissions	2001
Setting up of a new reactor	Ensuring the reaction and minimising gas inmissions	2002
Capturing of gases in the chemical plant	Reduction of inmissions	2002
Installation of a new torch	Ensuring the burning of gases from the reactors	2002
Installation of a new control system for the plant	Standardization and control of the process	2003
Installation of a new burner for salt drying	Reduction of emissions and energy saving	2004
Installation of a new control system for reactors	Maximising the reaction	2005
Use of boiler gases for the salt drying process.	Energy efficiency	2006
Installation of two new reactors	Maximising the reaction to avoid the emisión of gases once outsider the process	2007
Installation of a new steam production boiler	Reduction in the consumption of natural gas	2007

New installation for the dosing of slag into the process	Reduction in the consumption of diesel	2008
Substitution of a crystalizer for a more efficient one	Reduction in the consumption of cleaning water	2008
Installation of conveyor-belt Systems	Reduction in the consumption of diesel	2008
Paving of different zones of the plant	Reduction of diffused dust emissions	2008
New storage tanks	Improvement in water management	2008
Use of torch gases in the boiler	A 20% reduction in the consumption of natural gas and a reduction in emissions of greenhouse gases	2009

Measures implemented for the prevention, reduction and control of atmospheric emissions.

## 5.2 Noise

The noise and vibrations that are emitted are those of the activity of the plant due to machinery in motion and moving trucks.

Following a thorough study of sound pressure levels inside the facilities through periodic measurements carried out by our Joint Prevention Service, it can be concluded that the main sources of noise at Befesa Escorias Salinas SA are the milling facilities and the separation of raw material, both located inside the process warehouse.

To a lesser extent, the movement of loading and unloading vehicles is also a significant source of noise.

In October 2008, noise emission measurements were carried out by an inspection body and such measurements showed compliance by Befesa Escorias Salinas SA to both day and night noise levels set by legislation.

The results were as follows:

Date	Point 1 dB	Point 2 dB	Point 3 dB	Point 4 dB	Point 5 dB	Point 6 dB
10/17/2008 (Day)	51.5	52.6	62.0	58.9	58.5	61.9
10/17/2008 (Night)	48.6	49.1	52.6	51.7	53.8	54.6

Every three years measurements of noise emissions are made by Control Bodies and the following one is due in October 2011.

The Integrated Environmental Authorization granted to Befesa Escorias Salinas sets noise emission limits at:

- Night-time noise: 60  $L_{a_{eq}}$  dB (A)
- Daytime noise: 70  $L_{a_{eq}}$  dB (A)

Befesa Escorias Salinas complies with these limits, as was demonstrated by the analysis performed by the control body in October 2008.

Befesa Escorias Salinas internally reviews and verifies its noise emissions annually.

Date	Point 1 dB	Point 2 dB	Point 3 dB	Point 4 dB	Point 5 dB	Point 6 dB
07/15/2006 (Day)	58.2	58.5	52.2	60.5	63.1	59.9
08/30/2007 (Day)	59.3	57.6	54,8	72.5	64.3	59.8
09/26/2008 (Day)	56.1	49.4	49.6	69.2	63	65.5

Results of sound emission studies undertaken internally.

In 2007, at Point 4 noise emission limits were exceeded due to the proximity of the measuring point to the railroad tracks. In 2008, the measurements are within the established limits.

### 5.3 Discharges into the water

Befesa Escorias Salinas SA has no discharge channel point since industrial water from production processes as well as rainwater runoff is collected at a single point from which it is pumped into the process.

Outside the process, Befesa Escorias Salinas SA has permission from the Duero River Water Confederation for the disposal on land of sanitary water, once this has been purified. This flow is characterized as "Urban".

#### - Water quality

Following on from this authorization, Befesa Escorias Salinas SA is required to send a regular statement to the Duero River Water Confederation, in periods not exceeding one year, of the analysis of discharges indicating the flow and effluent composition. The analysis should be undertaken by a "corporate partner" of the Confederation, as indicated in Article 253 of the Public Water Regulations.

Parameter	2006	2007	2008	Protocol	Limit value
DBO <sub>5</sub>	129±41	122±39	21±6.7	Incubation, 5 days at 20°C (PN/22)	60 mg/L
Solids in the suspension	91	39.3	14.3±2.6	Gravimetric method (PN/56)	90 mg/L

Annual results of spillage quality.

A new control parameter is established -called the COD- in the Integrated Environmental Authorization granted to Befesa Escorias Salinas and which did not exist up to now. Therefore, the limits of this authorization are:

Parameter/ substance	Units	Average daily value
Solids in the suspensión	mg/L	90
5-day biochemical oxygen demand (DBO <sub>5</sub> )	mg O <sub>2</sub> /L	60
Chemical oxygen demand (DQO)	mg O <sub>2</sub> /L	200

**- Measures implemented for the prevention, reduction and control of discharges**

To ensure proper management and continuous improvement, sanitary water from Befesa Escorias Salinas SA is treated through a purification system before its final disposal. The purification system consists of the following elements:

- 2 septic tanks.
- Clarifying well
- Biological filter

As well as the purification system described, the company had previously adopted other measures that are listed below:

Measures implemented	Objectives	Year
Waste water tank for later purification at the plant	Ensure the re-use of waste water and rainwater	2001
Extension of the storm tank	Minimize discharge in case of storms	2004
Improvement in water channeling	Ensure a complete re-usage of water run-offs	2006
Reparation of the tank, substituting the final discharge point.	Ensure the correct functioning of the purifying system	2008
Waste water purification through adding bacteria	Enusre minimum levels of DBO5 before their filtering into the land	2008

Measures implemented for the prevention, reduction and control of discharges.

Additionally, Befesa Escorias Salinas SA has a set of procedures which indicate measures for the prevention, reduction and control of discharges generated and how to act in abnormal operating conditions due either to leakage or malfunction, as well as in case of any other emergency that may occur in the plant:

- Identification, evaluation and updating of environmental aspects (PG-01).
- Monitoring and measurement of operations (PG-05).
- Operational control (PG-06).
- Self-Protection Plan (PG-29).

#### 5.4 Hazardous waste generated in significant quantities

The most important waste generated at the plant of Befesa Escorias Salinas SA, taking into account the total amounts generated, are the big bags used for the transport of dust filters and aluminium slag that are received at our facility as raw material and waste produced in our milling process and modification facilities, in this case scrap that is fully recyclable.

The quantities of waste generated by these aspects are linked directly to the company's production process so that the total annual amount generated depends directly on the amount of this type of material treated. Befesa Escorias Salinas has no capacity at present to reduce waste generation from these two as both are generated by the raw materials it receives.

The numbers generated by Befesa Escorias Salinas between January and December inclusive over the last three years are:

Waste type	L.E.R. Code	Amount generated 2006 (t)	Amount generated 2007 (t)	Amount generated 2008 (t)
Empty sacks (big-bags)	150,110	21	25	35
Scrap	160,117	2,096	1,471	2,400

Annual quantities generated from January to December inclusive, of significant waste.

#### 5.5 Indirect environmental aspects

En función de los parámetros anteriormente descritos, se clasifican como:

Indirect environmental aspects	Classification of the aspect	Environmental impact
Freight	Not significant	Reduction of natural resources Atmospheric pollution
Use of salt by clients ( <b>Positive impact</b> )	Not significant	Substitutes the use of natural resources
Use of aluminium oxide by clients	Not significant	Substitutes the use of natural resources

Use of Aluminium by clients	Not significant	Substitutes the use of natural resources
Control of subcontractors	Not significant	Generation of waste from work

## 6. Non-significant environmental aspects

### 6.1 Water consumption

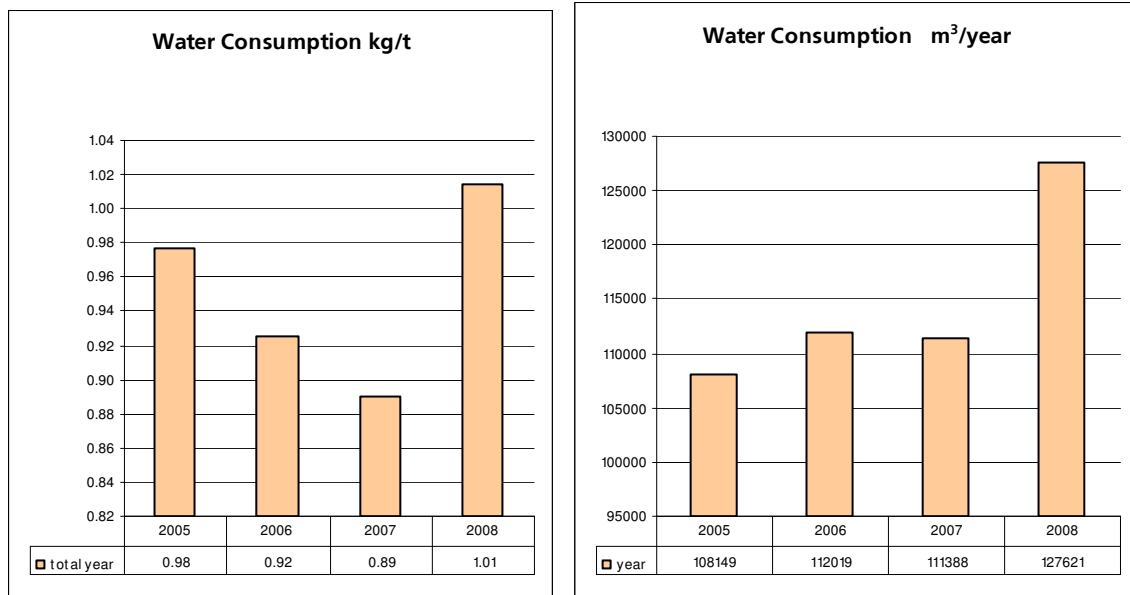
Water is a fundamental part of the process of Befesa Escorias Salinas SA, and it is necessary for the dissolution of salts in the salt slag. Thus, water consumption is proportional to the consumption of raw materials. The water used in dissolving the salts is evaporated by CINa and ClK crystallization, and then condensed again to be used in new production processes.

All condensates from the evaporation phase are sent to storage tanks from which water is fed to the different consumption points:

- Boilers for steam production.
- Washing of oxides and/or salt dissolution stage.
- Seals for pumps and pipe and floor cleaning. This water, after being used in the seals is also sent to the salt dissolving stage.

The process is designed to minimize the use of water from collection, maximizing performance and recycling water generated in the process as well as water runoffs. Fresh water inputs are only made to offset the outflow of water from the process because of the water content of salts and aluminium oxide

These freshwater inputs come from a groundwater collection point for which Befesa Escorias Salinas SA has the necessary administrative authorizations. Befesa Escorias Salinas SA makes no prior treatment of water received.



Historical data on water consumption in the purifying process (average annual consumption January 2008 to December 2008 inclusive).

The increase in water consumption per t processed is due mainly to increased requirements on the ground to improve the quality of aluminium oxides, and the increased treatment of Aluminium Slag.

In the year 2008, we have exceeded the absolute consumption limits set by the Duero River Water Confederation. Authorities have been informed of this deviation, while an application has been made for an extension to water consumption in absolute terms, since water consumption depends directly on the amount of waste treated.

## 6.2 Energy consumption

The main fuel used by Befesa Escorias Salinas SA is natural gas, used in the steam generators, in the rotary dryer and in safety lighters.

Electricity is used to power pump engines, mills, conveyor belts, fans, etc. as well as to control the entire facility.

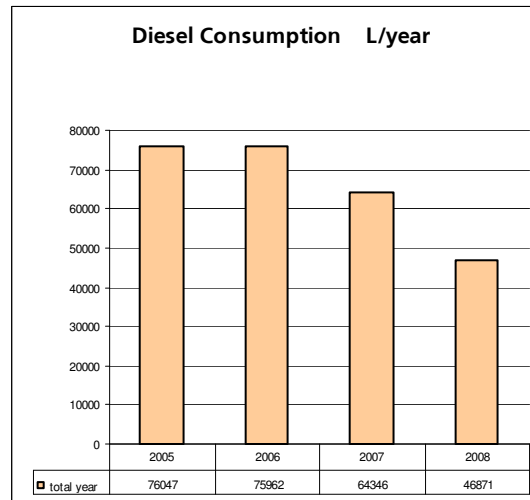
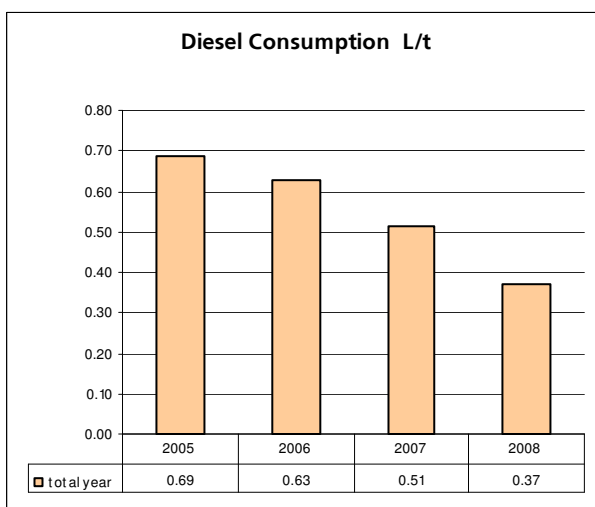
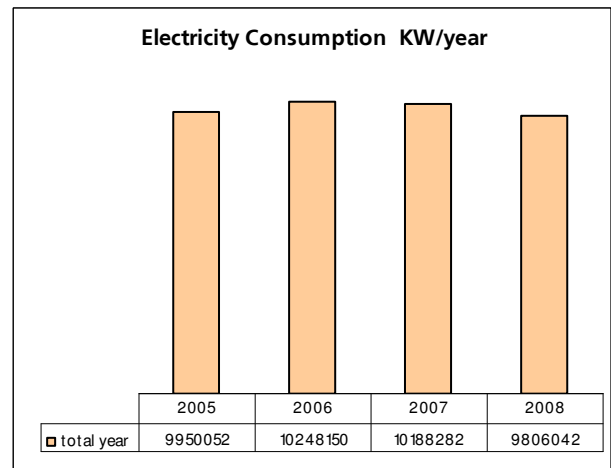
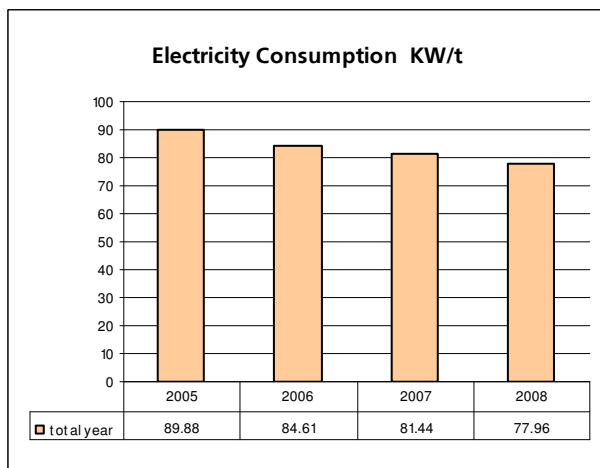
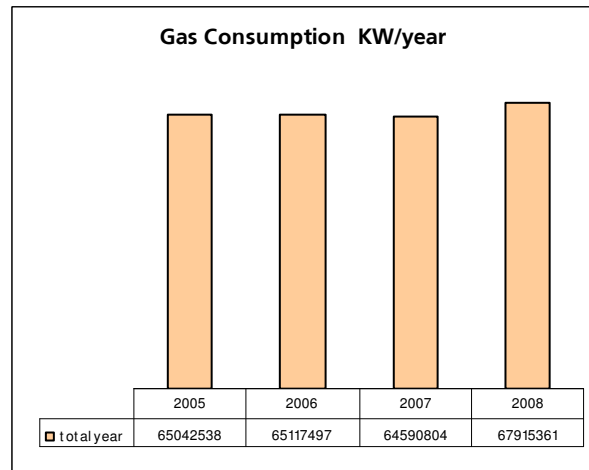
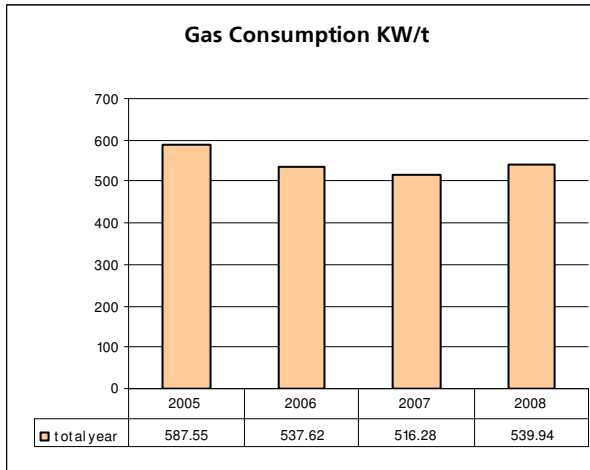
Diesel is not used in the production process, but is only used for internal transportation (forklifts and trailers).

Befesa Escorias Salinas always maintains the goal of reducing its energy consumption. In recent years, a gradual reduction has been achieved in each and every type consumed through better management of equipment used and a reorganization of processes.

The facilities of Befesa Escorias Salinas SA have a nitrogen tank that is owned by the supplier. Nitrogen is used in reactor inerting operations and in the maintenance of torch seals. The storage tank is located in an outdoor fenced area and last year had a total consumption of 0.25 m<sup>3</sup>/t treated.

Storage systems used for diesel and nitrogen comply with the provisions of Royal Decree 1523/1999 of 1<sup>st</sup> October on the MI-IP 03 for storage facilities used for consumption in the same facility.

Below the average annual consumption (from January to December inclusive) of energy over the past four years is given:



Historical data on energy consumption in the treatment process (average annual consumption of reference year from January to December of that year inclusive).

The increase in gas consumption is due mainly to increased water consumption, since the contribution of water to the process implies brine generation that needs to be evaporated, leading to increased water consumption.

Changes made in production management in 2009 lead to consumption levels lower than those for 2007.

### 6.3 Raw materials

Raw materials consumed in Befesa Escorias Salinas SA are considered hazardous waste from the aluminium process, known as the second melting.

In Befesa Escorias Salinas we consider their consumption and treatment as a positive environmental impact through our process in order to avoid the landfill and at the same time achieve the reuse of our products produced through the treatment of the raw materials, thereby reducing natural resource consumption natural in the aluminium industry.

These can be classified into three groups, by origin:

- Salt slag: This comes directly from the rotary furnace and is the mixture of flux used to retain impurities in the aluminium slag.
- Aluminium slag: This comes from the melting furnace as a result of deslagging without cooling of the slag. Since it has low metal content, it is not suitable for melting in rotary furnaces, and is therefore subject to a milling process which increases the metal content. Dust from the milling is the waste treated by Befesa Escorias Salinas.
- Filter dust: This comes from the purifying of gases from the rotating furnaces. It has a very low metal content and high salt content. Typical compositions of this material is given in the following table:

	Salt slag	Aluminium slag	Filter dust
<b>L.E.R. Code</b>	100,308	100,321	100,322
<b>Metallic aluminium (%)</b>	4-6	15-20	Traces
<b>Al<sub>2</sub>O<sub>3</sub> (%)</b>	45-55	70-75	40
<b>ClNa + ClK (%)</b>	40-55	10	60
<b>Other (%)</b>	1	-	-

Typical composition of raw materials treated at Befesa Escorias Salinas SA

Annual consumption (from January to December inclusive) of these materials over the past four years was:

Year	Total raw material prima treated (t)	Total salt slag treated (t)	Total aluminium slag treated (t)	Total filter dust treated (t)
2005	119,655	110,701	7,343	1,610
2006	130,154	121,120	7,306	1,727
2007	135,848	125,107	9,142	1,598
2008	138,538	125,784	10,990	1,793

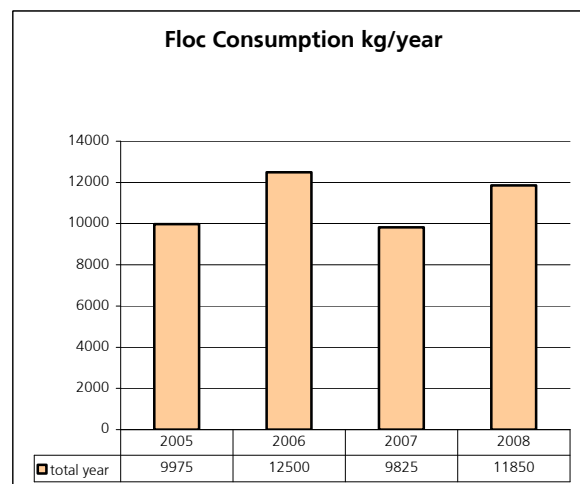
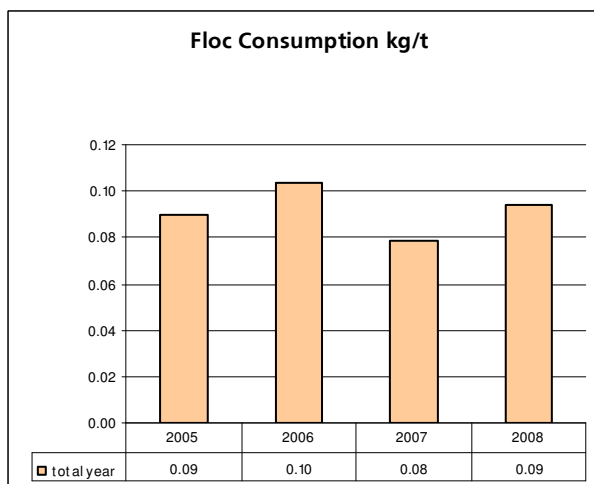
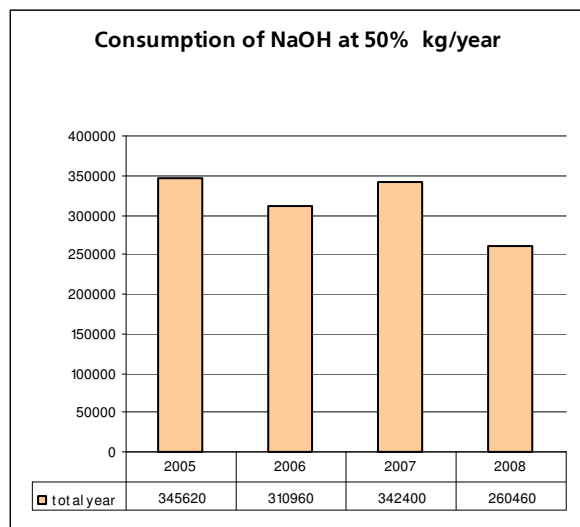
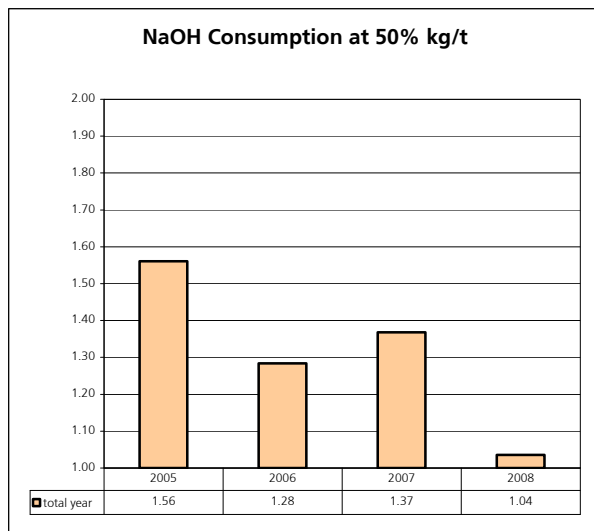
Amount of raw material processed by Befesa Escorias Salinas SA from January to December over the last four years.

## 6.4 Consumption of additives

Besides the raw materials listed, at Befesa Escorias Salinas SA the following chemicals are consumed as additives:

- NaOH: Used to maintain a basic pH in the brine, reducing the extent of co-crystallization of alumina.
- Flocculant: Used in the reaction-decantation process for easy separation of solids-liquids.
- Saline antifoam: Used in the salt crystallization process with the aim of reducing the formation of foam.

The annual average consumption (January to December inclusive) over the last four years has been:



Historical use of additives (annual average consumption from January to December inclusive).

The increased consumption of flocculant is due to the increase in t of aluminium slag treated. We should note that this indicator is referenced to the t of salt slag treated since this residue is the main raw material of the process. Moreover, flocculant consumption is so tight that a small change in process conditions or composition of the raw material influences the behaviour of oxides in decantation and therefore the consumption of flocculant.

### 6.5 Waste generated in non-significant quantities

The types of hazardous waste generated in non-significant quantities in the salt slag plant of Befesa Escorias Salinas SA are the following:

Type of waste	L.E.R. Code	Origin	Amount generated 2006 (kg)	Amount generated 2007 (kg)	Amount generated 2008 (kg)
Oil used	130,205	Maintenance	2,000	2,900	1,000
Absorbent material	150,202	Maintenance	50	160	81
Outdated chemical products	180,205	Laboratory	100	160	20
Chemical product packaging	150,110	Maintenance laboratory	655	54	91
Metal packaging	150,110	Maintenance	100	380	160
Luminaires used	200,121	Maintenance	-	25	28

Hazardous waste generated by Befesa Escorias Salinas SA

Industrial inert waste produced at the plant is basically from repairs, alterations or improvements that are categorised under that definition. This wastes and its management is as follows:

Type of waste	L.E.R. Code	Origin	Amount generated 2006 (kg)	Amount generated 2007 (kg)	Amount generated 2008 (kg)
Solid urban waste	200,301	Various	26,590	58,750	52,440
Paper used	191,201	Offices	2,570	980	1,880
Septic tank sludge	200,304	Sanitary water purification	16,720	32,020	9,920

Inert industrial waste generated by Befesa Escorias Salinas SA.

- **Measures implemented for the prevention, reduction and control of waste generated**

According to ISO 14001:2004, within the General Procedures for Quality and Environment, procedure PG-14 refers to Waste Management. This procedure quite specifically details waste, both hazardous and non-hazardous, the procedure for segregation and storage of waste and its transport to the handling facilities. It also specifies the documentation and environmental records that need to be generated. Basically these are:

- Request to the Handler to accept the waste.
- Acceptance documents by the authorized handler.
- Duly completed control and monitoring documents.
- Copy of the official authorization of the waste handler.
- Copy of the official authorization of the waste carrier.
- Registration of waste produced.

The most important measures taken for the prevention, reduction and control of waste are:

Measure implemented	Objectives	Year
Installation of a big bag press	Reduce the volumen of big bags	2003
Substitution of the polyelectrolyte	Enusre its maturation, reduciing its consumption and the generation of numbers used	2004
Building of a waste warehouse	Improve storage and separation	2005

Measures implemented for the prevention, reduction and control of waste generated.

The AAI makes it obligatory for Befesa Escorias Salinas to conduct a study in order to implement a waste minimization plan. The deadline for the submission of the plan ends on 06/30/2009.

## 7. Accident prevention

The company has not only foreseen abnormal or emergency situations that might occur, but has also implemented preventive measures to reduce the likelihood of these situations occurring. Preventive measures established are specific to each type of emergency. These are indicated below:

Type of emergency	Preventive measures implemented
Fires	<ul style="list-style-type: none"> <li>• Setting up of early response teams and appointment emergency managers.</li> <li>• Network of Ionic detectors, fire extinguishers and alarms.</li> <li>• All of the plant is made of concrete.</li> </ul>
Explosions	<ul style="list-style-type: none"> <li>• Setting up of early response teams and appointment emergency managers with continuous training.</li> <li>• Implementation of ATEX regulations.</li> </ul>
Leaks	<ul style="list-style-type: none"> <li>• Setting up of early response teams and appointment emergency managers with continuous training.</li> </ul>
Spillages	<ul style="list-style-type: none"> <li>• Setting up of early response teams and appointment emergency managers with continuous training.</li> <li>• Emergency equipment with absorbent material distributed throughout the facility.</li> <li>• Waterproofing of floors.</li> </ul>
Failure in gas purifying systems	<ul style="list-style-type: none"> <li>• Setting up of early response teams and appointment emergency managers with continuous training.</li> <li>• Periodic review of facilities.</li> </ul>
Failure in waste purifying systems	<ul style="list-style-type: none"> <li>• Daily control of the correct working of feeding pumps.</li> <li>• Ensure that water collection tank is always empty.</li> </ul>

With regard to mitigating the environmental impacts associated with emergencies, once the emergency period has ended, the Board of Befesa Escorias Salinas SA assesses the situation in order to mitigate to all reasonable extent the impacts associated with the emergency that has taken place.

Befesa Escorias Salinas has made its emergency plan (self-protection plan) known to the Valladolid Civil Protection Service.

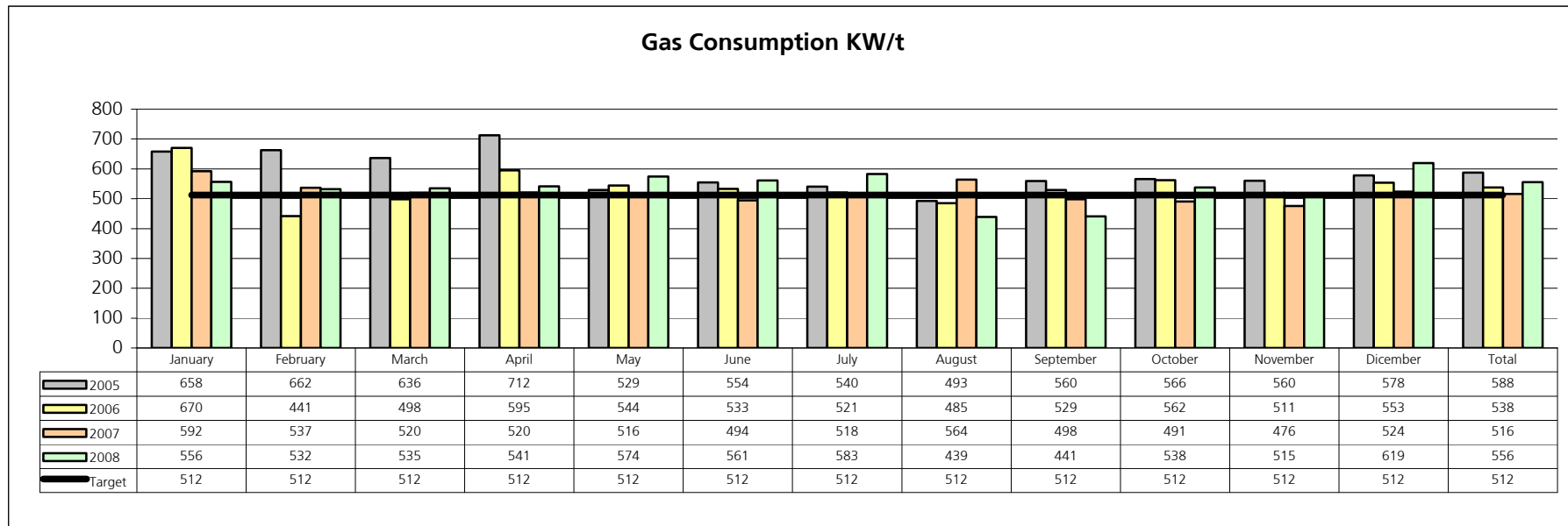
## 8. Technology used and comparison made with the best available implementation techniques

Best technique available	Current company situation
<b>Storage</b>	
Storage under cover of hazardous waste for the recovery process (salt slags, aluminium slag, filter dust).	Complete covered facilities for separate storage of different types of raw materials.
<b>Process</b>	
Shredding, crushing, grinding and sifting to recover aluminium content in salt slag treated.	Fully installed mills and corresponding screens.
Physical-chemical process to recover the constituent salts of salt slag treated.	Fully installed solution tanks, reactors, decanters, dryers and crystallizers.
<b>Gas collection and disposal systems</b>	
<p>Grinding facilities:</p> <ul style="list-style-type: none"> <li>• Dust: Sleeve filters</li> </ul> <p>Reactors:</p> <ul style="list-style-type: none"> <li>• Gases: Ammonia extraction and burning of combustible gases.</li> </ul> <p>Decanters and crystallizers:</p> <ul style="list-style-type: none"> <li>• Gases: steam extraction</li> </ul>	<ul style="list-style-type: none"> <li>• Suction systems and sleeve filters in the raw materials cargo bins (elimination of diffuse emissions).</li> <li>• Elimination of ammonia generated in dissolution by water washing and incineration of waste gases through the torch.</li> <li>• Extraction of steam through corresponding collectors that collect all fumes generated during the production process.</li> </ul>
<b>Waste water</b>	
Collection and use of rainwater inside. Reuse of water within the production process.	The water evaporated in the production process is reused through cooling systems. Rainwater is collected through a sewerage network and incorporated into the production process.
<b>Waste</b>	
Prevention, minimization and reuse of waste generated.	Filter dusts generated during the grinding operation are incorporated into the production process. After the grinding treatment and sifting of salt slags, aluminium concentrates are reused in new melting processes for recycling aluminium.
<b>Environmental Management</b>	
Voluntary implementation of and adherence to an international system.	Befesa Escorias Salinas SA has been certified according to internationally recognized standard ISO 14001 since 2000.

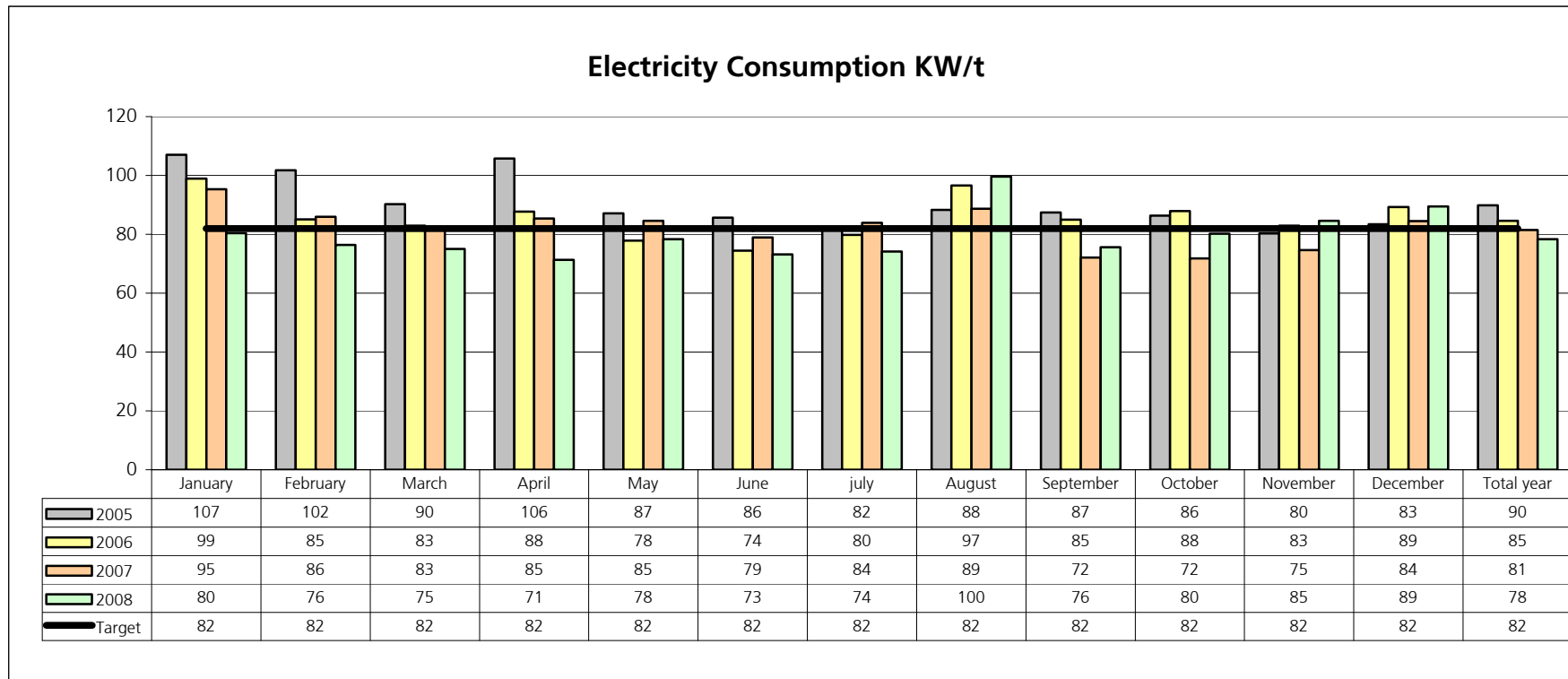
## **9. 2008 Environmental objectives**

On an annual basis, Befesa Escorias Salinas SA sets out a series of environmental goals that are listed in its Goals and Objectives Plan, outlining the goals associated with each of them, and the allocation of human and material resources. The following is a description of the environmental goals set for 2008, with a brief summary of their final degree of implementation:

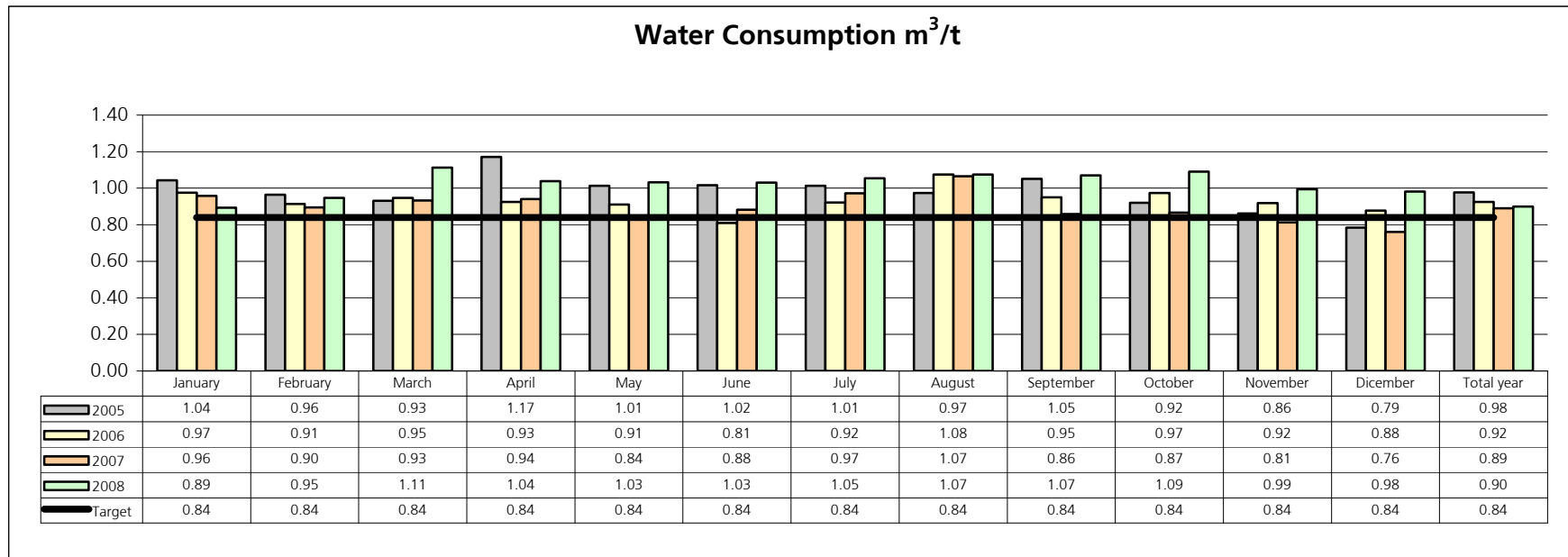
Objective		Reduce gas consumption by 2% with respect to 2007				
Goals	Time frame	Responsible	Means assigned	Deadline	Indicator	
1	Monthly monitoring of gas consumption	Head of Production	N/A	Dec. 2008	Fulfilment indicator 512 KW/t	
2	Detect consumption deviations and implement correcting measures					
Degree of achievement: 95% the indicator set was not reached.			<u>Observations:</u> The increase in gas consumption is mainly due to increased water consumption, since the contribution of water to the brine generation process involves the need to evaporate, leading to increased water consumption.			



Objective		Maintain electricity consumption levels at figures budgeted for 2008				
Goals		Time frame	Responsible	Means assigned	Deadline	Indicator
1	Monthly monitoring of consumption	Monthly	Head of Production	N/A	Dec 2008	Fulfilment indicator 82 KW/t
2	Detect consumption deviations and implement correcting measures					
3	Create a power map					
4	Optimize consumption points in plant					
Degree of achievement: 110%				Observations: Mission accomplished, since consumption points have been optimized in the plant.		

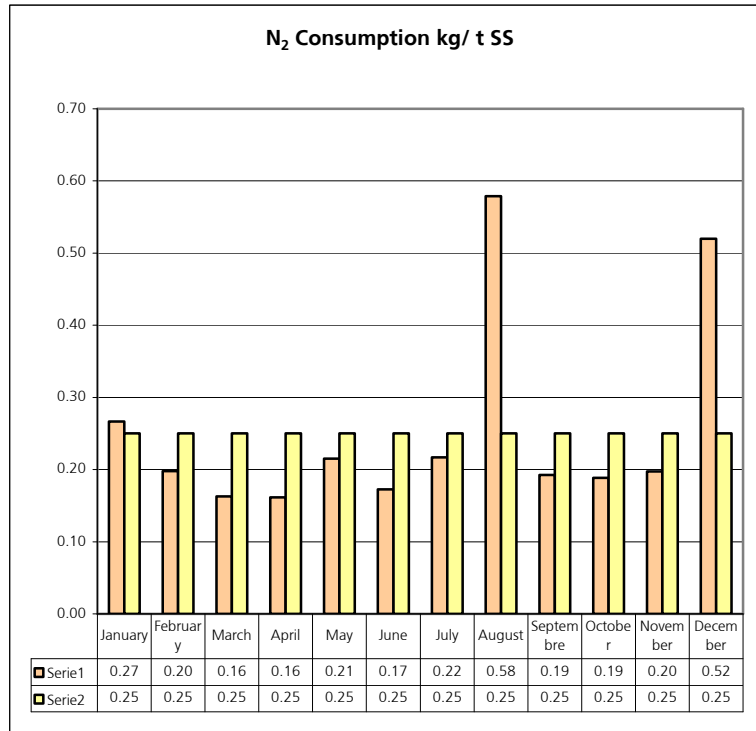


Objective		Reduce water consumption 5% with respect to 2007				
Goals		Time frame	Responsible	Means assigned	Deadline	Indicator
1	Monthly monitoring of consumption	Monthly	Head of Production	N/A	2008	Fulfilment indicator 0.84 m <sup>3</sup> /t
2	Installation of flowmeters in cristallization and dissolution	April 2008		€3,000		
3	Rationalization of water consumption in plant	August 2008		€3,000		
Degree of achievement: 90%				<p>Observations: The increase in water consumption was due mainly to poor management, with consumption increasing during shutdown of the plant for washes, as well as an increase in consumption in the reaction area.</p> <p>Production management has been changed in the following ways:</p> <ul style="list-style-type: none"> <li>-Substitution of water for brine in reaction</li> <li>-Hot-stops in crystallization</li> </ul> <p>These changes were carried out during the first quarter of 2009 and reflect an important reduction in water consumption.</p>		



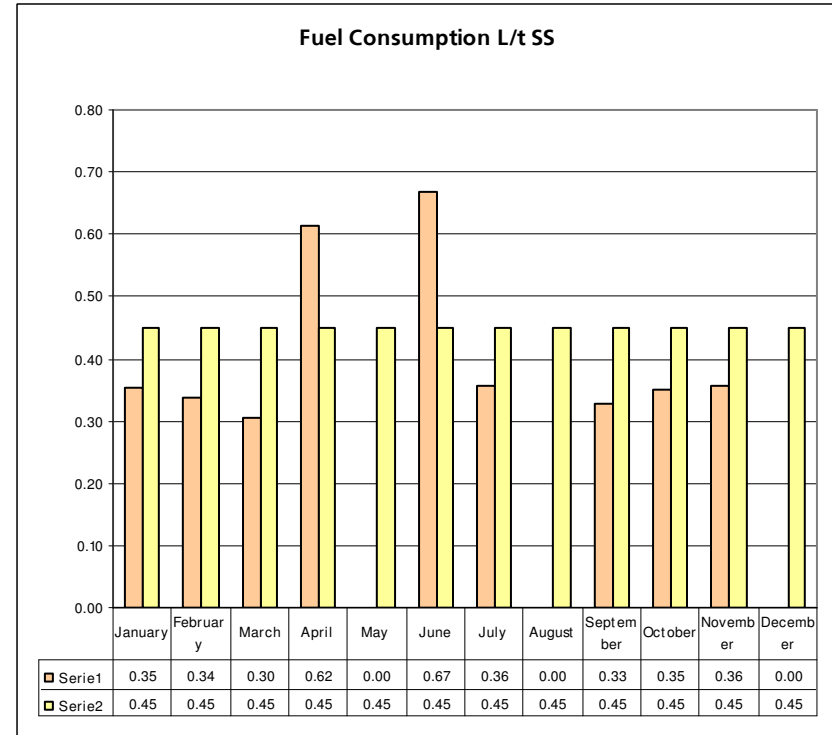
**Management indicators:**

Nitrogen consumption per t of salt slag treated (Objective 0.25 kg/t)



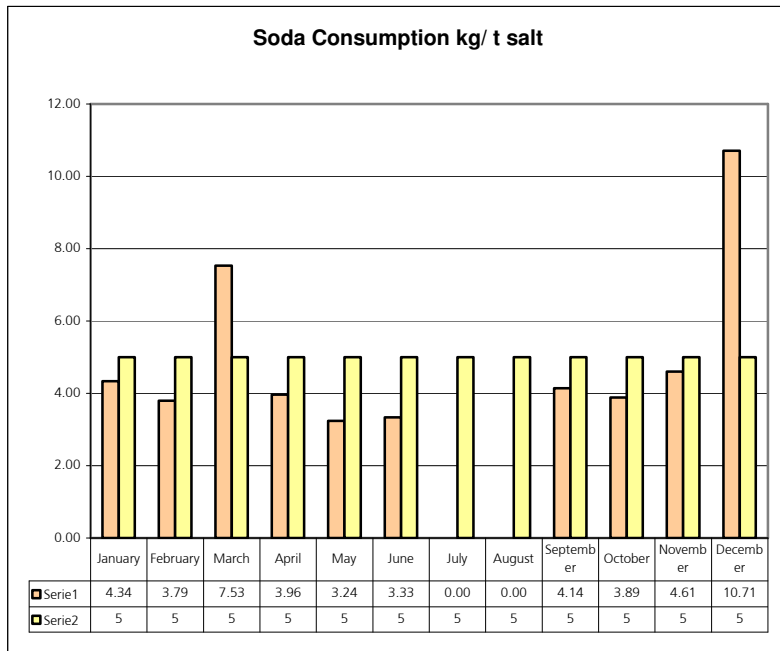
Annual objective achieved. The annual rate was kept at 0.22

Fuel consumption per t of salt slag treated (Objective 0.45 L/t)



Annual objective achieved. The annual rate was kept at 0.34

**Soda consumption per t of salt produced (Objective 1.254 kg/t)**

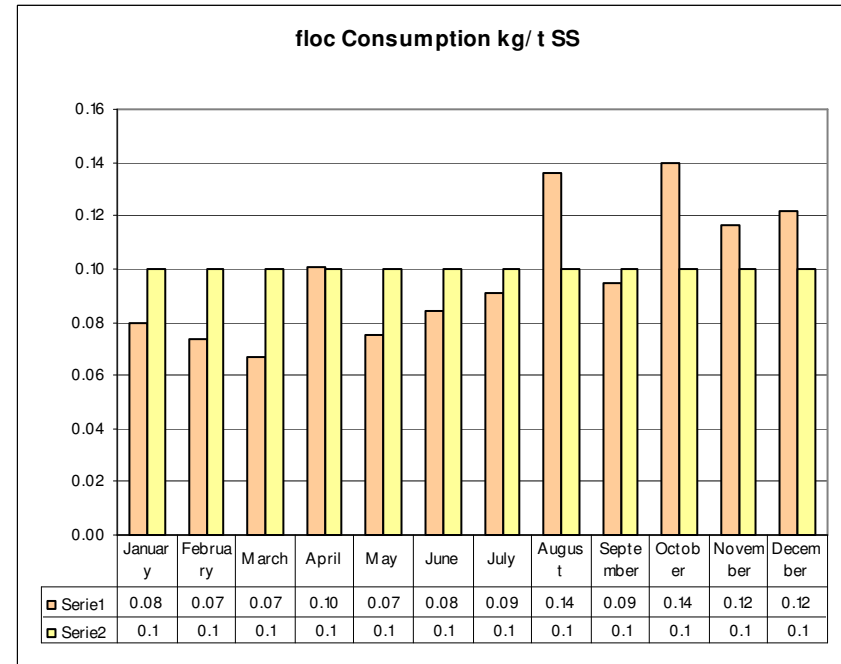


Annual objective achieved. The annual rate was kept at 4.10

**Big bag sent to dump/big bag reused (Objective 25% reused)**

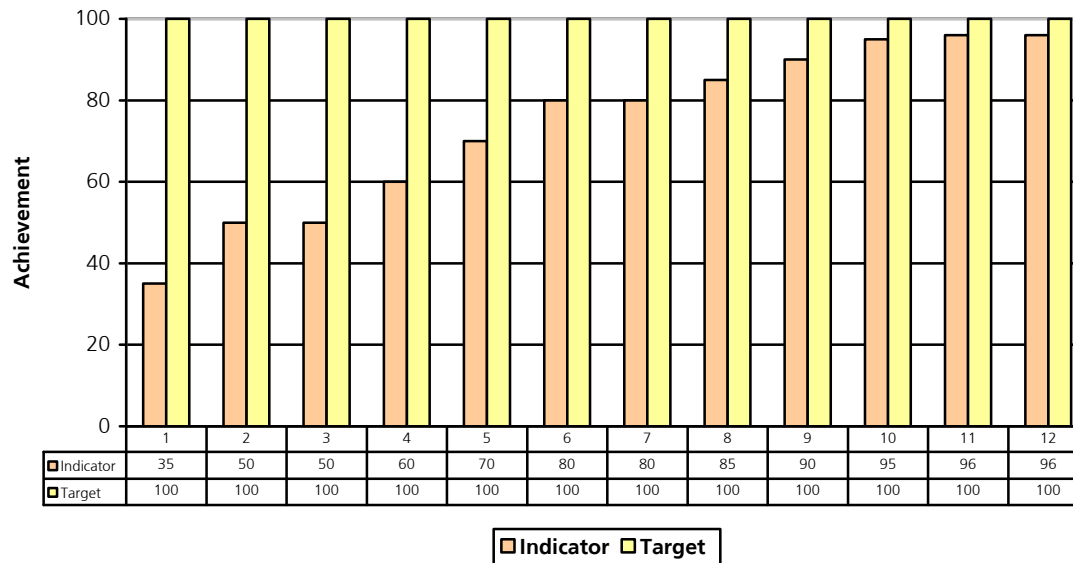
Only reusable big bags are used.  
All of them tear.

**Flocculant consumption per t of slag treated (Objective 0,10kg/t)**

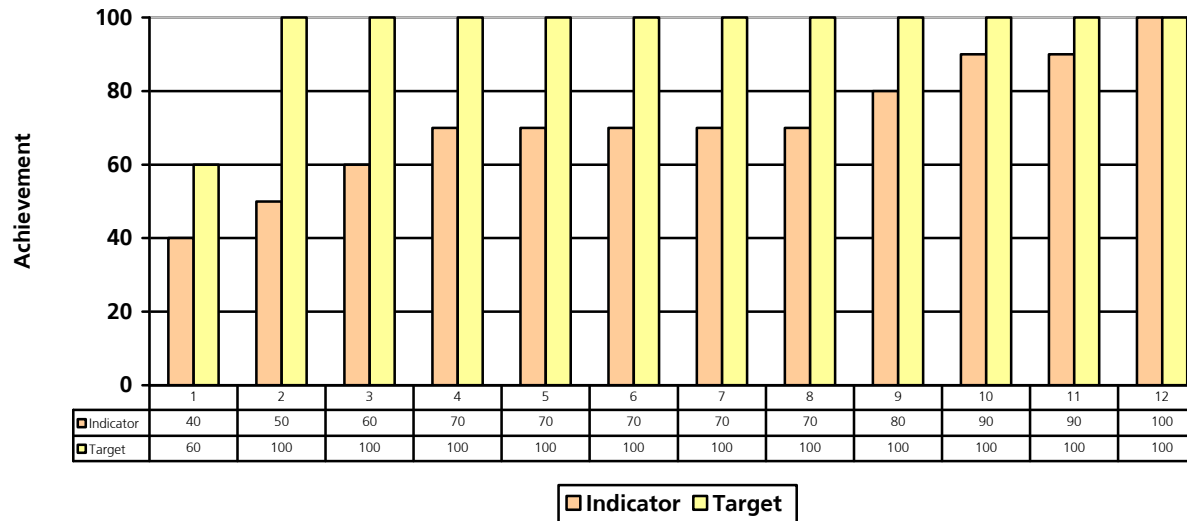


Annual objective achieved. The annual rate was kept at 0.094

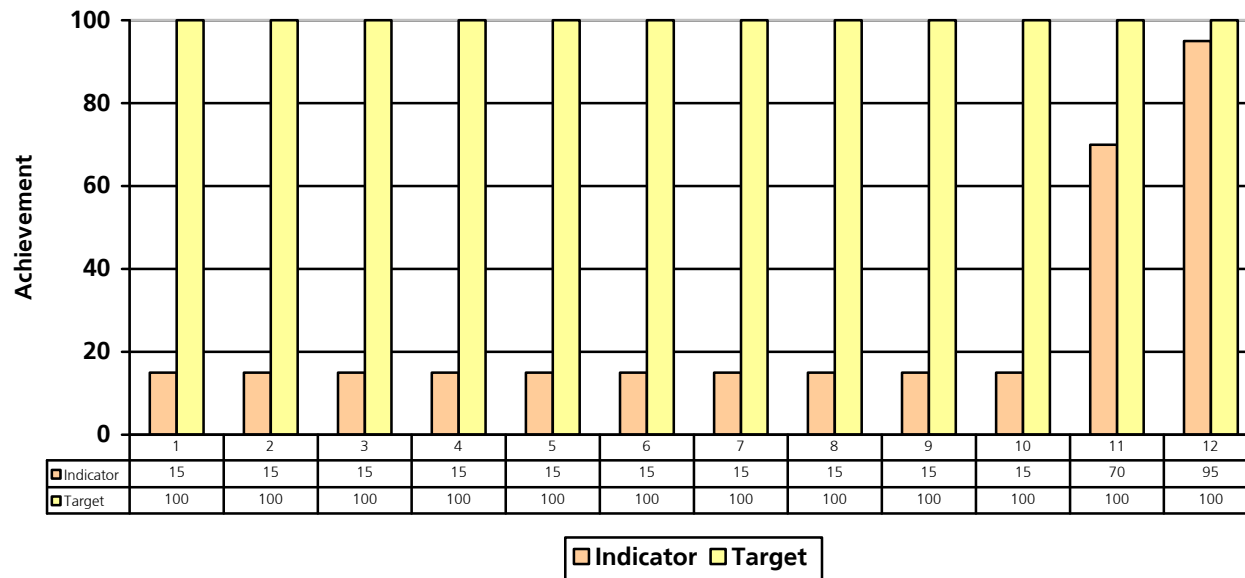
Objective		Integration of the three Management Systems for Occupational Risk, Quality Control and Environmental Protection				
Goals	Time frame	Responsible	Means assigned	Deadline	Indicator	
1	Integration of procederes and/or documents	May 2008	Head of O.R., Quality & Environment	N/A	October 2008	Fulfilment indicator: No. of procederes affected/no. of procederes integrated
2	Structural change of Quality Control and Environmental Protection databases according to BAB	July 2008	Head of O.R., Quality & Environment	N/A	February 2008	
3	Integration of Occupational Risk database with the Quality Control and Environmental Databases	November 2008	Head of O.R., Quality & Environment	N/A	November 2008	
Degree of achievement: 96 %			Observations: The objective was not 100% achieved because the management handbook and the process map were left undone.			



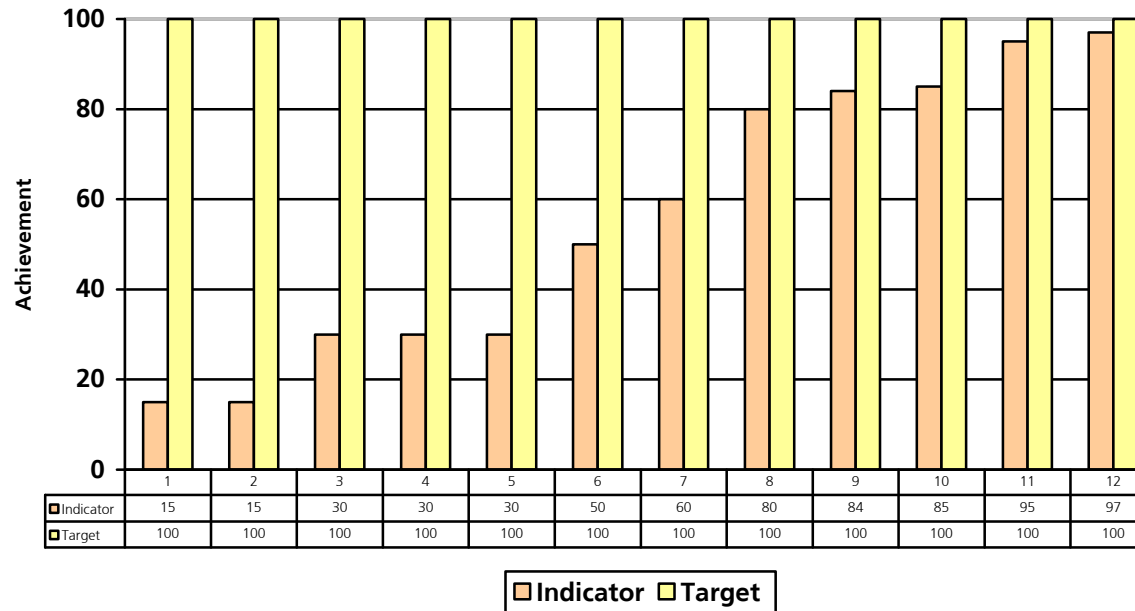
Objective		Improvement in the proceses and operations that affect Occupational Risk and Environmental Protection				
Goals	Time frame	Responsible	Means assigned	Deadline	Indicator	
1	Implementation of personnel control measures at the Factory	2008	Head of the Fcatory	4,000	March 2008	Fulfilment indicator: State of advancement
2	Improve and enhance waste management in the maintenance workshop.	March	Head of O.R., Quality & Environment, Head of Maintenance	N/A	September 2008	
3	Ensure the control and management of hazardous operations.	2008	Head of O.R., Quality & Environment, Head of Maintenance	N/A	December 2008	
Degree of achievement: 90%			Observations: The Factory Personnel Control has been installed, the management of waste in the workshop has been improved using reminder signs and containers, but the implementation and management of maintenance reports has not been completed.			



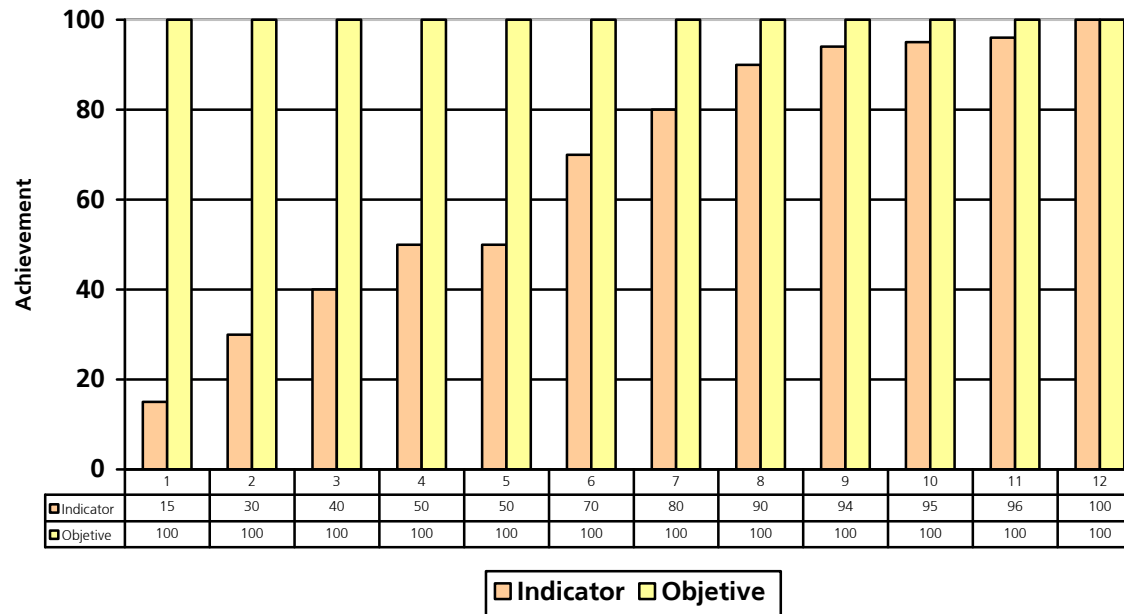
Objective		Ensure compliance with applicable legal requirements				
Goals	Time frame	Responsible	Means assigned	Deadline	Indicator	
1	Elaboration of list of legislation applicable to Occupational Risk and Environmental Protection	February 2008	Head of O.R., Quality & Environment	N/A	February 2008	Fulfilment indicator: State of advancement
2	Create an annual checklist of applicable requirements	February 2008	Head of O.R., Quality & Environment, SPM	N/A	February 2008	
3	Integration of environmental aspects with aspects of Occupational Risk	2008	Head of O.R., Quality & Environment, SPM	N/A	December 2008	
Degree of achievement: 95 %			Observations: The databases of applicable legal requirements have been integrated, but the timing of actions to be taken in the new integrated format has not been completely defined yet.			



Objective		Reduction in the emission of greenhouse gases through the use of biofuel and gases from the boiler torch				
Goals		Time frame	Responsible	Means assigned	Deadline	Indicator
1	Use of biodiesel in forklifts.	2008	Head of O.R., Quality & Environment, Head of Factory	N/A	-	Fulfilment indicator: % of biofuel used over % of torch gases used in boiler
2	Make use of gases from the process in the boiler	2008	Project Dept.	€300,000	October 2008	
Degree of achievement: 47%			Observations: The goal has two parts: Biodiesel has not been used since a supplier has not been found while the use of the torch gas in the boiler is 97% completed, still awaiting its use in production. Therefore, overall compliance is 47%.			



Objective		Environmental Certification by EMAS				
Goals	Time frame	Responsible	Means assigned	Deadline	Indicator	
1	Drafting of the Environmental Declaration	March 2008	Head of O.R., Quality & Environment, Head of Factory	N/A	March 2008	Fulfilment indicator: State of advancement
2	Verification of SGMA by an accredited verifier	March 2008	Head of O.R., Quality & Environment, Head of Factory	€2,000	April 2008	
3	Validation of the Environmental Declaration	March 2008	Head of O.R., Quality & Environment, Head of Factory	N/A	June 2008	
4	Registration in the EMAS Registry with the competent Body.	July 2008	Head of O.R., Quality & Environment, Head of Factory	N/A	December 2008	
Degree of achievement: 100%			Observations: The target has been achieved by 100%. The Memory still remains to be published on the Befesa portal.			



## 10. 2009 Environmental objectives

### 1. Reduce the emission of greenhouse gases by 5% less than in 2008

- Taking energy advantage of gases at the plant, optimizing the hydrogen plant  
Indicator 1: No. hours worked/No. hours possible (100% fulfilment)  
Indicator 2: m<sup>3</sup> per hour worked/ m<sup>3</sup> per hours possible (70% fulfilment)
- Reduction of gas consumption by 5% with respect to 2008 (512KWh/t) excluding the hydrogen plant. This is done by:
  - Hourly control of functioning with natural gas
  - Discrimination of gas consumption
 Indicator: hours functioning with gas/hours possible  
 - Increase in brine density  
 Indicator: average densities (average monthly density 1.2 kg/m<sup>3</sup>)

Goals	Time frame	Responsible	Means
Taking energy advantage of gases at the plant, optimizing the hydrogen plant	March	Maintenance/ Production	€350,000
Reduction of gas consumption by 5% with respect to 2008 (512 KWh/t) excluding the hydrogen plant. This is done by: - Hourly control of functioning with natural gas - Discrimination of gas consumption	March	Production	N/A

### 2. Reduction in water consumption by 5% with respect to 2008

- Reuse of water in solution  
Indicator: % reduction

Goals	Time frame	Responsible	Means
Reuse of water in solution	March	Head of Production	N/A

### 3. Reduction in electrical energy consumption by 2% with respect to 2008

- Create a power map  
Indicator: % reduction

Goals	Time frame	Responsible	Means
Create a power map	August	Head of Production	N/A

### 4. Reduction in the risk level due to noise in grinding to below 80 dB and in crystallization and dissolution to below 85 dB

- Identification of the noisiest equipment/operations
- Include operations to control the noise level in equipment maintenance
- Take measures to reduce noise
- Implement measures
- Undertake noise measurements  
Indicator: state of advancement (100% fulfilment)

<b>Goals</b>	<b>Time frame</b>	<b>Responsible</b>	<b>Means</b>
Identification of the noisiest equipment/operations	March	Occupational Risk, Maintenance	N/A
Include operations to control the noise level in equipment maintenance	April	Occupational Risk, Maintenance	N/A
Take measures to reduce noise	April	Occupational Risk, Maintenance	N/A
Implement measures	May	Occupational Risk, Maintenance	N/A
Undertake noise measurements	June	Occupational Risk, Maintenance	€300

## 11. Other relevant activities related to the environment

- In order to achieve our goals, Befesa Escorias Salinas SA always been aware that it must have the cooperation of highly qualified and motivated personnel. That's why each year, it sets an ambitious training plan of activities related to Quality Control, Occupation Risk and Environmental Protection in which permanent staff and new staff participate actively. Throughout the year 2008 nearly 2,000 hours will have been invested in staff training.
- Aware that in order to achieve compliance with its environmental policy as well as objectives and targets set, Befesa Escorias Salinas SA needed to have an advanced environmental management system. It therefore had its system certified by B.V.Q.I. in the year 2000 according to the ISO 14001 standard. In line with its commitment to the environment, Befesa Escorias Salinas SA has decided to voluntarily adhere to the EU's EMAS Eco-Management and environmental audits system.
- According to ISO 14001 and the EMAS European Regulation, Befesa Escorias Salinas SA has undergone appropriate environmental audits, both internally and externally, by checking the proper functioning of the Environmental Management System implemented. The conduct of audits is a key element in verifying both the validity of the data that departments are receiving throughout the year, as well as the procedures and instructions designed for good management. When, in the course of the audit, elements that do not conform to the Integrated Management System are identified, Corrective Actions are set in place to overcome these situations. The program of internal and external audits has been satisfactorily fulfilled during the year 2008.
- Befesa Escorias Salinas S.A. possesses the corresponding approval to act as a Handler/Manager of hazardous and non-hazardous wastes.
- Befesa Escorias Salinas SA belongs to and actively participates in the following associations:
  - Spanish Association for Quality (AEC).
  - Spanish Confederation of Metal Businesses CONFEMETAL, in which it is an active member of the Committee on the Environment
  - Member of the Standing Forum on the Environment of the Valladolid Chamber of Commerce
  - Spanish Association of Special Waste Handlers ASEGRE: It brings together businesses on a Spanish national level whose business is the handling of hazardous waste.
  - Castilla Leon Association on the Environment (CASLEMA)
  - Innovative Business Group on Environmental Sustainability
- Befesa Escorias Salinas SA regularly participates in R & D & I programmes along with various research centres and other European companies. These programmes are essentially aimed at improving recycling, evaluation and the full use of waste from the aluminium industry.

## **12. Grievances and complaints**

During 2008, there have been no environmental complaints or allegations made.

## **13. Forthcoming Environmental Declaration**

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

The next Validated Environmental Declaration will be created in March 2010.

Befesa Escorias Salinas S.A.

Valladolid (Spain)

March 2009