

Environmental Statement 2008



This Environmental Statement, dated 2008, has been performed in accordance with the Appendix III of the Regulations 761/2001, dated 19th March. This allows the organizations to voluntarily join the environmental management and audit scheme (EMAS), with the aim of meeting the needs of public information concerning Befesa Gestión de Residuos Industriales actions (Facilities of Nerva, Palos, Aljavir, La Puebla de Alfindén and Paterna) regarding environmental management.

This statement has been validated, by virtue of article 3 of Regulations 761/2001, by environmental verifier accredited by the Spanish Standardisation and Certification Association (AENOR). It is reviewed annually.

Index

Presentation.....	¡Error! Marcador no definido.
BGRI Presentation	5
BGRI Environmental Management System.....	13
Environmental aspects.....	18
Fulfilment of objectives in 2008.....	25
Objectives proposed for 2009.....	29
Monitoring the Environmental Behaviour	31
Other Actions Related to Sustainability.....	47
Appendixes	49
Appendix 1. Quantitative data for emissions to the atmosphere	50
Appendix 2. Quantitative data for environmental noise	53
Appendix 3. Quantitative data for discharges	56
Appendix 4. Quantitative data for monitoring risks associated to soil and groundwater contamination	61
Appendix 5. Other actions related to sustainability	63
Appendix 6. Plans and sampling point locations	64
Appendix 7. Glossary.....	69

Presentation

As in previous years, in Befesa Gestión de Residuos Industriales (BGRI) we present our Environmental Statement 2008 in which we include the actions and achievements of this year, and the objectives for the year 2009, aimed to protect the environment.

Since the beginning of our activity, we have worked to focus our efforts in making our activity compatible with respect and care of the natural environment. Throughout these years, we have maintained and even improved the environmental management of our facilities.

Due to the environmental involvement of our activity, in BGRI we would like to express our commitment with sustainable development. We are conscious that environmental care must be considered in any economical activity, since the welfare of future generations depends on it. Therefore, in BGRI we put effort into training and educating our staff, working actively in making them sensitive and aware of the environment in their job.

With this Statement, we want to present our clients, suppliers and the society in general the environmental behaviour of our facilities and our forward-looking approach. Befesa Gestión de Residuos Industriales is committed to sustainable development while providing quality service to clients compatible with environmental care.

As a principal innovation this year, following the commitments made by all Abengoa companies, we can highlight the introduction of a system that calculates the effect of greenhouse gas emissions due to our activities, which would allow us to identify, classify and quantify our emissions, resulting in an Inventory of the effect of Greenhouse Gases.

Finally, I would simple like to add that we have two Internet addresses www.befesa.es and www.befesa-gri.com, where anyone can get more information and know the most updated data about the management of our company.



BEFESA
Befesa Gestión de
Residuos Industriales, S.L.

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23 SEP. 2009

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BGRI Presentation

Befesa Gestión de Residuos Industriales, S. L. (BGRI), is an authorised manager for industrial waste and one of the business units of Befesa Medio Ambiente, head of the Environmental Services of Abengoa.

In recent years, BGRI has undergone many changes and, thanks to them, it has grown and become leader in the industrial waste management field.

The integration of several hazardous and non-hazardous waste management companies between the years 2000 and 2006 has made BGRI become a national reference concerning industrial waste management and treatment.

The production facilities included in this Environmental Statement are integrated in the Industrial Waste Department and are geographically located as the following map shows:

[Map]

The following diagram shows the facilities where BGRI offers a complete waste management service.

[Diagram]

BGRI Activities

BGRI activity is focused on industrial waste management; therefore, we offer our clients an integral management and elimination service of the waste material they produce in the performance of their activities. In order to do this, BGRI requires facilities, processes and different services to perform its activities while guaranteeing client satisfaction and meeting the environmental standards established by law.

The following diagram shows the different activities performed by BGRI as a whole.

[Diagram]

Below is a diagram that schematically shows the principal common stages, before admission of waste in each facility, followed by the delivery of waste to each facility.

[Diagram]

Below we describe BGRI production facilities included in this Statement, which allow us to offer our clients this integral management service:

Nerva Facility

BGRI Nerva Facility is situated in the town of Nerva (Huelva).

BGRI Nerva Facility is an authorised manager for "collection, transportation, treatment, storage and elimination of industrial waste."

The installations in this Facility are:

- Hazardous waste deposit
- Non-hazardous waste deposit
- Adaptation plant
- Physic-chemical plant (P-C plant)

- Transfer centre
- Evaporation plant
- Auxiliary services:
 - Sampling slab
 - Grinding and pressing
 - Laboratory
 - Lorry washing area
 - Wheel washing area

[Photo]

The following diagram shows the productive process in the facility:

[Diagram]

Palos Facility

BGRI Palos Facility is situated in the town of Palos de la Frontera (Huelva).

BGRI Palos Facility is an authorised manager for "collection, transportation, storage and elimination of industrial waste."

The principal installations in the Facility are as follows:

- Bays for solid waste storage
- Tanks for liquid waste storage
- Treatment plant
- Area for final product storage

- Auxiliary installations:

- Weighing instruments
- Laboratory

The following diagram shows the productive process in the facility:

[Diagram]

[Photo]

Ajalvir Facility

BGRI Ajalvir Facility is situated in the town of Ajalvir (Madrid).

BGRI Ajalvir Facility is an authorised manager for "storage of hazardous waste for its later transfer to other locations where it will be assessed or eliminated, with or without previous grouping."

The principal installations in the Facility are as follows:

- Bays to store waste material
- Steel tanks to store liquid waste
- Mixing tanks
- - Auxiliary installations:
 - Weighing instruments
 - Laboratory
 - Drum pressing instruments
 - Baler
 - Grinder

La Puebla Alfindén Facility

BGRI Alfindén Facility is situated in the town of La Puebla de Alfindén (Saragossa).

BGRI La Puebla de Alfindén Facility is an authorised manager for "collection, transportation, storage and delivery of industrial waste to an authorised manager."

The principal installations in the Facility are as follows:

- Bays for storage of hazardous and non-hazardous waste material
- - Auxiliary installations:
 - Weighing instruments
 - Drum pressing instruments
 - Grinder
 - Baler
 - Strapping machine
 - Laboratory

[Two photos]

Paterna Facility

BGRI Paterna Facility is situated in the town of Paterna (Valencia).

BGRI Paterna Facility is an authorised manager for "temporary storage, conditioning, grouping and transportation of hazardous waste."

The principal installations in the Facility are as follows:

- Bays for waste material storage and conditioning
- Tanks for liquid waste storage
- Processing basins
- Auxiliary installations:
 - Weighing instruments
 - Laboratory
 - Drum pressing instruments
 - Strapping machine
 - Baler
 - Grinder

[Photo]

The following diagram synthesizes the different phases of the productive process in the Facilities of Ajalvir, La Puebla de Alfindén and Paterna.

[Diagram]

To develop the management activities offered to our clients within the environmental standards established by law, BGRI Facilities included in this Statement also have the following authorisations:

Authorisations of BGRI Nerva Facility

Decision dated 26th June 2008 of the Provincial Environmental Board of Huelva concerning the application of the Integrated Environmental Authorisation submitted by Befesa Gestión de Residuos Industriales S.L. Nerva Facility.

Authorisations of BGRI Palos Facility

Decision dated 29th July 2008 of the Provincial Environmental Board of Huelva concerning the application of the Integrated Environmental Authorisation submitted by Befesa Gestión de Residuos Industriales S.L. Palos Facility.

Authorisations of BGRI Ajalvir Facility

Authorisation granted by the Regional Ministry of the Environment and Land Use Planning of the Autonomous Region of Madrid; the activities performed in this facility are "storage of hazardous waste for its later transfer to other places where it will be assessed or eliminated, with or without previous grouping."

Authorisations of BGRI La Puebla de Alfindén Facility

Authorisation granted by the Regional Ministry of the Environment of the Regional Government of Aragon to manage hazardous waste: collection, transportation, temporary storage and delivery to an authorised manager (Decision dated 24th January 2005). Modified by the Decision dated 9th May 2006 and the Decision dated 11th December 2006.

Decision of the Regional Ministry of the Environment of Aragon dated 5th November 2007 which modified the registration of non-hazardous waste management activities different from assessment or elimination.

Authorisations of BGRI Paterna Facility

Authorisation granted by the Regional Ministry of the Environment of the Autonomous Region of Valencia for the temporary storage, conditioning, grouping and transportation of hazardous waste.

BGRI authorisations for transportation

Authorisation as a transportation manager of hazardous waste in the Autonomous Regions of Andalusia, Madrid, Castilla-La Mancha, Castilla Leon, Extremadura, Vasque Country, La Rioja, Navarra and the Canary Islands.

Authorisation as a transportation manager of non-hazardous waste in the Autonomous Region of Extremadura since 2005, modified on 20th November 2006.

BGRI Environmental Management System

[Photo]

Environmental Policy

During the year 2008, we decided to take a step forward towards integrated management of our activities. Thus, to our integrated quality and environmental policy, we added a commitment to manage workers' security and health.

BGRI environmental policy is at the disposal of all the interested parties, so anyone can consult it and, if the case arises, put it into practice.

BEFESA

Befesa Gestión de Residuos Industriales, S.L.

Quality, Environmental and Prevention Policy

Befesa Gestión de Residuos Industriales, S.L. assumes the responsibility to add, within a framework of continuous improvement, the principles of quality, environmental protection and prevention of risks at work, to the management and development of its processes and services. We aspire to be recognised internally and externally as a responsible company that includes these principles in its activities and decisions. Thus, within the framework of this Management Policy, Befesa Gestión de Residuos Industriales has defined and implemented the following guidelines:

- To declare as primary commitments in the performance of all our activities the satisfaction of our clients and prevention of environmental pollution, risks at work, damages and health deterioration.
- To abide legislation and regulations applicable to our organisation in all its processes and waste management facilities.
- To identify and assess the environmental aspects that we generate in our activity, with the aim of ensuring a high level of effectiveness in controlling our processes, defining methods, assigning resources and establishing the required operation criteria.
- To minimise and eliminate the most important risks at work in our activity, identified in the assessment of risks at work in our facilities and processes, guaranteeing and improving safety at work.
- To ensure our clients' trust with regard to reliability, technical capacity, diligence and security in the development of our processes, being flexible enough to adapt to their requirements in a dynamic, changing and competitive environment, and considering the technological advances to make our processes more effective and safe.
- To have employees with the required qualification and motivation in order to ensure the improvement of the processes and the environmental behaviour in our waste management facilities, with the aim of satisfying our clients and ourselves.

Befesa Gestión de Residuos Industriales, S.L.

- To inform, consult, share, sensitise and train our employees, so they have the qualification and motivation needed to advance in the continuous improvement of processes and environmental behaviour in our facilities, while guaranteeing the knowledge and an effective response to risks at work and preventive measures required for all the activities performed.
- To preserve, increase and consolidate innovation and learning of the managing and operational processes, with the aim for continually improving our quality and environmental behaviour and directing our actions towards a process of Continuous Improvement of quality and environmental behaviour.
- To implant and keep updated an Integrated Quality, Environmental and Prevention of Risks at Work Management System that meets the requirements applied to the standards UNE-EN-ISO 9001:2000, UNE-EN-ISO 14001:2004 and OHSAS 18001:2007; thus, we structure and adapt this management system to our waste treatment activity, following our client's requirements and the needs of the current time.

This Quality, Environmental and Prevention of Risks at Work Policy is binding for all the employees of Befesa Gestión de Residuos Industriales and provides a framework to establish and review the management system objectives in the fields mentioned.

The Management of Befesa Gestión de Residuos Industriales will regularly review the Management Policy to ensure that it continues being relevant and appropriate; and will propose feasible objectives and goals to apply this policy with the aim for continuously improving the Management System introduced and commit to provide the required means to achieve it.

In Seville, 8th January 2009
Signed: Santiago Ortiz Domínguez
Director General

Management system documentation and organisation

In order to achieve an appropriate management, in the different BGRI Facilities, we introduced the Integrated Quality and Environmental Management System certified according to standards UNE-EN-ISO 14001:2004 and 9001:2000. This system guarantees that we will reach and maintain an operation in our company according to the environmental objectives established and that we will achieve an effective response capability to face the environmental risk situations that could arise. In addition, since 2004, BGRI has a System of Risk Prevention in the Workplace, according to the OHSAS 18001:1999.

The scope of the Integrated Quality and Environmental System certificates is as follows:

"The Quality and Environmental Management System defined is applied to collection, transportation, pre-treatment and treatment, storage, classification and delivery to assessment and/or elimination of waste, activities related to the industrial waste management performed by BGRI in the following facilities:

- Nerva Facility
- Cartagena Facility
- Ajalvir Facility
- La Puebla de Alfindén Facility
- Palos Facility
- Paterna Facility
- Ajalvir Facility for Non-Hazardous Waste
- Seville Facility for Non-Hazardous Waste

The management system is made from a series of documents that state action guidelines to meet the requirements established. This system is made of:

- Handbook: Input document that establishes the general guidelines and the definition of the BGRI organisation.
- General procedures: they define the means of action and can be applied to all BGRI Facilities.
- Specific procedures: they gather the specific actions of each facility.
- Technical instructions: they develop the specific operations for each facility.

The following diagram shows the system structure of documents:

[Diagram]

BGRI Organisation and Facilities Structure

BGRI has logistics, commercial and administrative centralised services located in Seville and Madrid and production facilities all throughout Spain (Huelva, Madrid, Valencia, Saragossa, etc.)

[Photo]

With regard to environmental management, the organising scheme is the same in all production facilities, with slight variations. The general structure is represented in the following flowchart:

[Flowchart]

Environmental Aspects

The objective of our environmental management is preventing or minimising the undesired effects of our activity and controlling their interaction with the environment. For that, we identify and assess the environmental aspects in each of the facilities, adapting the criteria to the particular circumstances of each facility and to the productive process.

An environmental aspect makes reference to any element of the organisation's activities or its products or services, which can interact with the environment and, as a consequence, can cause an impact.

When identifying environmental aspects, we have in mind the following conditions:

- Normal working and operating conditions.
- Abnormal working conditions (stop and start).
- Accidental or emergency situations.

These aspects are classified as follows:

- Direct normal environmental aspects: its origin is in the normal operation of processes, facilities and associated equipment.
- Direct potential environmental aspects: they have their origin in non-controlled situations beyond the normal operation of company processes, either because of incidents, accidents or emergency situations.
- Indirect environmental aspects: those that are not directly controlled by the facility, but they can take measures to control the possible environmental impact.

We regularly make a review of the aspects identified, of the assessment and criteria used for it, and adapt them to circumstances.

To know what environmental aspects of our management have an impact on the environment that surrounds us, we have established the following phases:

[Photo]

[Two diagrams]

As a result of this analysis, the significant environmental aspects identified in the production facilities are as follows:

Nerva

Aspects in normal conditions

- Grease box grease separator
- Contaminated absorbents
- Sludge from cleaning of non-hazardous waste leachate collecting basins
- Sludge from cleaning of hazardous waste leachate collecting basins
- Coveralls
- Other electric and electronic elements
- Plastic waste (from vessels and tubs covering)
- Laboratory waste
- Used filters generated in the facilities
- Sludge from septic tank
- Ni-Cd batteries
- Empty containers that are contaminated
- Gloves

Aspects in potential conditions

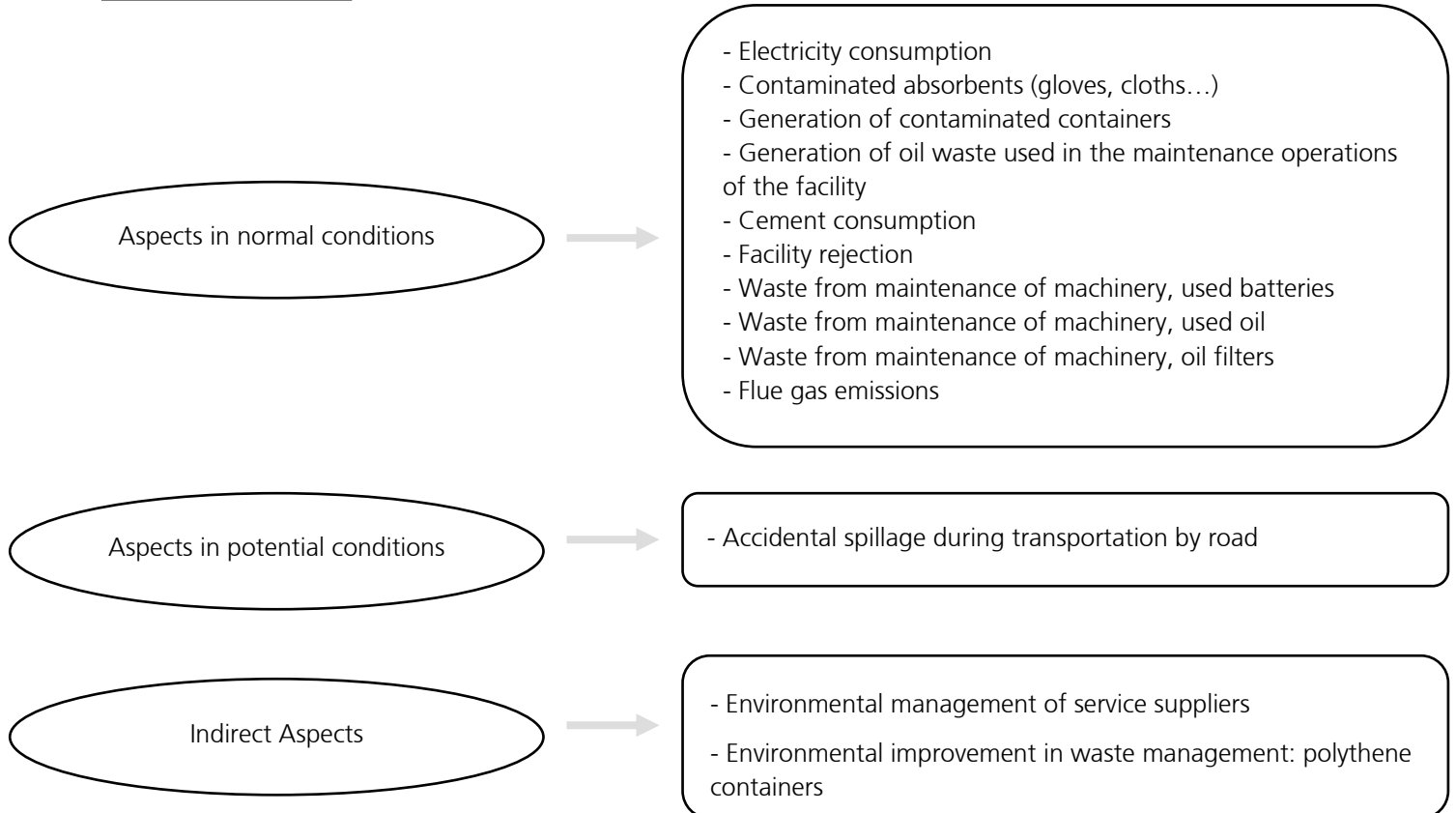
- Generation of waste coming from discharge collection in the facilities or in transportation
- Emissions derived from discharges in the facilities or in the transportation performed by BGRI
- Uncontrolled emissions to the atmosphere derived from fires in the facility or in the transportation performed by BGRI
- Waste discharge in the transportation performed by BGRI

Indirect Aspects

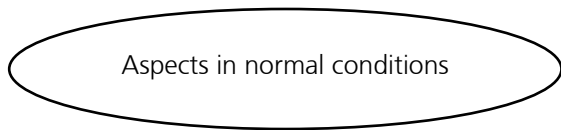
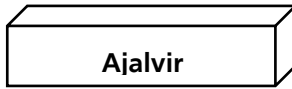
- Waste from maintenance of vehicles
- Taking up space and making the floor useless for other purposes
- Environmental improvement in waste management: pulvurulent waste that can be recovered
- Environmental improvement in waste management: Metallic containers

[Photo]

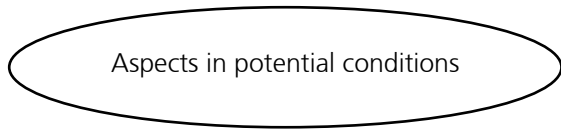
Palos



[Photo]



- Consumption of water from the facility local supply system
- Consumption of fossil fuel (lorries)
- Consumption of fossil fuel (trucks)
- Absorbents, filters, cleaning cloths and protective clothes contaminated with hazardous substances
- Waste coming from underground pits
- Laboratory waste
- Waste coming from the maintenance of own vehicles: oil and antifreeze (lorries)
- End-of-life vehicles
- Paper and cardboard waste
- Non-hazardous waste coming from the maintenance of own vehicles: tyres (lorries)



- Accident in waste transportation, with own and subcontracted means
- Spillage coming from pits



- Aspects derived from the final treatment of the waste sent
- Consumption of fossil fuels from subcontracted transportation
- Oil waste coming from maintenance of subcontracted transportation
- Waste coming from washing vehicles from subcontracted transportation
- Emissions associated to waste transportation (subcontracted vehicles)

[Photo]

La Puebla de Alfindén

Aspects in normal conditions

- Waste coming from maintenance of vehicles
- Night noise
- Contaminated material
- Absorbents
- Cleaning water
- Fluorescents
- Laboratory reagents
- Toner and toner waste
- Aerosols
- Contaminated containers

Aspects in potential conditions

- Accidental discharge due to liquid manipulation (soil contamination)
- Gas leak from air condition equipment

Indirect Aspects

- Vehicle flue gas emissions by transportation
- Waste from maintenance of vehicles
- Increase of services and suppliers' sensitivity and better environmental management
- Environmental improvement in waste management: inorganic waste that can be assessed

[Photo]

Paterna

Aspects in normal conditions

- Consumption of water from the local supply system
- Oil consumption
- Domestic sewage water
- Fluorescent waste
- Used oil generated in the facilities
- Plastic containers

Aspects in potential conditions

- Uncontrolled emissions to the atmosphere derived from fires in the transportation performed by BGRl
- Discharge. Causing soil/water contamination
- Emissions to the atmosphere caused by discharges
- Discharges due to tank break causing soil/water contamination
- Discharges due to basin break causing soil/water contamination
- Uncontrolled emissions to the atmosphere derived from fire in the facility

Indirect Aspects

- Waste generated in the maintenance of vehicles
- Waste coming from washing vehicles from subcontracted transportation
- Emissions derived from FIRE in the client's facilities or in the transportation
- Hazardous product leak or spillage in the client's facilities or in the transportation

[Photo]

Fulfilment of objectives in 2008

Since the introduction of the management system, BGRI has defined objectives aimed to meet the commitment made to continuously improve its environmental behaviour.

We establish general objectives that affect BGRI as a whole and specific objectives for each facility considering the significant environmental objectives identified above.

Below we gather the specific objectives established for the year 2008 and the degree of fulfilment:

Nerva Facility

OB08/NE/01: Improve electrical system conditioning in order to reduce by at least 60% the consumption of reactive energy in comparison with the consumption of this energy in the previous year.

Fulfilment degree

This work has not been started due to delays in granting the permit for the installation of the new transformer by the power supply company.

This objective is postponed for the year 2009 (code OB09/NE/01).

Objective not fulfilled.

OB08/NE/02: Minimising powder emissions generated in the facility operation.

Fulfilment degree

The construction of the plant for pulverulent waste has been finished, but it has not been started up due to delays in the administrative management of the power supply company.

This objective is postponed for the year 2009 (code OB09/NE/05).

Objective not fulfilled.

OB08/NE/03: 60% reduction of drinking water for its use in the facilities.

Fulfilment degree

Due to delays in the administrative procedures, it has not been possible to start using raw water as process water.

This objective is postponed for the year 2009 (code OB09/NE/03).

Objective not fulfilled.

OB08/NE/04: Expanding and restoring by at least 20% the green areas within the facility.

Fulfilment degree

We have carried out the plantation of new areas and the restoration of those that already existed, increasing by 22% the green area surface.

Objective fulfilled.

OB08/NE/05: Improving workers' environmental awareness through selective collection of recyclable urban waste.

Fulfilment degree

We have implemented the selective collection of domestic waste and delivery for recycling. The total amount of domestic waste sent to recycling during 2008 was 289 kg.

Objective fulfilled.

OB08/NE/06: Reduction of white paper consumption by 15%.

Fulfilment degree

In 2008, we have reduced the consumption of white paper by 28% in comparison with 2007 thanks to computerization of document management and workers' environmental training.

Objective fulfilled.

Palos Facility

OB08/PA/02: To achieve that at least 50% of the inorganic materials evaluated be deemed feasible for its reuse or assessment.

Fulfilment degree

We have not reached the goals proposed, but we continue studying the feasibility of the project. We have decided to postpone this objective and to establish it as a global objective, as it can be applied to all locations within the Company.

This objective is postponed for the year 2009 (code OB09/BGRI/02).

Objective not fulfilled.

OB08/PA/03: Repair of road stretch to minimise the possible environmental impact.

Fulfilment degree

During 2008 we have poured concrete into the road stretch of the facility that was missing, contributing this way to reduce the possible environmental impact.

Objective fulfilled.

OB08/PA/04: Send to recovery more than 80% of the total amount of containers managed.

Fulfilment degree

Throughout the year 2008, we took the appropriate steps so that the containers received in our facilities could be sent to an authorised manager for their recovery.

From the total amount of containers managed (407 t), we have sent 374 t of containers to be recovered, which means that we have sent to recovery 92% of containers managed.

Objective fulfilled.

Ajalvir Facility

OB08/AJ/01: Systematic introduction of urban solid waste separation in the facility.

Fulfilment degree

We introduced a system to separate 38% of the total amount of urban solid waste generated in the facility.

Objective fulfilled.

OB08/AJ/02: Reduction of the facility visual impact.

Fulfilment degree

We achieved the goal proposed and, at the end of the year, we conditioned about 57m², in comparison with the 31m² that were conditioned in 2007.

Objective fulfilled.

OB08/AJ/06: Reduction by 5% of the waste coming from underground pits.

Fulfilment degree

Due to an inappropriate system, it has not been possible to minimise waste generation.

This objective is postponed for the year 2009 (code OB09/AJ/06).

Objective not fulfilled.

La Puebla de Alfindén Facility

OB08/LA/01: Substitution of 50% of the air condition equipment containing HFCs.

Fulfilment degree

Due to the negative economic situation of the year 2008, all investments have been stopped; therefore, we could not reach the goals proposed. It is not postponed for next year as we do not know if the economic situation will improve.

Objective not fulfilled.

OB08/LA/02: Reduce by 2% the amount of hazardous waste we generate.

Fulfilment degree

The amount of waste generated in our facilities increased mainly due to the fact that we cleaned machinery more often, which caused an increase in the amount of sewage water. We propose to postpone this objective for next year, as a longer generation period could be more representative of the global management.

This objective is postponed for the year 2009 (code OB09/LA/01).

Objective not fulfilled.

Paterna Facility

OB08/PT/02: Reduce by 10% the hazardous waste produced.

Fulfilment degree

Although we have reached the goals established by introducing the system completely, we have not achieved the objective proposed.

Objective not fulfilled.

OB08/PT/03: Reduction of heaters electrical consumption.

Fulfilment degree

We reached all our goals. We bought and installed a total of five programmers for facility heaters.

Objective fulfilled.

Objectives proposed for 2009

Based on the objectives assessment of 2008 and considering the new assessment of environmental aspects, we propose the objectives for the year 2009.

Below we summarise the objectives suggested for next year:

Nerva Facility

OB09/NE/01: Improve electrical system conditioning in order to reduce by at least 60% the consumption of reactive energy in comparison with the consumption of this energy in the previous year.

OB09/NE/03: 15% reduction of drinking water for its use in the facilities.

OB09/NE/05: Minimising powder emissions generated in the facility operation.

Palos Facility

OB09/PA/01: Sign a trade agreement with at least one client to use our product resulting from the assessment process.

OB09/PA/02: Increase workers' environmental awareness through selective collection of waste generated in the offices.

OB09/PA/03: Increase by 20% the fulfilment of the training plan in comparison with the previous year.

Ajalvir Facility

OBJ09/AJ/01: Increase by 10% the percentage of paper recycled in the facility.

OBJ09/AJ/02: Increase by 10% the number of suppliers certified with the standard UNE-EN ISO 14001.

OBJ09/AJ/06: Reduction by 5% of the waste coming from box and pits cleaning.

La Puebla de Alfindén Facility

OB09/LA/01: Reduce by 2% the amount of hazardous waste we generate.

OB09/LA/03: Achieve increasing by 10% the number of transporters with certification ISO 14001 and ISO 9001.

OB09/LA/04: Reduce by 10% the consumption of water in comparison with the previous year.

Paterna Facility

OB09/PT/01: Reduce paper consumption by 10%.

OB09/PT/02: Reduce the consumption of oxygen for analysis by 20%.

OB09/PT/03: Send to recovery 80% of the contaminated plastic containers generated.

Monitoring the Environmental Behaviour

Below we present the information concerning BGRI environmental behaviour for each of the facilities in the year 2008. This information allows BGRI to assess their behaviour regarding legal requirements related to the environmental aspects of the organisation.

Appendices 1 to 4 gather complementary management information corresponding to the different BGRI facilities included in this statement. Appendix 5 includes the site plans and sampling points of the five facilities.

In those cases where the average value does not surpass the detection limit, the data included represents the absolute value of the said limit.

Amount of waste managed

The following table shows the tons of waste managed in each of the production facilities.

Facility		Waste Received (t)	
		2007	2008
Nerva	Hazardous waste to safety store	38,164	35,649
	Hazardous waste to intermediary management	9,720	6,514
	Hazardous waste to treatment in adaptation plant	150,884	202,253
	Hazardous waste to recovery treatment	0	9,528
	Non-hazardous waste to non-hazardous waste deposit	293,403	249,651
Palos	Hazardous waste to treatment plant	121,959	113,355
	Non-hazardous waste to treatment plant	0	192
Ajalvir	Hazardous waste to intermediary management	40,374	29,408
La Puebla de Alfindén	Hazardous waste to intermediary management	15,672	15,809
	Non-hazardous waste to intermediary management	1,691	3,252
Paterna	Hazardous waste to intermediary management	20,822	22,695

Facility		Waste Received (t)	
		2007	2008
Nerva	Hazardous waste	9,631	6,584
Palos	Hazardous waste	123,542	119,731
Ajalvir	Hazardous waste	40,288	29,208
La Puebla de Alfindén	Hazardous waste	15,192	15,458
	Non-hazardous waste	1,932	3,230
Paterna	Hazardous waste	20,851	22,977

From the management data obtained from Nerva Facility, we observe that the amount of tons of hazardous waste for treatment increased in comparison with the amount of tons sent directly to its final storage. Thus, we could perform a more sustainable management of waste and, therefore, contribute to improving the environment.

Palos Facility, in the year 2008, began to manage non-hazardous waste, which allowed it to offer more treatment options to the waste generated by our clients.

The amount of tons managed in Ajalvir Facility in the year 2008 was smaller than in the previous year. This could be due to the economic situation, which made small waste producers, principal clients of this facility, to reduce or even to stop their production lines, which resulted in a reduction of the waste generated.

Even though in the management (reception/delivery) of hazardous waste the amounts managed by La Puebla de Alfindén Facility were similar to the previous year, the management of non-hazardous waste increased significantly, which proves our greater presence in the field.

In the Paterna Facility, we can observe an increase in the tons managed, which continues proving our effort to provide a more thorough service by offering an appropriate management of waste.

To sum up, we observe that the tons of waste managed on the whole increased in comparison with the previous year, providing a better service to our clients. Based on the management data, we can conclude that treatment and/or assessment prevailed over final store, thus meeting the sustainability policy of our company.

Consumption of natural resources

Consumption of natural resources is required for any organisation operations; therefore, its control is necessary to ensure that the environmental management causes the least possible impact.

Resource	Facility	Unit	2007		2008	
			Total	Ratio consumption/ t waste managed	Total	Ratio consumption/ t waste managed
Water	Nerva	m ³	55,265	0.11	43,101	0.09
	Palos		5,616	0.05	4,862	0.04
	Ajalvir		1,097	0.03	711	0.02
	La Puebla de Alfindén		343	0.02	486	0.025
	Paterna		417	0.02	361	0.015
Electricity	Nerva	KWh	379,299	0.77	312,603	0.62
	Palos		274,513	2.25	270,141	2.38
	Ajalvir		261,797	6.48	308,013	10.47
	La Puebla de Alfindén		85,573	4.93	88,345	4.63
	Paterna		114,799	5.51	104,892	4.62
Diesel oil	Nerva	L	108,785	0.22	148,205	0.29
	Palos		1,501	0.012	47,347*	0.42
	Ajalvir		68,101	1.69	60,793	2.07
	La Puebla de Alfindén		54,419	3.13**	46,660	2.45
	Paterna		7,460	0.36	7,373	0.32
Sepiolite	Ajalvir	kg	6,600	0.16	13,200	0.45
	La Puebla de Alfindén		7,060	0.41	6,740	0.35
	Paterna		7,160	0.34	11,000	0.48
Cement	Nerva	t	6,975	0.014	11,094	0.022
	Palos		2,831	0.023	2,926	0.026

*It shows that diesel oil consumption in Palos Facility increased significantly, as in the year 2007 the consumption of subcontracted machinery was not considered because we did not have any data.

**It has been modified in comparison with the Statement of the previous year due to a typographical error.

In general, we can observe an optimisation in the consumption of natural resources due to the fact that, even though we have managed, on the whole, a larger number of tons of waste, the escalation in process improvement resulted in a reduction of water and electricity consumption, proving that BGRI is a company committed to the environment and works toward a more sustainable world.

Waste generated

BGRI Facilities generate hazardous and non-hazardous waste material as a consequence of their activities, operations and services. In all the cases, they are properly managed.

The non-hazardous waste generated in a larger proportion is similar to urban waste, plastic, wood and cardboard waste. These waste materials are segregated and placed in local containers or are delivered to authorised managers for their recovery or recycling.

With regard to hazardous waste, we must highlight that these waste materials are segregated and treated as any other waste of this same nature, so we send them to an authorised manager for their correct treatment.

The following table shows the amounts of the four most significant hazardous waste materials generated in each facility:

Facility	Waste produced	2007		2008	
		Total (kg)	Ratio Waste produced/ t waste managed	Total (kg)	Ratio Waste produced/ t waste managed
Nerva	Solid - evaporation plant	613,000	1.25	488,000	0.97
	Contaminated absorbents	7,725	0.003	11,550	0.023
	Laboratory waste	7,263	0.01	7,305	0.015
	Leftovers of liquid samples and atomic absorption	900	0.0002	1,350	0.003
Palos	Oils	2,100	0.02	310	0.003
	Contaminated absorbents	770	0.006	380	0.003
	Containers contaminated with oil, grease and paint	270	0.002	160	0.001
	Process rejection	-	-	864,950	7.62
Ajalvir	Liquid waste from tank, drum and box cleaning	5,150	0.13	5,980	0.20
	Contaminated absorbents (analysis laboratory)	467	0.012	770	0.026
	Absorbents, filtration materials, cleaning cloths and contaminated clothes	3,770	0.09	3,530	0.12
	Flammable aqueous solution (analysis laboratory)	118	0.003	220	0.007

Facility	Waste produced	2007		2008	
		Total (kg)	Ratio Waste produced/ t waste managed	Total (kg)	Ratio Waste produced/ t waste managed
La Puebla de Alfindén	Contaminated absorbents	1,314	0.076	385	0.02
	Cleaning water	4,930	0.28	7,470	0.39
	Aerosols	86	0.005	56	0.003
	Contaminated materials	40	0.002	339	0.018
Paterna	Contaminated substances	4,818	0.231	4,352	0.192
	Laboratory reagents	79	0.004	83	0.004
	Fluorescents	Non-available data	-	9,5	0.0004
	Oils	-	-	15	0.001

Even though, in general, the amount of waste generated increased in comparison with the previous year, when we analyse the ratio (tons of waste generated/tons of waste managed), we see that this value is lower, as the amount of waste managed is higher. The increase of external waste managed resulted in more activity and, therefore resulting in a generation of waste coming from the different processes. We can highlight that the management of the waste we generate followed the sustainability policy of the Company, prevailing assessment, recovery, recycling and/or treatment over final store.

Emissions to the atmosphere

The activities developed in BGRI Facilities can cause emissions or immissions in the atmosphere derived from the waste treated there. When it is necessary, we use gas aspiration and purification equipment to avoid scattering of pollutants in the atmosphere.

We perform regular controls, sample takings and analytical determinations in the different facilities in order to check that we meet the different legal requirements.

Nerva Facility

As the Integrated Environmental Authorisation of Nerva Facility establishes, measurements of immissions were performed in the facilities.

The following chart shows the values obtained from measurements of suspended particles, where we can clearly observe that these values are quite far from legal limits.

Values obtained are gathered in Appendix 1, where we observe that these values are quite far from legal values.

[Chart]

Palos Facility

Following what was established in the Integrated Environmental Authorisation, throughout the year 2008, Palos Facility performed measurements of particles in immission through an entity accredited by the Regional Ministry of the Environment. The following chart shows the values obtained, proving that legal limits were met.

[Chart]

Ajalvir Facility

In Ajalvir Facility, there are three emission focuses identified. Controls of emission focuses and measurements of environmental air quality are performed regularly by an accredited organisation. Appendix 1 gathers the sampling points and the last results.

The following chart shows some of the most significant parameters analysed and compares them with the results obtained in the years 2007 and 2008. In all the cases, they are far below legal limits and, sometimes, even below detection limits.

[Three charts]

La Puebla de Alfindén Facility

The following chart shows the data resulted from controls of emissions in the atmosphere coming from the emission focus identified (boiler) in the year 2005. In 2008, we did not perform any measurement, as there were not significant changes in the Facilities.

[Chart]

Paterna Facility

In the year 2008, we performed measurements of non-channelled emissions of total suspended particles in the atmosphere, settleable particles and volatile organic compounds (VOCs). In the charts and in the table included in Appendix 1, we can observe that the values obtained are far below the limits established by Decree 127/2006 of the Autonomous Region of Valencia.

[Chart]

[Photo]

Environmental Noise

Industrial activities are usually potential sources of acoustic emissions, due to the use of machinery and internal and external transporting vehicles. The damage they can cause depends on the susceptibility of the receiving environment and the use of the area where the facilities are placed. BGRI activities produce noise emissions outside the facilities that are regularly assessed.

The noise impact of BGRI activities on the outside can be assessed as low, according to the data obtained in the measurements performed in the different facilities.

Below we present the situation in each production facility.

Nerva Facility

In the year 2008, we performed measurements of noise emissions sent outside; these data are collected in Appendix 2. As we can observe in the chart, the results obtained are similar to previous measurements, therefore, we continue below legal limit.

[Chart]

Palos Facility

Likewise, in the year 2008, we performed noise measurements in this Facility. The following chart shows the data corresponding to the years 2006 and 2008; in both cases the results were below legal limits.

Appendix 2 shows the results of the analyses done in the last years.

[Chart]

Ajalvir Facility

Throughout the year 2008, we performed noise measurements in this Facility. Appendix 2 gathers the results and the comparison with the year 2006. In all the cases, the results were below the limits established.

We can highlight that in 2008 sampling points were checked and reduced to six.

The following chart compares noise measurement results during the daytime obtained in 2006 and 2008.

[Chart]

La Puebla de Alfindén Facility

In BGRI Alfindén facility, we performed noise measurements in June 2005, being these the most updated data available. The measurements performed during daytime operation are represented below; all show below legal limit. The measurement in point 1 could not be distinguished from background noise, so it is not significant. The legal limit represented is the one established by the Municipal Bylaw concerning noise in the town of La Puebla de Alfindén.

[Chart]

Paterna Facility

At the beginning of 2008, we performed the first measurements of environmental noise in this Facility, as it had been recently acquired by BGRI.

[Chart]

The following chart and Appendix 2 show that values obtained are below the limits established by Decree 266/2004 of the Autonomous Region of Valencia, to be applied in this facility.

Only the measurement point 2 can be represented due to the fact that the difference between the noise produced by the activity and the environmental background noise does not surpass 3dB; therefore, measurements must be rejected because the conditions were not appropriate to perform them as established in point 5, Appendix II of the Royal Decree 266/2004.

Discharges

Waste management activities performed by BGRI in the different facilities require the use of water in some of the treatment phases. Nevertheless, our Facilities do not discharge water that is or could be contaminated. Industrial water is segregated and treated as hazardous waste, and can be discharged into the local drainage system or into public channels if appropriate. However, rain and drain water, as it happens with domestic water, is discharged into the drainage system or channel, meeting the appropriate discharge authorisations. The composition of these discharges is regularly controlled with analyses.

Now we will mention the particular characteristics of the discharges made by each facility.

Nerva Facility

The BGRI Nerva facility generates leachates from percolation of rainwater through the mass of waste stored in the Vessels. To avoid discharging leachates, we have a Forced Evaporation Plant and we also have the possibility of using them as process water for treatment in the adaptation plant. With this, in 2007, we reached the "zero discharge" objective in the facilities.

Discharges	2007	2008
Discharge of the Hazardous Waste vessel collecting basins content into the Ventoso stream	0 m ³	0 m ³
Discharge of the Non-Hazardous Waste vessel collecting basins content into the Ventoso stream	0 m ³	0 m ³

Palos Facility

In the Palos Facility we only discharge sewage water similar to sanitary urban water after treatment in septic tank.

The Integrated Environmental Authorisation establishes the analytical parameters to be determined and the legal limits.

The following chart shows the values resulting from measurements, while Appendix 3 includes numerical data.

[Chart]

[Photo]

Ajalvir Facility

Ajalvir facility has two discharging points, one coming from bay 12 and another corresponding to the remaining facilities (main discharge). Discharges of bay 12 are monitored every six months while the main discharge is monitored every month.

The following charts show the most significant average results of the analyses performed monthly in samples taken from the main discharge, comparing them with the same average values corresponding to the year 2007. As we can observe, they never surpass legal limits and are very far from the maximum values required by Decree 57/2005 of the Autonomous Region of Madrid.

Appendix 3 shows the results of all the analyses performed in 2007 and 2008.

[Chart]

* Some legal limits are out of scale; see values in Appendix 3.

[Chart]

La Puebla de Alfindén Facility

La Puebla de Alfindén Facility exclusively discharges sanitary water. Throughout the year 2008, La Puebla de Alfindén Facility received the discharge authorisation that established discharge limits. Below we represent some of the most representative parameters, including all the results in Appendix 3.

[Chart]

* Some legal limits are out of scale; see values in Appendix 3.

Paterna Facility

Since there is no process water in Paterna Facility, we only discharge sanitary and rain water coming from the canopies. The water is discharged directly to the municipal sewer system and the town council of Paterna regularly controls discharge points in the industrial area.

Surveillance of risks associated to soil and groundwater contamination

Nerva Facility

To ensure effectiveness of preventive measures established in waste deposits, we perform regular surveillance of numerous analytical parameters in samples taken from the soil surrounding the facilities as well as from groundwater (piezometers).

In the last quarter of 2007, the situation of the piezometers was modified as a result of the construction of the Vessel III for Non-Hazardous Waste and the facility key dam. For this reason, we placed new piezometers downstream from the key dam (P1 and P1') which replaced those existing before the construction of the new vessel. As a consequence, we take as initial reference the analytical results of the sampling performed in the 4th quarter of the year 2007, prior to the exploitation of the vessel III for non-hazardous waste.

In the case of piezometers P3 and P4, references are maintained and we compare these results with those of the year 2007.

Below we show the analytical results annual average of some of the most relevant parameters of the regular controls performed in the soil that surrounds the facilities:

[Two charts]

Based on the results above, we can conclude that the possibility of contamination of the environment by the activity in the facility is null, as it maintains proper environmental quality levels.

The following charts show the annual average analytical results of some relevant piezometers coming from the regular controls that are performed in groundwater (piezometers):

[Three charts]

* Some values are out of scale; see values in Appendix 4.

Due to the new situation of the piezometers P1 and P1' in the trough, downstream from the key dam of the vessel III of Non-Hazardous Waste, the influence of the pyritic area where Nerva Facility is located is clear. It is geologically characterised by a high content of metals, which, together with the acidity of the surface water, favours the solubility of these metals. Thus, they are dissolved and infiltrated by rain water into the natural soil, which in certain moments can cause concentrations of some metals that are higher than their reference values.

This phenomenon can also be observed in the historical data corresponding to piezometers of reference P3 and P4, located upstream in the facility and, therefore, are not affected by the influence of our activity, where the concentrations of some metals in the samples taken, as this is the case of P3, fluctuate and even become superior to the reference value.

Other Actions Related to Sustainability

Concern to obtain a sustainable development does not focus exclusively on the environmental factor. We can only talk about sustainable development when we consider the three factors involved in human development: economic development, social development and environmental development.

Following the strategy developed by Abengoa, our company started to analyse the impact of our activity on the towns where our facilities are located at economic and social levels.

In 2007, we proposed two indicators related to the influence of each facility in the area where they perform their activities. Below we analyse the results obtained from these indicators:

- A) Influence on the social development of the town where the facility performs its activities: Number of agreements with social entities:

[Two charts]

In these charts we can appreciate the collaboration of BGRI with the social entities of the different areas where our facilities are located.

- B) Influence on the economic development of the towns where each facility performs its activities: influence on local employment analysed by comparing the place of residence of the workers of each Facility: summary of data.

Facilities	2007		2008	
	Workers who live in Town	Total Facility	Workers who live in Town	Total Facility
Nerva	25	37	28	40
Palos	2	20	1	20
Ajalvir	0	41	0	42
La Puebla de Alfindén	2	22	2	23
Paterna	2	17	3	18
Total	31	137	34	145
Percentage	23%	100%	23.5%	100%

We give evidence of BGRI contribution in the economic development of the towns where the facilities develop their activities, increasing the number of workers who live in town in some facilities.

Statement Validation

Date for next environmental statement: May 2010.



BEFESA
Befesa Gestión de
Residuos Industriales, S.L.

Signed: Santiago Ortiz Domínguez

Position: Director General

Date: July 2009

[Below we see the square seal belonging to AENOR, Spanish Standardisation and Certification Association.]



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Appendixes

Appendix 1. Quantitative data for emissions to the atmosphere

A) Nerva Facility

Suspended particles ($\mu\text{g}/\text{Nm}^3$)	Point 1	Point 2	Point 3
2007	42	111	58
2008	23	7	39
Legal limit			150 $\mu\text{g}/\text{Nm}^3$

Settleable particles (soluble + insoluble) (mg/m^2 day)	Point 1	Point 2	Point 3
2007	172	181	117
2008	253	158	204
Legal limit			300 mg/m^2 day

B) Palos Facility

Suspended particles ($\mu\text{g}/\text{Nm}^3$)	Point 1	Point 2	Point 3
2006	135	139	59
2008	111	55	145
Legal limit			150 $\mu\text{g}/\text{Nm}^3$

C) Ajalvir Facility

- **Emissions to the atmosphere**

Maximum average values

Parameter	Legal limit (mg/Nm ³)	Focus 1		Focus 2		Focus 3	
		2007	2008	2007	2008	2007	2008
Toluene	100	<1.3 (0*)	<1.3	1.3 (*)	2.0	<1.3 (*)	2.0
Xilene	100	<4.0 (*)	<4.0(*)	<4.0 (*)	<4.0(*)	<4.0 (*)	<4.0(*)
TOC	150	69	51	78	38	8	43
Acetone	2,400	<4.0 (*)	<4.0	<4.0 (*)	<4.0	<4.0 (*)	<4.0
Ethanol	1,900	<4.0 (*)	<4.0	<4.0 (*)	20.0	<4.0 (*)	<4.0(*)
i-Butanol	300	<4.0 (*)	<4.0	<4.0 (*)	<4.0(*)	<4.0 (*)	<4.0(*)
i-Propanol	980	<4.0 (*)	6.0	<4.0 (*)	<4.0	<4.0 (*)	18.0
Methyl ethyl ketone	590	<4.0 (*)	<4.0(*)	<4.0 (*)	<4.0(*)	<4.0 (*)	<4.0(*)
n-Butanol	300	<4.0 (*)	<4.0(*)	<4.0 (*)	<4.0 (*)	<4.0 (*)	<4.0(*)
n-Hexane	1,800	<1.3 (*)	<1.3	39.3	<1.3	<1.3 (*)	<1.3
Methylene chloride	1,750	<4.0 (*)	<4.0	18	<4.0	<4.0 (*)	<4.0(*)
Chloroform	240	<20.0 (*)	<20.0(*)	<20 (*)	<20.0(*)	<20 (*)	<20.0(*)
Carbon tetrachloride	160	<20 (*)	<20.0(*)	<20 (*)	<20.0(*)	<20 (*)	<20.0(*)

(*) It indicates that the substance has not been detected and reports the detection limit.

Focus 1: activated carbon filter 1 that purifies the air extracted from bays 16, 15 and 14.

Focus 2: activated carbon filter 2 that purifies the air extracted from bay 13.

Focus 3: gas washer that purifies gas coming from venting or from storage and pre-treatment tanks.

D) La Puebla de Alfindén Facility

Atmosphere measurements performed in the boiler are performed every five years, as they are classified as Group C. The last measurements were taken in 2005 and are included below.

Pollutant	Limit according to Decree 833/1975	Emission level
SO ₂ (mg/m ³ N)	1,700 mg/m ³ N	110.6 mg/m ³ N
CO(ppm)	1,445 mg/L	100 mg/L
NO _x (ppm)	300 mg/L	43 mg/L
Opacity	2	1

E) Paterna Facility

Pollutant	Limit according to Royal Decree 127/2006	Immission level	
		Point 1	Point 2
Total suspended particles	150 µg/m ³ N	40.8	56.1
Settleable particles	300 mg/m ² day	190.7	123.5
VOCs	VLA-ED 5733 µg/m ³	2.3	

Note: Emission levels shown in the table above are the average values obtained from samples taken in the facility.

Appendix 2. Quantitative data for environmental noise**A) Nerva Facility**

Sampling points	Unit	Year 2007 (Daytime)	Year 2008 (Daytime)
Point A	dB(A)	52.3	44.2
Point B	dB(A)	49.6	61.8
Point C	dB(A)	60	51.4
Point D	dB(A)	50.7	56.9
Legal limit for industrial areas			75 dB (A)

B) Palos Facility

Sampling points	Unit	Year 2006 (Daytime)	Year 2008 (Daytime)
Point 1	dB(A)	65.8	65.0
Point 2	dB(A)	72.0	68.6
Point 3	dB(A)	65.5	72.5
Point 4	dB(A)	-	64.2
Legal limit for industrial areas			75 dB (A)

C) Ajalvir Facility

Sampling points	Unit	Year 2006 (Daytime)	Year 2008 (Daytime)
Point 1	dB(A)	65.15	68.3
Point 2	dB(A)	65.65	63.8
Point 3	dB(A)	50.08	54.3
Point 4	dB(A)	57.65	60.4
Point 5	dB(A)	67.2	64.2
Point 6	dB(A)	53.65	52.9
Point 7	dB(A)	51.25	**
Point 8	dB(A)	56.4	**
Legal limit for industrial areas			75 dB (A)

*In the year 2006, we performed two measurements per semester. The table above shows the average values obtained from these measurements.

** Points 7 and 8 were within the facility; this year, they have been eliminated because they did not measure environmental noise.

D) La Puebla de Alfindén Facility

Sampling points	Unit	Year 2005 (Daytime)
Point 1	dB(A)	*
Point 2	dB(A)	54.2
Point 3	dB(A)	57.0
Point 4	dB(A)	58.8
Point 5	dB(A)	60.5
Point 6	dB(A)	64.0
Legal limit for industrial areas		65 dB (A)

* The noise generated by the noise source cannot be determined, as the difference between the level with the noise source working and the background noise is lower than 3 dB.

E) Paterna Facility

Sampling points	Unit	Year 2008 (Daytime)
Point 1	dB(A)	Null*
Point 2	dB(A)	65.2 dB(A)
Point 3	dB(A)	Null*
Point 4	dB(A)	Null*
Legal limit for industrial areas		70 dB (A)

* According to point 5, Appendix II of the Decree 266/2004, since the difference between the noise produced by the activity and the environmental background noise does not surpass 3dB, measurements must be rejected because the conditions were not appropriate to perform them.

Appendix 3. Quantitative data for discharges

A) Palos Facility

Parameter IEA	Unit	Average 2008	Legal limit
pH	pH	7.34	5.5-9.5
Suspended solids	mg/L	12	35
COD	mg/L	50.5	125
TOC	mg/L	21.13	30

B) Ajalvir Facility

- Discharge of non-industrial water and rainwater

Year 2007

Parameter	Decree 57/05	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average value
PH	6-10	7.8	7.2	6.9	7.8	8.4	8.5	8.1	7.4	7.8	8.1	9	7.5	7.9
Conductivity ($\mu\text{S}/\text{cm}$)	7500	656	725	555	922	939	1034	908	452	1080	910	1094	752	836
Suspended solids (mg/L)	1000	57	136	150	65	52	40	174	123	68	180	206	142	116
Oils and grease (mg/L)	100	41	< 10	31	20	15	52	68	95	28	< 10	149	< 10	44
COD (mg O ₂ /L)	1750	334	722	922	299	309	320	413	211	774	534	982	284	509
BOD ₅ (mg O ₂ /L)	1000	132	443	436	154	109	181	190	83	180	254	375	110	221
Aluminium (mg/L)	20	< 2	< 2	5.61	< 2	< 2	< 2	< 2	< 2	< 2	2.80	5.29	3.26	2.75
Arsenic (mg/L)	1	<0.01	0.03	<0.01	<0.01	0.02	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Barium (mg/L)	20	< 2	< 2	< 2	2.51	< 2	< 2	< 2	< 2	3.2	2.3	17.2	0.75	3.3
Boron (mg/L)	3	0.4	1.4	0.6	0.3	0.3	1.7	1.1	0.3	0.9	1.1	0.7	0.2	0.75
Cadmium (mg/L)	0.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03
Cyanide (mg/L)	5	0.1	1.3	0.5	0.3	0.1	0.2	2.6	0.7	2	0.1	<0.1	0.3	0.7
Copper (mg/L)	3	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.2
Chromium total (mg/L)	3	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.2
Chromium VI (mg/L)	1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1
Tin (mg/L)	2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.03	0.03	0.07	0.02	0.1
Phenol totals (mg/L)	2	0.3	0.5	0.6	0.1	1.1	< 0.1	0.2	0.7	0.2	0.3	0.4	0.1	0.38
Fluorides (mg/L)	15	< 0.1	0.2	0.1	< 0.1	0.3	0.1	0.3	< 0.01	0.1	0.5	1.7	0.2	0.31

Parameter	Decree 57/05	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average value
Iron (mg/L)	10	1.8	5.2	0.8	1.1	2.2	0.7	6.3	1.0	1.8	6.3	5.65	2.5	3.01
Manganese (mg/L)	2	< 0.1	0.5	< 0.1	< 0.1	0.4	< 0.1	0.5	< 0.1	0.1	0.3	< 0.1	< 0.1	0.21
Mercury (mg/L)	0,1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.01
Nickel (mg/L)	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.7	< 0.5	0.52
Silver (mg/L)	1	0.03	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	0.02	0.05	<0.01	0.05	0.02
Lead (mg/L)	1	0.04	0.02	< 0.01	<0.05	<0.05	0.6	<0.05	<0.05	<0.05	0.05	0.15	0.08	0.1
Selenium (mg/L)	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01
Sulphide (mg/L)	5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1
Toxicity (equitox/m ³)	25	< 1	7	10	< 1	< 1	2	11	< 1	5	2	3.7	2.5	3.9
Zinc (mg/L)	3	0.2	0.2	0.1	0.3	< 0.2	< 0.2	0.3	< 0.3	< 0.2	0.4	0.84	0.4	0.3

Year 2008

Parameter	Decree 57/05	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average value
PH	6-10	8.0	7.2	7.5	7.4	8.8	7.8	8.05	8.25	7.4	8.4	8.1	6.8	7.8
Conductivity (µS/cm)	7500	479	505	199	74	730	1019	672	640	638	416	660	406	537
Suspended solids (mg/L)	1000	100	48	34	29	59	54	79	100	53	46	94	248	79
Oils and grease (mg/L)	100	37	44	65	37	23	161	47	64	32	83	12	6	51
COD (mg O ₂ /L)	1750	283	1200	195	61	198	1014	887	457	240	157	229	200	427
BOD ₅ (mg O ₂ /L)	1000	152	728	55	29	99	418	313	138	138	65	101	159	200
Aluminium (mg/L)	20	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	15.00	< 2	< 2	3.08
Arsenic (mg/L)	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.01
Barium (mg/L)	20	4.5	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	2.5	< 2	< 2	2.3
Boron (mg/L)	3	< 0.1	0.9	< 0.1	< 0.1	< 0.1	1	0.6	0.81	0.1	< 0.1	< 0.1	0.1	0.42
Cadmium (mg/L)	0.5	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1
Cyanide (mg/L)	5	0.1	0.2	0.5	0.41	0.17	0.24	0.23	<0.01	<0.01	<0.01	<0.01	<0.01	0.2
Copper (mg/L)	3	< 0.3	< 0.2	< 0.2	< 0.2	< 0.2	0.8	< 0.2	< 0.2	0.47	0.9	< 0.2	< 0.2	0.34
Chromium total (mg/L)	3	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.2
Chromium VI (mg/L)	1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1
Tin (mg/L)	2	<0.02	0.02	0.02	0.06	< 0.2	< 0.2	<0.01	0.02	<0.02	0.07	0.01	<0.01	0.1
Phenol totals (mg/L)	2	0.4	0.4	0.5	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.4	0.2	0.22
Fluorides (mg/L)	15	< 0.1	0.2	0.1	< 0.1	< 0.1	0.6	0.3	< 0.1	0.1	0.2	0.1	0.2	0.18
Iron (mg/L)	10	1.1	1.1	1.0	1.2	0.2	2.2	1.9	1.5	0.5	< 1	2.0	0.3	1.17
Manganese (mg/L)	2	< 0.1	0.1	< 0.1	< 0.1	< 0.1	0.3	< 0.1	< 0.1	< 0.1	0.3	< 0.1	< 0.1	0.13
Mercury (mg/L)	0.1	<0.01	<0.01	<0.01	0.02	0.01	0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	0.013

Parameter	Decree 57/05	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average value
Nickel (mg/L)	5	< 0.5	0.6	< 0.5	0.5	< 0.5	0.6	< 0.5	< 0.5	0.72	0.7	< 0.5	< 0.5	0.55
Silver (mg/L)	1	0.05	0.07	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.07	0.01	<0.01	0.02
Lead (mg/L)	1	0.05	<0.05	<0.05	<0.05	<0.05	< 0.1	< 0.1	<0.01	0.15	0.38	<0.05	<0.05	0.09
Selenium (mg/L)	1	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Sulphide (mg/L)	5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1
Toxicity (equitox/m ³)	25	< 1	2.6	< 1	< 1	< 1	6	19	0.39	< 1	< 1	< 2	< 2	3.2
Zinc (mg/L)	3	< 0.3	0.4	0.3	0.3	0.2	0.7	1.3	0.5	0.3	< 0.2	0.3	0.2	0.4

Note: To calculate the average values for each parameter, absolute values are taken.

- **Non-industrial and rain service water discharge (Bay 12)**

Parameter	Decree 57/05	March 2007	September 2007	March 2008	September 2008 *
PH	6-10	7.4	7.4	7.2	
Conductivity (µS/cm)	7500	457	138	59	
Suspended solids (mg/L)	1000	99	33	10	
Oils and grease (mg/L)	100	19	< 10	18	
COD (mg O ₂ /L)	1750	234	38	41.00	
BOD (mg O ₂ /L)	1000	88	15	10	
Aluminium (mg/L)	20	10.88	< 2	<2	
Arsenic (mg/L)	1	<0.01	<0.01	<0.01	
Barium (mg/L)	20	< 2	2.9	<2	
Boron (mg/L)	3	0.6	< 0.2	<0.1	
Cadmium (mg/L)	0.5	<0.01	<0.05	<0.01	
Cyanide (mg/L)	5	0.1	0.3	0.5	
Copper (mg/L)	3	< 0.2	< 0.2	<0.2	
Chromium total (mg/L)	3	< 0.2	< 0.2	<0.2	
Chromium VI (mg/L)	1	< 0.1	< 0.1	<0.1	
Tin (mg/L)	2	<0.02	<0.02	<0.02	
Phenol totals (mg/L)	2	< 0.1	0.2	0.2	
Fluorides (mg/L)	15	< 0.1	< 0.1	<0.1	
Iron (mg/L)	10	1.1	0.5	0.5	
Manganese (mg/L)	2	< 0.1	< 0.1	<0.1	
Mercury (mg/L)	0.1	<0.01	<0.01	<0.01	
Nickel (mg/L)	5	< 0.5	< 0.5	<0.5	

Parameter	Decree 57/05	March 2007	September 2007	March 2008	September 2008 *
Silver (mg/L)	1	<0.01	<0.01	0.02	
Lead (mg/L)	1	<0.01	<0.05	<0.01	
Selenium (mg/L)	1	<0.01	0.01	<0.01	
Sulphide (mg/L)	5	< 0.1	< 0.1	<0.1	
Toxicity (equitox/m ³)	25	1	< 1	<1	
Zinc (mg/L)	3	0.2	< 0.2	0.2	

* The box was empty; we could not take any sample.

C) La Puebla de Alfindén Facility

2008

Parameters	Units	Result	Discharge limits
Temperature	°C	18	50
pH at 18°C	Unit pH	7.9	5.5-9.5
Conductivity at 25°C	mS/cm	2.51	4
Suspended solids	mg/L	22	1000
Gross solids*	A/P	Absence	Absence
Barium	mg/L	0.03	20
Chromium III**	mg/L	<0.01	5
Chromium VI	mg/L	<0.01	1
Nickel	mg/L	<0.05	5
Selenium	mg/L	<0.025	1
Zinc	mg/L	0.08	10
Sulphides	mg/L	<1	5
Fluorides*	mg/L	0.22	15
Nitric nitrogen	mg/L	3.08	65
Formaldehyde	mg/L	<0.20	2
Toxicity EC50*	Equitox:	<1	30
Colour*	Units Pt/Co	<5	Insignificant at a 1:40 dilution
COD	mg/L	67	1500
BOD ₅	mg/L	32	1000
Aluminium	mg/L	0.2	20

Parameters	Units	Result	Discharge limits
Boron	mg/L	<0.1	3
Mercury	mg/L	<0.004	5
Tin	mg/L	<0.1	5
Cyanides	mg/L	<0.02	2
Sulphites*	mg/L	<1	2
Phosphorus total	mg/L	0.39	30
Oils and grease	mg/L	<5	150
Detergents	mg/L	0.23	6
Manganese	mg/L	<0.02	10
Decanted solids	mg/L	<0.5	20
Arsenic	mg/L	<0.05	1
Cadmium	mg/L	<0.01	0.4
Iron	mg/L	<0.1	10
Lead	mg/L	<0.05	1
Copper	mg/L	<0.01	3
Chlorides	mg/L	451	2000
Sulphates	mg/L	408	1000
Ammoniacal nitrogen	mg/L	0.79	85
Phenols	mg/L	<0.05	5
Organochlorine pesticide (summation)*	µg/L	<0.20	0.5

* These parameters are not included in the accreditation scope; however, we have not found any laboratory with these parameters within the accreditation scope.

** These parameters are accredited but results were out of accreditation levels.

Appendix 4. Quantitative data for monitoring risks associated to soil and groundwater contamination

Nerva Facility

Soil analysis on solid sample leachate

Points sampling	C.O.D. (mg/kg)		Conductivity (µS/cm)		pH	
	2007	2008	2007	2008	2007	2008
Point 1	70.5	68	29	32	5.7	5.5
Point 2	64	67.5	29.5	29.5	5.35	5.45
Point 3	72.5	69	32	29.5	5.75	5.7
Reference	94	89.5	40.5	41	6.15	6.05

Soil analysis on solid sample leachate

Points sampling	Iron (g/kg)		Organic matter (%)		Humidity (%)		Cadmium (mg/kg)	
	2007	2008	2007	2008	2007	2008	2007	2008
Point 1	30.5	32	4.5	4.5	10.5	11	5	5
Point 2	30	30	4.5	4.5	10.5	10.5	5	5
Point 3	32.5	30.5	3.5	4	9	10.5	5	5
Reference	49	47	6	6	9.5	11	5	5

Piezometers

Parameters	Unit	P1		P1'		P3			P4		
		Ref.	2008	Ref.	2008	Ref.	2007	2008	Ref.	2007	2008
PH		4.1	3.46	5.2	3.63	2.3	2.37	2.49	6.4	7.13	6.47
Conductivity	mS/cm	6.70	4.41	3.58	3.06	8.6	8.56	7.83	2	1.55	1.46
C.O.D.	mg/L	85	46.25	<10	25	294	155	146.25	10	10	10
B.O.D. ₅	mg/L	<10	10	<10	10	90	10	10	10	10	10
Phenols	mg/L	<0.1	0.1	<0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Iron	mg/L	1419	245.3	203	52.08	1745	2950	3695.25	0.5	0.5	0.5
Copper	mg/L	116	90	2.78	5.22	38	65	71.88	0.2	0.2	0.1
Lead	mg/L	0.63	0.33	< 0.1	0.28	0.8	0.1	0.1	0.2	0.1	0.10
Nickel	mg/L	5.15	3.07	0.54	0.5	3.4	3.46	2.50	0.5	0.5	0.5
Zinc	mg/L	279	190	28	28.75	31	55.66	57	0.1	0.2	0.25
Cadmium	mg/L	1.22	0.64	<0.1	0.32	0.2	0.24	0.2	0.1	0.1	0.05
Manganese	mg/L	379	207.44	53	59.75	125	165	180.5	1.6	0.2	0.33
Aluminium	mg/L	387	453	2.06	12.24	230	743.67	736	2	1	1
Chromium (VI)	mg/L	< 0.01	0.01	< 0.01	0.01	0.02	0.019	0.03	0.01	0.01	0.01
Tin	mg/L	< 5	5	< 5	5	5.0	5	5.23	5.0	5	5
Arsenic	mg/L	<0.01	0.02	<0.01	0.01	1.04	1.46	1.69	0.01	0.01	0.01
Fluorides	mg/L	0.46	0.19	0.72	0.75	0.1	0.61	0.65	0.3	0.12	0.13

Appendix 5. Other actions related to Sustainability

Facilities	Number of agreements and collaborations per facility	
	2007	2008
Nerva	12	12
Palos	1	1
Ajalvir	2	1
La Puebla de Alfindén	3	3
Paterna	0	1
Total	18	18

Appendix 6. Plans and sampling point locations

Nerva Facility

[Plan]

Palos Facility

[Plan]

Ajalvir Facility

[Plan]

La Puebla de Alfindén Facility

[Plan]

Paterna Facility

[Plan]

Appendix 7. Glossary

Al: aluminium

As: arsenic

Ba: barium

Cd: cadmium

Cond.: conductivity

Cr: chromium

Cu: copper

C.O.D.: chemical oxygen demand

dB(A): decibels

dB: decibels

BOD₅: biological oxygen demand

DIN 38414 Part 4: German standardised method for leaching test

COD: chemical oxygen demand

EC50 (%): efficient sample concentration that reduces bacteria light emission by 50%. It is represented in % regarding the initial sample

ECCMA: entity collaborating with the Regional Ministry of the Environment

ECOC: entity collaborating with the Organisation of the province of Cuenca

Equitox: $1/EC_{50} (\%)*100$

Fe: iron

Org. M.: organic matter over dry sample

mg/l: milligrams/litre

mS/cm: millisiemens per centimetre

Ni: nickel

P: phosphorous

Pb: lead

HDPE: high density polyethylene

pH: measurement of the degree of acidity or basicity of a substance

RAMINP: Regulation on Disturbing, Annoying, Insalubrious, Harmful and Dangerous Activities

RNA: waste not-admitted in plant

RNP: non-hazardous waste

RP: hazardous waste

RSU: urban solid waste

SARI: application for admission of industrial waste

Sn: tin

t: ton

Zn: zinc

UNE 12457-4 Part 4: standardised method for leaching test

%: percentage

$\mu\text{gr}/\text{Nm}^3$: micrograms per normal cubic metre

$\mu\text{S}/\text{cm}$: microsiemens per centimetre

HFCs: hydrofluorocarbons