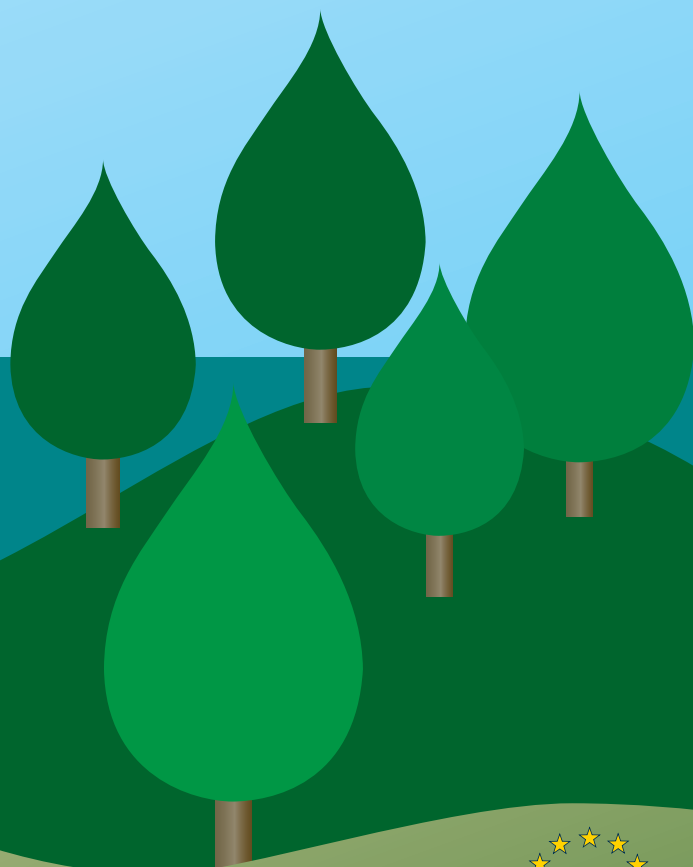


Environmental Statement 2007



Environmental Statement 2007



EMAS

VOLUNTARY ENVIRONMENTAL STATEMENT
ACCORDING TO EUROPEAN REGULATION 761/2001
EMAS (Eco-Management and Audit Scheme)

JULY 2008

 **MOTOR OIL** (HELLAS)
CORINTH REFINERIES S.A.

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Message from the Administration

I am in the pleasant position to present the second edition of the Environmental Statement that we voluntarily publish, according to European Directive ER 761/2001 for the EMAS (Eco Management and Audit Scheme).

This Statement constitutes part of our engagement for proper and rational Environmental Management, in the frame of the company's Integrated Management System and our policy to operate with respect to the environment, taking into consideration all stakeholders.

In this statement you will find:

- description of refinery units and activities
- emissions report and environmental effects
- assessment concerning the objectives that we had set in 2006
- as well as the future objectives and targets for which we are committed

The data of this statement have been verified by the independent certification body, Bureau Veritas Certification Hellas S.A.

The investment policy of the company is based on the development of new products friendly to the environment, with the use of new technologies also friendly to the environment, with parallel process automation in order to improve the energy efficiency as well as the productivity of the Refinery.

Following the completion of the large scale investment projects in 2005, with the construction of the Mild Hydrocracker Unit (MHC), the business Plan for the three year period 2008-2010 includes:

- The connection with the national network of natural gas. Natural gas will be used as fuel for the energy needs of the Refinery as well as for the production of Hydrogen, improving the environmental terms.
- The construction of a new Crude Distillation Unit (CDU), with a capacity of 60,000 barrels per day.

This investment, among other things, will substitute imported Straight Run Fuel Oil (SRFO) with self-produced, improving furthermore the environmental terms.

The ultimate responsibility for the environment as well as for the health and safety of our employees is mine.

The duties that I have assigned to my colleagues and to employees, in the frame of Environmental Management, are specific and as I believe, effective. This is proved by the environmental performance.

In 2007 MOTOR OIL (Hellas) Corinth Refineries S.A. was registered in the Greek EMAS Ledger of the Ministry for the Environment, Urban Planning and Public Works, and at the same year received the «OIKOPOLIS 2007-Environmental Investment» award from the non-governmental organisation Ecocity.

The employee enthusiasm and participation in the programs are vital for the continuous improvement and fulfilment of our objectives.

I hope that you will find this statement not only informative but also interesting.

My colleagues and I are at your disposal for any question or comment you might have.

M.J. Stiakakis
Manufacturing General Manager

1. Presentation of the Company

General information

MOTOR OIL is a leading Company in the oil industry supplying the market with a wide range of high quality and reliable energy products. The Company has been established as one of the main pillars of the national economy, while, at the same time playing a key role in the wider area of South Eastern Europe.

The Refinery of the Company is situated at Agioi Theodoroi, in Corinth, about 70 km from the centre of Athens. Along with its auxiliary facilities and its fuel distribution premises it constitutes the biggest private industrial complex in Greece; additionally it is considered as one of the most flexible refineries across Europe.

It can process crude oil of different types, producing a wide spectrum of oil products, that comply to the strictest international standards, thus serving big Oil Companies both in Greece and abroad.

At the same time it is the only Refinery in Greece that incorporates a lubricants production complex. Apart from the basic units, (atmospheric distillation, catalytic reforming and hydrotreatment) the refinery includes conversion units (thermal, catalytic, and hydrocracking).

Statistical Codification of Economic Activity	232
NACE Code	DF.23.20 - Manufacture of refined petroleum products
Premises	Agioi Theodoroi, Corinth
Installed Power	Main power of the electric motors 67,4 MW
	Back up power of electric motors 43,5 MW
Postal Address	71st km of Old National Road Athens – Corinth, position «Soussaki»
Contact Person for EMAS Integrated Management System	C.B. Korkas
Telephone number	(+30) 27410-48602
Fax number	(+30) 27410-48255
e-mail address	korkasco@moh.gr
Responsible for Health, Safety and Environment	G.A.Palaiokrassas
e-mail address	palaioigi@moh.gr

The major shareholder of MOTOR OIL is the Vardinoyannis Group. In 2001, the Company effected a share capital increase by the means of an Initial Public Offer (IPO) in the process of its listing in the Athens Exchange.

Table below presents the Company's shareholder structure.

SHAREHOLDERS	%
Petroventure Holdings Limited	51.0%
Petroshares Limited	10.5%
Free Float	38.5%
Total	100.0%

2. Historical Evolution of the Company

MOTOR OIL was founded in 1972, accomplishing during its years of operation quite crucial steps to the improvement, the expansion and the upgrading of its Refinery. These steps are concisely presented in the following chronological table.

1970-1972	Foundation and beginning of refinery operations. The premise possesses a crude oil distillation unit, a base lube oil complex, a jetty with loading facilities and truck loading terminal.
1975	Expansion in fuels production by the construction of a new Atmospheric Distillation Unit.
1978	Construction of a Catalytic Reforming Unit (further processing of naphtha for gasoline production).
1980	Installation of a Catalytic Cracking Unit (processing of fuel oil into high added value products).
1984	Construction of a Power Plant that uses fuel gas as a raw material. Right to sell electric energy in the national grid.
1993	ISO 9002 Certification concerning the whole activities of the Company
1996	Purchase of 50% of the Company's shares by Aramco Overseas Company B.V. , a 100% subsidiary Company of Saudi Arabian Oil Company (Saudi Aramco).
2000	Completion of investment projects aiming to the products' manufacture according to the standards of European Union for the year 2000. At the same year the Company acquires ISO 14001 certification for its Environmental Management System.
2001	Installation of the new gas turbine at the Power Plant. Upgrading of lubricants' vacuum unit. Share capital increase through public offer of shares and listing on the Athens Exchange.
2002	Acquisition of 100% of AVIN OIL , a domestic oil marketing company.
2003	Quality Certification for all of the Company's activities according to ISO 9001:2000.
2004	Re-certification of the Environmental Management System System according to ISO 14001 valid for three more years.
2005	Completion of the Hydrocracker Unit that offers the opportunity to manufacture «clean fuels» according to the European Union's specifications of 2005 and 2009 (Auto Oil II). Acquisition by Motor Oil Holdings S.A. of the stake of Aramco Overseas Company B.V. in the Company.
2006	Re-certification of the Integrated Quality Management System concerning the whole activities of the Company, according to ISO 9001:2000, for three more years (until 2009). Signing of an Agreement with the Spanish firm «IBERDROLA S.A.», for cooperation in the field of electric power, through the company «KORINTHOS POWER S.A.».
2007	Re-certification of the Environmental Management System according to ISO 14001, valid until 2010. Company Registration in the Greek Ledger of EMAS (Eco Management Audit Scheme), for the companies which comply with the requirements of European Regulation ER 761/2001. Award with the «OIKOPOLIS 2007 - Environmental Investment» prize from the non-governmental organisation, Ecocity.

3. Corporate Social Responsibility (CSR)

MOTOR OIL fully acknowledges the importance of continuous effort for sustainable development via the application of the principles and objectives of Corporate Social Responsibility. The Company expresses its social responsibility by being committed to pursue all business activities with due respect for people, the environment and society. Natural outcome of this commitment is a holistic approach in the application of the principles of Corporate Social Responsibility, taking in to consideration the protection of the environment, as well as the interests of all stakeholders - its personnel, shareholders, customers, suppliers and the society in its entirety.

MOTOR OIL is a founding member of the Hellenic Network for Corporate Social Responsibility and it has subscribed and participates in the Initiative of United Nations Organisation for the Global Compact, aim of which is to direct enterprises to viable growth through voluntary and responsible behavior and actions. Consequently, it is fully committed to conform with the ten principles of UN Global Compact regarding:

- human rights,
- labour relations,
- the environment, and
- transparency.

The most important challenges, among those MOTOR OIL faces, are related with the management of Health, Safety and Environment. The framework for tackling these challenges and for achieving continuous improvement in the particular areas, according to the principles of Corporate Social Responsibility and UN Global Compact, is defined by the Health, Safety and Environmental policy.

4. Health, Safety and Environmental Policy (HSE Policy)

Within the framework of its quality policy, as it is described in the Integrated Management System, MOTOR OIL (Hellas) Corinth Refineries S.A is committed to produce and distribute refined crude oil products setting as a final goal the satisfaction of its customers, while taking into consideration the interests of the stakeholders.

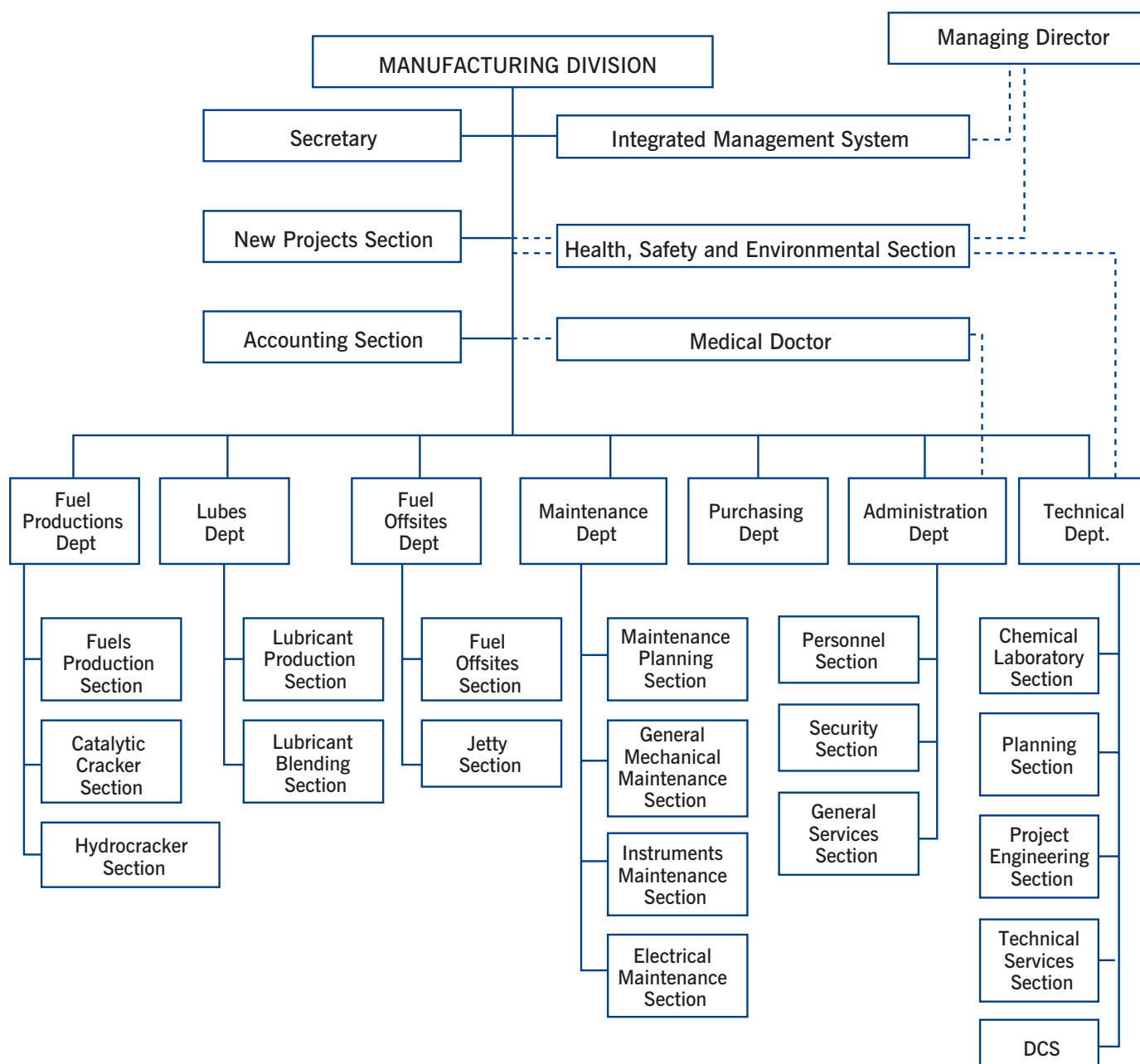
In order to achieve these goals, MOTOR OIL (Hellas) is committed:

- **to set** objectives and realistic targets in order to accomplish a continuous improvement of the implemented management systems concerning Health, Safety and the Environment.
- **to meet** or **exceed** legal and other requirements.
- **to manufacture** environmentally friendly and quality products using raw materials, energy and technology efficiently.
- **to report** the results of its activities as an approach to Corporate Social Responsibility.
- **to maintain** and **test** emergency preparedness and response systems.
- **to integrate** Health, Safety and Environmental considerations into all business decisions, plans and operations in the framework of the Integrated Management System.
- **to provide** consultation, information and training to employees, contractors and other staff working on its behalf in order to ensure their commitment and awareness.
- **to improve** the quality and the treatment of waste, discharges and emissions.
- **to cooperate** with all stakeholders in order to develop balanced Health, Safety and Environmental programs.

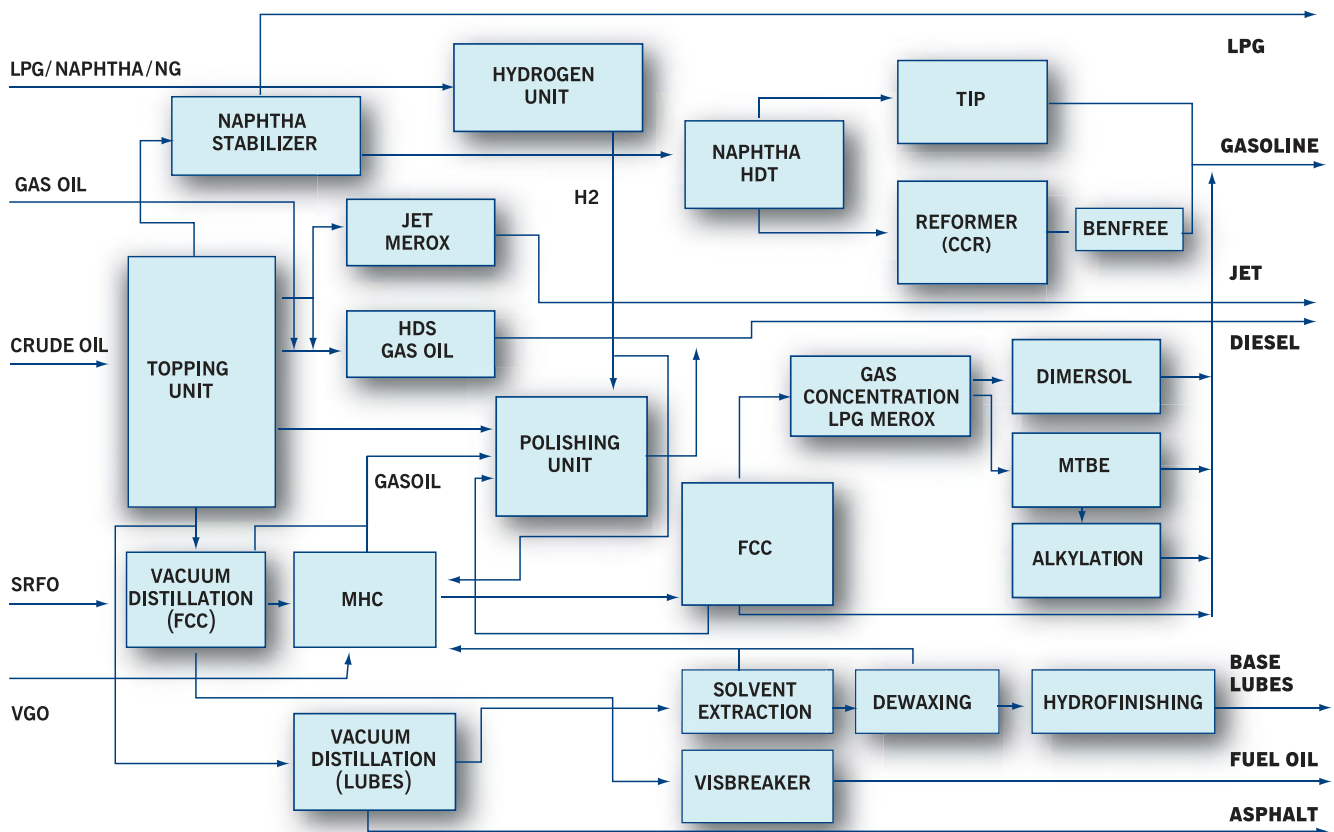
At MOTOR OIL (Hellas) Corinth Refineries S.A, whatever we conceive, schedule or do, we do it in a safe, environmentally friendly and cost-effective manner.

J.N. Kosmadakis
Deputy Managing Director

5. Refinery Organization Chart



6. Refinery Flow Chart



7. Activities – Products

MOTOR OIL Refinery processes several types of crude oil, manufacturing a wide range of oil products that fulfill the strictest international specifications, serving in this way the big oil companies both in Greece and abroad.

The products that are manufactured in the Refinery include the following:

FUELS	
●	Liquified Petroleum Gas (LPG)
●	Naphtha
●	Gasoline
●	Jet fuels
●	Diesel Oil
●	Fuel Oil
LUBRICANTS	
●	Base lubricants
●	Automotive lubricants
●	Gear Oils
●	Industrial lubricants
●	Marine lubricants
OTHER PRODUCTS	
●	Asphalt
●	Paraffin

The maximum annual capacity of the main process units is the following:

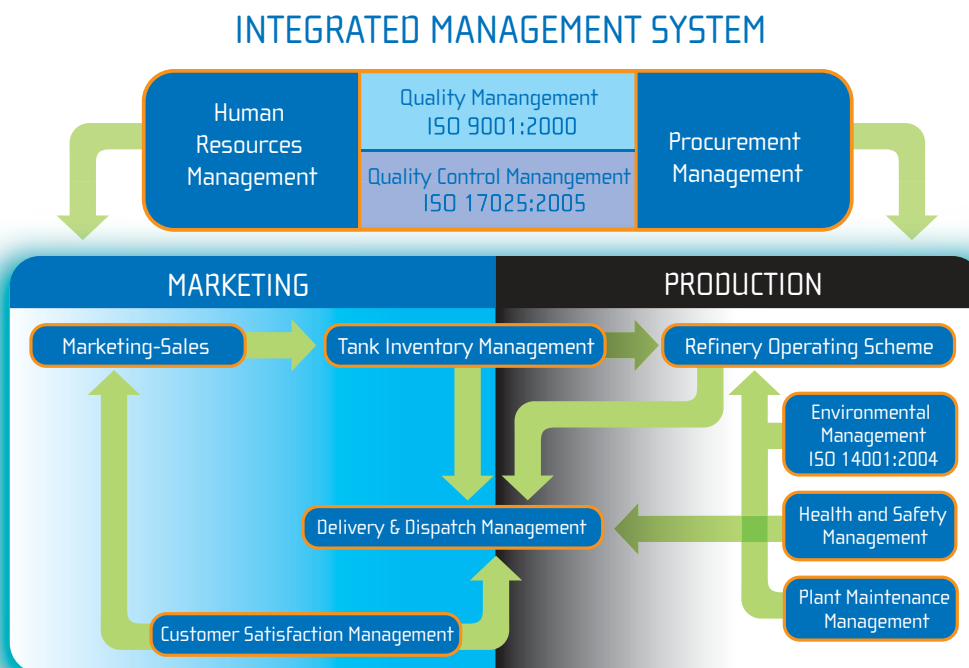
Crude Distillation Unit	4,958,160 MT
Visbreaker	1,314,000 MT
Vacuum Distillation Unit (FCC)	823,440 MT
Heavy H/C Desulphurization Unit	1,314,000 MT
Naphtha Desulphurization	832,200 MT
Naphtha Catalytic Reforming	569,400 MT
Benfree Unit	445,000 MT
Vacuum Distillation Unit (Lubes)	2,741,880 MT
Fluid Catalytic Cracking	1,533,600 MT
Mild Hydrocracker	2,014,800 MT

Storage capacity and distribution premises appear hereunder:

9 tanks for crude oil storage	1,080,000 m ³
92 tanks for intermediate and final products storage	1,188,900 m ³
7 tanks for Liquefied Petroleum Gas (LPG)	14,500 m ³
Docks for tankers' loading and unloading	
Pipe network for distributing raw materials and products	
Truck Loading Terminals	

8. The Environmental Management System

Making a continuous and systematic effort, MOTOR OIL has developed and implemented an **Integrated Management System** that focuses both on quality and the environment, according to the ISO 9001:2000 and ISO 14001:2004 standards, as well as, the European Regulation 761/2001 (EMAS). This System concerns the manufacturing and distribution of fuels, lubricants, waxes and oils. The Management System involves a series of mutually interacting processes as it is depicted in the following Diagram. These processes include the production, the critical as well as the supporting processes.



The Environmental Management is included in the Company's supporting processes. The Environmental Management System aims at the accomplishment of continuous environmental conditions improvement, compliance with the current Greek and European environmental legislation and the continuous effort to minimize the impacts on the Environment from the various operations.

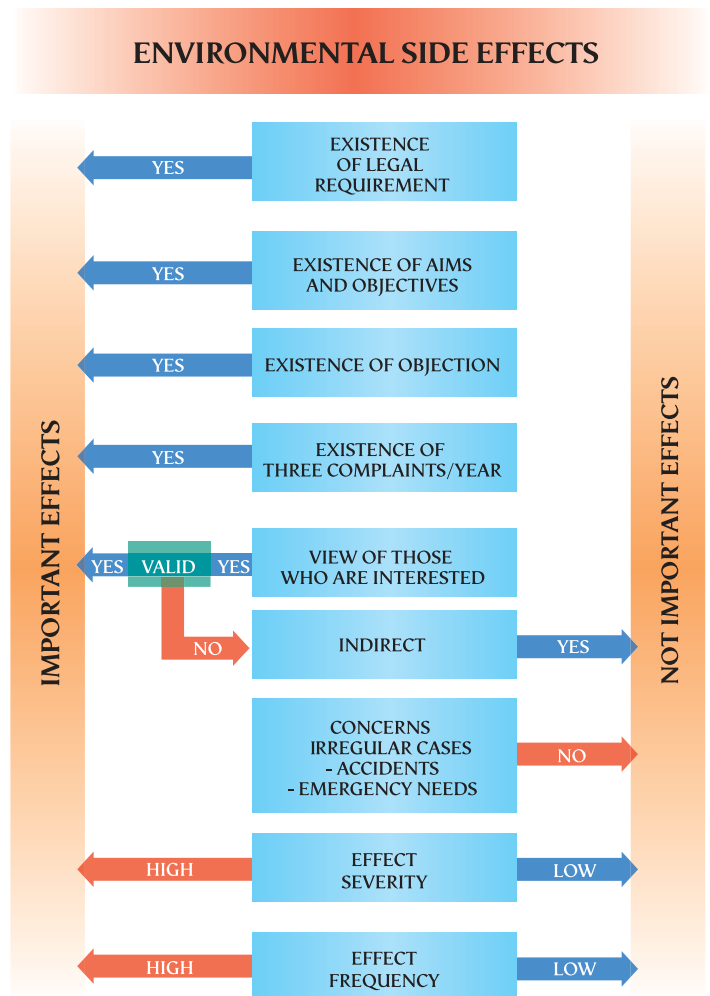
The structure of the System follows the steps of the dynamic, cyclical process as depicted in the diagram.

The Environmental Management System of MOTOR OIL includes the following levels of documentation:

- **A Manual of the Integrated Management System**, which constitutes a guide for the implementation, the maintenance and the improvement of the Environmental Management System.
- **Procedures – Environmental Management Guidelines**, which describe the sequence of actions, the assignment of authorities and the forms.
- **Files – Forms and Documents**

One of the main planning and implementing points concerning the environmental management system is the identification of environmental aspects and the evaluation of the environmental effects.

The evaluation of environmental effects is executed according to a series of criteria. The evaluation methodology of environmental effects is being shown on the following diagram from which the most important environmental consequences come up.



9. Environmental Programs, Objectives and Improvements

During the years 2003-2007 the Company has implemented numerous programs aiming at the minimization of the environmental impacts of its activities. The target of such programs and their time of completion is shown in the following table:

	2003	2004	2005	2006	2007
AIR					
Minimization by 10%, of local leakages of volatile organic compounds by implementing a program that detects leakages, control and repair (LDAR)					
- During 2006, this program expanded to the new truck loading terminal (TLT)				•	
- During 2007, this program expanded to the new Hydrocracker units					•
Reduction of volatile organic compounds emissions from oil separators by setting shelters. In 2005, the setting of floating covers was completed in API III, whereas, in 2006 when the biological unit was upgraded, the shelters API I and API II were replaced.			•		
Minimization of H ₂ S, SO ₂ emissions and other air pollutants:					
- The installation of a new sulfur degasification unit (96.7% reduction of H ₂ S emissions into solid sulfur)	•				
- Optimization of the performance control of the unit, that recovers sulfur by using a permanent device monitoring H ₂ S/SO ₂ at the output of units and installation of a new Claus unit.	•				
- Installing a monitoring device of H ₂ S, SO ₂ and O ₂ in the Incinerator's chimney aiming at the effective control of emissions.	•				
- Implementation of tail gas treatment.	•				
- Operation of H ₂ S monitoring devices in the entrance of Claus units and connection to the Distributed Control System (DCS).	•				
- Installation of devices which monitor continuously the pollutants (H ₂ S, SO ₂)	•				
- Installation of measuring devices for main parameters in order to control the performance of the units (temperature, pressure, flow)	•				
- Installation of a continuous monitoring system for total sulphur in the fuels flare .	•				
- Connection of the analyzer in the Distributed Control System (DCS).					•
- Installation of a device that marks the valve position that leads the sour gases to the flare.	•				

	2003	2004	2005	2006	2007
(AIR)					
Monitoring emissions of methylmercaptane in the wider area.	•				
Monitoring the gas emissions from the stacks by measuring sulfur dioxide, nitrogen oxide, dust, temperature, flow discharge <ul style="list-style-type: none"> - at the local stacks of furnaces (set up sampling points) - in central chimneys of fuels and lubricants (devices for continuous monitoring) 			•		
Checking sulfur's quantity in fuel gas, by installing a laboratory device that measures the aggregate sulfur.	•				
Reducing the levels of the odor in the wider area, by lowering the temperature of fuel oil, before being stored.		•			
WATER					
Improvement and modernization of the unit which processes and controls industrial waste water: <ul style="list-style-type: none"> - project for upgrading the unit that processes industrial waste water. - operation of a device that continuously measures the pH and the temperature during its input and output. - making laboratory controls of microbiological load - Upgrading and modernize the processing stages of WWT. 	• • •	•			
Construction of a tank with secondary seals, for processing the slops of the refinery.		•			
Installing a system monitoring any leakages coming from discharge cooling water.	•				
Installing a system that monitors the effluent of alkaline waste water (pH, sulfate compounds, sulfur compounds and mercaptanes).		•			
SOIL					
Research for the optimization of methods for biodegradation of sludge by characterizing the bacterial population by biodegradable capabilities, cultivation, enrichment / oxygenation (pilot program).			•		
Results report completion of land environmental control, in the region where, the process of landfarming took place formerly.					•

10. Environmental Aspects and Effects

All the environmental side effects related to the operation of the Refinery have been evaluated according to their severity and among them the following are characterized as important:

- Gas emissions occurring from local combustion points and Refinery processes
- Industrial and Sanitary waste water
- Solid waste, hazardous or not
- Energy and water consumption
- Noise pollution

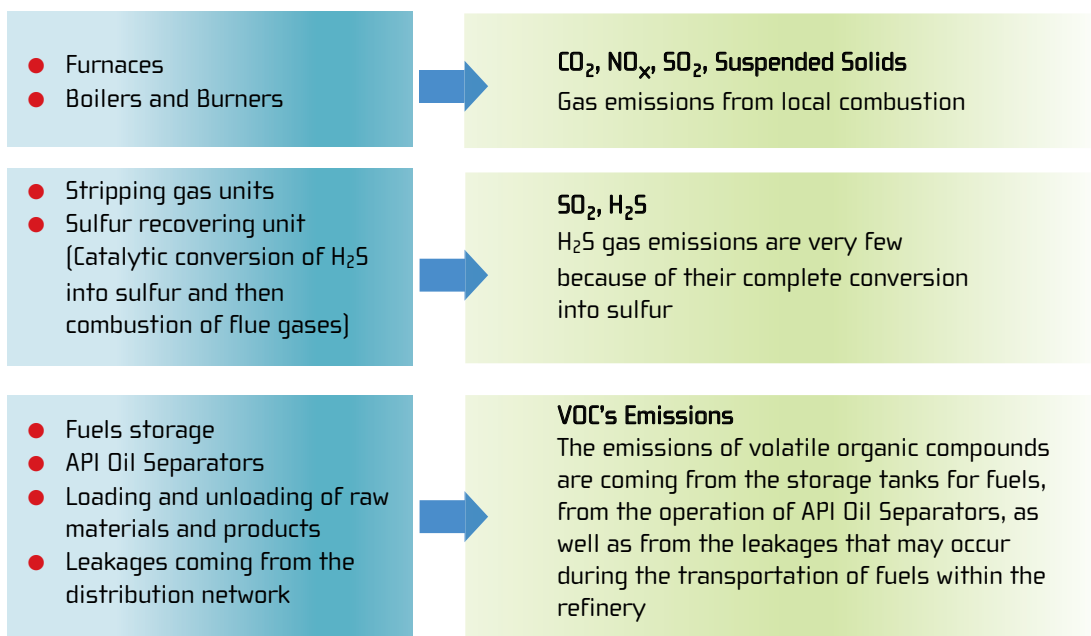
All the above environmental side-effects are being monitored and recorded on a regular basis, measures are taken continuously to encounter the problem, so that the Company will act accordingly in order to improve its environmental performance. A similar evaluation is made for the effects in the phase of new constructions. At the same time the Company has evaluated the indirect environmental side-effects resulting from the third parties interaction, products and services over which the Company does not have administrative control.

The key environmental aspects associated with gas emissions, liquid and solid waste, as well as, the indirect environmental side-effects are described in the following sections:



10.1 AIR QUALITY

Gas emissions due to the Refinery's operation, as well as their sources are shown on the following diagram.



The Refinery takes a series of measures and implements programs aiming at reducing gas emissions in the atmosphere. These measures include:

- The treatment of acid gases and liquid gases before their storage, or their use as a fuel, aiming to control hydrogen sulfide.
- Installation of sulfur recovering unit aiming to convert the produced hydrogen sulfide into solid sulfur.
- The reduction and control of gas hydrocarbon emissions by taking several measures such as the installation of closed circuits during gas processing, the defusing of gases from safety valves to the flares, the setting of secondary seals in floating roof tanks, the setting of floating covers in oil separators and the installation of a system that recovers vapour in the truck loading station (VRU).
- Performance control of burners and boilers.
- Measurements and recording of gas emissions.

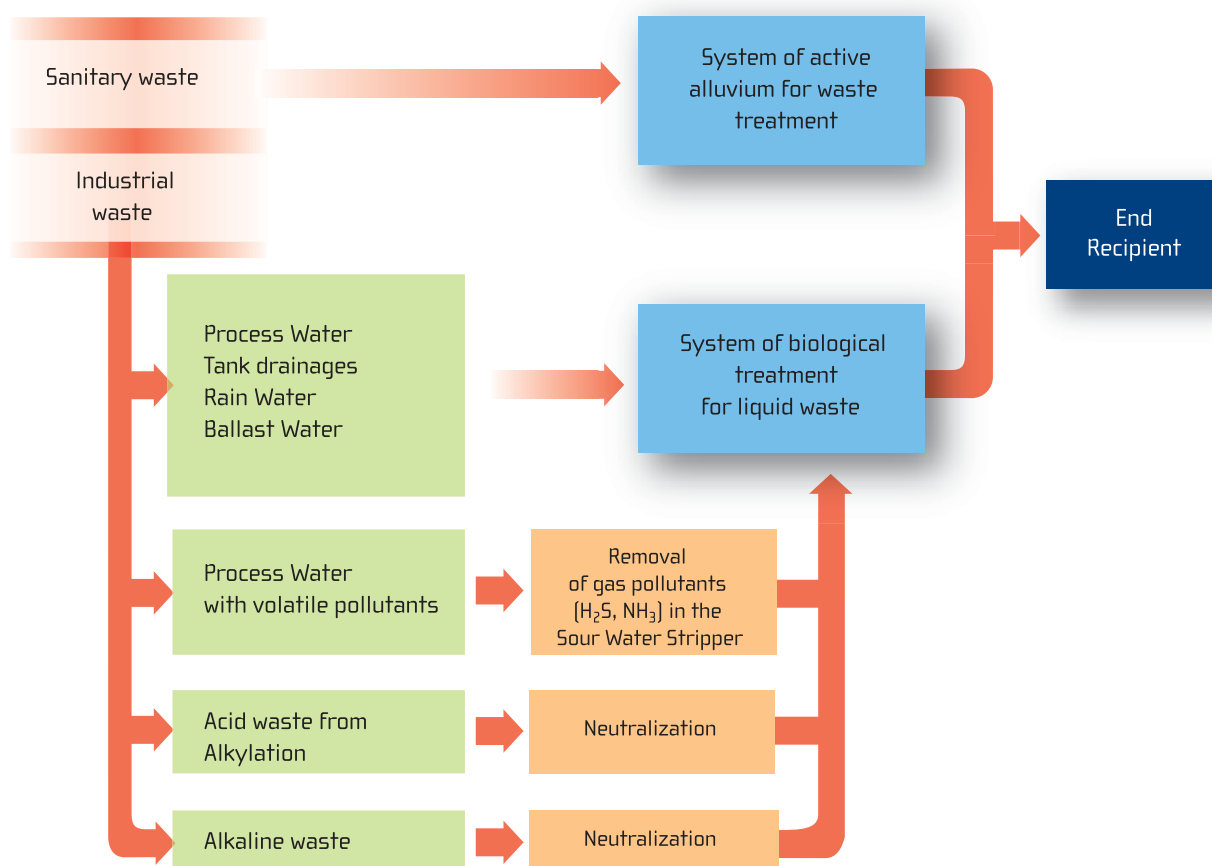
10.2 WASTEWATER

The wastewater produced in the refinery is distinguished in two categories:

- Industrial wastewater
- Sanitary wastewater

The industrial wastewater, which includes water coming from process units, from the tank draining, the rain water and the ballast of vessels is led either directly, or after some pre-treatment process, into the biological treatment system for industrial waste water (secondary treatment), where a reduction of their waste load is made, before their final disposal, according to the environmental provisions and terms.

The sanitary wastewater coming from catering and personnel hygiene areas is treated into an active sludge wastewater treatment system of active sludge (tertiary treatment). The qualitative characteristics of the treated wastewater are within the defined legislative limits.



10.3 SOLID WASTE

The solid waste produced in the Refinery is distinguished in urban waste resulting from human activities and consists of household solid waste, (such as, paper and metal, food left overs etc.) and in industrial solid waste which is created during the different stages of the manufacturing process (such as scrap materials, spent catalysts, etc.).

In order to ensure its safe environmental management and to prevent or reduce the negative consequences to the environment as well as any risk to health and safety, the Company implements a thoroughly organized procedure in all stages of waste collection, transportation and temporary storage or treatment, until the final disposal. The final disposal is performed by licensed companies, depending on the nature of the materials while the ultimate goal is waste reduction or reuse.

The company submits an annual waste report to the competent authorities of the Ministry of Environment, Urban Planning and Public Works, in which all the waste types that result from the activities of the premises as well as the way of disposal / management, are reported.

Type of waste	EWG Code	Method of Management
Scrap materials	170407	Recycling
Wood packaging	150103	Recycling
Plastic packaging	150102	
Package made by paper or cardboard	150101	
Tyres at the end of their life cycle	160103	Recycling (Eco Elastica)
Used active carbon	190904	Used as an alternative fuel or as a raw material
Saturated or spent resins	190905	
FCC spent catalyst	160804	Re-export to the suppliers
Sludge resulting from the cleaning of tanks	050103*	Treatment in the sludge processing unit and biodegradation by using the method of land farming
Waste coming from the produced paraffin	160305	
Alumina	050199	Use as an alternative fuel or as a raw material
Inactive pellets 050199		
Recovery linings and refractories from non-metallurgical processes	161106	Collection and transport in Sanitary Landfill
Stabilised wastes other than these reported in the point 190304	190305	Collection and disposal to legal recipient
Waste from electrical and electronic equipment	200136	Recycling
Mixed municipal waste	200301	Collection and disposal to legal recipient
Batteries Ni, Cd	160602*	Recycling
Accumulators	160601*	Recycling
Used mineral oils	130208	Recycling
Spent catalysts	160803/160802*	Recovery
Metal Wastes, contaminated by dangerous substances	170409*	Collection and disposal to legal recipient
Other construction and demolition wastes (including mixed wastes) containing dangerous substances	170903*	Collection and disposal to legal recipient
Packaging containing residues of or contaminated by dangerous substances	150110*	Collection and disposal to legal recipient
Laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	160506*	Collection and disposal to legal recipients.
Fluorescent tubes and other mercury-containing waste	200121*	Collection and disposal to legal recipient
Soil and stones containing dangerous substances	170503*	Collection and disposal to legal recipient
Construction materials containing asbestos	170605*	Collection and disposal to legal recipient

10.4 INDIRECT ENVIRONMENTAL ASPECTS

The indirect environmental impacts are mainly related to the atmospheric pollution caused by forklifts and other vehicles, the H/C gas emissions during loading and unloading of the products into the ships, the noise coming from tank truck traffic and vessel stopover in anchorages, the wastewater in AVIN station, as well as, the side effects in case of an accident during the transfer of products to and from the refinery either from suppliers or from customers.

Within the framework of the Integrated Management System, the Company evaluates its environmental performance and trains its suppliers, contractors and subcontractors on several environmental issues and continuously provides information to its customers regarding the usage and distribution of the products. At the same time, it looks for new environmentally friendly ways for transportation and attends to the effective organization of its raw materials and products transportation.

10.5 ENVIRONMENTAL OCCURRENCES

Having set as main priorities the prevention of consequences that may result from the operation of the units, and the minimization of hazards during the operations, the Company aims to the elimination of environmental accidents.

For that purpose the Company has compiled Emergency Plans that are fully compliant with the local and national plans for fighting pollution through which it provides necessary directions for the right decision making and actions. At the same time, the Company trains systematically its labour force in order to ensure the right reaction in the case of emergency.

The effectiveness of the above activities is verified by the zero environmental accidents during 2007.

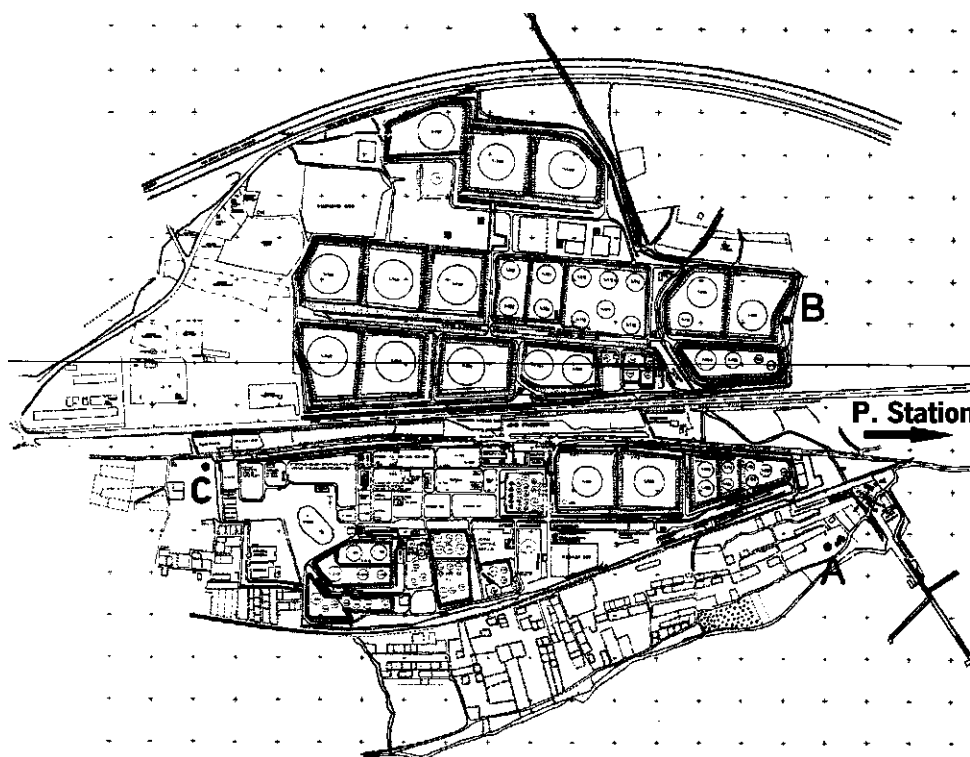
11. Environmental Performance

11.1 AIR QUALITY MANAGEMENT

The Company fully and constantly monitors the gas emissions both in Refinery units and in the wider area through continuous measurements that are executed not only on some local sources of emissions (chimneys, flares) but also on diffused emissions.

The industrial premises of MOTOR OIL utilize modern equipment concerning the monitoring of air quality and the spot emissions coming from different sources during the manufacturing process. The Monitoring System of the Air Quality consists of a mobile unit (A) that has the capability to measure and mark the pollutants like hydrogen sulphide (H_2S), sulphur dioxide (SO_2), suspended solids (PM_{10}), nitrogen oxides (NO_x), methane (CH_4), hydrocarbons excluding methane, as well as, meteorological parameters and three permanent stations for measuring hydrogen sulphide (H_2S) and sulphur dioxide (SO_2). Two out of the three fixed stations are found within the refinery premises (B, C) while the other one within the Police Station of Agioi Theodoroi (see on the map). In addition, measurements for the oxygen are executed in all combustion spots, continuous measurements of sulfur dioxide (SO_2), PM_{10} , nitrogen oxides (NO_x) in the Major Combustion Plants with a capacity more than 50MW (central chimneys), as well as, continuous measurements in individual emission sources.

Map depicting the key locations of stations which monitor air quality



Air Quality:**SO₂, NO_x, PM₁₀, CH₄, NMHC**

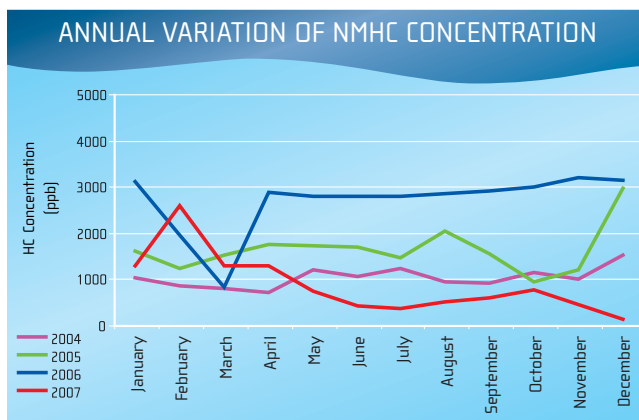
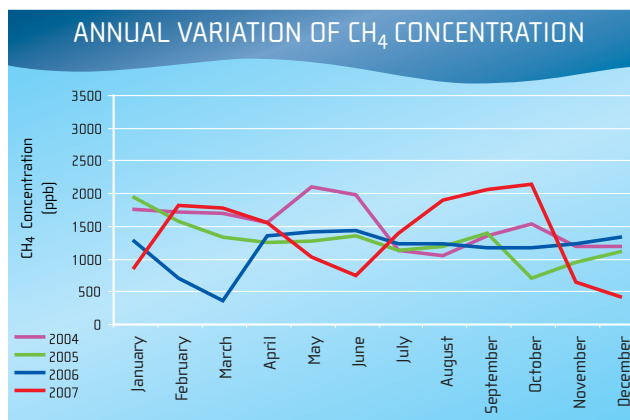
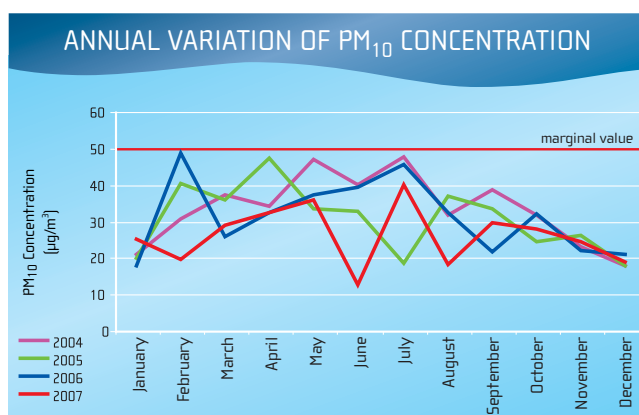
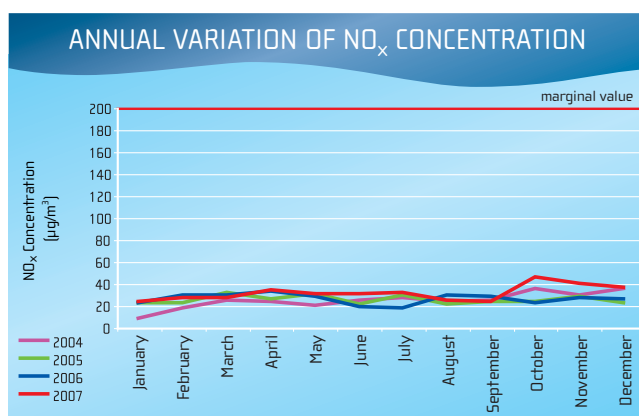
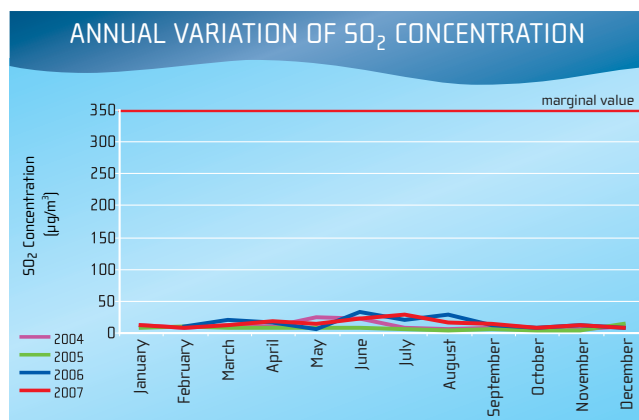
The results of the monitoring program show that the atmospheric conditions in the Refinery area are quite satisfactory.

Specifically, the recorded data during the years 2004, 2005, 2006 and 2007 show that not only there are not any excesses of the allowed hourly limits stated by the legislation (SO₂: 350 µg/m³, NO_x: 200 µg/m³) or any excesses of the allowed daily limits (PM₁₀: 50 µg/m³), but also the observed values are much lower than that of the marginal ones.

The average hourly values per month of pollutants that have been measured by the mobile station of the Air Quality Monitoring Network are plotted in the diagrams.

It should be noted that the Refinery is only one among many sources that produce air pollutants in the wider area of the premises. Some other sources that produce air pollutants include the traffic on the Athens – Corinth national road, the existence of several nearby industrial units, as well as, the railway network.

Also, the diagrams show the concentration of methane (CH₄) and non methane hydrocarbons (NMHC).

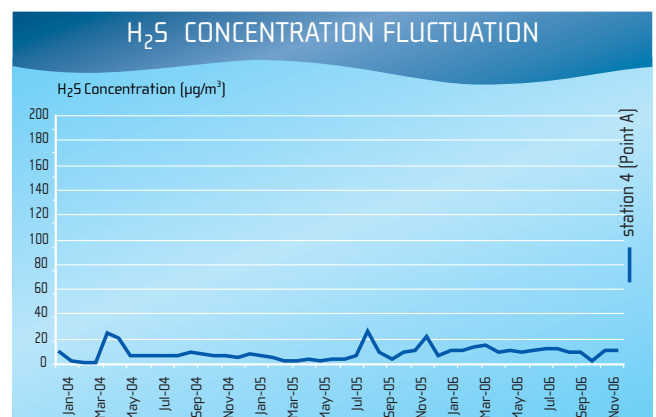
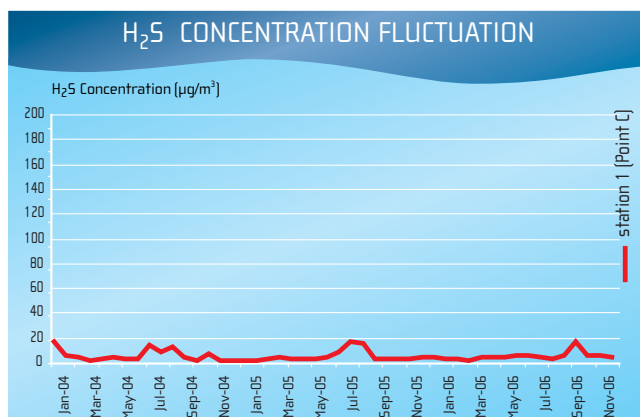
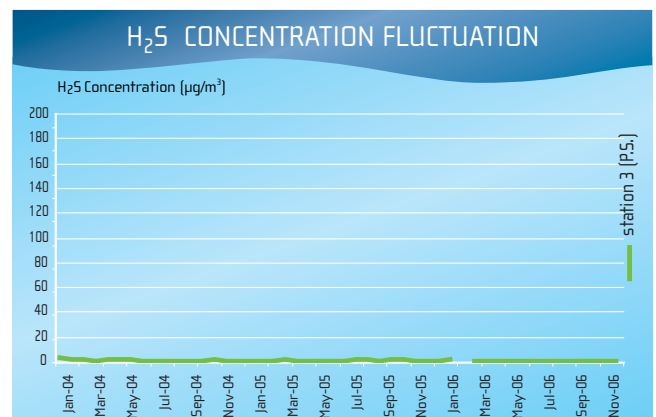
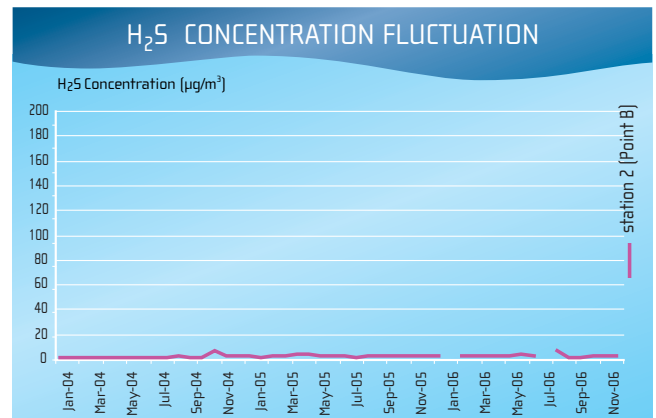


Air Quality: H₂S

The refinery has achieved the minimization of hydrogen sulfide emissions by upgrading the units of processing acid gas, as well as, the sulfur recovery units.

The H₂S concentration is monitored on a daily basis in all of the four stations of the Air Quality Monitoring Network.

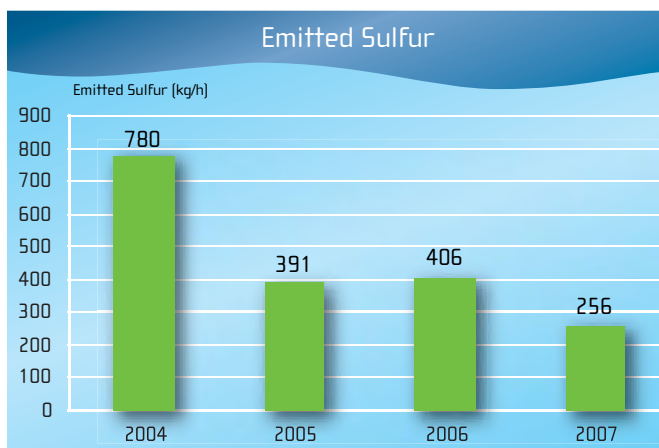
Based on the measured results, it is observed that the concentration of H₂S in the wider area of the refinery is remarkably low, according to the measurements of the station, located at Agioi Theodoroi.



Sulfur Emissions

In 2005, sulfur emissions were very low, mainly due to the refinery's S/D for the commissioning of the new Hydrocracker Unit. In 2007 the emissions had been remarkably reduced in relation to previous years, despite the expansion of the process units.

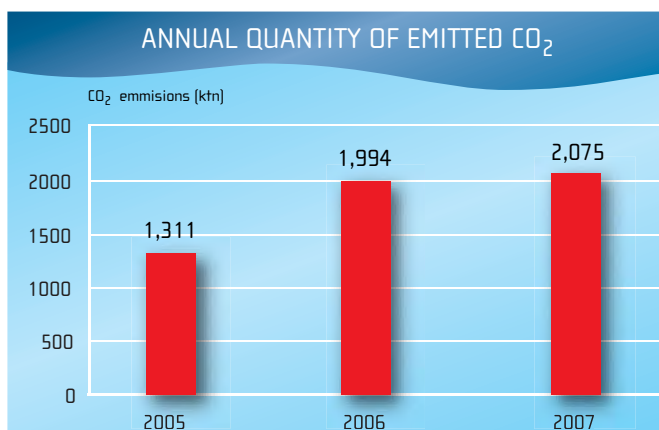
This is mainly due to the decrease of sulphur content in self-consumption fuel.



Carbon Dioxide Emissions

The total carbon dioxide emissions for 2007 were 2,074,871 metric tones. The increase in the quantity of the emitted CO₂ is attributed to the complexity increase of installation activities as well as in the turnover of units (disruptions of operation e.t.c.).

It should be noted that Refinery's carbon dioxide emissions are not expected to exceed the emission rights that have been allocated to the Company for 2005-2007.

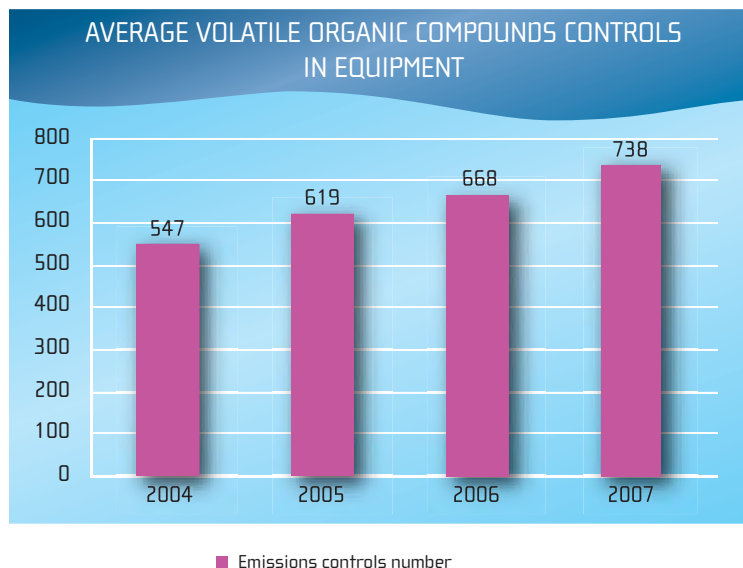


Emissions of Volatile Organic Compounds (VOCs)

Having set as a goal the reduction and control of Volatile Organic Compounds, the Company has implemented, amongst other, a series of programs that include the reduction of diffused emissions coming from different sources (oil separators, unit equipment) and the installation of secondary seals in the floating roof tanks.

Diffused emissions of Volatile Organic Compounds, is a characteristic of the chemical and oil industry that not only do they consist a source of pollution but also a cause of forgone profits and loss of products for the industry. Thus, the goal of reducing such emissions is dual. The anti-pollutant measures that are being taken in order to reduce the emissions coming from the storage and distribution units of gases and fuels are to improve the units (tanks, pumps, etc) as well as to control on a regular basis, to maintain effectively the units, something that is very crucial in emissions control. In order to reduce the emissions arising from the loading of Road Tankers, a vapour recovery unit has been installed, in accordance to current legislation which is internationally accepted as the most effective measure to minimize such emissions.

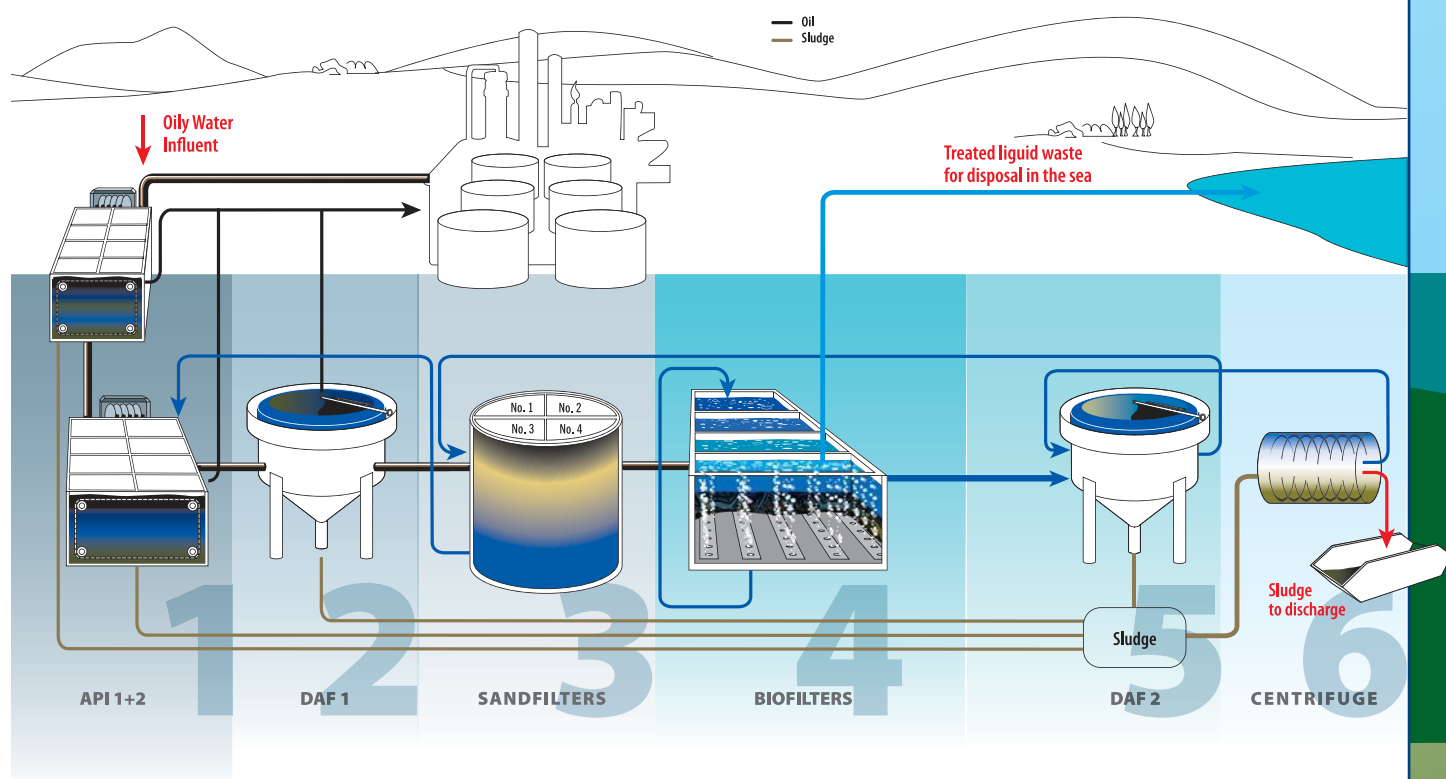
Specifically, in order to check the equipment, the program of Leak Detection And Repair, (LDAR) has been applied, where the leakages are observed and recorded during the periodical control that is made by the departmental operators. The inspections are carried out by portable devices and the leakages are fixed the soonest possible. As it is depicted on the diagram, the number of controls is continuously increased in order to reduce the emissions of organic compounds.



11.2 WASTEWATER

Industrial wastewater produced by the Refinery's process units after its pre-treatment, is routed in an industrial wastewater treatment unit, the operation of which is based on a sequence of steps, that are depicted in the diagram that follows (API Oil Separators, Dissolved Air Flootation (DAF) units, sand filters, biofilters, sludge treatment). At the same time, the sanitary wastewater is treated in a separate wastewater treatment unit.

The aim of industrial and urban wastewater treatment systems is the full treatment of wastewater so that the treated effluent is in compliance with the requirements of current legislation. Wastewater effluents are measured on a daily basis, whereas, simultaneously a lot of programs that aim to face efficiently any case of emerging situation caused by a malfunction of a unit, the automatization of units and the optimization of performance, are implemented. The quality characteristics of the effluents are shown on the next tables where one can conclude that in most cases the given values are much lower than those the current legislation defines.



Concentration of pollutants at the outlet of treatment units

Parameter	Average values of 2007		Threshold Limits
	Industrial Waste Water Effluent	Sanitary Waste Water Effluent	
pH	8	6.5	6-9
Temperature (°C)	34		<35
Oil content (mg/l)	4		<10
BOD ₅ (mg/l)	28	14.5	<40
COD (mg/l)	99	44.4	<150
NH ₃ (mg/l)	14		<15
Phenols (mg/l)	0.25		<0.5
Sulfides (mg/l)	0.48		<2
Suspended solids (mg/l)	20	8.2	<40

The rate and quality of the effluent are shown on the table below.

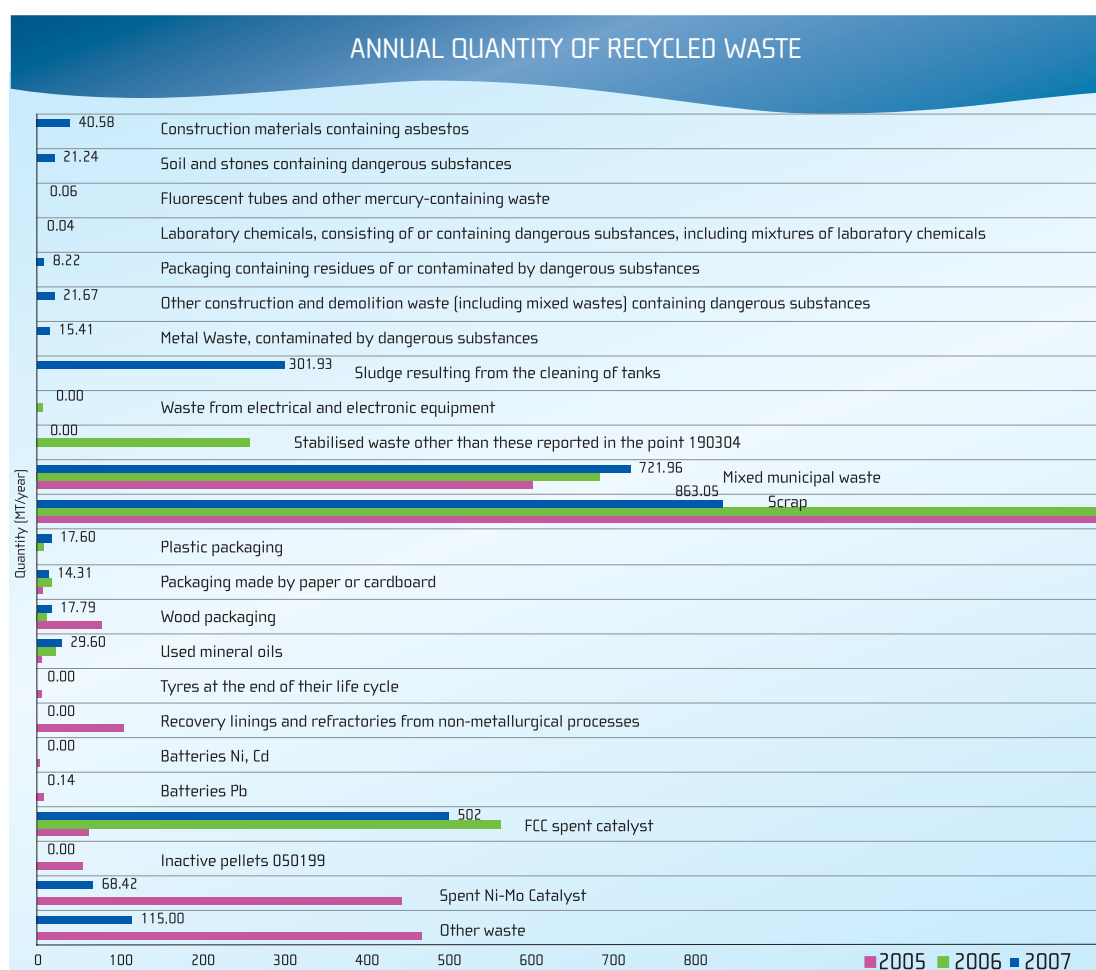
Parameter	2004	2005	2006	2007
Discharge (m ³ /day)	6,936	7,565	8,976	10,385
BOD ₅ (kg/day)	261	266	305	286
Suspended solid materials (kg/day)	62.4	75	143	208
Phenols (kg/day)	2.45	3.1	2.51	2.58

11.3 SOLID WASTE

Solid waste produced during the operation of the Refinery is gathered and processed according to the following methods:

- Recycling (outside the refinery's premises)
- Recovery (outside the refinery's premises)
- Processing inside the refinery's premises
- Re-usage
- Final disposal (outside the refinery's premises)

The Refinery has set as a goal the increase of recycling and the re-usage of the produced waste. The annual quantities of solid waste that were disposed out of the Refinery are shown in the following diagram.

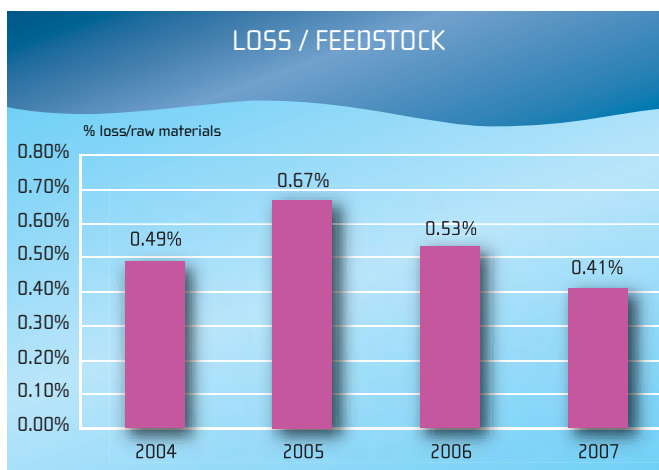
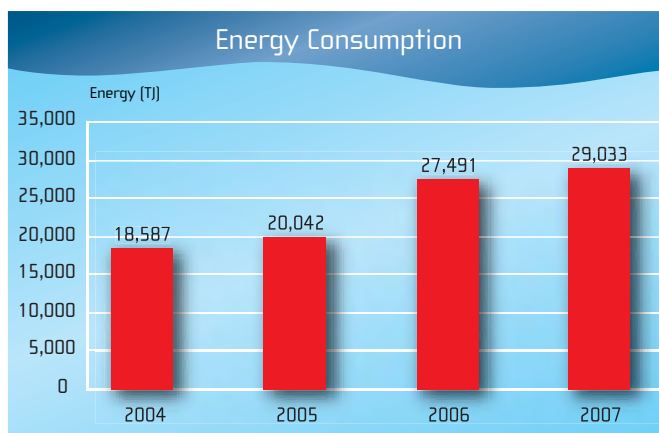


11.4 ENERGY CONSUMPTION

Energy consumption includes the consumption of fuels (liquid and gas fuel) during combustion and the consumption of electric energy required for mechanical equipment.

In year 2007 energy consumption of Refinery's operations amounted to 29,033 TJ. The energy consumption increase that appears during the last three years is due to the installation of new units, the increase of their complexity and to the doubling of environmentally friendly fuels production.

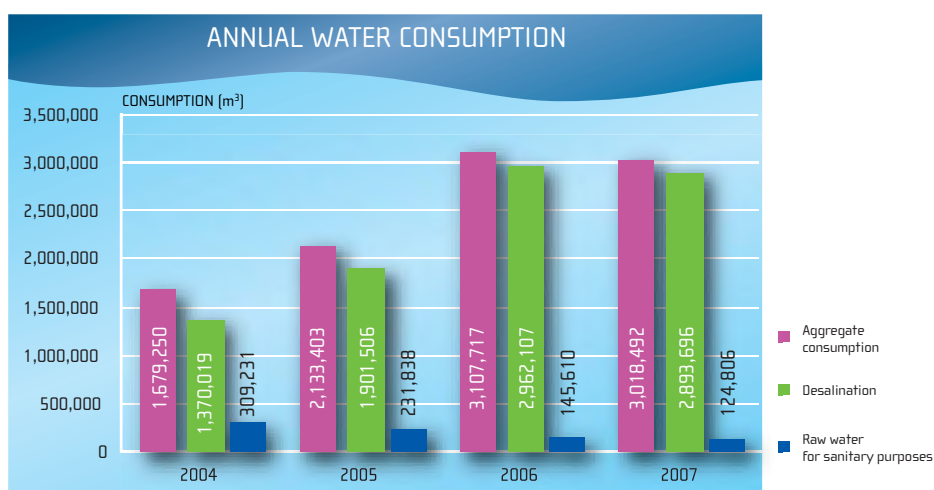
It must be mentioned that the total losses have been decreased during the last three years, reaching 0.41 % of the aggregate quantity of refinery feedstock.



11.5 WATER CONSUMPTION

Water used in the Refinery's various operations is obtained from sea water desalination as well as raw water imports by tank vehicles and vessels.

The water quantity that is annually consumed has been increased and that is due to the installation of new units. It should be underlined that the water which is being used in the manufacturing process comes only from the processing of sea water, consequently, there is no any negative impact on natural resources of the area. As it is shown on the diagram the percentage of water obtained from desalination is continuously increased while simultaneously the raw water that is imported for sanitary purposes is decreased. The water consumption from the units of sea water desalination has been calculated based on the produced quantity.



It is pointed out that in the context of the company's social contribution, quantities of water are granted free of charge for water supply, covering the needs of almost two hundred neighbor residences.

11.6 NOISE POLLUTION

Having set as a goal the reduction of environmental noise levels within the Refinery premises, the Company has taken all the necessary measures which include the installation of silencers, as well as, the procurement of low noise level equipment. The levels of noise are monitored on a regular basis by conducting measurements around the Refinery. The measurement positions are shown on the following Map.



Indicative measurements for 2007 are presented on the following table:

Locations	Noise Level February 2007 (dBA)	Noise Level September 2007 (dBA)	Threshold Limits
Perimeter of the refinery	50.8-63.8	60.0-65.0	60.5
South perimeter of the refinery	52.0-55.0	52.0-55.0	55.0

12. New objectives and programs

MOTOR OIL constantly implements new programs and actions aiming to improve its environmental performance, while, it plans new objectives for the future. The objectives and programs that are planned for the next years and their time schedule are presented on the following table.

		2008	2009	2010
AIR				
Improvement of air's quality and gas pollutants monitoring, aiming at the reduction of emissions and the improvement of air quality. Specifically, the programs that will be implemented include:				
Quality of the air:	Upgrading of the air quality station in the port by monitoring additional pollutants.	•		
Emissions from chimneys:	Certification for continuous measurements in the chimneys according to international standards.		•	
CO₂ Emissions::	Monitoring of CO ₂ emissions by making laboratory measurements of carbon content in the fuel gas.		•	
WATER				
Use of available inactive equipment in the industrial wastewater treatment system.				•
SOIL				
Reduction of the volume of solid waste stored in the Refinery and implementation of new alternative technical methods:				
- Improving and removing the waste sludge				•
- Alternative use of catalysts				
ENERGY				
Consumption of fuel:	Utilization of natural gas in the production process.	•		

Registration / Next Environmental Statement

The company is registered in the European System of Ecological Management and Audit Scheme (EMAS). Moreover the company is registered in the Greek Ledger of EMAS Organizations with registration number EL000067.

The present Environmental Statement constitutes the second Statement of the company and concerns the year 2007. The next Environmental Statement will be edited, verified, and issued on July 2009, while, the whole body of the Environmental Statement will be edited, verified and issued on July 2010. In that statement among the other issues, environmental issues and the output of environmental programs for the years 2007-2009 will be described.

C. B. Korkas, Head of the Integrated Management System, is responsible for editing the Environmental Statement.

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Verifier	M. Chachali / BV Certification Hellas S.A.
Accreditation No	246
Range of Accreditation	NACE 23
Date of the next verification of the Environmental Statement	10/07/09

Corinth, July 10, 2008

Constantine B. Korkas
Head of the Integrated Management System





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