

Environmental Statement 2010



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VOLUNTARY ENVIRONMENTAL STATEMENT
ACCORDING TO EUROPEAN REGULATION 1221/2009
EMAS (Eco-Management and Audit Scheme)

JULY 2011

Contents

| | |
|---|----|
| MANAGEMENT MESSAGE | 3 |
| 1. COMPANY PRESENTATION | 4 |
| 1.1 General Information | 4 |
| 1.2 Timeline of Company's Growth | 5 |
| 1.3 Corporate Social Responsibility | 6 |
| 1.4 Organization Chart | 7 |
| 1.5 Refinery Processing Flow Chart | 8 |
| 1.6 Production - Products | 9 |
| 2. ENVIRONMENTAL MANAGEMENT | 10 |
| 2.1 Environmental Management System | 10 |
| 2.2 Health, Safety and Environmental Policy | 11 |
| 2.3 Environmental Programs, Objectives and Improvements | 12 |
| 2.4 Environmental Aspects and Impacts | 13 |
| 2.4.1 Air Quality | 13 |
| 2.4.2 Wastewater | 14 |
| 2.4.3 Solid Waste | 15 |
| 2.4.4 Indirect Environmental Aspects | 16 |
| 2.4.5 Environmental Incidents | 16 |
| 3. 2010 RESULTS | 16 |
| 3.1 Environmental Performance | 16 |
| 3.1.1 Air Quality Management | 16 |
| 3.1.2 Wastewater | 22 |
| 3.1.3 Solid Waste | 24 |
| 3.1.4 Energy Consumption | 26 |
| 3.1.5 Water Consumption | 27 |
| 3.1.6 Noise | 28 |
| 4. OBJECTIVES | 29 |
| 4.1 New Objectives and Programs | 29 |
| REGISTRATION DETAILS / | |
| NEXT ENVIRONMENTAL STATEMENT | 30 |
| ANNEX I | |
| CATALOGUE OF LEGISLATION | 32 |

Management Message

With great pleasure I introduce the Environmental Statement 2010 of MOTOR OIL, which we publish according to the new European Directive 1221/2009 for EMAS (Eco Management and Audit Scheme). This is the fifth consecutive Environmental Statement voluntarily published by our company, which is registered since 2007 in the Greek Ledger of EMAS organizations with registration number EL 000067, in line to our commitment for properly and rationally managing environmental issues, and in the context of the Integrated Management System that we apply for this purpose.

MOTOR OIL operates with respect to the Environment, and takes care for the best management of natural resources, as well as for reducing the environmental impacts that result from its operations, having as a guide its Environmental Policy, and taking into account the interests of all stakeholders.

In the present Environmental Statement you will find data about the Refinery units and process activities, a reference to our Environmental Management Policy, an assessment for our 2010 Environmental performance, as well as the new objectives on which we commit.

The investment policy of the company is focused on the production of environmentally friendly products, by implementing innovative and environmentally friendly technologies, while investing in new projects and in the automation of production processes for improving the productivity and the energy efficiency of the Refinery. By implementing the above investment policy, we believe that we actively contribute to environmental sustainability, to the economic development of the local society in which we base our industrial operations, as well as to the development of our country in general.

In 2010 the new 60,000 barrels per day Crude Distillation complex was commissioned, which includes desulfurization units for producing environmentally friendly products of low sulfur content, and for practically eliminating sulfur emissions in the air.

Furthermore, in 2010 the installation of a fifth 17 MW gas turbine unit started, which is planned for commissioning in 2011. The addition of this natural gas fed unit at the high performance Electricity and Steam Cogeneration Power Plant of the Refinery, will ensure its full energy self-sufficiency.

The overall responsibility for the Environment, as well as the Health and Safety of our personnel is mine.

The duties that I have assigned to my colleagues and employees in the context of Health, Safety and Environmental Management are specific and, as I believe, effective. All the personnel of MOTOR OIL participates in the implementation of the Environmental Management System, through the appropriate training, the set-up of workgroups, the realization of the program of internal audits, and the carrying out of emergency preparedness exercises.

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

It is my obligation at this point to emphasize that MOTOR OIL's Environmental Statement is an opportunity for communication with our associates and all stakeholders on the performance of MOTOR OIL in managing environmental issues, and in this context, my colleagues and I are at your disposal for any query or comment you might have.

M. I. Stiakakis
Manufacturing General Manager

1. Company Presentation

1.1 General Information

MOTOR OIL is a leading Company in the oil refining industry supplying its customers with a wide range of high quality products. The Company has evolved to one of the main pillars of the national economy, while, at the same time maintains and expands its key role in the wider area of South Eastern Europe.

MOTOR OIL started operating in 1972, as a company engaged in refining and trading of oil products and has been responsibly functioning ever since, aiming at sustainable profitability and socially responsible growth. The Company's Vision and Mission define the context which drives the planning and implementation of its dynamic growth. In addition, company operation is based on a set of strict Principles and Values, which comprise the constituent elements of its business practices.

MOTOR OIL's Vision and Mission are based on three basic principles:

- ◆ Respect for our People
- ◆ Respect for the Environment
- ◆ Transparency

Materializing the Corporate Vision and Mission is based on four corporate values:

- ◆ Effectiveness
- ◆ Accountability
- ◆ Social Responsibility
- ◆ Integrity

The Company Refinery is located at Agioi Theodoroi, Corinth, approximately 70 km from the center of Athens and the total extent of the facility is 1,141.5 acres (biodiversity index). Along with its auxiliary premises and its fuel distribution premises, the Refinery constitutes the largest private industrial complex in Greece, and is considered as one of the most flexible refineries across Europe.

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

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

The industrial plant of the Company has an operating license which has been granted by Y.P.A.N (Hellenic Republic Ministry of Development / Department of Energy / Department of Oil Installations / section A:Δ3/α/6841 – 16.08.2007, while for the new Atmospheric Distillation unit U-7100 the operating license is by YPEKA – Min-

istry of Environment, Energy & Climate Change/Department of energy and climate change / Department of Oil Installations / section A: Δ3/A/14094, date 12-11-2010) and they fulfill the legal requirements, which demand the application of Best Available Techniques, measures for the protection of the ground, water and air, threshold limits for waste emission, emergency response measures (leakages, malfunctions, interruptions), waste management measures as established in the permit from YPEKA (Approval of the Environmental Operating Terms – YPEKA/Department of Air Pollution and Noise Control / Section of Industries : 145996/date 22.06.2009), which is in a total conformity with the European legislation (directive IPPC (96/61/EK) and 2001/80/EK).

Also, the Refinery has a license for Greenhouse Gases Emissions with number YPEKA/Department of Environment/Department of Air Pollution and Noise Control /TEΔE 169486 – 26/11/2010.

The following table summarizes the company data.

Statistical Codification of Economic Activity: 232

| | |
|--|---|
| NACE Code | DF.19.20 - Manufacture of refined petroleum products |
| Premises: | Agioi Theodoroi, Corinth |
| Installed Power: | Main electric motors power 74.65 MW Back up electric motors power 48.44 MW |
| Postal Address: | 71st km of Old National Road Athens – Corinth, position «Soussaki» |
| Contact Person for EMAS and Integrated Management System | S. I. Sofos |
| Telephone number: | (+30) 27410-48602 |
| Fax: | (+30) 27410-48255 |
| E-mail: | sofosp@moh.gr |
| Responsible for Health, Safety and Environment | G. A. Palaiokrassas |
| E-mail: | palaiogi@moh.gr |

Vardinoyannis Group is the major shareholder of MOTOR OIL. In 2001, the Company made an Initial Public Offering, listing its shares in the Athens Stock Exchange, substantially increasing its share capital.

The Company's shareholder structure at 31.12.2010 is presented in the following table.

| SHAREHOLDERS | % |
|-------------------------------|--------------|
| Petroventure Holdings Limited | 51.0 |
| Free Float | 49.0 |
| Total | 100.0 |

1.2 Timeline of Company's Growth

MOTOR OIL was founded in 1972, accomplishing afterwards step-changes towards the improvement, expansion and upgrading of its refinery. These steps are concisely presented in the following chronological table.

| | |
|-------------|--|
| 1972 | Foundation and beginning of operation of the refinery comprised of a crude oil refining unit, a base lubricants production unit and port facilities. |
| 1975 | Construction of an Atmospheric Distillation Unit, with a capacity of 100,000 barrels/ day and tanks with a capacity of 1.5 million m ³ . |
| 1978 | Construction of a Catalytic Reforming Unit (further processing of naphtha for gasoline production). |
| 1980 | Installation of a Fuel Catalytic Cracking Unit (processing of fuel oil into high added value products). |
| 1984 | Construction of a Power Plant that uses fuel gas as raw material. Right of sale of electric power to the national grid. |
| 1993 | Quality Management System certification according to ISO 9002 standard, concerning all the activities of the Company |
| 1996 | Purchase of 50% of the Company's shares by Aramco Overseas Company BV, 100% subsidiary of Saudi Arabian Oil Company (Saudi Aramco). Relocation of Company Headquarters to a modern building in Marousi, Attica. |
| 2000 | Manufacture of products according to European Union standards for the year 2000, by constructing new units and converting the naphtha reformer to a continuous 103 octane reformation unit (CCR). New Central Control Room and installation of a Distributed Control System (DCS). Environmental Management System certification according to ISO 14001:1996 standard. |
| 2001 | Share capital increases through public offer of shares and listing on the Athens Stock Exchange. Installation of the new gas turbine at the Power Plant. Upgrade of lubricants' vacuum unit. |
| 2002 | 100% acquisition of AVIN OIL, a domestic retail marketing oil company |
| 2003 | Development of a Quality Management System according to ISO 9001:2000 standard, which was certified on January 2003 |
| 2004 | Re-certification of the Environmental Management System according to ISO 14001:2004 for three more years. Beginning of operation of the Truck Loading Terminal at the Refinery. |
| 2005 | Beginning of operation of a Hydrocracker unit that enables the production of clean fuels according to 2005 and 2009 European Union specifications. Acquisition of the stake of Aramco Overseas Company B.V. in the Company by Motor Oil Holdings S.A. |
| 2006 | Re-certification according to ISO 9001:2000 for three more years (until 2009). Accreditation of the refinery Laboratory according to ISO 17025:2005. |
| 2007 | Re-certification of the company Environmental Management System according to ISO 14001:2004, valid until 2010. Company Registration in the Greek Ledger of EMAS (Eco Management Audit Scheme). |
| 2008 | Certification of the Occupational Health and Safety Management System according to OHSAS 18001:2007. Safe implementation of the largest in company history refinery shut down program for periodic maintenance work. Start of construction of the New Crude Distillation Unit. The non-government organization, Ecocity awards our company, for the second consecutive year, with the "OIKOPOLIS 2008 - Environmental Investment" prize |
| 2009 | Re-certification of the Integrated Management System according to the new ISO 9001:2008 standard, valid until 2012. At the same time some significant strategic initiatives were initiated agreement with Shell International Petroleum Company for acquiring its downstream operations in Greece (except for Lubricants), start of the construction of the KORINTHOS POWER S.A. natural gas power plant, acquisition by MOTOR OIL Group of an additional 64.06% stake in OFC Aviation Fuel Services SA with which the total Group share reached 92.06%. |
| 2010 | Beginning of operation of the new 60.000 barrels per day atmospheric distillation complex. Installation start of a fifth gas turbine at the Power Plant (17 MW natural gas unit). Re-accreditation of the Refinery Chemical Laboratory according to ISO 17025:2005, with validity until 2014. Re-certification of the Environmental Management System according to ISO 14001:2004 with validity until 2013. Successful completion of the acquisition of Shell downstream operations in Greece. |

1.3 Corporate Social Responsibility (CSR)

MOTOR OIL fully embraces the importance of the effort for sustainable growth via the application of the principles and objectives of Corporate Social Responsibility. It expresses its social responsibility with the commitment that its activities are based on the 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 into consideration the protection of the environment, as well as the stakeholders - its personnel, the shareholders, the customers, the suppliers and the society as a whole.

MOTOR OIL is a founding member of the Hellenic Network for Corporate Social Responsibility, and has subscribed and participates in the initiative of the United Nations Organization for the UN Global Compact, the aim of which is to direct the enterprises to sustainable growth through voluntary and responsible behavior and actions.

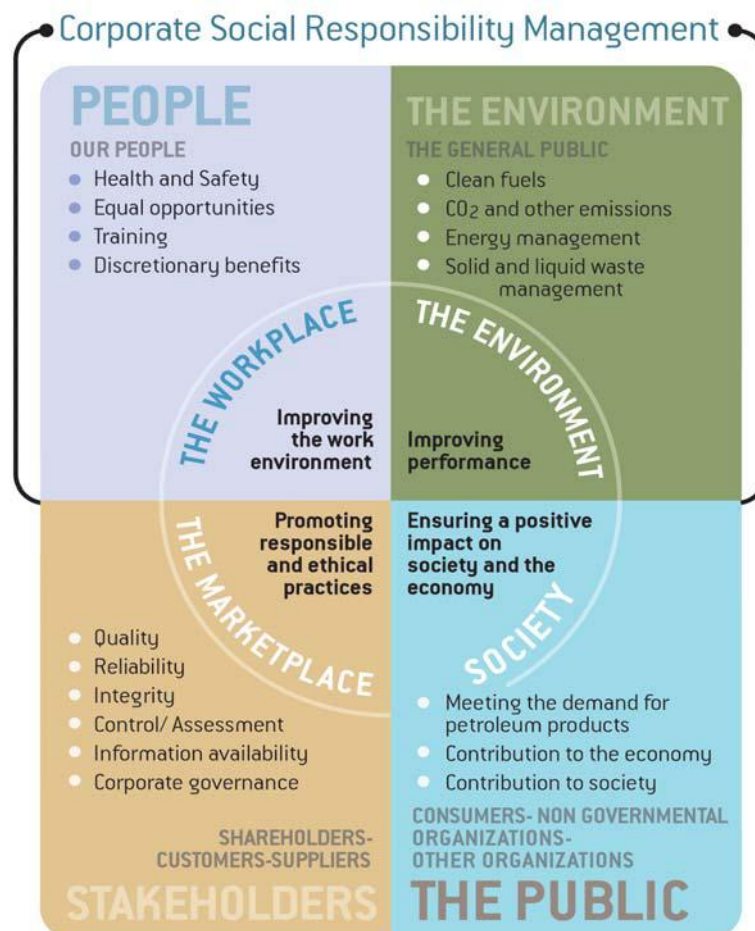
CSR indicates the balanced approach of the financial, social and environmental impact of the company operations according to the three dimensions of "society - environment - economy" that are globally accepted by the responsible members of the business community. These outline the main objective of an organization

to create value for its shareholders, while at the same time taking care of its customer satisfaction, its personnel, the environment and society in general. Relevant to this is also the concept of sustainable growth, meaning the growth that aims at covering today's needs without jeopardizing the availability of resources for future generations.

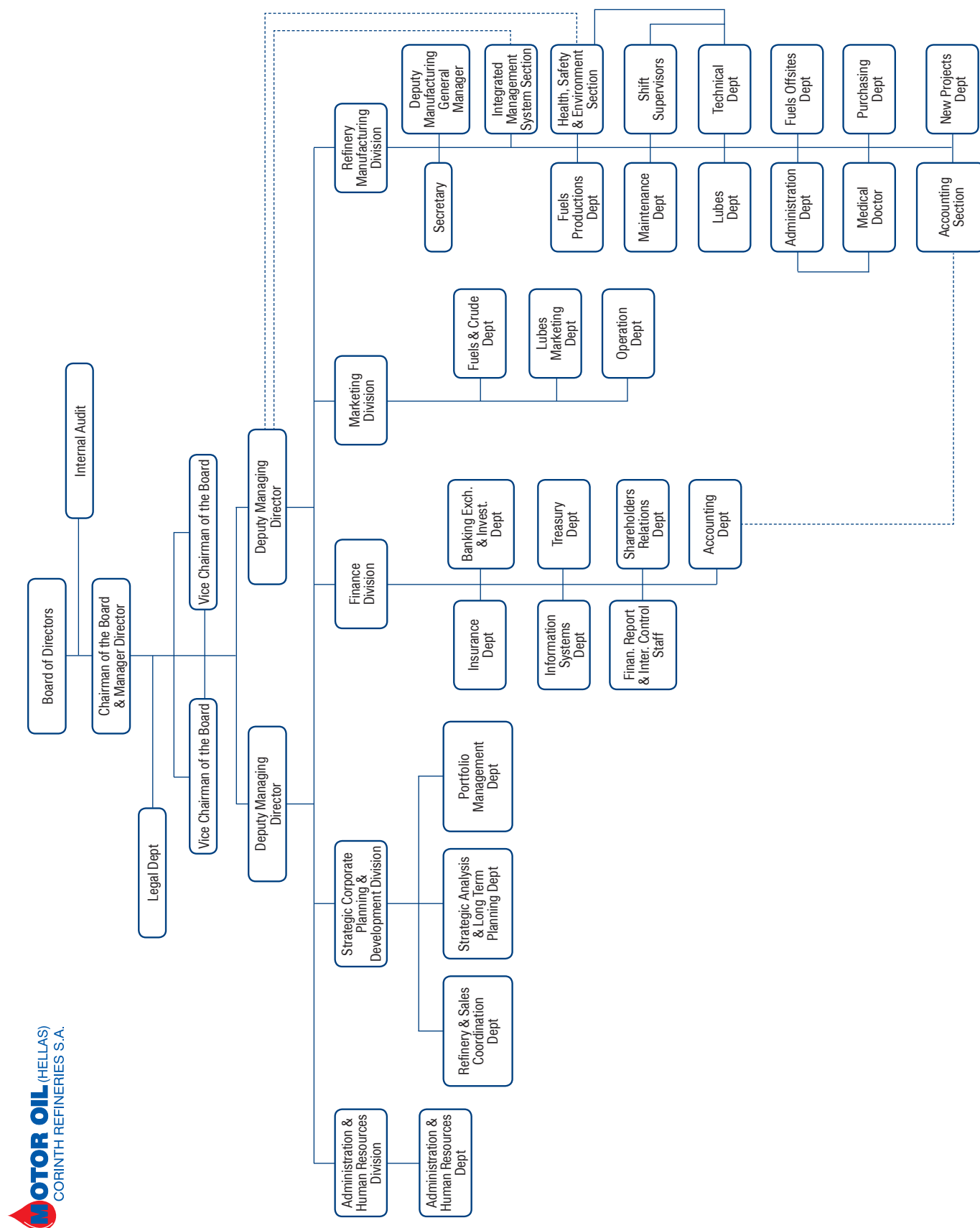
Consequently MOTOR OIL commits for its complete conformity with the ten principles of the UN Global Compact regarding:

- ◆ Human rights,
- ◆ Labor
- ◆ The environment and
- ◆ Transparency (anti-corruption)

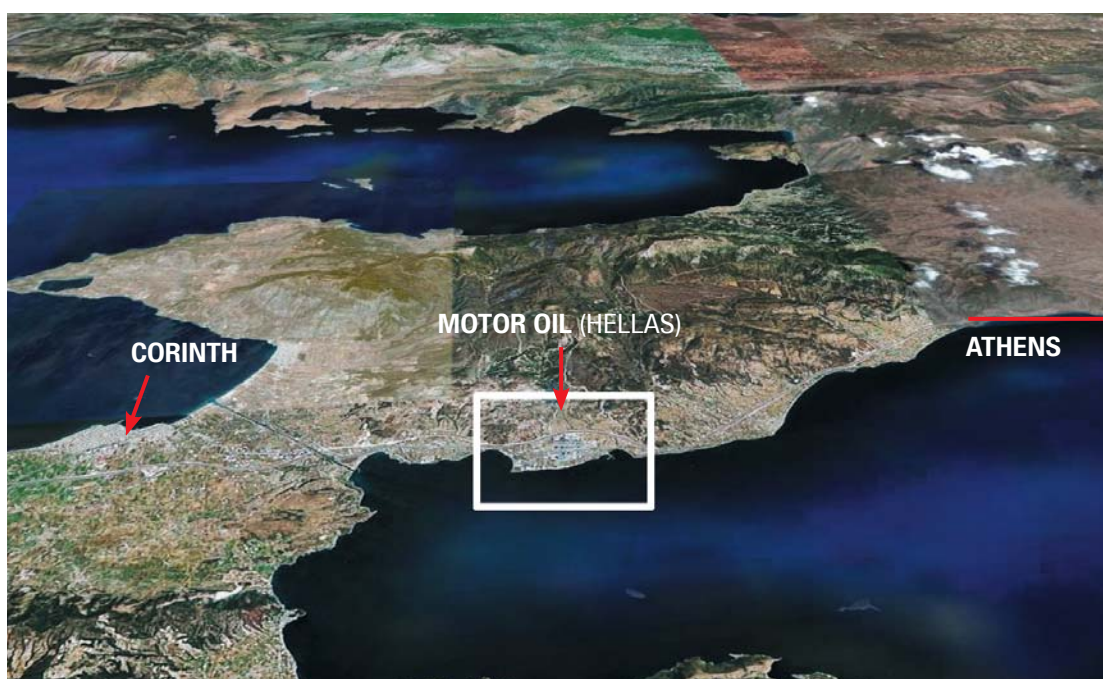
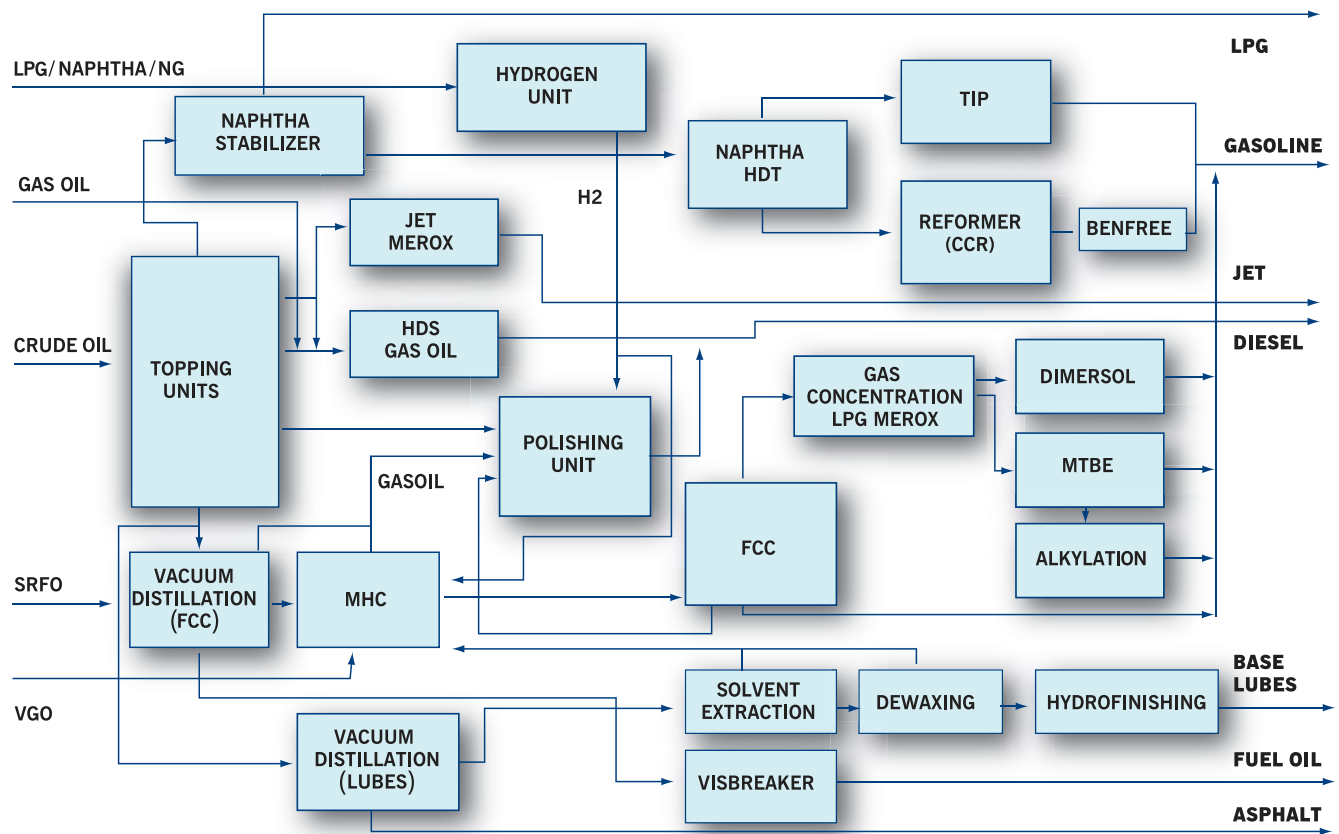
Amongst the challenges that MOTOR OIL faces, the most important ones are related with managing Health, Safety and the Protection of Environment. The frame for the management of these challenges and the achievement of continuous improvement in these particular sectors, according to the principles of Corporate Social Responsibility and the UN Global Compact, is defined by the policy for Health, Safety and the Environment.



1.4. Organization Chart



1.5 Refinery Process Flow Chart



1.6 Production-Products

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

Products produced in the Refinery include:

| FUELS | |
|----------------|---------------------------------|
| | ● Liquefied 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 |

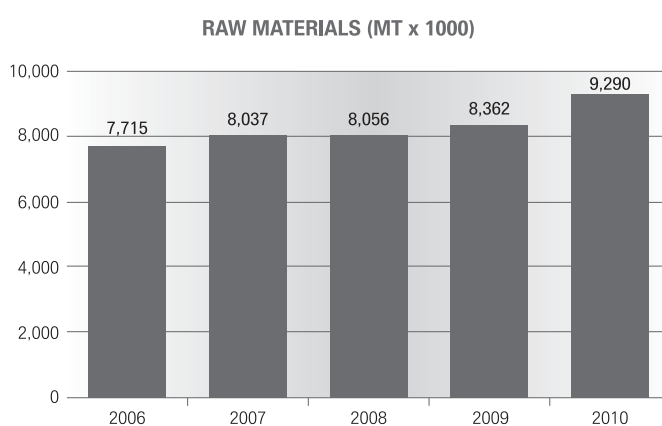
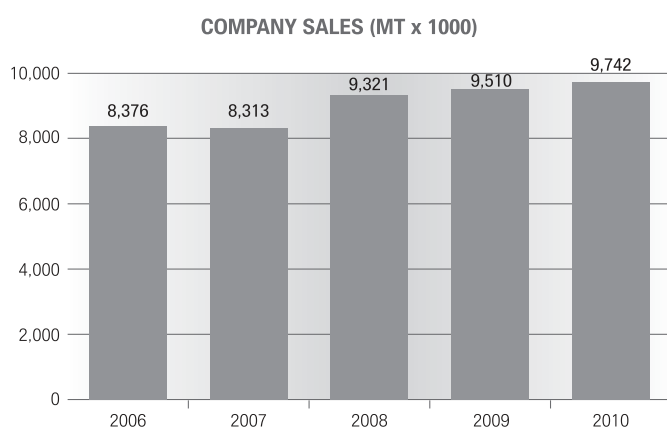
The maximum annual capacity of the main production units is the following:

| | |
|---|--------------|
| Atmospheric Distillation Units | 7,952,502 MT |
| Visbreaker | 1,314,000 MT |
| Vacuum Distillation Unit/ Lubricants | 823,440 MT |
| Heavy Hydrocarbons Desulphurization Unit | 1,314,000 MT |
| Naphtha Desulphurization Unit | 832,200 MT |
| Naphtha Catalytic Reforming Unit | 569,000 MT |
| Benzene Hydrogenation Unit (Benfree unit) | 444,815 MT |
| Vacuum Distillation Unit/ FCC | 2,741,880 MT |
| Fluid Catalytic Cracking | 1,533,600 MT |
| Mild Hydrocracker Unit | 2,014,800 MT |

Storage and distribution premises include:

| | |
|--|--------------------------------|
| <i>9 tanks for crude oil storage</i> | <i>1,080,000 m³</i> |
| <i>113 tanks for intermediate and final products storage</i> | <i>1,243,000 m³</i> |
| <i>Docks for tankers' loading and unloading</i> | |
| <i>Pipelines for transferring raw materials and products</i> | |
| <i>Truck Loading Terminals</i> | |

Company sales over the last five years follow a steady uptrend, as it is shown in the table below, while the total production volume for 2010 was 8,644 million MT:



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

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

One of the main points in planning and implementing the Environmental Management System, is the identification of environmental aspects and the evaluation of the environmental impacts.

The identification of the environmental aspects and the relevant impacts, is accomplished by a wide group of company staff and executives, which includes the Heads of Sections, employee representatives the Head of the Health, Safety and Environment Section, the General Manager Manufacturing, as well as the Deputy General Manager Manufacturing, in order to ensure a multilateral approach to the identification and control of the environmental aspects.

The identification of the impacts is accomplished by:

- Inspection of the Refinery process units and other premises
- Investigation of the environmental documentation (manuals, procedures, forms and archives)
- The regular scheduled or unscheduled (as required) internal audits

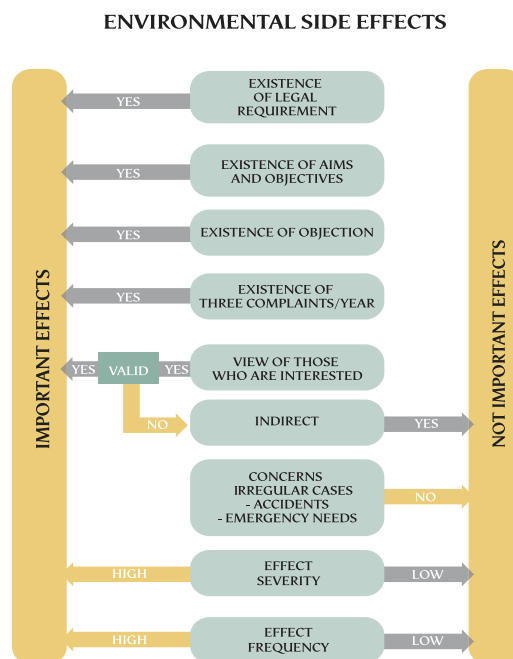
The investigation of the environmental impacts takes into account the following:

- The current regulation requirements and their modifications
- The opinion of stakeholders and related parties
- The operation of the Refinery under
 - ◆ normal conditions
 - ◆ irregular conditions
 - ◆ probable emergency conditions

The environmental impacts are assessed according to a series of criteria; more specifically:

- every legislatively regulated impact is considered as important
- every impact related with the environmental policy and/or an already established target / objective of the company is considered as important
- every impact for which an objection or a complaint has been raised, or is viewed as significant by relevant stakeholders is considered as important

The assessment method of the environmental impacts is shown on the following diagram, from which the most important environmental impacts are extracted.



2.2 Health, Safety and Environmental Policy (HSE Policy)

MOTOR OIL operates with respect to Health, Safety and the Environment. To achieve that, MOTOR OIL is committed to:

- set objectives and targets in order to accomplish a continuous improvement of the implemented management systems concerning Health, Safety and the Environment.
- meet or exceed the demands of legal and other requirements
- manufacture products of guaranteed quality that comply with, or exceed Health and Environment Protection specifications for each product, and with efficient use of raw materials, energy and technology.
- report both good and bad performance, as a responsible corporate citizen.
- maintain emergency preparedness and response systems and plans, which tests regularly performing the right drills.
- integrate Health, Safety and Environmental issues into all business decisions, plans and operations in the framework of the Integrated Management System.
- provide consultation, information and training to employees, contractors and others working on its behalf and ensuring their commitment and awareness.
- consciously and strictly implement the environmental operation terms, that define the allowed level of produced wastes.
- cooperate with all stakeholders so as to develop balanced Health, Safety and Environmental Protection programs, which take into account the needs of all those involved.

At MOTOR OIL, whatever we schedule, plan or do, we do it safely, environmentally friendly and in a cost-effective manner.

2.3 Environmental Programs, Objectives and Improvements

During the years 2006-2010 the company has implemented numerous programs aiming at the minimization of the environmental impacts of its operations, while reducing losses, recovering raw

materials residues, and reducing production cost. The programs implemented and their time of completion is shown in the following table:

| | 2006 | 2007 | 2008 | 2009 | 2010 |
|--|------|------|------|------|------|
| AIR | | | | | |
| 10% reduction of local leakages of volatile organic compounds by implementing the LDAR program for detecting, controlling and repairing leakages. | | | | | |
| - During 2006, this program expanded into the new truck loading terminal (TLT) and during 2007 to the Hydro-cracker complex. | ● | ● | | | |
| A specific measurement schedule is enforced since 2001. | | | | | |
| Reduction of H ₂ S, SO ₂ emissions and other air pollutants: | | | | | |
| - Optimization of the performance control of the sulfur recovery units, using a permanent device monitoring H ₂ S/SO ₂ at the output of the units and installing a new Claus unit. | | ● | | | |
| - Upgrading the air quality monitoring station at the port for measuring additional pollutants (PM _{2.5}). | | | ● | ● | |
| - Monitoring CO ₂ emissions by measuring carbon concentration in fuel gas. At the same time, accreditation of the MOTOR OIL Chemical Laboratory concerning the measurements of gas emissions. | | | ● | | |
| - Upgrading the air quality monitoring station at the port for measuring additional pollutants (benzene). | | | | | ● |
| WATER | | | | | |
| Upgrade and modernization of the processing stages. | ● | | | | |
| Installation of a system to deal with the foaming problem at the biofilter of the facility. | | | ● | | |
| Aeration of the stabilization tank for the sludge produced by the Waste Water Treatment Plant, in order to improve the quality of the sludge to be processed. | | | ● | | |
| Installation of an on-line chlorine meter at the sanitary wastewater treatment plant output, to improve operation monitoring | | | | ● | |
| Conduct a hydrogeological study to define the water direction of the aquifer, in order to finalize the location of monitoring and control bores. | | | | | ● |
| SOIL | | | | | |
| Completion of the results report of land environmental control, in the region where, the process of landfarming took place formerly. | | ● | | | |
| Completion of research for managing and neutralizing the sludge from the M-4000 wastewater treatment plant, so that it is suitable for use as an alternative fuel or to be legally disposed at Sanitary Landfills. | | | ● | ● | |
| Tear-down asbestos-cement sheets of 1075 m ² surface and disposal through a licensed company | | | ● | ● | ● |
| Reduction of soil waste quantity stored in the refinery | | | | ● | |
| Tear-down asbestos-cement sheets of 1500 m ² surface and disposal through a licensed Company | | | | ● | |
| Investigation of alternative ways of management of the tank bottom sludges, after their treatment in decanter | | | | | ● |
| ENERGY | | | | | |
| Connection with the national natural gas network and use of natural gas in the production process. | | | ● | | |
| Exploitation of natural gas in the production process | | | | | ● |

2.4 Environmental Aspects and Impacts

The environmental impacts are classified:

- Direct or indirect: This depends on whether the company has or has not the responsibility of their direct handling, taking into account the existing legal context, contracts with clients or suppliers, as well as the feasibility on behalf of company to control the impacts.
- Major or minor depending on whether handling these impacts is controlled by the Environmental Management System.

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

- Gas emissions from stationary sources (combustion plants) and refinery production processes
- Industrial and Sanitary waste water
- Solid waste, hazardous or not
- Energy and water consumption
- Noise

All the above environmental impacts are monitored and recorded on a regular basis, and relevant measures are continuously taken, so that the Company will act accordingly in order to improve its environmental performance. A similar evaluation of impacts is also carried out during the construction of new projects.

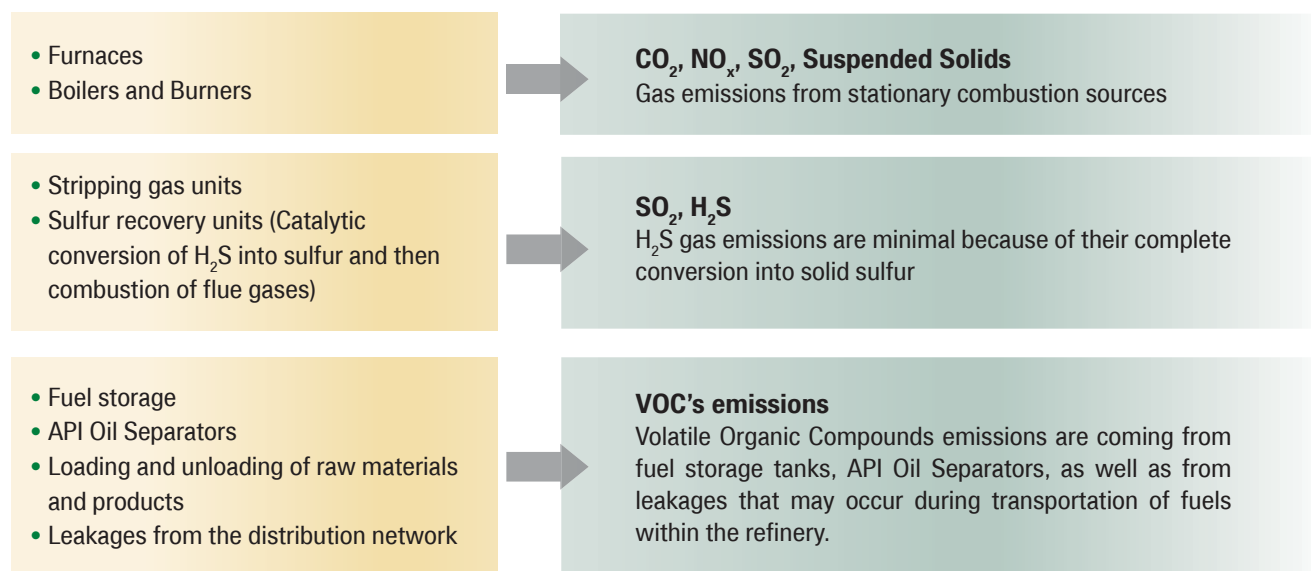
At the same time the Company has evaluated the indirect environmental impacts resulting from the interaction with third parties, products and services over which the Company does not have the administrative control.

The main environmental aspects associated with gas emissions, liquid and solid waste, as well as, the indirect environmental impacts are described in the following sections:



2.4.1 Air Quality

The gas emissions due to the operation of the Refinery units, 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 sour and liquid gases before their storage, or their use as a fuel, aiming at removing hydrogen sulfide.
- Installation of sulfur recovery units aiming to convert the produced hydrogen sulfide into solid sulfur, which is environmentally friendly.
- The reduction and control of hydrocarbon emissions by taking several measures such as the installation of closed circuits in gas processing operations, the routing of gases from safety valves to the flares, the installation of secondary seals in floating roof tanks, the installation of floating covers in oil separators and the installation of a Vapor Recovery Unit (VRU) in the Truck Loading Terminal.
- Performance control of burners and boilers.
- Measuring and recording of gas emissions.

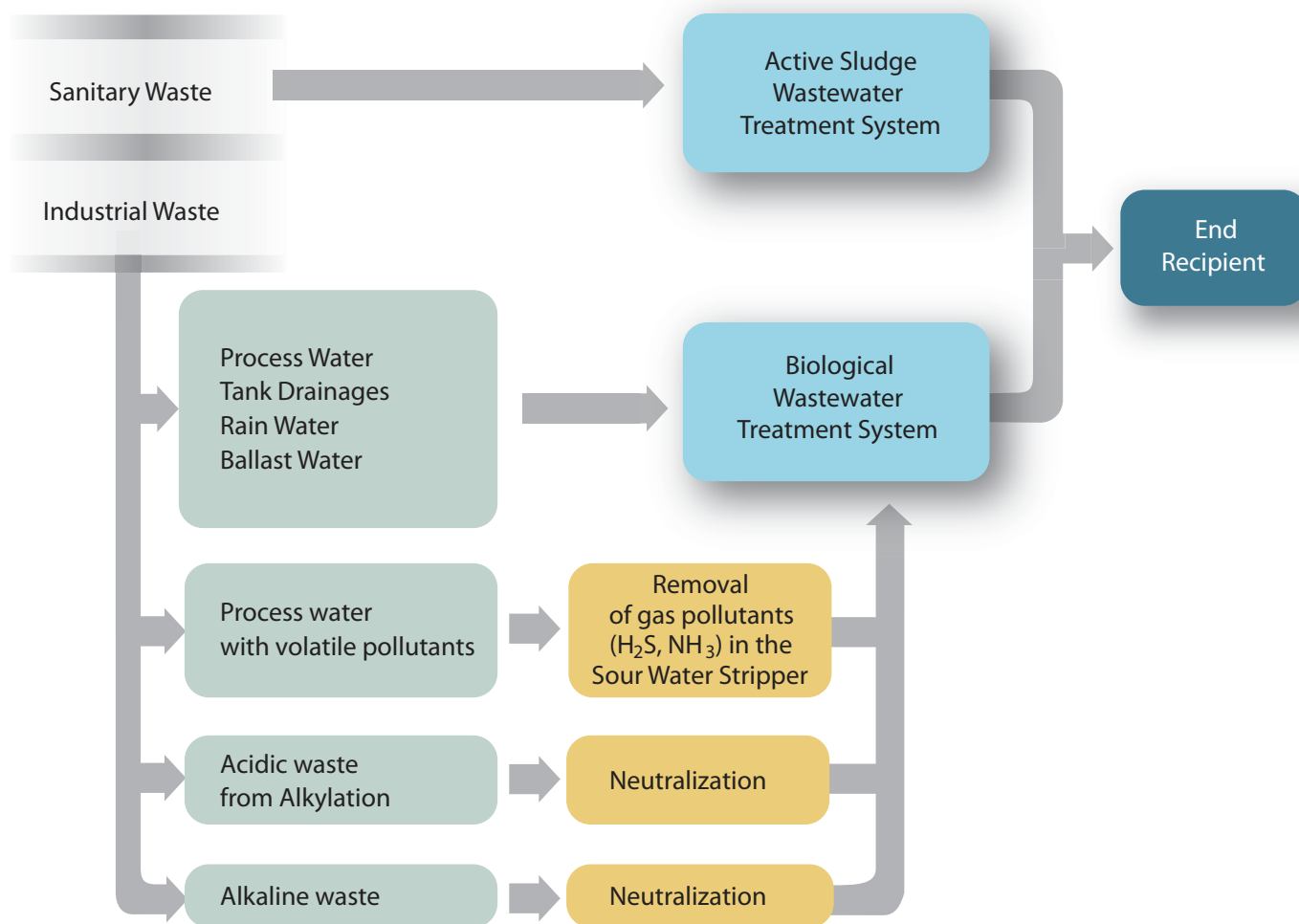
2.4.2 Wastewater

Wastewater produced in the refinery is distinguished in two categories:

- Industrial wastewater
- Sanitary wastewater

Industrial wastewater, which includes water coming from production units, tank draining, rain water and the ballast of vessels is led either directly, or after some pre-treatment process, to the Industrial Waste Water Treatment plant (secondary treatment), where their waste load is reduced, before their final disposal, according to the environmental provisions and terms.

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



2.4.3 Solid Waste

Solid waste produced in the Refinery is distinguished in domestic waste resulting from human activities (consisting of household solid waste such as, paper and metal, food leftovers etc.) and in industrial solid waste which is produced during the different stages of the production process (such as scrap materials, spent catalysts, etc.).

In order to ensure their safe environmental management and to prevent or reduce the negative consequences to the environment as well as any risk to human 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, Energy and Climate Change, where all the waste types that result from the activities of the premises as well as the way of disposal / management, are reported.

In the table bellow, the main types of solid waste produced by the company facilities are presented.

| Type of Waste | EWG Code | Management Method |
|--|---------------------|---|
| Scrap materials | 170407 | Recycling |
| Wood packaging | 150103 | Recycling |
| Plastic packaging | 150102 | Recycling |
| Paper or cardboard packaging | 150101 | Recycling |
| Tyres at the end of their life cycle | 160103 | Recycling |
| Used activated carbon | 190904 | Use 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 tank cleaning (biodegradable material) | 050103* | Treatment in the sludge processing unit and biodegradation by using the land farming method |
| Paraffin production waste | 160305 | |
| Alumina | 050199 | Use as an alternative fuel or as a raw material |
| Inactive pellets | 050199 | Recovery |
| Recovery linings and refractories from non-metallurgical processes | 161106 | Collection and disposal to legal recipient |
| 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 catalyst | 160803*/ 160802* | Recovery |
| Metal Wastes, contaminated by hazardous substances | 170409* | Collection and disposal to legal recipient |
| Other construction and demolition wastes (including mixed wastes) containing hazardous substances | 170903* | Collection and disposal to legal recipient |
| Packaging containing residues of hazardous substances or contaminated by such substances | 150110* | Collection and disposal to legal recipient |
| Laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals | 160506* | Collection and disposal to legal recipient |
| Fluorescent tubes and other mercury-containing waste | 200121* | Collection and disposal to legal recipient |
| Soil and stones containing hazardous substances | 170503* | Collection and disposal to legal recipient |
| Construction materials containing asbestos | 170605* | Collection and disposal to legal recipient |
| Plastics | 20 01 39 | Recycling |

2.4.4 Indirect Environmental Aspects

The indirect environmental impacts are mainly related to the air pollution caused by trucks and other vehicles, the H/C gas emissions during loading and unloading of the products into the ships, the noise coming from road tankers traffic and vessel stopover in anchorages, the wastewater of AVIN station, as well as, the side impacts 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 gives information to its customers regarding the usage and distribution of the products. At the same time, it investigates new environmentally mild ways for transportation and attends to the effective organization of its raw materials and products transportation.

3. 2010 Results

3.1 Environmental Performance of 2010

3.1.1 Air Quality Management

Aiming at the protection of air quality, the company fully and constantly monitors the gas emissions both in Refinery units and in the wider area through continuous or discontinuous measurements that are executed not only on some specific emission sources (chimneys, flares) but also on diffused emissions.

The industrial premises of MOTOR OIL utilize modern equipment concerning the monitoring of air quality and spot emissions coming from different sources during the production process. The Monitoring System of Air Quality consists of a mobile station (A) that has the capability to measure continuously and record pollutants such as hydrogen sulfide (H_2S), sulfur dioxide (SO_2), suspended solids (PM_{10}), suspended solids ($PM_{2.5}$), nitrogen oxides (NOx), methane (CH_4), non-methane hydrocarbons (NMHC), total hydrocarbons (THC), benzene (C_6H_6), carbon monoxide (CO), as well as, meteorological parameters (speed of wind, temperature and relative speed of air). In addition there are three permanent stations for measuring hydrogen sulfide (H_2S) and sulfur dioxide (SO_2). Two out of three permanent stations are located within the refinery premises (B, C), and the third one at the Agioi Theodoroi Police Station (see map).

Furthermore, oxygen measurements are performed in all combustion plants in order to control combustion. Also continuous measurements of sulfur dioxide (SO_2), suspended solids (PM_{10}), nitrogen oxides (NOx) are made at the Large Combustion Plants with a capacity of more than 50MW (central chimneys). Moreover, continuous and non-continuous measurements are made at other emission sources.

2.4.5 Environmental Incidents

Having set as main priorities the prevention of the consequences that may result from the operation of the units, and the minimization of hazards during operations, the Company aims to the elimination of environmental incidents/ 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 personnel in order to ensure the right reaction in case of emergency.

The effectiveness of the above activities is verified by having zero environmental incidents/ accidents during 2010, as well as in the past years.

The results of the above measurements are compared with the pollutants' threshold values for air quality, as set forth in laws: Cabinet Council Decree 34 / 30-05-2002, Gazette Nr. 125^A / 05-06-2002.

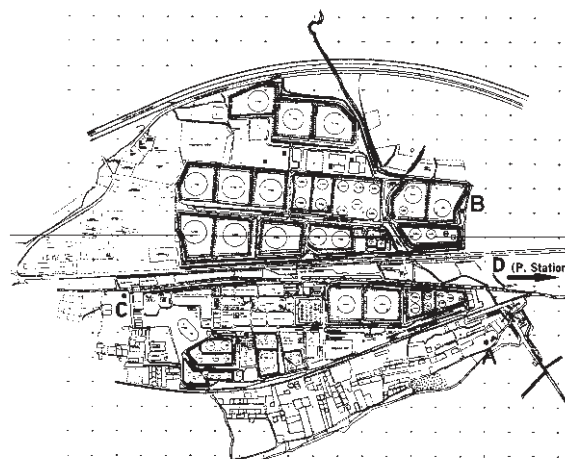
Ministerial Decree 9238 / 332 / 2004, Gazette Nr. 4058 / 27-02 -2004.

A list of the Environmental Legislation, which concerns the company, is in the annex I of this present Environmental Statement.

The conformity of the company with the requirements of the Legislation is audited on both a regular and an ad hoc basis. The regular audits are made via the Internal Audits of the Environmental Management System (relevant procedure QSM-02 «Management Evaluations») at least once a year.

The ad hoc audits are made after a decision of the Manufacturing General Manager, or the Technical Dpt. Manager, or the Integrated Management System Section Head, depending on the factual elements contained in the information that is continuously provided to them.

Map depicting the locations of air quality monitoring stations



Air Quality:**SO₂, NO₂, PM₁₀, PM_{2.5}, CH₄, NMHC, H₂S, THC, CO, Benzene**

The results of the monitoring program show that the air quality of the Refinery area is quite satisfactory.

Specifically, the recorded data during the years 2006, 2007, 2008, 2009 and 2010 show that not only there aren't any excesses of the allowed hourly limits set forth in the legislation (SO₂: 350 µg/m³, NO₂: 200 µg/m³)

or any excesses of the allowed daily limits (PM₁₀: 50 µg/m³, SO₂: 125 µg/m³), but also the observed values are much lower than the marginal ones. The average hourly and monthly values of pollutants, measured by the mobile station of the Air Quality Monitoring Network for the year 2010, are presented in the following table and the corresponding diagrams.

| 2010 | SO ₂ | H ₂ S | NO ₂ | NO _x | CH ₄ | NMHC | THC | CO | PM ₁₀ | PM _{2.5} | Benzene |
|-----------|-----------------|------------------|-----------------|-----------------|-----------------|---------|---------|-----|------------------|-------------------|---------|
| JANUARY | 6.3 | 2.5 | 25.3 | 30.5 | 3,398.2 | 2,053.4 | 5,451.6 | 0.0 | 13.9 | 14.5 | 0.6 |
| FEBRUARY | 8.4 | 3.6 | 19.9 | 23.6 | 3,285.4 | 2,094.1 | 5,379.5 | 0.1 | 50.1 | 21.2 | 2.6 |
| MARCH | 1.5 | 1.3 | 21.3 | 23.9 | 3,295.1 | 2,173.2 | 5,468.3 | 1.3 | 15.3 | 15.1 | 2.0 |
| APRIL | 2.0 | 1.8 | 29.8 | 31.4 | 3,258.0 | 1,578.8 | 4,836.8 | 0.0 | 16.4 | 15.1 | 2.4 |
| MAY | 5.1 | 1.1 | 37.7 | 41.0 | 2,965.5 | 1,732.6 | 4,698.1 | 0.2 | 18.7 | 16.8 | 2.5 |
| JUNE | 2.7 | 2.2 | 22.7 | 28.7 | 2,452.8 | 1,953.1 | 4,406.6 | 1.0 | 18.5 | 14.5 | 2.8 |
| JULY | 2.9 | 2.5 | 20.8 | 23.5 | 3,348.8 | 2,817.1 | 6,165.9 | 0.2 | 15.5 | 13.9 | 2.9 |
| AUGUST | 3.1 | 3.3 | 21.1 | 23.1 | 3,152.1 | 1,753.6 | 4,905.7 | 0.1 | 15.3 | 12.5 | 2.7 |
| SEPTEMBER | 4.1 | 3.3 | 27.7 | 31.1 | 2,847.6 | 1,614.5 | 4,462.1 | 0.1 | 16.1 | 12.2 | 3.0 |
| OCTOBER | 3.6 | 3.4 | 29.4 | 34.4 | 3,805.6 | 1,951.7 | 5,757.2 | 0.2 | 18.8 | 13.2 | 2.5 |
| NOVEMBER | 4.1 | 3.4 | 32.1 | 35.8 | 3,560.3 | 1,871.0 | 5,431.3 | 0.0 | 15.0 | 9.8 | 2.4 |
| DECEMBER | 4.5 | 2.4 | 24.4 | 28.9 | 3,228.0 | 2,307.7 | 5,535.7 | 0.3 | 15.2 | 12.8 | 2.7 |
| AVG | 4.0 | 2.6 | 26.0 | 29.7 | 3,216.4 | 1,991.7 | 5,208.2 | 0.3 | 19.1 | 14.3 | 2.4 |

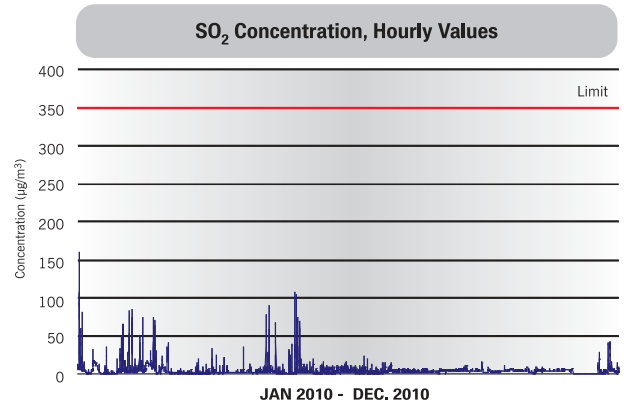
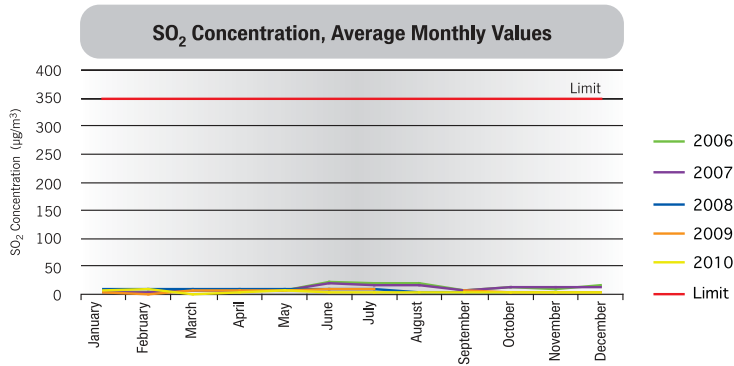
Annual threshold
value for the protection
of human life

40
mg/m³

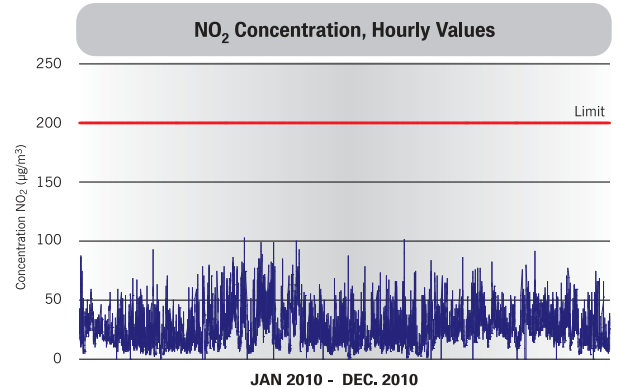
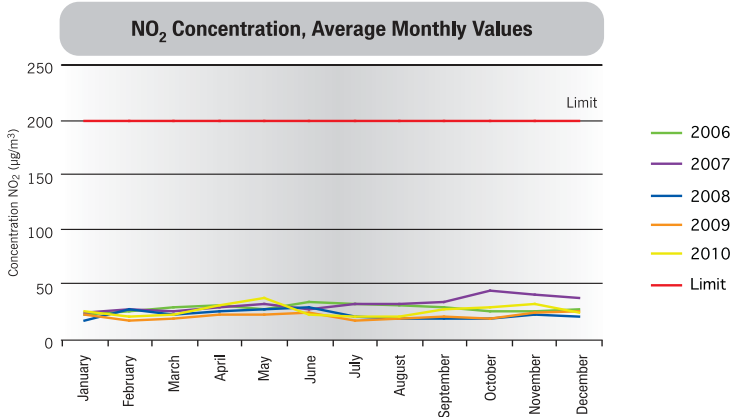
20
mg/m³

5
mg/m³

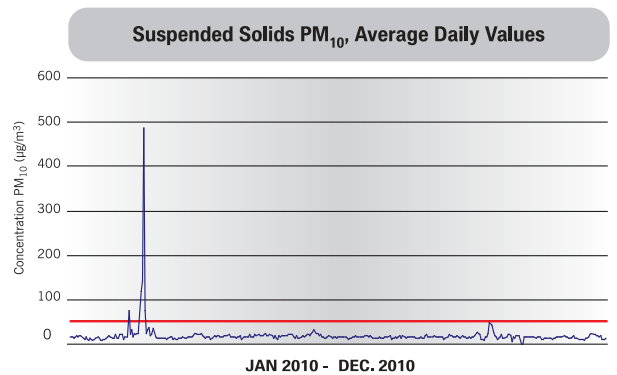
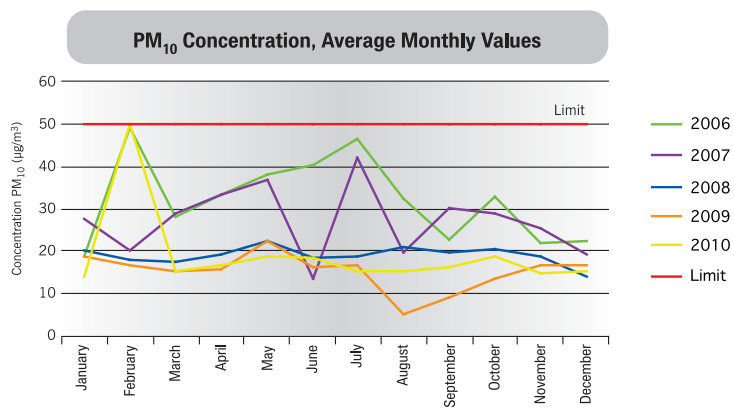
Sulphur Dioxide



Nitrogen Oxides



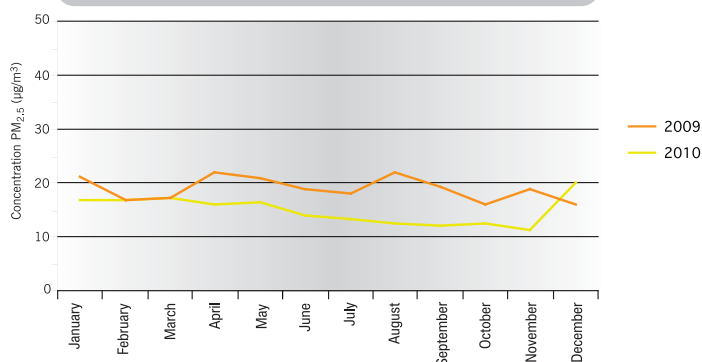
Suspended Solids



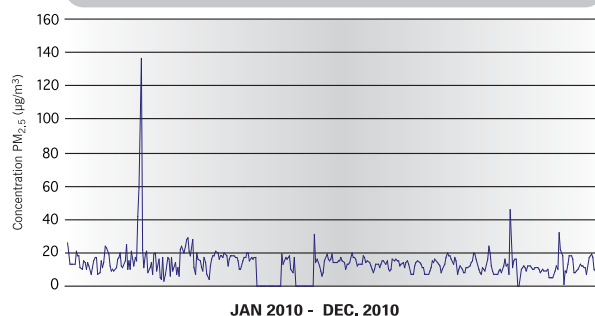
**In the period from 18/2/2010 until 21/2/2010, the values of the suspended solids PM₁₀ exceeded the marginal ones, because of the meteorological conditions in the area (dust from Sahara). After the end of the phenomenon, the values came back to their normal level.*

PM_{2.5} Suspended Solids

PM_{2.5} Concentration, Average Monthly Values

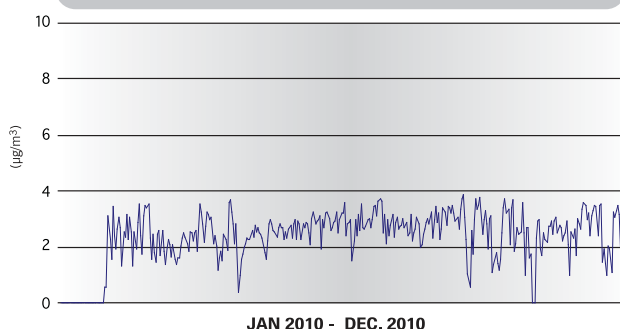


PM_{2.5} Concentration, Average Daily Values



Benzene

Benzene, Average Daily Values

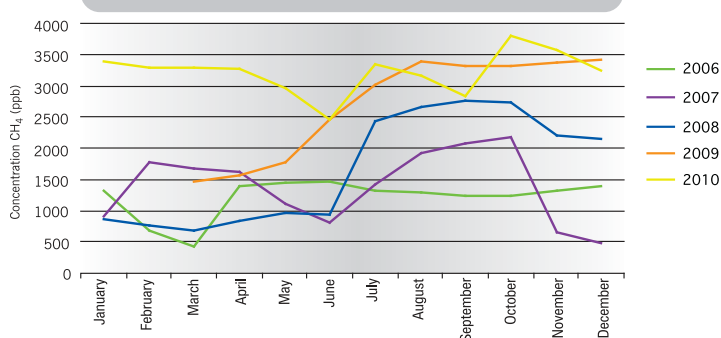


It must be noted that the Refinery is not the only source of air pollutants in the wider area of the installations. Other sources of air pollutants are the road traffic (National road Athens – Corinth), the presence of various Industrial Plants and the railway network.

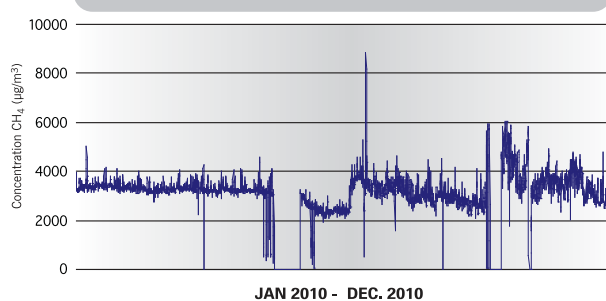
In the diagrams below the concentrations of methane (CH₄) and non-methane hydrocarbons (NMHC) are shown.

Methane

CH₄ Concentration, Average Monthly Values

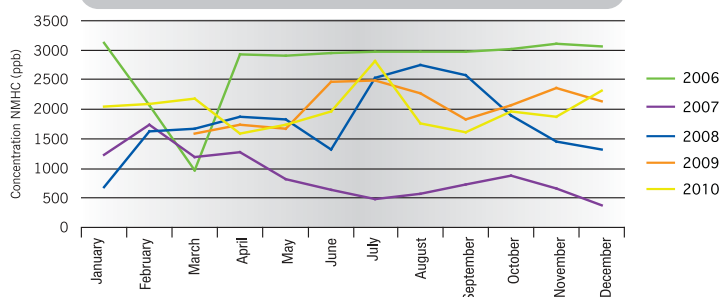


CH₄, Average Hourly Values

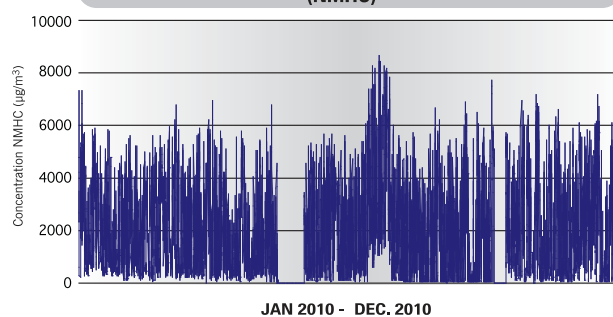


Non-Methane Hydrocarbons

NMHC Concentration, Average Monthly Values



Average Hourly Values of Non-Methane Hydrocarbons (NMHC)



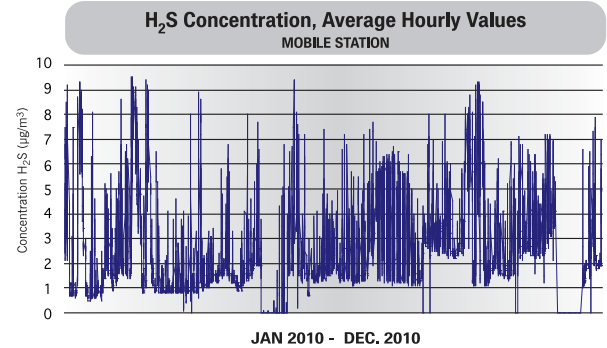
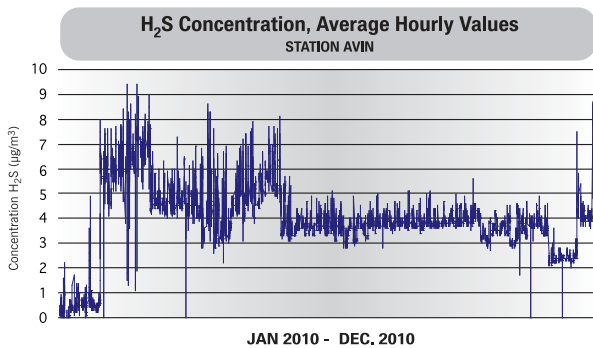
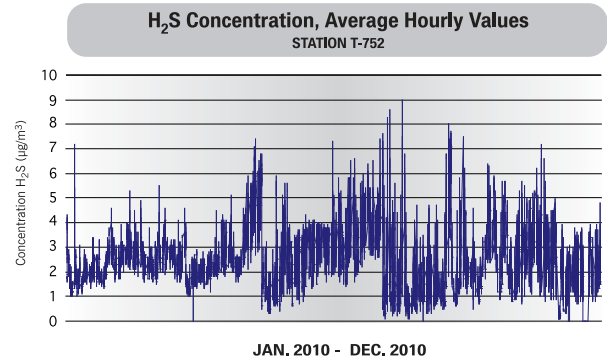
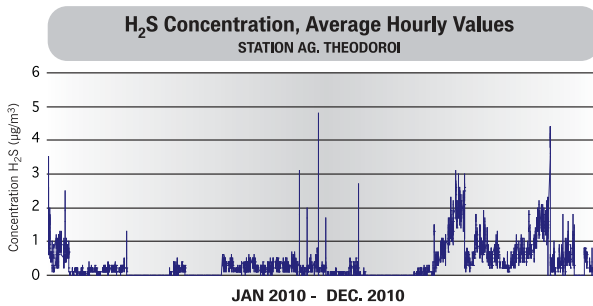
Air Quality: H₂S

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

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

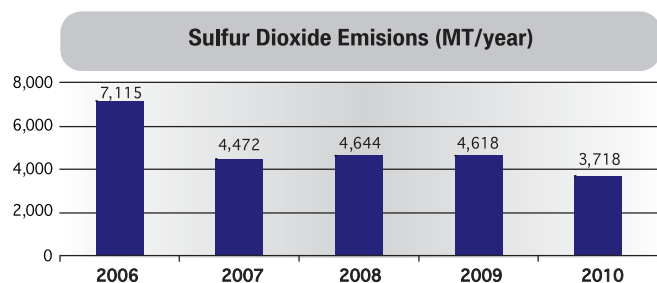
Analyzing the results, it is concluded that H₂S concentration in the wider refinery area is remarkably low, according to the measurements of the station located at Agioi Theodoroi (Police Station).

Hydrogen Sulfide



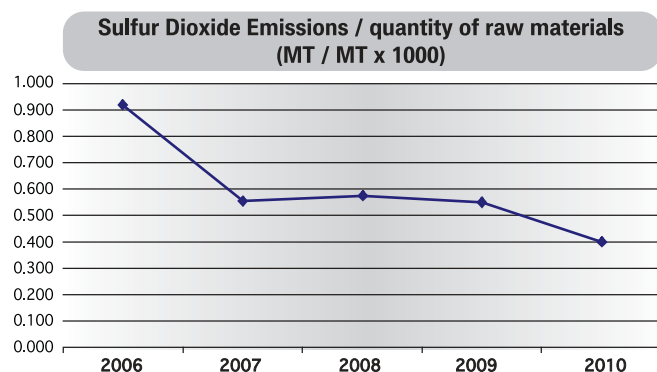
Sulfur dioxide, Nitrogen Oxides and Suspended Solids Emissions

In 2007 the emissions of sulfur dioxide were remarkably reduced compared to previous years, despite the expansion of the process units and increased production. This is mainly due to the decrease of the sulfur content in self-consumption fuel. This environmental performance continued in 2008, 2009 and 2010, when sulfur emissions dropped even further.



In addition further reduction of sulfur emissions is achieved, due to the continuously improved emission control technology used, and mostly because of the new sulfur recovery units, where the hydrogen sulfide produced is converted to elemental sulfur, and then used by fertilizer manufacturers as raw material.

The diagram below shows a plot of the specific sulfur dioxide emissions (MT SO₂ / thousand MT of raw materials) for the period 2006 to 2010.



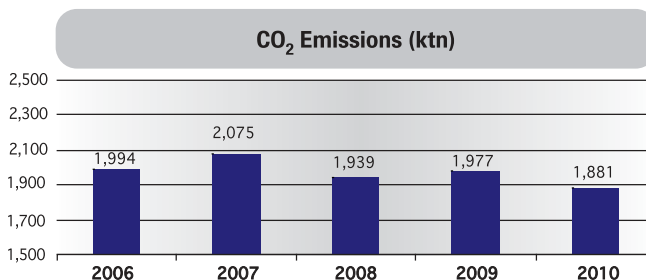
Also, it must be noted that the specific index of sulfur dioxide emissions (MT SO₂ / thousand MT of produced products) for 2010 is 0.43.

The spot emissions of Nitrogen oxides (NOx) and suspended solids for 2010 are:

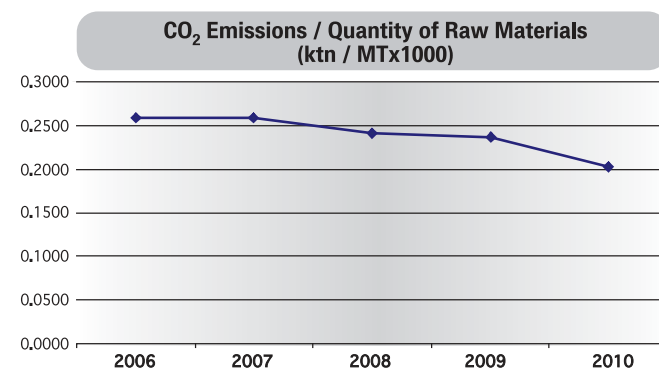
- NOx: 2,508,930 kg or 0.27 kg / MT of raw materials or 0.29 kg / MT of produced products.
- Suspended solids: 218,930 kg or 0.023 kg / MT of raw materials or 0.0252 kg / MT of produced products.

Carbon dioxide emissions

Total carbon dioxide emissions (according to the Community Directive 2003/87/EK) for 2010 were 1,881,213 tones. The reduction of the emitted CO₂ quantity over the last three years can be attributed to the implementation over the past years of a duly designed investment plan, the purpose of which was twofold: first the realization of various environmental protection projects aiming at reducing energy consumption -which reduces proportionally the quantity of produced carbon dioxide- and second, at enhancing the monitoring and control of the emissions from the various emitting sources.



The specific carbon dioxide emissions (MT CO₂ / MT of raw materials) for the period 2006 to 2010, is plotted in the diagram that follows.



The specific Carbon dioxide emissions (MT CO₂ / MT of produced products) for year 2010 is 0.218.

It is also noted that the quantity of other greenhouse gases emissions in 2010 (i.e. CH₄ and N₂O) was 59.4 tn.

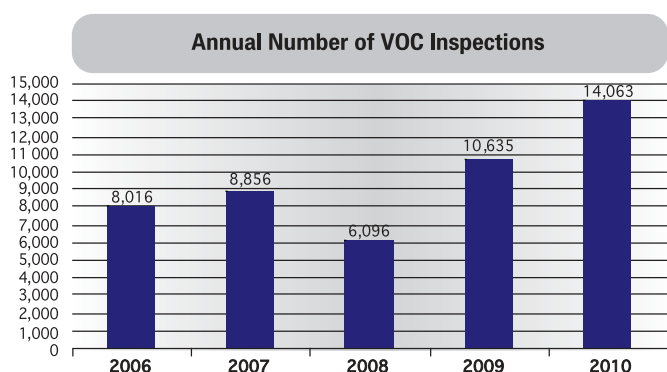
Emissions of Volatile Organic Compounds (VOCs)

With the target of 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 chemical and oil industry characteristic that not only is 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 taken in order to reduce the emissions coming

from oil products storage and distribution units, include equipment upgrades (tanks, pumps, etc), as well as regular inspections and maintenance of all units, which 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 the most effective and globally accepted measure for minimizing such emissions.

Specifically, in order to check the equipment, the Leak Detection And Repair (LDAR) program is been applied, by which the leakages are detected and recorded during regular inspections done by the operators of the various sections. The inspections are carried out by making use of portable devices, and the leakages are fixed the soonest possible. As shown in the following diagram, the number of inspections in 2010 is significantly higher compared to any previous year.

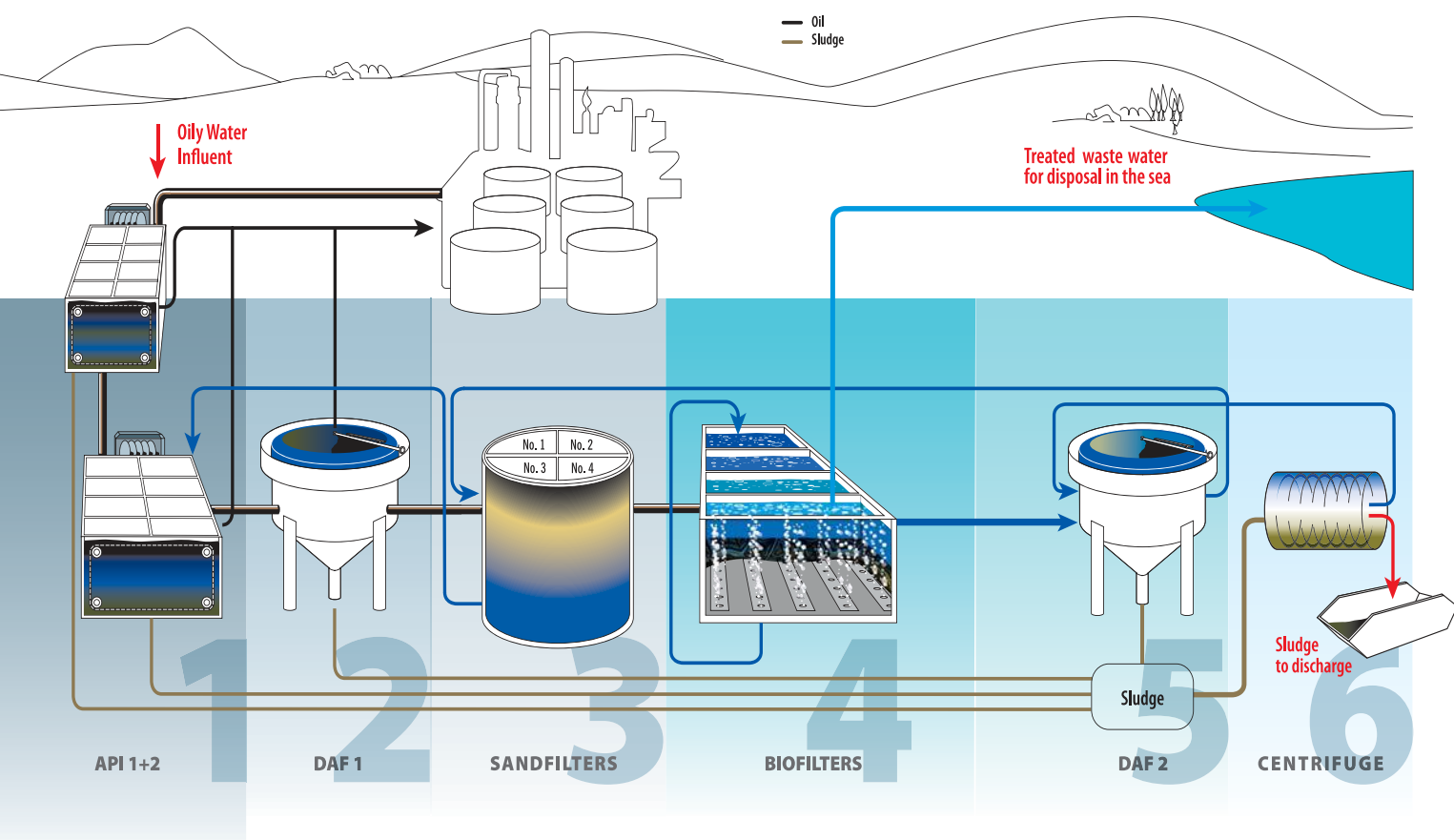


3.1.2 Wastewater

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

The goal of industrial and sanitary 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, a number of programs are implemented aiming at efficiently facing the results of malfunctioning of the treatment units and at the automation of the units and the optimization of their performance. The quality characteristics of the effluents are shown in the table that follows, where one can conclude that in all cases the measured values are lower than those defined by the legislation.

The results of the measurements are in conformance with the corresponding threshold limits of the parameters, as they are set in the Prefecture Decision 17823 / 79 (Gazette No.1132 / B / 79), which has been modified by the Prefecture Decision A3 / 6533 / 81 (Gazette No. 477 / B / 81).



Concentration of polluting parameters at the outlet of the industrial wastewater treatment plant:

| S/N | Parameter | Average 2010 values | Threshold Limits |
|-----|-------------------------|---------------------|------------------|
| 1 | pH | 7.6 | 6-9 |
| 2 | Temperature (°C) | 31 | <35 |
| 3 | Oil Content (mg/l) | 3 | <10 |
| 4 | BOD ₅ (mg/l) | 23 | <40 |
| 5 | COD (mg/l) | 106 | <150 |
| 6 | NH ₃ (mg/l) | 13.8 | <15 |
| 7 | Phenols (mg/l) | 0.3 | <0,5 |
| 8 | Sulfides (mg/l) | 0.9 | <2 |
| 9 | Suspended solids (mg/l) | 17 | <40 |

Hydraulic and polluting load of the industrial wastewater treatment plant:

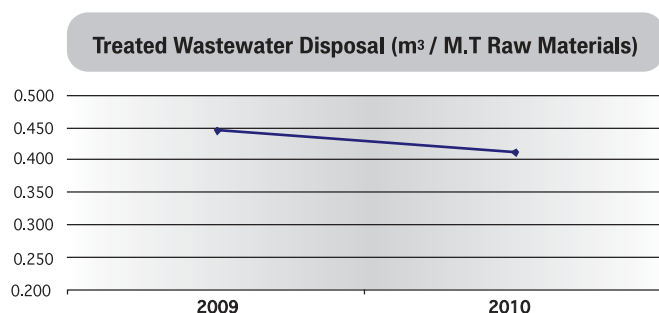
| S/N | Parameter | Average 2006 values | Average 2007 values | Average 2008 values | Average 2009 values | Average 2010 values |
|-----|---------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1 | Discharge (m ³ /day) | 8,976 | 10,385 | 10,297 | 10,224 | 10,529 |
| 2 | BOD ₅ (kg/day) | 305 | 286 | 265 | 241 | 247 |
| 3 | Suspended solids (kg/day) | 143 | 208 | 174 | 177 | 178 |
| 4 | Phenols (kg/day) | 2.51 | 2.58 | 3.79 | 3.71 | 3.30 |

Terminology

BOD : Biochemical Oxygen Demand

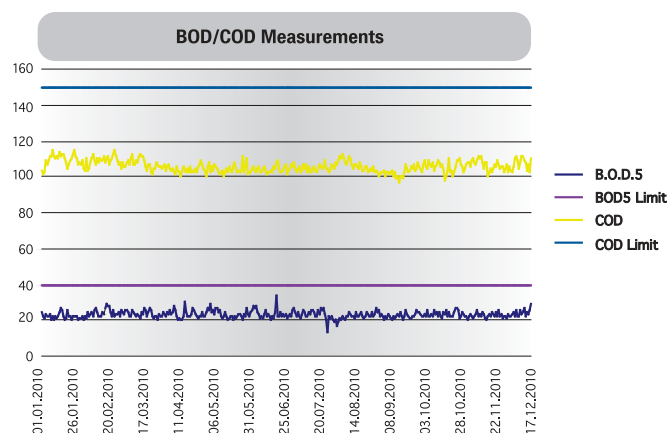
COD : Chemical Oxygen Demand

In the following diagram the specific volume of treated wastewater (m³ / MT of raw materials) for years 2009 and 2010 is plotted.



Furthermore, the specific volume of treated waste water in relation to the production for year 2010 is 0.445 m³ / MT of produced products.

In the following diagram the variation, during 2010, of the BOD and COD values of the industrial wastewater treatment plant is presented.



The concentration of benzene, toluene, xylene, ethyl benzene, lead and chromium in the effluent of the industrial wastewater treatment plant is tabulated below.

| KYA 4859/726/01 (FEK 253B) | Monthly threshold limits | Daily threshold limits | Average 2010 values |
|----------------------------|--------------------------|------------------------|---------------------|
| Method of Measurement | | | GC/MS |
| Parameters of control | mg/l | mg/l | mg/l |
| Benzene | 0,5 | 1 | <0,005 |
| Toluene | 0,5 | 0,9 | <0,01 |
| Xylene | 0,5 | 0,5 | <0,01 |
| Ethyl benzene | 0,3 | 0,3 | <0,01 |
| Lead | 0,2 | 0,4 | <0,01 |
| Chromium | 1,5 | 3 | <0,002 |

Sanitary Wastewater Treatment Plant Outlet

| A/A | Parameter | Average 2008 values | Average 2009 values | Average 2010 values | Threshold Limits |
|-----|-------------------------|---------------------|---------------------|---------------------|------------------|
| 1 | pH | 7,8 | 8,1 | 7,9 | 6-9 |
| 2 | BOD ₅ (mg/l) | 15 | 18 | 21 | <40 |
| 3 | COD (mg/l) | 37 | 43 | 51 | <150 |
| 4 | Suspended solids (mg/l) | 10 | 11 | 12 | <40 |
| 5 | Phenols (mg/l) | | 0,19 | 0,22 | <0,5 |

3.1.3 Solid Waste

Solid waste produced during the refinery operation are collected and processed according to the relevant legislation

(Law 2939/01 (Gazette No. 179/A) – Packaging and alternative management of packaging and other products,

Ministerial Decree 50910/2727/03 (Gazette No. 1909/B) – Measures and terms for the managing of solid waste,

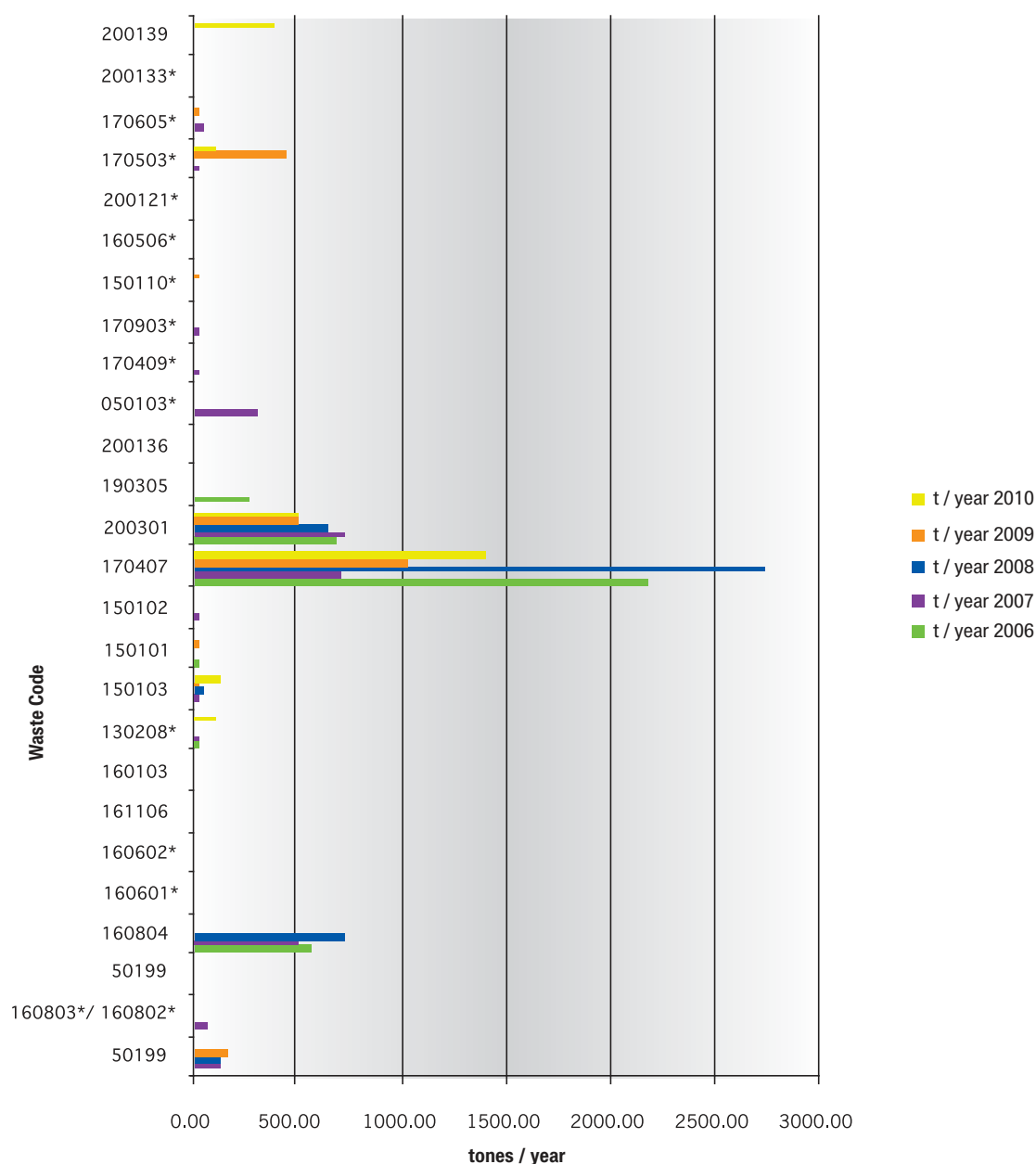
Ministerial Decree 19396/1546/97 (Gazette No. 604/B) – Measures and terms for managing hazardous waste), by the following methods:

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

The Refinery is aiming at the increase of recycling and re-usage of the produced waste. The amount of solid waste that was disposed outside the refinery premises, over the last years, is shown in the following table .

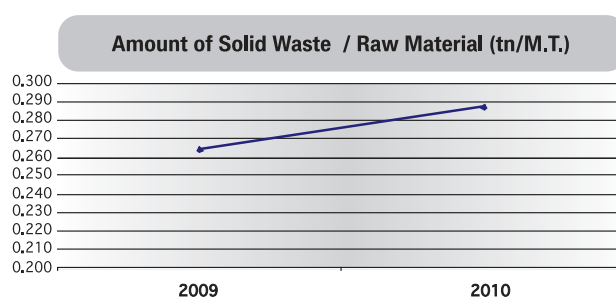
SOLID WASTE MANAGEMENT

| | | t/year 2005 | t/year 2006 | t/year 2007 | t/year 2008 | t/year 2009 | t/year 2010 |
|---------------------|---|----------------|----------------|----------------|----------------|----------------|----------------|
| 50199 | Waste not otherwise specified | 468.90 | 0.00 | 115.00 | 120.60 | 158.26 | - |
| 160803*/ 160802* | Spent Ni-Mo catalyst | 443.192 | 0.00 | 68.42 | - | - | - |
| 50199 | Inactive pellets | 55.97 | 0.00 | 0.00 | - | - | - |
| 160804 | FCC spent catalyst | 63.54 | 565.66 | 502.28 | 716.24 | - | - |
| 160601* | Lead batteries | 8.05 | 1.98 | 0.14 | 2.52 | 1.91 | 10.458 |
| 160602* | Ni, Cd batteries | 3.87 | 1.56 | 0.00 | - | - | - |
| 161106 | Recovery linings and refractories from non-metallurgical processes | 104.44 | 0 | 0.00 | - | - | - |
| 160103 | Tyres at the end of their life cycle | 5.94 | 0 | 0.00 | - | - | 3.34 |
| 130208* | Other engine, transmission and lubricant oils | 4.79 | 22.07 | 29.60 | 13.1 | 4.50 | 113.098 |
| 150103 | Wood packaging | 79.33 | 11.94 | 17.79 | 44.73 | 15.21 | 123.38 |
| 150101 | Paper or cardboard packs | 7.28 | 17.05 | 14.31 | 11.44 | 24.70 | 10.01 |
| 150102 | Plastic packaging | 2.34 | 9.24 | 17.60 | - | 0.39 | 3.56 |
| 170407 | Scrap materials | 1,453.60 | 2,165.08 | 704.08 | 2,731.81 | 1,012.13 | 1,394.79 |
| 200301 | Mixed municipal waste | 604.30 | 686.20 | 721.96 | 633.03 | 500.06 | 505.357 |
| 190305 | Stabilised waste other than those reported in the code 190304 | - | 260.34 | 0.00 | - | - | - |
| 200136 | Electrical and electronic equipment waste | - | 7.16 | 0.00 | - | 3.90 | 2.73 |
| 050103* | Sludge resulting from tank cleaning | - | - | 301.93 | - | - | - |
| 170409* | Metal Waste, contaminated by hazardous substances | - | - | 15.41 | - | - | - |
| 170903* | other construction and demolition waste (including mixed waste) containing hazardous substances | - | - | 21.67 | - | - | - |
| 150110* | Packaging containing residues of hazardous substances or contaminated by them | - | - | 8.22 | 3.05 | 26.00 | 8.46 |
| 160506* | Laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals | - | - | 0.04 | 0.1 | - | 0.05 |
| 200121* | Fluorescent tubes and other mercury-containing waste | - | - | 0.06 | 0.34 | - | 0.12 |
| 170503* | Soil and stones containing hazardous substances | - | - | 21.24 | - | 439.88 | 111.95 |
| 170605* | construction materials containing asbestos | - | - | 40.58 | 11.56 | 20.48 | 7.77 |
| 200133* | Mixed Batteries | - | - | - | 0.187 | 0.48 | - |
| 200139 | Plastics | | | | | | 374.23 |



The specific quantity of solid waste in relation to the production for year 2010 is 0.309 MT of waste/thousand MT of produced products.

In the following diagram the specific quantity of solid waste (MT of waste/thousand MT of raw materials) for years 2009 and 2010 is plotted.



The increase of the specific quantity of solid waste per production MT is attributed to the replacement of equipment (scrap) during the regular maintenance of the production units (turn around).

3.1.4 Energy Consumption

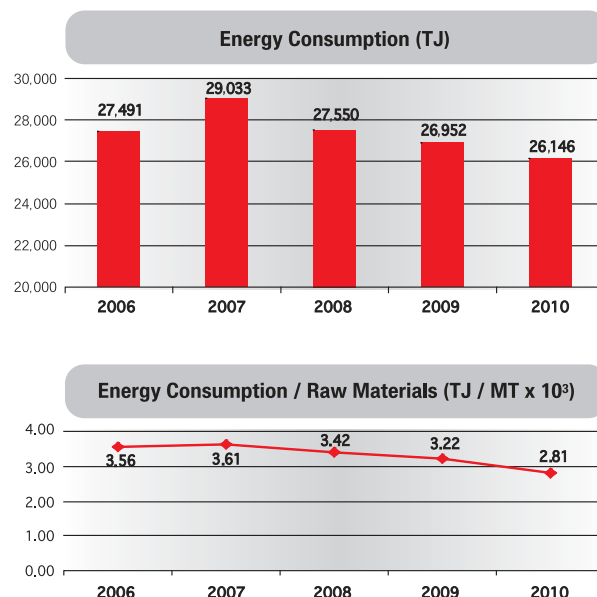
The energy consumption of the refinery includes the fuel used in combustion processes and the electric power for the operation of mechanical equipment, which is almost exclusively produced by the Power and Steam co-Generation Plant. The refinery fuel mixture includes fuel oil, fuel gas, liquefied gas and natural gas.

The projects that were completed in 2009 and 2010, as well as in the years before, (mainly the introduction of natural gas in the refinery fuel mixture in 2008, the replacement or extensive maintenance of gas turbines, the upgrade of the preheating furnaces, the increase of the recovery level of condensates, the installation of an Advanced Control System, the usage of hot streams to pre-heat cold streams, the maximization of refinery gas usage etc), combined with the systematic monitoring of energy efficiency and the preventive maintenance schedules, contributed to the continuous reduction of the refinery energy consumption over the last years, even though the production volume increased. This way, the energy consumption by the refinery processes for 2010 is 26.146 TJ, which as an absolute figure is the lowest of the last five years, as shown in the diagram. Furthermore, the increase of energy efficiency is shown by the ratio of Energy/ thousand of Metric Tons of raw materials, which was reduced from 3.56 in 2006 to 2.81 in 2010.

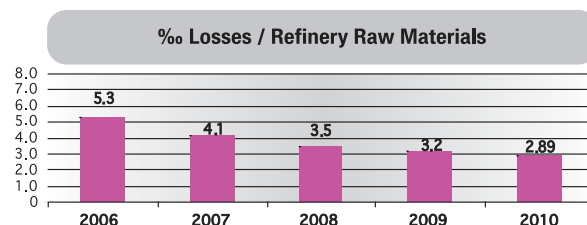
It must be noted that the amount of raw materials and not the end products is chosen as basis for comparison, because this convention is common and internationally accepted as a benchmark for evaluating the environmental impacts in the oil refining industry (bref: IPPC reference document on best available techniques for mineral oil and gas refineries, February 2003). It also allows for the right interpretation and the evaluation over time of the environmental efficiency of the refinery.

The reduction in energy consumption has an immediate positive impact both on emitted CO₂ and on other pollutants, since its opti-

mization results in minimization of emissions (indicator of efficient use of materials)



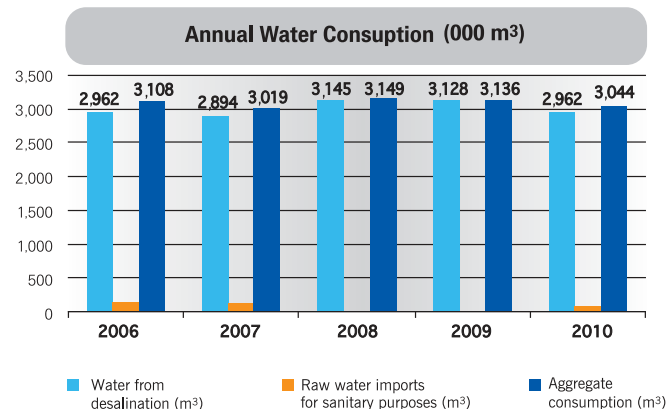
It is important to mention that total losses have decreased during the last five years, and they reach approximately 0.29 % (or 2.89 ‰) of the aggregate quantity of refinery raw materials for 2010. This improvement is a result of the effort made to reduce flare losses, as well as stationary losses (indicator of efficient use of materials and energy).



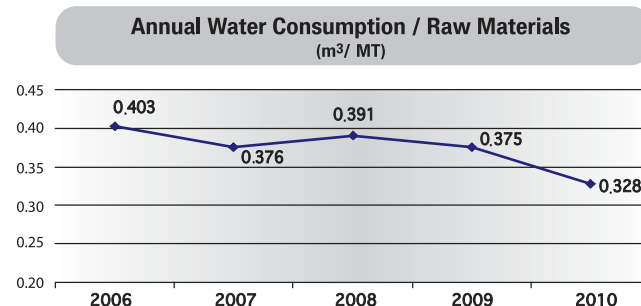
3.1.5 Water Consumption

Water used for the Refinery's various operations is mostly obtained by sea water desalination, and much less by raw water carried by road tankers and vessels.

The water quantity consumed in 2010 has significantly decreased from the past years, due to implementing programs for increasing water reuse. It should be underlined that the water being used in the manufacturing process comes exclusively from the processing of sea water, and consequently, there is not any negative impact on the natural resources of the area.



As shown in the following diagram water consumption per unit of raw materials processed in the refinery follows a downtrend as a result of its better management (index of efficient use of materials).



It is pointed out that in the context of the company's social contribution, amounts of water are granted free of charge covering the water supply needs of nearly two hundred neighboring residences.



Quality Management and Control Certificates



3.1.6 Noise

Having set as a goal the reduction of environmental noise levels within and up to the boundaries of the Refinery premises, the Company has taken all the necessary measures, which include the installation of silencers, as well as the purchasing of low noise level equipment.

In order to achieve reduction in the noise levels, sound curtains

have been installed at the aeration units of the wastewater treatment plant.

The noise levels are monitored on a regular basis by conducting measurements at a large number of locations around the Refinery. The positions where measurements are recorded are shown on the following Map.



Indicative measurements for 2010 are presented in the following table:

| Locations | Average Measurements January 2010 (dBA) | Average Measurements June 2010 (dBA) | Average Measurements October 2010 (dBA) | Threshold Limits (dBA) |
|---------------------------------|---|--------------------------------------|---|------------------------|
| Perimeter of the refinery | 56.3 | 54.7 | 52.0 | 65.0 |
| South perimeter of the refinery | 53.3 | 52.7 | 52.0 | 55.0 |

4. Objectives

4.1 New objectives and programs

MOTOR OIL constantly implements new programs and actions aiming at improving its environmental performance, while setting new objectives for the future. The objectives and programs that are planned for the following years are presented in the following table.

| OBJECTIVES AND PROGRAMS | 2011 | 2012 | 2013 |
|---|------|------|------|
| AIR | | | |
| Certification of the continuous measurement online analyzers on the chimneys according to international standards, aiming at monitoring and reducing emissions and improving air quality. | | ● | |
| Installation of deodorant plates at the fuel oil tanks (T-754, 755, 756, 757, 768, 777, 778) | | ● | |
| Odor monitoring in the refinery wider area with use of a suitable device | ● | | |
| WATER | | | |
| Use of available inactive equipment in the industrial wastewater treatment system | | ● | |
| SOIL / EARTH | | | |
| Reduction of the amount of solid waste stored in the Refinery and implementation of new alternative management methods: | | | |
| - Management of the sludge from the dewatering unit of the waste water treatment plan (WWTP) | | ● | |
| - Alternative management and use of solid waste (catalysts, resins, discoloring earth) by the cement industry (through a licensed disposal company). | ● | | |
| - Complete the research for managing and neutralizing the sludge from the M-4000 wastewater treatment plant, so that it is suitable to use as an alternative fuel or for disposal at Sanitary Landfills | | ● | |
| OTHER | | | |
| Installation of a cover at the API IV and V separators. | | ● | |
| Detention of the wet phase in the interception basins of API IV, V. | | | ● |

Registration Information / 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 concerns the year 2010. The next Environmental Statement will be edited, verified and issued on July 2012.

Mr.Spyros I. Sofos, Responsible of the Integrated Management System, is responsible for issuing the Environmental Statements.

1. ORGANIZATION

| | |
|---|--|
| Company Name | MOTOR OIL (HELLAS), CORINTH REFINERIES S.A. |
| Address | Agioi Theodoroi, po box 23, 20100 |
| City | Corinth |
| Postal Code | 20100 |
| Country | Greece |
| Contact Person | S. I. Sofos |
| Telephone | 27410 - 41800 |
| e - mail address | sofosp@moh.gr |
| Internet network | www.moh.gr |
| Public access to the environmental statement or the updated environmental statement | |
| a) printed form | YES |
| b) electronic form | YES |
| Registration number | EL 000067 |
| Registration date | 26 / 07 / 2011 |
| Suspension date | |
| Deletion date | |
| Date of the next verification of environmental statement | July 2012 |
| Date of the next updating of environmental statement | July 2012 |
| Application for deviation according to article 7 | NO |
| Code of activities NACE | DF.19.20 |
| Number of personnel | 990 |
| Work circle or annual balance-sheet | 4,789,266,000 € |

2. AREA OF ACTIVITIES

| | |
|--|--|
| Company Name | MOTOR OIL (HELLAS), CORINTH REFINERIES S.A. |
| Address | Agioi Theodoroi, po box. 23, 20100 |
| City | Corinth |
| Postal Code | 20100 |
| Country | Greece |
| Contact Person | S. I. Sofos |
| Telephone | 27410 - 41800 |
| E-mail address | sofossp@moh.gr |
| Internet network | www.moh.gr |
| Public access to the environmental statement or the updated environmental statement | |
| a) printed form | YES |
| b) electronic form | YES |
| Registration number | EL 000067 |
| Registration date | 26 / 07 / 2011 |
| Suspension date | |
| Deletion date | |
| Date of the next verification of environmental statement | July 2012 |
| Date of the next updating of environmental statement | July 2012 |
| Application for deviation according to article 7 | NO |
| Code of activities NACE | DF.19.20 |
| Number of personnel | 990 |
| Work circle or annual balance-sheet | 4,789,266,000 € |

3. ENVIRONMENTAL CERTIFICATOR

| | |
|--|---|
| Name | BUREAU VERITAS CERTIFICATION HELLAS S.A (George Diles) |
| Address | Aitolikou 23, Pireas |
| City | Pireas |
| Postal Code | |
| Country | Greece |
| Telephone | 210 - 4063000 |
| Fax | 210 - 4063118 |
| Number of registration or accreditation | 246 – 4 |
| NACE codes | ESYD EL – V – 0007/26.05.11 |
| Accreditation or Certification institution | ESYD |

Corinth 26th of July 2011

Spyros I. Sofos
Responsible for the Integrated Management System

ANNEX I

CATALOGUE OF LEGISLATION

| SUBJECT | GREEK AND EUROPEAN COMMUNITY LEGISLATION |
|---------------------------|--|
| Environmental Permissions | <ul style="list-style-type: none">• Law 1650/86 (Gazette No-160 A') For the protection of the environment.• Ministerial Decree 69269/5387/90 (Gazette No 678/B 25.10.90) Categorization of activities and projects. Content of study for the Environmental Impacts, determination of content for special environmental studies and other relevant provisions according to the law 1650/86 (replaced).• Law 3010/02 (Gazette No 91A / 25.04.2002) Conformity with the law 1650/86, with the Directives 97/11 EC and 96/61 EC, Procedure of delimitation and regulations of issues related to the water streams and other provisions.• Ministerial Decree 15393/2332/2002 (Gazette No B 1022/2002) As it was modified and completed with Ministerial Decree 145799/2005 (Gazette No B 1002/2005). Categorization of certain public and private projects and activities according to the article 3 of law 1650/1986 as it was replaced with the article 1 of law 3010/2002 «Conformity of law 1650/86 with the Directives 97/11/EC and 96/61/EC (A91) ».• Ministerial Decree 11014/703/Φ104/2003 (Gazette No 332/20.03.2003) Procedure of Preliminary Environmental Assessment and evaluation and approval of the environmental terms according to the article 4 of the Law 1650/1986 as it was replaced from the article 2 of the Law 3010/2002 «Conformity of the Law 1650/86 with the Directives 97/11/EC and 96/61/EC and other provisions».• Law 3325/2005 (Gazette No 68A/2005) Foundation and operation of industrial – manufacture installations in the frame of a sustainable growth and other provisions.• Ministerial Decree 41624/2057/E103(Gazette No 1625 B/2010) Measurements, terms and program for alternative management of the waste, electrical columns and accumulators in conformity with the provision of the Directives, 2006/66/EC and 2008/103/EC of the European Parliament and Council.• Directive 85/337/EEC For the assessment of the environmental impacts.• Directive 97/11/EEC Which modifies the Directive 85/337/EEC.• Directive 96/61/EC Of the European Council of 24 September 1996 concerning integrated pollution, prevention and control.• Directive 2004/35/EC Of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage. |
| Air Pollution | <ul style="list-style-type: none">• Ministerial Decree 10315/93 (Gazette No 369B/24.05.93) Regulation of issues related to the operation of the stable combustion spots for heating buildings and water.• Ministerial Decree 11294/93 (Gazette No 264/B) Terms of operation and approved limits of gas waste emissions from the industrial boilers.• Ministerial Decree 11641/1942, 2002 Measurements and terms for the reduction of the Volatile Organic Compounds (VOC) Emissions which are resulted from the use of organic solvents in some activities and installations (Gazette No 832B/02.07.2002).• Directive 92/42/EEC Of the Council at 21.05.1992 on efficiency requirements for new hot-water boilers fired with liquid or gaseous fuels.• Act of the Council of Ministers 34/30.05.2002 (Gazette No 125A/05.05.2002).• Ministerial Decree 9238/332/2004 (Gazette No 4058/27.02.2004).• Ministerial Decree 37411/1829/E103 (Gazette No B 1827/11 September 2007) «Determination of the appropriate values, meters and procedures for the application of the Regulation 2037/2000 of the European Parliament and of the Council of 29 June 2000 «on substances that deplete the ozone layer». |

| SUBJECT | GREEK AND EUROPEAN COMMUNITY LEGISLATION |
|--|---|
| Hazardous Waste | <ul style="list-style-type: none"> ● Ministerial Decree 19396/1546, 18.07.1997 Measures and terms for managing the hazard wastes. ● Ministerial Decree 13588/725/2006 (Gazette No 383/B/28.03.2006) «Measures, terms and restrictions for handling hazardous wastes according to the Directive 91/689/EEC for hazardous waste» Replacement of the Ministerial Decree 19396/1546/1997 «Measures and terms for handling hazardous waste». ● Ministerial Decree 8668/2007 (Gazette No 287 B / 2.03.2007) Approval of national planning of Handling Hazardous Wastes according to the article 5 (paragraph A) 13588/725 common ministerial decision «Measures, terms and restrictions for handling the hazardous wastes etc» (B' 383) and in conformity with the provisions of the article 7 (paragraph 1) of the Directive 91/156/EC of 18 March 1991 Council». Modification of the Ministerial Decree 13588/725/2006. ● Ministerial Decree 24944/1159 (791 B / 2006) Approval of the General Technique Specifications for handling the hazardous wastes according to the article 5 (paragraph B) of the 13588/725 common ministerial decision «Measures, terms and restrictions for handling the hazardous wastes etc» (B' 383) and in conformity with the provisions of the article 7 (paragraph 1) of the Directive 91/156/EEC of the 18 March 1991 Council». ● Directive 91/689/EEC Of 12.12.1991 for hazardous wastes. ● Commission Decision 96/350/EC Of 24.05.1996 adapting Annexes IIA and IIB to Council Directive 75/442/EEC on waste. ● Directive 78/319 Of 20.03.78 for toxic and hazardous wastes. ● Decision 94/904/EEC of 22.12.1994. |
| Solid and Packaging Waste | <ul style="list-style-type: none"> ● Ministerial Decree 50910/2727/2003 «Measurements and terms for managing the solid wastes – National and Regional Planning of Management». ● Ministerial Decree 114218/97 (Gazette No B 1016) «Creation of a frame with the specifications and general programs for managing the solid waste». ● Law 2939/2001 «Packaging and alternative management of packaging and other products. Foundation of National Organization of Alternative Management of Packaging and other products. ● Directive 91/156 EEC Of 18.03.91 which modifies the Directive 75/442 for waste ● Directive 2006/12/EC Of the European Parliament and of the Council of 5 April 2006 on waste. ● Directive 94/62/EC Of 20.12.1994 of packaging and packaging waste. |
| Electrical and Electronic Equipment | <ul style="list-style-type: none"> ● Presidential Decree 117 of 5.04.2004 «Measurements, terms and programs for alternative management of the waste which result from the electric and electronic equipment», in conformity with the provisions of the Directive 2002/95 «on the restriction of the use of certain hazardous substances in electrical and electronic equipment». ● Presidential Decree 15/2006 (Gazette No 12/ A' /3.02.2006) Modification of the presidential decree 117/04 (82/A), in conformity with the provisions of the Directive 2003/108/EC of the European Council of 8 December 2003 amending Directive 2002/96/EC on waste electrical and electronic equipment (WEEE) ● Directive 2002/96/EC Of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE). ● Directive 2002/95/EC Of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. |
| Lead Batteries and Accumulators | <ul style="list-style-type: none"> ● Presidential Decree 115/2004 (Gazette No 80A / 2004) «Replacement of Ministerial Decree 73537/1438/95 "For the electrical columns and accumulators which consist certain hazardous substances" (B781) and 19817/2000 Ministerial Decree «Modification of 73537/1438/95 Ministerial Decree etc» (B' 963) Measurements, terms and program for alternative management of electrical columns and accumulators». |

| SUBJECT | GREEK AND EUROPEAN COMMUNITY LEGISLATION |
|----------------------------|--|
| | <ul style="list-style-type: none"> • Directive 91/157/EEC Of 18.03.1991 on batteries and accumulators containing certain dangerous substances. • Directive 98/101/EEC In order to adapt the Directive 91/157/EEC to technical progress for the electrical columns and the accumulators containing certain dangerous substances». |
| Waste Oils | <ul style="list-style-type: none"> • Presidential Decree 82/2004 Of 02.04.2004 (Gazette No 64/2004) «Replacement of Ministerial Decree 98012/2001/96 "Determination of the measurements and terms for managing the used waste oils". Measurements, terms and program of alternative management of waste lubricant oils». • Directive 75/439/EEC Of 16.06.1975 on the disposal of waste oils. • Directive 87/101/EEC About the disposal of waste oils. |
| Tyres | <ul style="list-style-type: none"> • Presidential Decree 109/2004 «Measurements and terms for managing the used tyres of vehicles. Measurement for their management». • Directive 94/62/EC Of 20.12.1994 on packaging and packaging waste. |
| Noise | <ul style="list-style-type: none"> • Ministerial Decree 37393/2028/2003 (Gazette No 1418B) Measurements and terms for the noise emission in the environment by equipment for use outdoors. • Ministerial Decree 13586/724/2006 (Gazette No 384B) «Determination of measurements, terms and methods for assessment of the management of noise in the environment, in conformity with the provision of the Directive 2002/49/EC «related to the assessment and management of environmental noise» of the Council of 25.06.2002. • Presidential Decree 1180/81 (Gazette No 293 A) «About regulation of issues related to the foundation and operation of industries, manufactures, all nature of mechanical installations and storages for the insurance of the environment» • Directive 2000/14/EC On the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors. • Directive 2002/49/EC Of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise. |
| Chemical Substances | <ul style="list-style-type: none"> • Direct application of the Regulation 793/93 For the assessment and the control of the danger from the existing substances in the National Legislation. • Ministerial Decree 378/94/20.09.1994 (Gazette No B' 705) Approval of the ΑΧΣ 378/1994 related to: «Dangerous substances, classification, packaging and labeling of them, in conformity with the Directive 67/548/EEC of the European Council as it has been modified and is in effect. • Decision of the Higher Chemical Council ΑΧΣ 265/2002 (Gazette No B 1214) – Classification, packaging and labeling of dangerous preparations in conformity with the direct 1999/45/EC and the directive 2001/60/EC. • Ministerial Decree 87/2007 (Gazette No 872B 2007) Modification of the decision Α.Χ.Σ 378/1994 (Gazette No 705/B/20.09.1994) in conformity with the Directive 2006/121/EC (EE L 396 of 30.12.2006) of the European Parliament and of the Council « amending Council Directive 67/548/EEC on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labeling of dangerous substances in order to adapt it to Regulation (EC) 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and establishing a European Chemicals Agency». • Ministerial Decree 19403/1388/08/2008 (Gazette No 781 B / 02-05-2008) Modification of π.δ 104/1999 (113Α) in conformity with the provisions of the Commission Directive 2003/28/EC of 7 April 2003, the Commission Directive 2004/111/EC of 3 November 2006 for the fourth, fifth and sixth time adaption to technical progress of the Council Directive 94/55/EC on the approximation of the laws of the Member States with regard to the transport of dangerous goods by road. • Directive 67/548/EC On the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labeling of dangerous substances, as it has been modified and is in effect. • Council Regulation (EEC) 793/93 Of 23 March 1993 on the evaluation and control of the risks of existing substances. |

| SUBJECT | GREEK AND EUROPEAN COMMUNITY LEGISLATION |
|--|--|
| Solid Waste | <ul style="list-style-type: none"> • Ministerial Decree 9268/469/2007 (B 287/2007) Modification of the quantitative objectives for the recuperation and recycling of the waste packaging according to the article 10 (paragraph A1, last section) of the law 2939/2001 (A' 179), as well as other provisions of this law, in conformity with provisions of the Directive 2004/12/EC «amending Directive 94/62/EC on packaging and packaging waste» of the Council of 11 February 2004. |
| Energy | <ul style="list-style-type: none"> • Law 3661/2008 (Gazette No 89A / 2008) Measurements for the reduction of the energy consumption into the buildings and other provisions • Law 3855/10 (Gazette No 95 A / 23.06.2010) Measurements for the improvement of the energy efficiency during the final use, energy services and other provisions. • Directive 2002/91/EC Of the European Parliament and of the Council of 16 December 2002 on the energy performance of buildings. • Ministerial Decree Δ6/B/5825 (Gazette No 407/09-09-2010) Regulation of Energy Efficiency of Buildings |
| Treatment of Waste-Protection of the water sources | <ul style="list-style-type: none"> • Sanitary Provision Ε1β. 221/65 (Gazette No 138B / 24.02.65) Disposal of waste and industrial waste • Law 1739/87 (Gazette No 201 A / 20.11.87) Management of water sources and other provisions • Law 3199/2003 (Gazette No 280 A / 09-12-2003) Protection and management of water – conformity with Directive 2000/60/EC • Ministerial Decree Δ. ΥΓ2 / Γ.Π. 133551/2008 (Gazette No 2089/ B' / 09.10.2008) Modification of case (y) of paragraph 1, article 8, Ε1β/221/65 Sanitary provision. • Prefecture Decision 17823/79 (Gazette No 1132 / B / 79) • Prefecture Decision Α3/6533/81 (Gazette No 477 / B / 81) |
| Fire Protection | <ul style="list-style-type: none"> • Fire Department Provision 12/2007 (Gazette No 545/2007) Establishment of a book with the controls of preservation and good operation of the meters for active fire protection of the enterprises. • Ministerial Decree 81813/5428/1993 (Gazette No 647/B'/30.08.1993) Modification and completeness of π.δ 71/88. • Ministerial Decree 58185/2474/1991 (Gazette No 360/B'/28.05.1991) About modification and completeness of π.δ. 71/88 «regulation of fire protection for buildings». • Presidential Decree 374/1988 (Gazette No 168A/12.08.1988) Modification and completeness of π.δ. 71/88 «regulation of fire protection of buildings» (Gazette No 32/A/28-3-88) • Presidential Decree 71/1988 (Gazette No 32A/17-2-1988) Regulation of fire protections of buildings. • Ministerial Decree 16085Φ.700.1/2009 (Gazette No 770/B'/28-4-2009) Taking meters for protection of fire in Private Centers of Technical Control of Vehicles, in car garages of preservation and repair, in Merchandising Stations of Cars as well as in other car service installations which are under competence of the Transferring and Communicating services of the Prefecture Government of the country. • Ministerial Decree 50292/3549/08/2009 (Gazette No 272/B'/16-2-2009) Supply the vehicles with portable fire extinguisher • Fire Department provision 13α/2010 Modification of the 13/2008 Fire Department provision about «determination of the procedure for giving certificate of fire protection in enterprises which are in buildings». |
| Urban Environmental Responsibility | <ul style="list-style-type: none"> • Presidential Provision 148 (Gazette No 190/29-09-2009) Environmental Responsibility for prevention and repairing the damages to the environment – Conformity with the Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004. • Directive 2004/35/EC Of the European Parliament and of the Council of 21 April 2004. |



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