# ENVIRONMENTAL and SOCIAL REPORT 2010

Planning for a sustainable future



# VISION, MISSION, STRATEGIC GOALS, PRINCIPLES and VALUES

# Vision

To be a leading oil refiner and oil products marketing enterprise in Greece and the wider region.

To conduct our business operations so as to increase the company's corporate value for the benefit of all stakeholders -shareholders. personnel, customers, suppliers, associates and partners, as well as the local and greater community-applying technological and commercial innovations.

To meet our customers' needs responsibly and effectively, while expanding our share in the domestic market.

**Corporate Mission** 

To function reliably, swiftly and flexibly in our relationships with our people, customers, suppliers, and the general public, by making use of practices that demonstrate responsibility and integrity, as well as respect for people and the environment.

Maximising the profitability of the refinery and overall financial performance.

# Strategic Goals

Maximisation and optimisation of sales, by effectively marketing the refinery products and exploiting opportunities in our three markets (domestic, aviation-marine bunkering, and export), for achieving the best possible profitability.

Striving for the highest standards of Health and Safety, Environmental protection and Quality, through the application of technical, operational and organisational innovations and improvements to the refinery.

Efficiency

- Achieving set targets.
- Creating value for shareholders and society.
- Protecting the environment.
- Servicing customers' needs.
- Providing a safe, stimulating and reciprocal workplace.
- Continuous improvement.
- Promoting learning and innovation.

#### Social responsibility

- Respect for people and their needs.
- Respect for the environment and commitment to sustainable growth.
- Priority for Health and Safety.
- Ensuring that the company is an active and responsible corporate citizen, respecting the local community and
  - society as a whole.



#### Responsibility towards Our customers. Our personnel. Our associates and partners. Society.

#### Integrity

- Respect for laws and regulations.
- Applying business ethics and the principles of corporate governance.
- Honest and open communication.
- Credibility and propriety in all company relations.

#### Respect for our people

We recognise the value of our people and we promote their personal development, while offering competitive terms of employment, within a working environment of respect and mutual trust. We respect human and labour rights and give first priority to workplace Health and Safety assurance.

# **Our Principles**

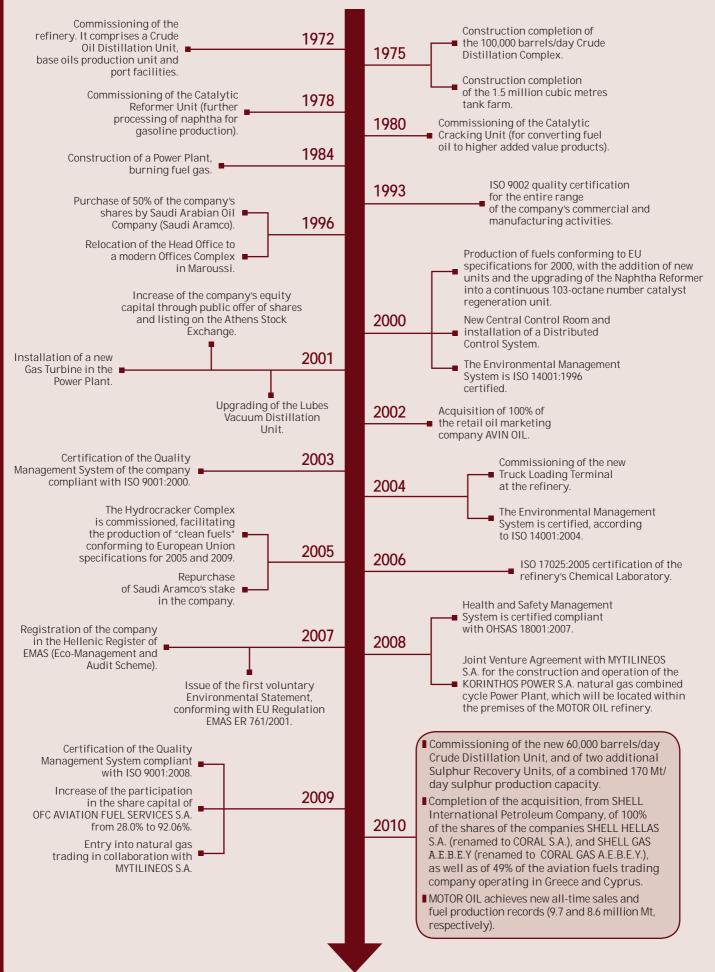
#### Respect for the environment

We recognise the value of sustainable development and the value of our natural environment, and commit ourselves to the implementation of effective operational procedures and technology for its protection.

#### Transparency

We operate professionally and responsibly, strictly implementing the principles of business ethics and corporate governance.

### THE GROWTH OF MOTOR OIL: IMPORTANT MILESTONES



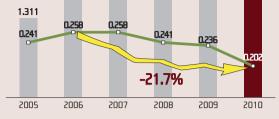
## **KEY GROUP DATA FOR 2010**

Turnover	6,184 million euros
Earnings after Tax	131 million euros
Dividends paid <sup>1</sup>	0.7 euros/share
Total assets	2,394 million euros
Refinery production	8.6 million tons
MOTOR OIL sales - domestic sales - export sales	9.7 million tons 4.3 million tons 5.4 million tons
Crude oil refining capacity <sup>2</sup>	<b>172,000</b> barrels/day
Refinery storage tanks capacity	2.5 million cubic meters
Petrol stations	1,280
Retail companies sales <sup>3</sup>	2.3 million tons
Employees (annual average) <sup>4</sup>	1,983
Training man-hours	24,300 hours
Total investments 2000-2010	1,166 million euros
Environmental investments and expenses 2000-2010	624 million euros
Recycling – solid waste disposal	<b>2,726</b> tons
Health and Safety investments and expenses 2000-2010	62.7 million euros
Social contribution 2002-2010 <sup>5</sup>	30.3 million euros
Social product <sup>6</sup>	422 million euros
Refinery certifications	ISO 9001:2008 ISO 14001:2004 ISO 17025:2005 EMAS ER 761/2001 & 196/2006
	OHSAS 18001:2007

- 1. 0.2 euros/share was an interim dividend paid and accounted for in December 2009, while a dividend of 0.5 euros/share was paid and accounted for in June 2010.
- 2. Refers to the design capacity, increased by 54% following the commissioning of the new Crude Distillation Unit, in May 2010.
- 3. Includes the sales of AVIN OIL and CORAL Groups and the sales of CORAL GAS, for the latter two as of July 1, 2010.
- 4. Includes the employees of MOTOR OIL, AVIN OIL, CORAL, CORAL GAS and OFC.
- 5. Refers to donations and sponsorships.
- 6. Refers to the portion of revenues distributed to stakeholders.

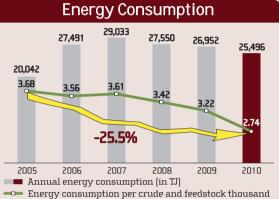


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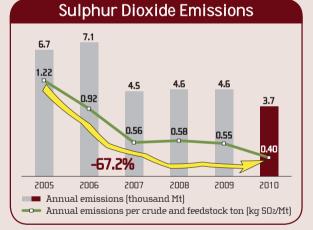


Annual emissions (in million Mt)

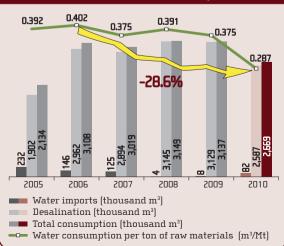
Annual emissions per crude and feedstock ton (Mt CO<sub>2</sub>/Mt)



 Energy consumption per crude and feedstock thousand tons (TJ/kMt)



#### Annual Water Consumption



# ENVIRONMENTAL and SOCIAL REPORT 2010

# Management Message

Welcome to the MOTOR OIL *Environmental and Social Report 2010*, which provides, for a ninth consecutive year, the opportunity to share with you the continuous endeavour of our Group, the measurable results in relation to the challenges we face and resolve with strategy and vision, as well as the disciplined and systematic work of our employees. The MOTOR OIL Group, one of the largest and strongest in the country -through its responsible entrepreneurship as the tradition of this company holds- plans and carries out all its business activities with full regard to the ten principles of Corporate Social Responsibility, for its growth to bear the stamp of sustainability. and its social value to continuously improve. We have taken on our own social responsibility, and it remains a long-term commitment.

Over the past year, our country further plunged in the vortex of the unprecedented economic crisis, which although played out on the economic scene, is also a crisis of the value system that may bring about big changes to the social fabric of our country. We are entering a period of uncertainty, beset by difficulties and unpredictable developments. Today, social responsibility is simultaneously a responsibility for the country; and in this situation, all have to take on their share. Our country can win the future, so long as we learn to change and adjust. Throughout the adverse economic situation that prevailed in 2010, as well during the difficult times that probably lie ahead, MO-TOR OIL has done and, will do the best to support the economy and the social fabric. Now, as we plan the Group's future, we know that our task is more significant than ever.

2010 was another landmark year for the Group in terms of capital investments realisation, acquisitions and financial performance. This was despite a particularly unfavourable international business environment, and the fact that for the first time, there was a fall in demand for oil products in the domestic market amounting to 14%. MOTOR OIL's sales exceeded the nine million tons limit for the third successive year, reaching a new all-time high of 9.7 million tons, demonstrating at the same time the strongly export-oriented profile of the company, which provides a proportionate support for the national economy at this difficult juncture.

In May 2010 the new Crude Distillation Unit was commissioned, completing a significant cycle in the organic growth of the company, begun in 2000, and having resulted in the refinery now being amongst the large, and most modern and flexible refineries in Europe. The new unit -the design of which meets the latest European specifications for safety and environmental protection, incorporates Best Available Techniques and pays particular emphasis on energy efficiency- strengthens the company's competitive position in the market, and improves its profitability. Besides, it is not to be set aside that economic strength is a substantial component of Corporate Social Responsibility, and a prerequisite for facilitating the implementation of programmes in its other aspects.

July saw the completion of MOTOR OIL's acquisition of SHELL downstream operations in Greece, consolidating the Group's position in the domestic fuels market, and expanding the possibilities for further growth.

Occupational Safety is always our primary concern. Unfailing is our aspiration and effort for achieving the zero accidents and lost hours objective, by placing particular emphasis on prevention, on dissemination of Safety information and on continuous training.

With regard to protection of the Environment, for which man has neither possession nor ownership entitling him of its thoughtless exploitation, relevant indicators show the continuous reduction of our environmental footprint. In 2010, standing up for this common to all resource, we invested 37.6 million euros in large and small projects, which directly or indirectly protect the Environment, while carbon dioxide and sulphur dioxide emissions, per ton of end-product, continued to diminish, as did energy and water consumption.

In the field of social contribution, we disbursed 4.5 million euros in supporting the activities of a range of foundations and bodies, both in local communities and in the broader society, the most important of which was support for the "ELPIDA" Association in completing the construction of the first Children's Oncology Hospital in Greece.

The steady uptrend of MOTOR OIL Group continued in 2010 too. This achievement is a result of a focused business strategy, efficient entrepreneurship, unswerving application of the principles of corporate governance, good perception of the market trends, and a lot of teamwork. However, none could be achieved without the devotion of our people and confidence of our stakeholders. Our thanks to all are accompanied by the promise that we shall continue on the course of the endeavour for sustainable development, combining good financial results with the care for our people, the society and the environment.

#### The MOTOR OIL Group Management

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# About this report

MOTOR OIL's annual *Environmental and Social Report* -this being the ninth consecutive edition- is an independent source of information presenting the company's strategic and systematic approach to the challenges that arise from the pursuit of sustainable development by the application of the principles of Corporate Social Responsibility. Moreover, it emphasises as emphatically as possible the commitment of MOTOR OIL to create value by showing due respect for People, the Environment and Society, and to report its initiatives and achievements in these areas.

The *Environmental and Social Report 2010*, which covers the period between 1 January and 31 December 2010, is an effort to honestly and methodically document the actions taken by the Group in tackling the material challenges we face. Building on the systematic work, begun in 2007, of aligning the contents with international standards, it has been enriched with additional quantitative data, highlighting the progress MOTOR OIL is making in applying the principles of Corporate Social Responsibility.

The Report includes summary information about the Group's consolidated financial results, comprising the results of all subsidiary and affiliated companies, about which detailed information is available in the *Annual Financial Report 2010*. The main sections of the Report focus on MOTOR OIL's corporate responsibility practices and records in detail the relative issues managed by the company in the areas of Corporate Governance, Corporate Strategy, Communication with Stakeholders, Human Resources management, Health and Safety, Environmental Protection and Social Contribution. In addition, where appropriate and as indicated in the body of the report, the information presented includes data for the subsidiary Groups of AVIN OIL and CORAL, as well as for the affiliated companies CORAL GAS and OFC that are controlled by MOTOR OIL, and whose operations have a significant impact on the material issues affecting the sustainable growth of the Group.

The terms "Group" and "MOTOR OIL Group" refer to the MOTOR OIL Group and its subsidiary Groups and companies AVIN OIL, CORAL, CORAL GAS and OFC, which together make up the MOTOR OIL GROUP. The term "company" refers to the parent company MOTOR OIL, the terms "other companies" or "remaining companies" refer to the abovementioned subsidiaries, while the term "marketing companies" again refers to these subsidiaries except of OFC.

#### Global Reporting Initiative – UN Global Compact

We have been systematically guided in our choice of subjects covered in the *Environmental and Social Report 2010* -as we have been since the 2007 edition- by the G3 guidelines of the Global Reporting Initiative (GRI), as well as the ten principles of the UN's Global Compact. At the end of the report, correlation tables provide cross-references between individual GRI indicators, and the Global Compact principles, and the sections or pages of this report where they are covered. Thus the *Environmental and Social Report 2010* effectively comprises a *"Communication on Progress"* on implementation of the Global Compact's ten principles.

Supplementary information is also contained in the Annual Financial Report 2010, the Environmental Statement 2010, as well as on the company's website, www.moh.gr

#### Contact us

Your views and comments on the structure and content of the *Environmental and Social Report 2010* will help us in our effort to ensure continuous improvement. Please contact us by telephone at +30 210 809 4345, or send your remarks to our email address: *csr@moh.gr* 

# I. Group Profile and Corporate Responsibility

**9.7** million tons in MOTOR OIL sales: a new all-time high

# Acquisition of

SHELL's downstream operations in Greece and commissioning of a **New** Crude Distillation Unit

**421.5** million euros the Social Product

Since 1972, when MOTOR OIL began operating as an oil refiner and oil products marketing company, it has always functioned with responsibility and integrity, aiming at sustainable profitability and growth in a socially responsible manner. Combining a progressive approach to corporate responsibility with an efficient business model, competent people and management, MOTOR OIL is on a course of continual growth and value creation for all stakeholders, while it effectively fulfils its social role, enhancing its contribution to society and paving the way for its future development.

Its Corporate Vision and Mission provide the framework within which the planning and implementation of MOTOR OIL's dynamic growth is achieved. Moreover, its operation is founded on a set of firm Principles and Values that underpin its business activity.

# **1. PROFILE OF THE MOTOR OIL GROUP**

With an average personnel count of 1,983 people, a consolidated income in 2010 equivalent to approximately 2.8% of Greece's GDP, and total assets of 2.4 billion euros, MOTOR OIL Group is one of the main pillars of the national economy. It plays a leading role in the sectors of crude oil refining and marketing of petroleum products in Greece, as well as the greater Eastern Mediterranean region, supplying its customers with a wide range of high quality products.





2010 was another landmark year for the MOTOR OIL Group in terms of realising investments, contracting strategic acquisitions, and achieving financial results. In May, the new 60,000 barrels per day Crude Distillation Unit was commissioned, providing new possibilities for the optimisation of crude and other raw materials supplies, as well as additional flexibility in the refinery's operating scheme. In June, the completion of the takeover by the Group of SHELL's downstream business in Greece, earmarked the boosting of MOTOR OIL's share of the domestic fuels market, as the most effective and profitable service station network in the local market bearing the SHELL trade mark, came under the control of the Group. At the same time, MOTOR OIL achieves record fuel sales and production levels (9.7 and 8.6 million tons, respectively), while its exports of 5.4 million tons provide a support to the country's economy in difficult times.

Energy is our business. Corporate responsibility is our commitment for value creation with respect for people and the environment



The parent company, MOTOR OIL, was established in 1970, and its refinery was first commissioned in 1972. It has been listed on the Athens Stock Exchange since 2001, and is included in the FTSE/ATHEX International Index, the FTSE/ATHEX-20 Index, the General Index (ATHEX Composite Index), the MSCI (Morgan Stanley Capital International) Small Cap index, and in other sector-specific indices.

- The oil refining sector is the Group's main activity, operating one of the most modern and flexible refineries in Europe. Moreover, the Group holds a leading position in domestic retail market, through its wholly-owned subsidiaries, AVIN OIL, CORAL and CORAL GAS, together with their respective retail network, comprising some 1,280 service stations of these companies nationwide, as well as their business activities in industrial and aviation fuel, liquefied petroleum gas and lubricants.
- In the electrical energy production sector, KORINTHOS POWER -in which MOTOR OIL has a holding of 35% and MYTILINEOS S.A. of 65%- is in the process of constructing

a 436.6 MW natural gas combined-cycle plant, at MOTOR OIL's refinery premises in Aghioi Theodoroi/Corinth, due to be commissioned in the fourth quarter of 2011. In addition, ELECTROPARAGOGI SOUSSAKI, in which the Group has holdings of 70%, was licensed in 2010 to produce 440 MW of electrical energy, while its Articles of Association provide for the marketing of power as well.

- MOTOR OIL's presence in the natural gas market has been established through M and M NATURAL GAS S.A. -a company jointly and equally controlled with MYTI-LINEOS S.A.- which imports and markets natural gas, intended for use in the industrial complexes and power production plants of the two Groups, as well as for sales to third parties.
- Finally, the MOTOR OIL Group controls OFC AVIATION FUEL SERVICES S.A., which has constructed and currently operates the existing, fully automated, aviation fuel supply system, and the fuel storage facilities at the "Eleftherios Venizelos" Athens International Airport.

# 2.8% of GDP the 2010

consolidated revenues

The following table lists all the subsidiaries and associated companies, in which the MOTOR OIL Group participates, together with the direct or indirect percentage of its holdings. Further information about the Group's composition and the business activities of its companies, can be found in MOTOR OIL's *Annual Financial Report 2010*.

Companies and Holdings of MOTOR OIL GROUP			
Company	Activity Dir		
Mother Company			
MOTOR OIL (HELLAS) CORINTH REFINERIES S.A.	Crude oil refining and marketing of oil products		
Subsidiary Companies			
AVIN OIL A.B.E.N.E.Π.	Marketing of petroleum products	100	
CORAL S.A.	Marketing of petroleum products	100	
CORAL GAS S.A.	Marketing of liquefied petroleum gas	100	
OFC AVIATION FUEL SERVICES S.A.	Management of aviation fuel supply system	46.03	46.03
ELECTROPARAGOGI SOUSSAKI S.A.	Production and marketing of electrical energy	40	30
MAKREON S.A.	Marketing of fuels		100
ERMES S.A.	Marketing of fuels		100
MYRTEA S.A.	Marketing of fuels		100
CORAL FINANCE	Accounting services		100
Associated Companies			
SHELL & MOH S.A. AVIATION FUELS S.A.	Aviation bunkering services		49
KORINTHOS POWER S.A.	Production and marketing of electrical energy	35	
M and M NATURAL GAS S.A.	Marketing of natural gas	50	
NUR-MOH HELIOTHERMAL S.A	Operation of heliothermal power stations	50	
ATHENS AIRPORT FUEL PIPELINE COMPANY S.A.	Fuel pipeline management	16	

#### Major Synergies from the Takeover of SHELL's Downstream Business in Greece

On 30 June 2010, MOTOR OIL Group's consistent, structured and cohesive strategy led to the completion of an agreement covering the acquisition of SHELL's downstream operations in Greece. Within the context of this agreement, all the shareholdings in SHELL HELLAS and SHELL GAS were transferred to MOTOR OIL, and the two companies were renamed CORAL and CORAL GAS, respectively.

The agreement covered the:

- Distribution and marketing of fuels through the network of some 700 SHELL-branded service stations, which retain the SHELL trade mark, and continue to sell SHELL products, on the basis of the Trademark Licensing Agreement signed between SHELL and MOTOR OIL. This network, which covers the whole of Greece, is the most effective and profitable in the domestic market, contributes considerably to the Group's market share.
- Marketing of industrial fuels and bitumen.
- 137,000 cubic metres aggregated capacity of the associated SHELL owned fuel terminals in Kalochori, Amfilochia, Perama, Chain, Alexandroupoli and Rhodes, which provide the potential for a uniform growth nation-wide.
- Lubricants blending and filling plant at Perama.
- Supply, storage and distribution of chemicals.

- Establishment of a joint venture between SHELL and MO-TOR OIL for the trade of aviation fuels under the company name SHELL & MOH AVIATION FUELS, which will also continue to use the SHELL brand and products.
- Bottling, distribution and marketing of liquefied petroleum gas under the new CORAL GAS brand.



The presence of the Group in the retail fuels market is now based on two commercial brands: AVIN, which has been well established for almost 30 years as a trusted high quality brand, and that of SHELL. Jointly, the two networks number approximately 1,280 service stations and their total market share is about 26%.

This agreement offers major synergies and significantly enhances MOTOR OIL's leading role in the refining and petroleum products marketing sector, as well as its presence in the retail marketing of fuels, liquefied petroleum gas and chemicals. At the same time, it creates benefits for Greece as a whole, combining the quality and technological superiority associated with the SHELL brand, with the capabilities of MOTOR OIL's flexible and state-of-the-art refinery.

#### 2010 Results

2010 was a landmark year for MOTOR OIL Group in terms of realising investments, contracting strategic acquisitions, and achieving financial results.

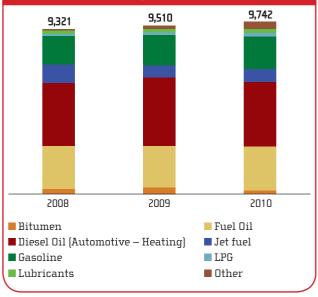
By consistently and effectively pursuing its strategy, MOTOR OIL has succeeded in continuously expanding its sales, while its profitability is unavoidably being impacted by the particular conditions prevailing in the global crude oil and petroleum products markets, the international oil refining margins, the euro/dollar parity, as well as the conditions shaping the domestic fuel market.

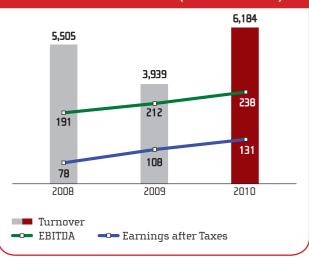
MOTOR OIL's sales for 2010 exceeded 9 million metric tons for the third consecutive year, and its products continued to be distributed into the three markets in which it operates (domestic, export and marine-aviation bunkering) through a robust network of sales, and long-standing relations with its customers. The quantities supplied to each of these markets are determined by the relevant demand, but also by the company's aim of supplying its products to the markets that offer the highest margins. In volume, sales for 2010 came to 9.7 million metric tons (a new all-time high), compared to 9.5 in 2009. The sales data indicate the company's strong export-oriented activity: export sales in 2010 (including marine-aviation bunkering) to over than 48 countries, constituted 66.7% of the total, and were 12.4% higher than in 2009. This fact underlines the extent of the Group's contribution to the national economy, particularly in these difficult times.

The Group's main financial results were significantly enhanced. The large increase in turnover was due to higher prices of petroleum products, increased sales volume, strength of the dollar against the euro, and the incorporation of CORAL and CORAL GAS in the second quarter. Overall -taking account of the improved refinery margins following the commissioning of the new Crude Oil Distillation unit- satisfactory profitability was achieved despite the negative developments in the domestic market in 2010, which for the first time showed an approximately 14% decline in the demand for petroleum products.

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#### Consolidated Results (in million euros)

#### I. Group Profile and Corporate Responsibility

New Crude Distillation Unit

MOTOR OIL's market share has been above 25%, in recent years; in 2010, it increased further to 26.6%, a fact that underlines the quality of AVIN and CORAL's retail networks, which helped to compensate for the sales decline in the domestic market.

#### MOTOR OIL Share in the Inland Market

	2008	2009	2010
Domestic Market	27.5%	27.1%	27.4%
Bunkering Market	21.4%	20.3%	24.2%
Lubricants	47.7%	37.4%	36.6%
Inland Market Total	25.9%	25.4%	26.6%

## 2. A STATE-OF-THE-ART AND HIGHLY FLEXIBLE REFINERY

In May 2010, the new Crude Distillation Unit was commissioned, completing an important cycle of the company's structural (organic) development. This unit reinforces the company's competitive position in the market and improves its profitability. Besides, it is not to be set aside that economic strength is a substantial component of Corporate Social Responsibility, and a prerequisite for facilitating the implementation of programmes in its other aspects.





The Vice Chairman of the Group, Mr. John V. Vardinoyannis, commented on the occasion of the commissioning of the unit:

"We are investing in cutting-edge technology projects, adopting the strictest standards of safety and environmental protection, making MOTOR OIL one of the most advanced and competitive companies in the south-eastern Mediterranean region. The new unit is an important investment for the company, as well as for our country, as it contributes to increasing domestic production, thus improving Greece's energy balance".

#### **Technical Features**

- Processing capacity of 60,000 barrels of crude per day; additional annual production of 1.8 million tons of white products (mainly diesel).
- Increased the annual refinery capacity by approximately 25%, from 7.2 million tons to 9.0 million tons.
- Raw materials: Crude oil of various qualities, with the capacity to process sour crude oils, as well as other non-conventional crude oils.
- Refined products: Pure Liquefied Petroleum Gas, Naphtha, Jet and Diesel to various specifications, as

#### Safety Specifications / Environmental Standards

- Construction completed to the highest European specifications as far as environmental protection and safety are concerned, by making use of Best Available Techniques.
- Particular attention paid to energy efficiency, with the:
- installation of steam turbines capable of exploiting waste energy,
- the utilisation of all hot streams for pre-heating,
- Installation of a special pre-distillation unit to reduce heat consumption.

well as Fuel Oil, which is fully absorbed as a raw material in the existing conversion units.

- Relative advantages:
- Optimisation of the refinery's crude and feedstock slate, due to the incorporation in its structure of advanced metallurgy materials, allowing for the processing of all crude qualities.
- Greater processing flexibility.
- Improved management of resources.
- Production of peak demand products.
- Self-sufficiency in all ancillaries required by the unit (water, steam, electrical energy).
- Monitoring and process control achieved by means of automated systems.
- Simultaneous commissioning of two new Sulphur Recovery units of 99.9% efficiency.
- Special care given during construction to the organisation of the construction site, including establishment of procedures and training seminars, in order to ensure safe working conditions.

## Also of Interest

- Total investment of 180 million euros.
- Jobs created: 30 new posts for the operation of the unit.
- More than 2,000 people employed during the construction phase, that involved 2.5 million man-hours of activity, and an additional 500,000 man-hours activity during the engineering design stage.
- Construction completed in record time of 20 months, as a result of the use of innovative project management methods.
- 338 different items of process equipment, 3,400 tons of pipelines, and 3,300 tons of steel used in the construction of the supporting structures.

The company's refinery, which is the main focus of the Group's business activities, is located in Aghioi Theodoroi, Corinth, approximately 70 km from the centre of Athens. Together with its auxiliary facilities and its marine and truck loading terminals, it is the largest private industrial complex in Greece, and is considered as one of the most modern and technically advanced refineries in Europe, with a Nelson Complexity Index of 10.4.

The refinery is capable of processing crude oil of various types and producing a wide range of petroleum products, supplying these products to oil companies in Greece and customers abroad. Moreover, it is the only Greek refinery that produces base oils. The products produced at the refinery comply with the European Union specifications that became effective on 1 January 2009, as well as the most stringent international specifications.

The two Crude Distillation Units produce liquefied petroleum gas, naphtha, jet fuel, diesel and fuel oil. Some of these products are subjected to secondary processing, in order to improve their quality, such as the catalytic reforming of naphtha to produce gasoline, and the hydrotreating of middle distillates to produce lowsulphur heating gasoil and automotive diesel oil. Fuel oil, the highest volume -but lowest value- product of atmospheric distillation, is processed in conversion units (thermal, catalytic and hydrocracking) which increase the yield of high value white products, such as diesel and gasoline.

#### **Refinery Features**

- Processing capacity of 172,000 barrels of crude oil/day.
- Produces all types of fuel products, and is a stateof-the-art and one of the most complex refineries in Europe, with Hydrocracking and Catalytic Cracking units and a Nelson Complexity Index of 10.4.
- Produces "clean fuels" (gasoline and automotive diesel) in accordance with EU specifications for 2009.
- Has ISO 9001:2008 certification for Quality, ISO 14001:2004 and EMAS ER 761/2001 for Environmental Protection, OHSAS 18001:2007 for Health and Safety, and ISO 17025:2005 for the Chemical Laboratory. This five-fold combination is found at few European refineries.
- The only Greek refinery that produces base oils.
- Has a 68.3 MW power/steam Cogeneration Plant.
- Utilizes natural gas as fuel and raw material for the production of hydrogen.
- Has storage tanks with a capacity of 2,500,000 cubic metres.
- Has a modern Truck Loading Terminal, which can serve 220 road tankers per day.
- Has modern port facilities for tanker docking, suitable for tankers of up to 450,000 tons dead weight, which can serve over 3,000 vessels annually.

The operation of a refinery requires auxiliary supplies of electric power, water and steam. The refinery's electric energy requirements are met by the four gas turbines in the Power Cogeneration Plant, while a fifth gas turbine, currently being installed, will make it energy self-sufficient. High pressure steam requirements are covered by four boilers, combined with steam produced in some refinery units, while the seawater desalination units produce water of a suitable quality for supplying the boilers, and in sufficient quantities to fully satisfy the refinery's water requirements. Thus, significant quantities of the precious natural resource of fresh water are saved. In 2008, the refinery was connected to the national natural gas network, acquiring the capability of using natural gas as a raw material for the production of hydrogen, and also as a fuel for its thermal and energy requirements. This capability adds flexibility in the selection of the best mix of raw materials and fuels, while further improving the refinery's environmental performance.

Liquid waste is collected and treated at the Waste Water Treatment Plant and the Urban Liquid Waste Treatment Plant.

The refinery has a modern Truck Loading Terminal, which significantly improves MOTOR OIL's competitive position in the market of Southern Greece.

# 3. ECONOMIC BENEFITS TO SOCIETY – SOCIAL PRODUCT

We create value for both our shareholders and other stakeholders, and for society as a whole, by striving for sustainable development and by meticulously applying the principles of good corporate governance.

The overall scale of the Group's operations, combined with its consistent focus on steady growth, result in a very significant contribution to the country's economic development. This contribution, based on efficient and successful business operations, encompasses value production and job creation, facilitating social progress and cohesion, while ensuring the protection of the quality of the environment.

Our operations in the extremely important energy sector, reduce the country's dependence on foreign suppliers of oil products, while our interaction with stakeholders creates in the first place primary value for all those concerned and, secondly, it contributes to the creation of value by these same stakeholders for the benefit of the national economy and the whole society, through job creation, the continuous improvement of our production facilities and processes, as well as by investing in the expansion or upgrading of our facilities.

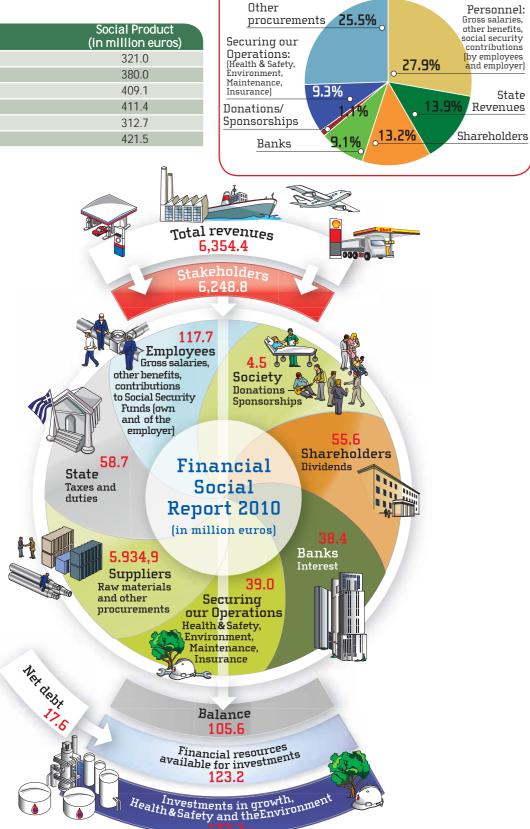
# 421.5 million euros the 2010 Social Product

In 2010, the Group's revenues totalled 6,354.4 million euros, equivalent to approximately 2.8% of Greece's Gross Domestic Product (GDP) that year. Of this, 5,934.9 million euros were allocated to the purchase of crude oil, other raw materials and fuel products, accounting for 93.4% of the total revenue, which is justified by the nature of the Group's activities.

The **Social Product** is the part of our income allocated to a selected group of stakeholders, comprising Group employees, the state, shareholders, banks, suppliers (except for supplies of crude oil, other raw materials and fuel products), as well as society in general (donations and sponsorships). It also encompasses costs of securing operations, including expenditure for Health, Safety and the Environment, insurance of facilities, repairs and preventive maintenance. Based on the above, the Social Product returned to stakeholders in 2010 amounts to 421.5 million euros, while the amounts given back in previous years can be seen in the following table:

	Social Product (in million euros)
2005	321.0
2006	380.0
2007	409.1
2008	411.4
2009	312.7
2010	421.5





### 4. CORPORATE GOVERNANCE

MOTOR OIL's management and control is based on the current principles of good corporate governance, as prescribed by legislation and the relevant regulations, and by other international codes of best practice and auditing standards. Its strategy and daily operations are deployed within the framework of corporate governance principles, which govern issues such as:

- the appropriate structure of its Board of Directors,
- respect for, equal treatment and protection of the interests and the rights of all shareholders,
- compliance with legal and regulatory provisions,
- I transparency in decision-making procedures,
- the reliability and adequacy of all disseminated information, regarding the Group's strategy and financial results, or its financial transactions,
- the management of personnel and remuneration matters, and
- the identification, assessment and control of all inherent risks.

The company established a Corporate Governance Code, which it published in March 2011 and which details the framework of corporate governance that determines the main sectors of its operation, as well as the adopted Corporate Governance Best Practices. The code in question conforms to the company's Principles and Values, its tradition and its ownership status. In 2010, it published a Corporate Governance Statement in accordance with the provisions of Law 3873/2010.

The company's supreme administrative body is the 12-member Board of Directors, which is elected by the Annual Ordinary General Assembly of Company Shareholders. It functions in accordance with the provisions of Law 3016/2002 on Corporate Governance and the company's Articles of Association. MOTOR OIL chooses to retain a 12-member Board, so it may represent multifaceted expertise, qualifications and experience, which reflect the corporate objectives and ensure a balance between executive and non-executive members.



#### Board of Directors<sup>1</sup>

Name	Board position	Member Status
Vardis J. Vardinoyannis	Chairman and Managing Director	Executive
John V. Vardinoyannis	Vice Chairman	Executive
Panayotis Kontaxis	Vice Chairman	Non-executive
John Kosmadakis	Deputy Managing Director	Executive
Petros Tzannetakis	Deputy Managing Director	Executive
Demosthenes N. Vardinoyannis	Member	Non-executive
Nikos Th. Vardinoyannis	Member	Non-executive
George Alexandridis	Member	Non-executive
Theofanis Voutsaras	Member	Executive
Michael Steiakakis	Member	Executive
Konstantinos Maraveas	Member	Non-executive-independent
Antonios Theoharis	Member	Non-executive-independent

1. As elected on 27.5.2010 by the Annual Ordinary General Assembly, organised as a Body Corporate on 2.6.2010 and re-organised on 6.12.2010, 31.1.2011 and 11.3.2011.

Two committees, established since 1996, operate within the framework of the Board of Directors: the *Compensation Committee* and the *Internal Audit Committee*.

The three-member *Compensation Committee* comprises the following non-executive Board members:

- P. Kontaxis, Chairman
- G. Alexandridis, Member
- K. Maraveas, Member
- A. Theoharis, Alternate Member

It advises the Board of Directors and deals with issues relating to staffing of the Group's companies, as well as proposes the policy on salaries, benefits and incentives for their executives and personnel.

Similarly, the three-member *Internal Audit Committee* comprises the following non-executive Board members:

- P. Kontaxis, President
- G. Alexandridis, Member
- A. Theoharis, Member
- K. Maraveas, Alternate Member

In accordance with Law 3693/2008, the *Internal Audit Committee's* duties include, but are not limited to, the following:

- I monitoring the financial information procedures,
- I monitoring the effective operation of the Internal Control and Risk Management systems,
- I monitoring the proper function of the Internal Audit Department, and
- I monitoring the course of compulsory checks of individual and consolidated financial reports.

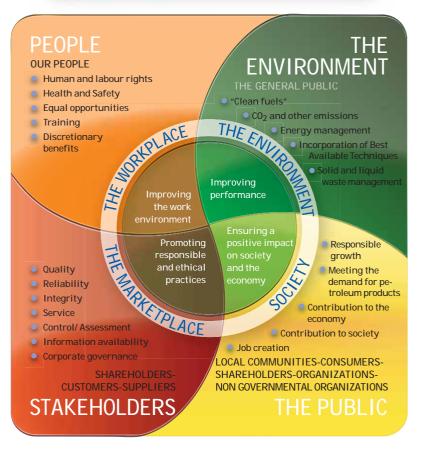
The *Internal Audit Department* reports directly to the Board of Directors, and is supervised by the *Internal Audit Committee*. The company's independent internal audit system aims at ensuring compliance with the company's procedures for managing financial and operational matters, as well as at ensuring that issues related to the efficient management of business risks are given proper attention. The company's financial results are also audited by independent chartered auditors, in compliance with its statutory obligations.

# 5. MANAGING CORPORATE RESPONSIBILITY

MOTOR OIL Group operates in the energy sector, primarily in oil, where the principles of Corporate Social Responsibility and sustainable development -i.e. development that meets current needs without jeopardising the availability of resources for future generations- need to be meticulously applied and respected. Particularly so in this sector, since crude oil reserves are finite, and their exploitation, from extraction and transportation, to refining and use of refined products, has environmental effects that must be effectively dealt with, utilising available technology.

The implementation of Corporate Social Responsibility principles aspires to a balanced approach to the economic, social and environmental impact of business operations. In other words, it seeks for creating value for a business's shareholders, while at he same time satisfying the company's customers, ensuring employee welfare, protecting the environment and contributing to society.

We fully acknowledge the importance of these issues and demonstrate our corporate responsibility by our commitment to pursue our business activities with due respect for people, the environment and society. A natural consequence of this commitment is that we adopt a holistic approach to implementing Corporate Social Corporate Social Responsibility Model



#### I. Group Profile and Corporate Responsibility

Responsibility principles, by considering the protection of the environment, and fulfilling our obligations to all stakeholders – our employees, shareholders, customers, suppliers and society as a whole.

MOTOR OIL is a founding member of the Hellenic Network for Corporate Social Responsibility and the Global Compact Network Hellas, having ratified in 2008 and since then participating in the UN Global Compact initiative, the purpose of which is to direct enterprises towards sustainable development through voluntary and responsible behaviour and actions. Therefore, the company is committed to complying fully with the ten principles of the Global Compact with respect to:

- I human rights,
- Iabour relations,
- the environment, and
- I transparency (anti-corruption measures).

AVIN OIL and CORAL are also members of the Hellenic Network for Corporate Social Responsibility, while the latter is a signatory of the UN Global Compact too.

MOTOR OIL has adopted a **Corporate Social Responsibility Model** that incorporates the four sectors of action included in Corporate Social Responsibility programmes, as they moreover arise from the UN Global Compact, and the internationally accepted Global Reporting Initiative (GRI).

Each one of these sectors has its respective **stakeholders**. The chart presented here, indicates these sectors, the respective stakeholders and the current **material issues** on which MOTOR OIL's activities are focused.

The **evaluation** of material issues and challenges concerning MOTOR OIL, and relating to sustainable development, is carries out by taking the following into consideration:

- The Principles and Values, the Vision and Mission of the company.
- The company's strategy.
- The principles of Corporate Governance, as well as the General Business Principles applied by the company.
- The company's policies (Health, Safety and Environmental Policy, Quality Policy, Human Resources Management Policies).
- The views of stakeholders, especially those of local communities.

The efficient **management and implementation** of programmes and actions arising from the above evaluation:

- Is consistent with the procedures set out in the company's Annual Operating and the Five-year Business Plans, in which these programmes and actions, endorsed by the Board of Directors, are included as explicit short or longterm goals.
- Is implemented and monitored by means of specific procedures and work guidelines in the context of the certified Management Systems for Quality (ISO 9001:2008), the Environment (ISO 14001:2004, EMAS ER 761/2001) and Health and Safety (OHSAS 18001:2007).

### MOTOR OIL

#### as a responsible employer,

cares about best using its employees and about their career and personal development, invests in their training, provides a creative and supportive workplace environment that is characterised by good teamwork and mutual respect, is conducive to individual initiative, and where Health and Safety constitutes a major priority which is assured through state-of-the-art infrastructure and contemporary management practices;

#### having a responsible attitude towards the environment,

strives to ensure that its activities have the minimum possible impact on the environment, by having in place an effective *Environmental Management System*, implementing Best Available Techniques, as well as other advanced systems for environmental protection, energy management and energy saving;

#### as a responsible corporate citizen,

seeks for a productive social dialogue with the local communities in which it chiefly operates, in a climate of mutual trust and respect. It supports these communities, by participating in programmes that enhance their economic, social and cultural life, and becomes involved in similar activities that benefit society as a whole;

#### having a responsible position in the market,

respects market rules and produces top quality products, it focuses on relations of trust with its customers, suppliers and partners, and strives -through the systematic and consistent achievement of its business targets- to ensure the best possible return for its shareholders without compromising its corporate responsibility and sustainable development standards.

#### 6. GROWTH - INVESTMENTS

Responsible growth and creation of value for the benefit of all stakeholders is at the core of MOTOR OIL Group's business model. The foundation of this model is Corporate Social Responsibility principles; company strategy is the vehicle, the tools of which are the loyalty of company employees, much effort, commitment to safety and environmental protection, effective corporate governance, a duly targeted investment programme, and the application of effective organisational and management systems – responsible entrepreneurship in other words.



Our vision is the consolidation of MOTOR OIL's position as a leading refining and fuel products marketing company in the region in which we operate. In order to succeed in this objective, we implement a consistent and flexible business strategy, which is focused on the following three key targets:

- Maximising the profitability of the refinery and overall financial performance, by means of:
  - Producing high quality products in accordance with new specifications, and as cost-effectively as possible, by implementing state-of-the-art technologies.
  - Improving the refinery's energy-efficiency, thus reducing its operating cost while at the same time reducing  $CO_2$  emissions (see chapter III).

- Optimising the fuel mix by exploiting the availability of natural gas at the refinery.
- Full automation of refinery operations.
- increasing the efficiency of production processes and the availability of process units.
- Increasing the efficiency of the lubricants production.
- Maximisation and optimisation of sales, by effectively marketing the refinery products and exploiting opportunities in our three markets (domestic, aviationmarine bunkering, and export), for achieving the best possible profitability, by means of:
  - Maximising domestic market share by exploiting the synergies created following the acquisition of SHELL's downstream operations in Greece.

#### I. Group Profile and Corporate Responsibility

- Developing export sales, particularly targeting high potential developing markets of significant profit margins.
- Expanding and exploiting the company's storage facilities to more effectively meet the demand for products and related services.
- Striving for the highest standards of Health and Safety, Environmental protection and Quality, through the application of technical, operational and organisational innovations and improvements to the refinery, such as:
  - Implementing investment and other programmes concerned with Environmental protection and Health and Safety.
  - Enhancing preventive safety measures through investments in automated prevention and protection systems, fulfilling or exceeding the specifications laid down by Greek law and international regulations.
  - Upgrading the reliability of the process unit support systems, such as the Power and Steam Cogeneration Plant and other critical utilities.
  - Comprehensive and effective training of the workforce.

# **1,166 million euros** total capital investments during

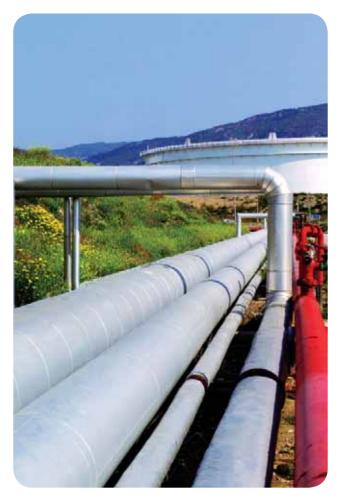
the period 2000-2010

# 624 million euros for Environmental protection projects

2010 saw the completion of a substantial investment period concerning both organic growth and acquisitions. Overall, the capital expenditure of the Group in the period 2000-2010 reached the amount of 1,166 million euros, which does not include money spent on acquisitions (AVIN OIL, CORAL, CORAL Gas.

Our most recent major investment was the construction of the new 180-million-euros Crude Distillation Unit. However, the greater part of the overall 2000-2010 capital was spent on the construction of the Hydrocracker complex (2005), which allowed for the production of "clean fuels", complying with 2009 European Union specifications. At the same time, it helped to increase the production of middle distillates of which there is a shortage in Greece, and in Europe overall, while the refinery has gained more flexibility, allowing the maximisation of either diesel or gasoline production, according to seasonal demand.

The rest of the capital investment programme was focused on technical upgrading of the refinery, on vertical integration, automation, energy sufficiency and environmen-



tal protection. As a result, it is now considered as one of the most complex and technically advanced refineries in Europe and worldwide (based on the Nelson Complexity Index achieved, which is 10.4).

Overall, the Group's investments for 2010 amounted to 123.2 million euros and involved the following:

- Expenditure for the new Crude Distillation Unit.
- Work on increasing storage capacity, with the construction of tanks for Liquefied Petroleum Gas (5 tanks), fuels (6 tanks), lubricants (2 tanks) and desalinated water (1 tank), all completed in 2010.
- Upgrading the lubricants production complex, which was also completed in 2010.
- Increasing the capacity of the refinery's Cogeneration Power Plant, which entailed expenditure for the installation of the fifth gas turbine. The Cogeneration Plant now has four gas turbines and, with the addition of a fifth, its installed power will have increased to 85 MW (from 68 MW), ensuring the refinery's energy self-sufficiency at the higher power demand levels that apply following its expansion, at the same time improving its energy performance.
- Construction of a new Sulphur Recovery unit -completed in 2010- that further improves the refinery's environmental performance.

# 7. QUALITY, HEALTH, SAFETY AND ENVIRONMENTAL MANAGEMENT

Ensuring occupational Health and Safety and Environmental protection is part of our corporate Principles and Values and constitutes a fundamental strategic aim. Thus, we strive to conduct our industrial and commercial operations without compromising the health and safety of our employees and associates, while maintaining the highest standards of environmental protection and respecting the quality of life of those living in the vicinity of our industrial facilities. Safety and Environmental protection, and our commitment to continuous improvement in these areas, is set out in the relevant Policy that governs the operation of the *Environmental Management System* (ISO 14001:2004 compliant, the first such certification dating back in 2000, and EMAS ER 761/2001 compliant, first certified in 2007) and the *Health and Safety Management System* (OH-SAS 18001:2007 compliant, first certified in 2008), which interpret this Policy into detailed programmes and measurable targets.

The importance we attach to the management of Health,

#### Health, Safety and Environmental Protection Policy

MOTOR OIL operates with due respect for Health, Safety and the Environment.

#### To achieve this, the company is committed to:

- Setting targets and aims compatible with the continuous improvement of its Health, Safety and Environmental management systems.
- Complying with, or exceeding, the requirements of relevant legislation or other obligations.
- Producing guaranteed quality products in accordance with, or exceeding, Health and Environmental protection specifications applicable to each, efficiently making use of raw materials, energy and technology.
- Reporting its performance, good or bad, as a responsible corporate citizen.
- Maintaining emergency action plans and systems which are regularly rehearsed with the appropriate drills.

- Applying a coherent *Integrated Management System* that takes Health and Safety, and Environmental protection factors into consideration when plans are drawn up, or business and operational decisions are being taken.
- Offering advice, information and training to its own employees and to subcontractors and others working on its premises, so as to ensure their vigilance and commitment to safe working practices.
- Actively and uncompromisingly complying with environmental operating standards that set limits on waste and polluting emissions.
- Cooperating with all stakeholders for developing and applying balanced Health, Safety and Environmental protection programmes that take into account the needs of all parties involved.

At MOTOR OIL, anything we plan, design or do is done safely, in an environmentally-friendly manner, and with financial efficiency.

We are equally committed to the management of Quality, which is strategy. Since the start of its operations, MOTOR OIL, with respect and responsibility towards its customers, has focused its efforts on supplying them with high-quality products.

MOTOR OIL's Quality policy is summed up in two key principles, to which both management and employees are fully committed:

- MOTOR OIL will produce and sell products that satisfy its customers, always taking into consideration all stakeholders' interests.
- MOTOR OIL focuses on its customers, examines and evaluates their requirements and applies all necessary technologies and actions, aiming at avoiding compromises in quality matters and constantly improving the effectiveness of its Quality Management System.

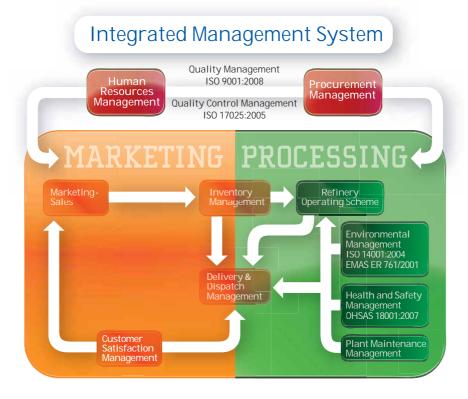
The quality policy is applied through preventive management procedures, which allow potential problems to be pre-empted before they arise.



#### I. Group Profile and Corporate Responsibility

The customer-oriented *Integrated Management System* takes systematic and full account of quality issues in all operational and management processes, as shown in the diagram. The consolidation of the *Environmental Management System* and the *Health and Safety Management* 

*System*, into the *Integrated Management System* confers an overall coherence to the company's operational management and links these management systems with other related processes, thus maximising their effectiveness.



The company's *Integrated Management System*, through which its Quality policy is implemented, was re-certified in 2009 by Bureau Veritas according to ISO 9001:2008, valid until 2012, while the first relevant certification was first achieved in 1993.

The *Quality Control Management* process meets the requirements of the ISO 17025:2005 standard, and the Hellenic Accreditation System (HAC)has certified the refinery's Chemical Laboratory as capable of conducting tests in accordance with requirements of the standard, and issuing Quality Certificates endorsed by HAC for virtually all the company's products. This certification offers us an additional competitive advantage, ensuring that the quality of our products is guaranteed.

Management systems are subject to six-monthly audits by quality certification bodies in order to confirm their consistent operation, as required by the relevant standards, and are re-certified every three years. The appropriate development of these management systems is realised by introducing the required modifications for achieving compliance with the newest version of the relevant standard. In addition, customer and insurance organisations audits are carried out with excellent results.

Certified Management Systems are also operated by the Group's subsidiary companies:

- AVIN OIL operates a *Quality Management System* certified to ISO 9001:2000 for covering its fuels and lubricants storage, marketing and distribution, and the retail network management.
- CORAL operates a *Quality Management System* certified to ISO 9001:2008 covering lubricants and the management of the network of Twin Petrol Stations.
- CORAL GAS operates an *Environmental Management System* certified to ISO 14001:1997 for its Aspropyrgos facilities.
- OFC operates a *Quality Management System* certified to ISO 9001:2008, an *Environmental Management System* certified to ISO 14001: 2004, and a *Health and Safety Management System* compliant with OHSAS 18001:2007.

## 8. CUSTOMER SERVICE

MOTOR OIL strives to systematically meet its customers' needs by applying customer-focused criteria. Apart from direct contact with customers, it conducts quantitative and qualitative customer satisfaction surveys covering the full spectrum of its clientele. This aims at establishing an objective view of their level of satisfaction, by obtaining feedback about their perception of the quality of services rendered, and their overall impression of MOTOR OIL's corporate image. Within the context of these surveys, customers are asked to respond to seven groups of questions on the following items: defining the customer's relationship with the company, satisfaction about the quality of the company's products, speed of order processing, issuance of bills of loading and invoices, loadings on ships or road tankers, handling of complaints, and general evaluation of the company's image by the customer.

The basic objectives of these surveys are:

- Assessing customer satisfaction.
- Evaluating the perceived quality of the entire range of MOTOR OIL's services.
- Determining aspects of MOTOR OIL's current products, services and offers that require improvement.
- Determining the criteria applied by those selecting MO-TOR OIL as a supplier, and assessing the impression they have of MOTOR OIL's image as a supplier or partner.
- Assessing MOTOR OIL's overall corporate image.

Survey data are analysed and evaluated, with a view to building on the company's strengths, specifically to detect weaknesses and take action to correct them, thus demonstrating the customer-focused nature of the company's strategy. Over time, this process has led to a reduction in complaints from customers: only three such customer complaints were received in 2010, compared with 14 in 2009 and 16 in 2008.



### 9. COMMUNICATION WITH STAKEHOLDERS

The communication and cooperation we have developed with stakeholders indicates the importance we attach to this issue, and our desire to openly discuss and take into consideration their needs, so that any arising issues can be handled in as far as possible mutually acceptable ways. After all, sustainable growth is a common aim, so communication with trust and respect facilitates this common objective, and the results are mutually beneficial.

Stakeholder groups and, in summary, their identity, interaction with the company, as well as the communication approach applied to each of them, are shown in the following chart.

Stakeholder group	Identity	Interaction	Communication approach
Employees	In 2010, the MOTOR OIL Group directly employed, on average, 1,983 people, of whom approximately 55% work in the refinery (details are given in chapter IIA).	Employees offer their labour and skills in return for salaries, additional benefits, and opportunities for professional and personal development.	A two-way communication between employees and Management is in place, and various communication approaches are in use, such as corporate announcements, briefings, the intranet, work groups, and different events organised for personnel (dinners and excursions). Moreover, the refinery employees
			are represented by their Trade Union and the Health and Safety Committee. Through these two organisations, official dialogue is regularly conducted; employees are also encouraged to submit their individual proposals for improvements in working conditions.
Local communities	MOTOR OIL's industrial activities (oil refining), as expected, impacts local communities in the vicinity of the refinery.	MOTOR OIL creates value for society with the creation of jobs, with returning back the so called social product, and with its contribution to society by which supports local and broader social activities.	Communication (with emphasis on local communities affected by the company's operations) takes place mainly through Local Authorities, as well as other bodies, such as private associations and organisations (see chapter IV).
Customers	Due to the nature of its business, MOTOR OIL has a relatively small number of customers.	With its extensive and continuous investment programme, MOTOR OIL offers its customers high quality service and products, that satisfy their requirements, and is duly rewarded with the income it receives.	We have long-standing and close relationships with our customers, based on the quality of our products, the service we offer, our experience, and our reliability and responsibility. Communication with customers is mainly the task of the Marketing Division, which may involve other company departments if necessary. Information about products can be found on the company's website, as well as in the <i>Material Safety Data Sheets</i> . In addition, customer satisfaction surveys are regularly conducted.
Partners and suppliers	These are providers of products and a broad range of contractor services, mainly at the refinery.	Partners and suppliers are paid for the products and services they provide to MOTOR OIL, ultimately resulting in contribution to economic development.	We have long-standing and close relationships with our partners and suppliers. There is a structured communication programme at the refinery offering them appropriate information on health, safety and environmental protection issues, for which compliance requirements are exceptionally strict and closely monitored (see chapter IIB).

Stakeholder group	Identity	Interaction	Communication approach
Shareholders, Investors and Analysts	The company's equity is held by private and institutional investors, both Greek and foreign. At the end of 2010, 52.5% of the company's shares belonged to its founding family (the Vardinoyannis family), while the remaining 47.5% belonged to other investors. MOTOR OIL's business activity is monitored by Greek and foreign financial analysts.	Shareholders invest capital in MOTOR OIL, as in any other company, in the expectation that there will be returns, including dividends and an increase in value of their shares.	Through competent management and an effective business strategy, MOTOR OIL creates value for its shareholders, while always maintaining due respect for all aspects of corporate responsibility. Regular communication with shareholders is conducted in various ways: through the company's website, with press releases and announcements issued by the Corporate Communications Section, through the Annual Financial Report and the Environmental and Social Report, through the operation of an Investors' Relations Section, through presentations of financial results in conference calls, and with regular participation in road- shows.
Non-Governmental Organisations, Academic and Scientific Bodies	The company works with numerous national and international organisations, such as the <i>"ELPIDA"</i> Association, the University of Cambridge Programme for Sustainability, the Hellenic Institute of Marine Archaeology, the Corinth Hospital, and other charity organisations, universities, etc.	Cooperation with these bodies involves supporting their programmes, conducting specialised studies at the refinery, and subsidising scientific or charity activities.	<ul> <li>The most important collaborations in 2010 were:</li> <li>Support for the "ELPIDA" Association of Friends of Children with Cancer in completing construction of the first Children's Oncology Hospital in Greece.</li> <li>The donation of specialised medical equipment to the Corinth Hospital.</li> <li>Financial support for the Hellenic Institute of Marine Archaeology in its underwater excavation of a Mycenaean shipwreck.</li> <li>More information about collaborations developed in 2010 is available in chapters II and IV.</li> </ul>
The State	Public authorities on a local and national level.	MOTOR OIL generates revenues for the State, through the payment of taxes and duties. Public authorities protect the public interest by promulgating rules and regulations, ensuring their enforcement, issuing operating licences and providing support in emergency situations.	MOTOR OIL always operates in compliance with legal requirements. There is an open and honest, two-way communication and cooperation with competent Public Authorities, ensuring the supply of information required by each body, as well as the documented discussion on any issues arising.

## **10. MEMBERSHIPS - AWARDS**

#### **Memberships**

MOTOR OIL supports international and national bodies, and is a member of:

- The Global Compact Network Hellas (of which it became a founding member in 2008 when it endorsed the United Nations Global Compact).
- The Hellenic Network for Corporate Social Responsibility (of which it is a founding member).
- The University of Cambridge Programme for Sustainability Leadership.

It is also a member of the following national and interna-

tional business associations:

The Hellenic Federation of Enterprises (ΣΕΒ).

- The Athens Chamber of Commerce and Industry (EBEA) and other regional chambers of commerce.
- CONCAWE (CONservation of Clean Air and Water in Europe, see chapter III).
- MOIG (the Mediterranean Oil Industry Group, see chapter III).
- OCIMF (the Oil Companies International Marine Forum, see chapter III).

Incorporate Sugar

Awards		
2010	HRIMA Business Awards	First Prize in the "Investor Relations" category.
	Strongest Companies in Greece	MOTOR OIL, CORAL and CORAL GAS were classified by ICAP among the high Credit Rating Classification companies in Greece.
	The WWF Greece Environmental Management and Disclosure Index	MOTOR OIL was placed among the top 10 Greek companies, in the 6th Group.
	Global 1000 Sustainable Performance Leaders	MOTOR OIL was placed among the top 1000 Socially Responsible Companies in the world.
	Joint Inspection Group	OFC awarded with the third consecutive JIG <i>"Certificate of Excellence".</i>
2009	Greek Investor Relations Awards	<i>"Best IR Officer Buy Side"</i> Award presented to Banking Manager and Investors Relations Officer, Mr Spyros Balezos.
	HELEXPO	"Exports Turnover" Award.
	Aegean University	The <i>2008 Environmental and Social Report</i> awarded for the proper application of GRI principles.
	Accountability Rating Greece 2009 (Corporate Responsibility & Accountability ranking)	9th place among the major Greek companies.

#### Awards

2008	NGO Ecocity	<i>"ECOPOLIS 2008 – Environmental Investment"</i> Award.
2007	NGO Ecocity	<i>"ECOPOLIS 2007 – Environmental Investment"</i> Award.
	Corinth Chamber of Commerce	"Entrepreneurship Award 2007".
	HRIMA Business Awards	"High Investments" Award.
2006	LEADERS OF THE YEAR	<i>"Consistent Business Achievements"</i> Award to MOTOR OIL's Chairman and Managing Director, Mr Vardis J. Vardinoyannis.
	HRIMA Business Awards	"Investor Relations" Award.



II. Responsibility Towards Our Employees

1,983 employees

24,300 training hours

**459** recruitments in the past five years (2006-2010)

Our value as a Group is created by the efforts of our people. We recognise that they are our most valuable resource, essential to the achievement of our strategic goals, to the successful implementation of our growth business plans and in ensuring our long-term competitiveness.

We are committed to providing the best working conditions, to securing the respect for human rights and for the freedom of association, to upholding non-discrimination and to providing equal opportunities for learning and personal development.

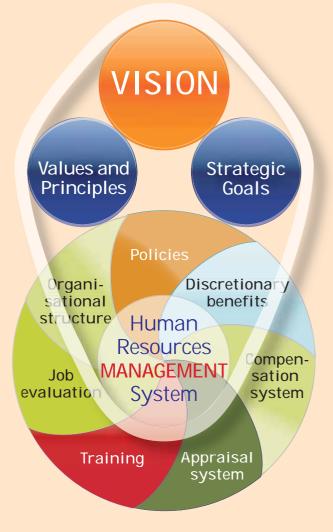
In 2010, the MOTOR OIL Group expanded through

### A1. Human Resources Management System

The Group, in its efforts to develop and motivate its workforce, through responsible management, has developed a modern and integrated *Human Resources Management System*, that enshrines the Group's values and principles and is aligned with its overall mission and strategic goals. It is based on respect for employees and on internationally-accepted principles of Human Resources management, and is characterised by continuous efforts to achieve further improvements, development and modernisation.

The **aim** of the *Human Resources Management System* is to allow employees to realise their potential to the full, in conjunction with ensuring that they get the greatest possible satisfaction in their work; in parallel its principal **goals** are:

- Compliance with existing legislation, and universally established principles of human and labour rights.
- Fairness and meritocracy in employee relations.
- Providing for equal opportunities possibilities for the professional and personal development of employees.
- Accountability of employees for achieving the company's business goals.
- A competitive and fair remuneration system linked to employee performance and expectations, but consistent with prevailing market conditions.
- Offering pay and benefits exceeding those provided for by law and by collective labour agreements.
- A programme of targeted education and training cov-





the acquisition of the commercial activities of SHELL in Greece and, as a result, absorbed the employees of the successor companies CORAL and CORAL GAS, whose long, international technical and operational experience will add a new impetus to the commercial activities of the Group.

Despite the economic crisis, we expanded our workforce through further recruitment, we offered an extended educational programme for staff training and development, and continued the provision to our employees of the structured discretionary benefits package. We aim to provide a first-class, safe and fair workplace, which promotes trust, team spirit and respect for people

- ering subjects relevant to the Group's strategic development goals, and **aiming at** the effective and safe discharge of duties.
- Welfare provisions covering employees' families, and the promotion of a healthy balance between work and family life.
- Creation of strong bonds with employees, through open, candid and reciprocal communication.
- To attract competent young people having a professional approach to work, who share our values: reliability, dedication, integrity and personal responsibility.
- Enhancement of corporate culture and corporate values.

## A2. Equal Opportunities and Human Rights

We offer a workplace of no exclusions, in which all are treated fairly and are offered equality of opportunity, and where diversity is valued. All aspects of human resources management are pursued with transparency and are based on meritocracy. Recruitment, transfers, promotions, pay and benefits, education and training, etc, are governed by the principles of our equal opportunities policy, the avoidance of any form of discrimination, and respect for employees' dignity. In applying the equal opportunities policy, we strive to ensure:

- That the composition of management reflects the composition of the workforce.
- That education and training programmes are available to all personnel, in accordance with business needs.
- Equal pay for men and women.

We support efforts to create an inclusive society, where those with special needs are protected, not simply through the provision of welfare, but primarily through efforts made for their productive integration into society. Thus, we offer jobs to disabled people, providing them with access to employment, education and professional development.

MOTOR OIL respects international principles of human rights, in particular those set out in the United Nations Declaration of Human Rights, and in the UN Global Compact's ten principles, to which we are signatories. Moreover, all MOTOR OIL's activities take place exclusively on Greek territory, and the relevant Greek labour law that it complies with, is consistent with the requirements of the 1998 Declaration of the International Labour Organisation (ILO) on Fundamental Principles and Rights at Work, with references to the Greek Constitution and labour law. The Greek legal provisions include two conventions concerning the protection of freedom of association and the right to collective bargaining. Finally, it goes without saying that there is no compulsory or child labour in our operations, nor does the company tolerate such practices.

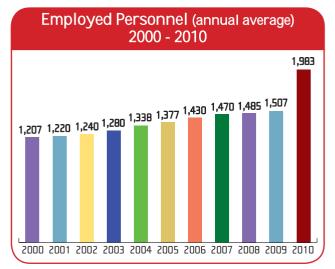
#### A3. Labour Relations

**92.4%** of the employees of the Group at the end of 2010 were on open-ended contracts At MOTOR OIL, the terms and conditions of employment are regulated by a Collective Labour Agreement, which was drawn up in September 1974, and is approved by the Labour Ministry.

Employees are free to participate in trade unions and professional associations without any restriction. Refinery employees are represented through their trade union and the Health and Safety Committee. The union has had a collective labour agreement with the Hellenic Federation of Enterprises since 1986. This agreement, which lays down the terms of employment and pay levels at the refinery, is supplemented by annual agreements between the company and the union.

We believe that cooperation with the employees' union is very important – particularly so in difficult times like the present, when we are experiencing the effects of the severe economic crisis. We therefore hold regular meetings with union representatives, the common aim being to ensure harmonious bilateral relations, avoid disputes and preserve labour piece, while continuing to achieve improvements in working conditions.

#### A4. Employment



The MOTOR OIL GROUP, as a result of its capacity in pursuing successful business growth opportunities, and through effective management, has become one of the Greece's most important, dynamic and consistent employers.

#### Gender Profile

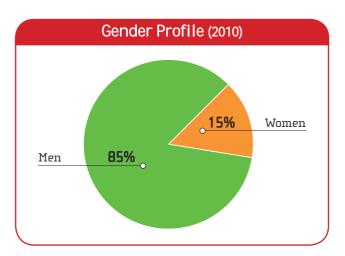
In order to fill job vacancies and ensure our employees' professional development, we support equal treatment of both genders, and offer equal opportunities without discrimination. However, due to the nature of the activities of the Group -and particularly the nature of most refinery jobs- the ratio of women to men is relatively low. Thus, in 2010, 15% of all employees were female, while at the head offices of the Group companies, the number of women rises to 30%.

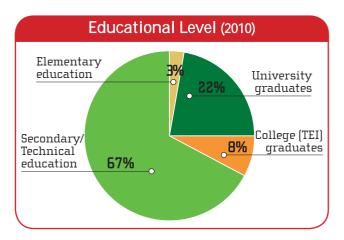
Among management, women made up 14% of the total, a satisfactory reflection of the overall participation of women in the total workforce, while in other office and technical jobs the percentage was 15%.

In 2010, the size of the combined human resources of the Group (MOTOR OIL, AVIN OIL, CORAL, CORAL GAS and OFC) -averaged over the year- was 1,983 employees. Compared to 2009, this represented a net increase of 476 posts (a 31.6% increase), mainly resulting from the absorption of the employees of CORAL and CORAL GAS. Due to the continuous growth of the Group, the size of the workforce has been growing steadily since 2000, despite investments aimed at increasing the level of refinery automation and efforts made to simplify tasks.

In addition to personnel directly employed by the companies of the Group, a significant number are indirectly employed through sub-contractors. Undoubtedly, therefore, our business activities create a significant amount of secondary employment.

The main site of MOTOR OIL's activities is the refinery in Aghioi Theodoroi, Corinth, where an average of 1,085 were employed in 2010 out of a total of 1,267 employed by the company. Approximately 55% of the refinery personnel live in the greater region of Corinth, where MOTOR OIL is the biggest employer.





### **Educational Level**

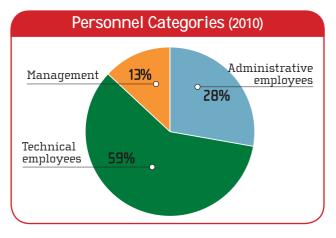
We place great importance on the educational level of our personnel, and our aim is to attract, develop and retain suitable and competent employees. Some 30% of our employees are university or college graduates.

In order to further develop the skills of our personnel and to maintain a high-output culture in the workplace, various further education and vocational training programmes are organised in new technologies, systems and processes, while employees are encouraged to participate in long-term external courses leading to recognised degrees.

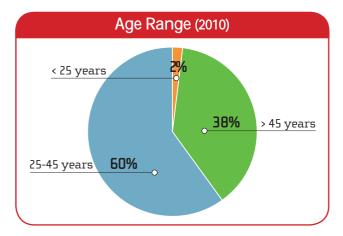
# **Personnel Categories**

In 2010, management comprised 13% of the total personnel of the Group, while technicians-operators and administrative personnel accounted for 87%.

Each employee has the opportunity for promotion within the management hierarchy, according to their qualifications, performance and skills, as the main objective is to fill vacant managerial positions from within the Group wherever and whenever possible.



# Age Range



**459** employees hired during the five-year period 2006-2010

Over the past few years, the average age of the Group's employees has remained around 41.5 years, dropping slightly to 41.4 in 2009 and 2010, compared with 41.7 years in 2008, 41.4 in 2007, and 41.6 in 2006. Sixty-two percent of employees are younger than 45 years of age.

## Length of Service and Turnover

As far as the length of service of the personnel with the Group is concerned, the average was 13.9 years in 2010 (compared to 14.2 in 2009,14.6 in 2008 and 14.1 in 2007), indicating a relatively low rate of staff turnover. Some 51.0% of employees have considerable experience in the Group, as they have more than 10 years of service, while 25.0%

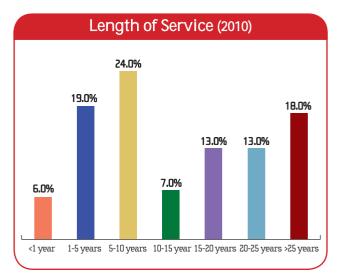
have less than five years' service. These figures indicate a healthy balance in the service profile of our personnel, combining the experience of older employees with the renewal and dynamism brought by more recent recruits. In addition, the low rate of labour turnover demonstrates the extent of employee loyalty to, and the strength of ties with,

# **4.6%** the exceptionally low level of labour turnover in 2010

the Group, which is one of our main competitive advantages.

Long-term employment at MOTOR OIL is rewarded by additional salary increments. In addition -at the refinery, at CORAL and at CORAL GAS- commemorative gifts of value are made to employees completing periods of long service; these gifts vary from company to company and are relevant to the years of service.

In 2010, the total of employed personnel increased by 56 new employees, while 92 left for various reasons.



Labour Turnover			
	2008	2009	2010
RECRUITMENTS	57	84	56
RESIGNATIONS BY REASON			
Retirement	37	64	66
Resignation	11	11	13
Other	11	6	13
Total	59	81	92
LABOUR TURNOVER*	4.0%	5.4%	4.6%

\*Labour Turnover =  $\frac{\text{Number of personnel leaving}}{\text{Average number of employees}} \times 100$ 

The exceptionally low level of labour turnover (4.6% in 2010) is a reflection of the mutual trust that exists between the workforce and the company, and of the professional satisfaction of employees, as referred to above.

## A5. Remuneration System

One of the Group's main objectives is to offer its employees competitive remuneration, for both rewarding their contribution and maintaining a high level of employee satisfaction.



The system we implement in order to set, manage and review salary levels is in line with current company and sector-specific agreements, and is consistent and transparent. Negotiations covering collective agreements on salary adjustments are in line with sector practices that are applied at national level. Moreover, the structure of the remuneration system ensures equal pay for men and women doing the same work, and rules out any other form of discrimination. The factors determining wage/salary levels are mainly the employee's grade and performance, the responsibility level of the position held, the educational level and the seniority/length of service.

The Group's total expenditure on wages/salaries in 2010 amounted to 108.6 million euros. This includes pay for regular and overtime work, mandatory employer contributions to social security funds and other additional allowances over and above those laid down in either labour legislation or collective agreements. These additional, non-statutory allowances are discretionary payments to employees intended to reward productivity and acknowledge the contribution of individuals to the Group's performance.

# A6. Discretionary non-Wage Benefits

The Group has introduced -for years now- a wide range of supplementary discretionary allowances and insurance benefits for employees and their family dependants. These discretionary employee allowances cover six main areas:

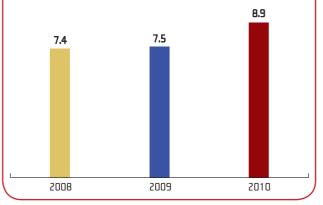
- Personal development and welfare.
- Covering the cost of medical treatment in cases of ill health.
- Family assistance.
- Provision of various other facilities.
- Strengthening corporate culture, and cultivating co-operation and team spirit.
- Strengthening ties with the Group.

In this category of employee benefits are: insurance policies providing both pension and medical treatment cover for employees; schemes re-imbursing employees for the costs of their children's education; Christmas parties for employees' children and family excursions (in 2010, 49 such excursions were organised, to various parts of the country, in which 3,100 people participated); long-service awards; employees are supported for participating in sporting activities; etc.

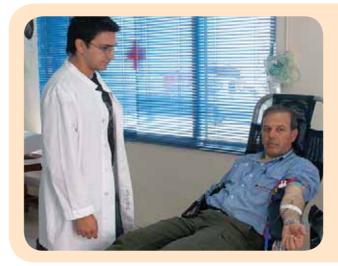
Through the above arrangements -which follow from our conviction that, "Our intrinsic value as a Group is built on our human resources" - a socially uniform employees entity has been created in the Group, which is cohesive, committed and with a high morale, representing the necessary foundation for all aspects of the Group's development and progress.











### Voluntary Blood Donation

Our employees are encouraged to participate in blood donation programmes, which is a compassionate act that demonstrates on a personal level the sense of social solidarity. At the refinery, blood donations are organised in partnership with the Korinthos General Hospital, while at the head offices of MOTOR OIL, donations are organised in partnership with the *"Metaxa"* Oncology Hospital. Blood donations by employees of MOTOR OIL has become a tradition, now with a 25-year history. The resulting blood reserves are used to cover the needs of the blood donors themselves, their families or close relatives, and other people, in the event of an emergency. One hundred and thirty four units of blood were donated during 2010 and the total number donated since 1991 is 2,695.



#### Football and basketball teams

To promote and improve the team and participation spirit in employees, we encourage their participation in sporting activities. Following an employee's initiative, company football teams have been established for many years, taking part with great success and many distinctions in established corporate games. Moreover, the AVIN OIL basketball team was formed and played in 2010.

In 2010, for the second successive year, the MOTOR OIL employees' football team came third among 40 teams in the amateur Athens corporate games Football League. In 2008, for the 13th sequential year, it earned first place in the championship, in which it has participated for 18 consecutive years, having won eight "doubles" (Championship and Cup), five Championships, one Cup and two Ethos Cups. Its competitive performance has been equally impressive abroad, as it won the World Corporate Championship in 2004 and the European Corporate Games Tournament in 2003 and 2005.

In 2010, the equivalent AVIN OIL football team came third in the 8-a-side Corporate Championship among 14 teams, while in 2009 won the "double" (Championship and Cup), among 28 teams. Finally, in 2010 the AVIN OIL basketball team came third in the equivalent Corporate Basketball Championship.



# A7. Education and Training

In a globalised and highly specialised sector such as the oil sector, implementing our business strategy is closely linked with the development of the skills and capabilities of our workforce. Thus, the continuing professional and personal training of our employees are of paramount importance, and we allocate significant resources to these activities, both in terms of money and time.

Our **training policy** aims at ensuring that the workforce have the knowledge and skills required for their respective job functions, and that all forms of discrimination are avoided, so as to secure the completion of the work they undertake to the highest possible quality standards, and in line with the following principal objectives:

The ongoing, responsible and comprehensive technical education and training of employees.



The continuing expansion of professional expertise and the development of employees' personal skills.

# Education and Training Programmes

Education and training programmes are planned and delivered according to the particular needs arising each year. The following factors are taken into account when planning annual training activities:

- The current corporate priorities and goals.
- The training programmes carried out in previous years.
- Health and Safety training requirements, both from a technical viewpoint and in terms of raising awareness of the importance of safety at all levels.
- The requirements for training in matters involving specialised technical skills, Environmental Protection and Quality Management.
- Employees' personal development needs.

Education and vocational training programmes cover the following **topics**:

Induction training for newly-hired unit operators and maintenance technicians.

# **6.4** million euros invested in education and training programmes in the five-year period 2006-2010

- Effectively satisfying our operational requirements, through the internal designation and promotion of employees.
- The cultivation of a coherent corporate culture.



- Induction training for newly-hired engineers.
- Training of technical personnel on the specific scope of their tasks, as well as the use of Personal Protective Equipment and work equipment. This covers the technical knowledge required of each employee to complete their duties successfully.
- Training of technical personnel in Health, Safety, Environmental Protection and Quality themes, with an emphasis on the special features of each workplace.
- Training of non-technical staff on basic Health and Safety regulations, use of fire-fighting equipment and first aid provision.
- Instruction in safe driving techniques and in the procedures for the safe loading, unloading and transport of fuels.
- Training in business and computer skills, as well as personal development issues.

- Emergency preparedness exercises, including scheduled or unscheduled drills. This training includes joint exercises with the other Greek refineries, and participation of the Fire Service.
- Learning foreign languages.
- Health and Safety training for subcontractor personnel.

# **106,000** man-hours of training in the five-year period 2006-2010

The **implementation** of vocational training programmes is achieved through various approaches, including:

In-house training seminars, with instruction by company executives or external consultants.

- Participation in seminars abroad organised by internationally recognised educational and training institutions, in local seminars organised by competent training bodies, and in other domestic and international conferences.
- Offering employees the opportunity -by covering the relevant costs- to attend academic courses (graduate or postgraduate programmes), as part of their personal development, or as preparation for undertaking increased responsibilities.
- Encouraging and funding foreign language learning for personnel, according to business requirements.
- Covering the cost of books, technical magazine subscriptions and professional society membership fees.

In-house training seminars, both at the refinery and at head office, are conducted in special facilities, fully equipped with state-of-the-art IT and presentation systems.

### Training and Induction of New Operators and Maintenance Technicians: an Integrated Programme

A specially organised multifaceted induction programme -covering both training and operational experience- is followed by newly recruited refinery operatives. This programme, with the appropriate theoretical and practical components, ensures that the refinery's future technical personnel acquire the requisite technical skills and capabilities, together with a sense of responsibility, which are vital for their work in a demanding and potentially hazardous environment. The approximately twelve-month induction training is conducted entirely in-house by refinery executives, engineers and skilled operators from various units of the refinery, according to the duties each new recruit will take on.

The induction training schedule and the subjects covered are as follows:

One month's training on core subjects (Properties and Specifications of Crude Oil and Petroleum Products, Refining Processes, Plant Equipment, Maintenance, Health and Safety, Environmental Protection, Quality, Fire Protection, First Aid, Technical English, an introduction to computers, etc).

- Five months' morning-shift experience with analytical on-the-job training.
- Six months' shift working, without assuming actual operational responsibilities, in order to gain experience. This also facilitates evaluation of new recruits' knowledge and experience, as well as their interest and dedication to the job, in view of a final assessment of their suitability for the specific position.

At the end of each of the three training stages, the new operators take a written test to evaluate their knowledge step-by-step.

After completion of the above programme, the new operators take up their jobs, working initially with experienced operators and undertaking simple tasks, before going on to assume their full duties.

A similar programme, adapted as appropriate, is also applied for the induction of newly-hired maintenance technicians.

# Training material



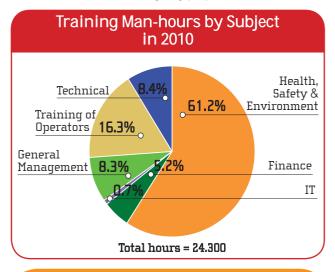
The Computerised Training Simulator (CTS) is an exceptionally effective training tool that contributes greatly to the refinery's safe operation. It is used to

train operators of the refinery's most complex plant (i.e. the Fluid Catalytic Cracking Complex), as well as operators of the Hydrocracker Complex.

The four-volume set of Technical Training Manuals, which was written entirely by MOTOR OIL refinery engineers and is fully adapted to the refinery's current structure and its products. Containing all necessary theoretical and technical documentation relating to this particular refinery, the manuals constitute a unique and comprehensive source of information for use in the training, in a structured way, of refinery personnel. They are also used in other cases, where the draw of information about the structure and operation of the refinery is necessary.

# Training in 2010

In 2010, a total 24,030 man-hours were devoted to education and vocational training -at an overall cost (including indirect costs) of 1.4 million euros- involving the participation of 1,328 employees (67% of the total workforce), of which 79 were managers and 1,249 other personnel. It should be noted that for the first time in this Report, the figure of training manhours includes training related to fire safety, use of Personal Protective Equipment and other related subjects throughout the Group's operations. However, it does not include training hours associated with emergency preparedness exercises.



Occupational Health and Safety, Environmental Protection and Quality were the principal subjects covered by training activities in 2010. Of these subjects, external training was provided to cover the relevant Management Systems, as well as other specialised topics. In-house training, mostly on Health and Safety issues, dealt with fire safety, use of Personal Protective Equipment, the development of safety culture, the provision of first aid and other specific topics.

External training programmes aimed at: the certification of refinery personnel on various techniques used in the inspection of refinery equipment, and the further training of various other categories of technical staff for improving their specialised skills on a number of specific subjects (e.g. on the use of simulation techniques so as to achieve greater efficiency in the performance of the refinery, the catalysts of the Fluid Catalytic Cracker Complex, the gas turbines, etc.).

Other external training courses aimed at personal development issues, law, personnel management, negotiating skills, sales and marketing, finance and accounting, foreign languages and information technology, for developing the administrative, technical and personal skills of the employees.

Finally, during 2010, in line with the policy on re-imbursement of tuition fees, 14 employees were assisted in their efforts to specialise in particular subjects, or achieve first degree or postgraduate qualifications in areas relevant to the Group's current operations.

# Training performance in 2010

- ✓ General Training Activity Ratio<sup>1</sup>: **13.2** hours/person
- ✓ Specific Training Activity Ratio<sup>2</sup>: **18.3** hours/person
- ✓ Training Cost Ratio<sup>3</sup>: 1.3%
- ✓ Training Participation Ratio<sup>4</sup>: 72.3%
- 1. Total training hours to total number of employees.
- 2. Total training hours to total number of trainees.
- 3. Total training expenditure to total payroll expenditure including employer's social security contributions.
- 4. Total number of trainees to total human resources.

# In-house Training Subjects at the Refinery in 2010

The instructors for these seminars are -according to the subject- refinery executives, or highly specialised external instructors, who are usually invited from abroad. The main subjects of the courses were:

- Training for new refinery operators.
- Training for in-house auditors for the ISO 17025:2005 standard.
- Operation and maintenance of steam traps.
- Operation and maintenance of gas turbines.
- Handling of hydrogen fluoride and related personal protection measures and equipment.
- Use of laser alignment tools.
- Risk assessment for hazardous substances and related occupational health effects, and the conduct of "safety behaviour" surveys.
- Re-training of those authorised to issue Permits-to-Work.
- Training in the use of special type servomechanisms.
- Principles and techniques of cost reduction.
- Electronic invoicing according to new legal requirements.
- Principles and techniques of welding.
- Maintenance of bearings.
- Special software for the management of fuel stocks and raw materials.



# II. Responsibility Towards Our Employees

# **B. HEALTH AND SAFETY**

**3.0** the Accident Frequency Index

# OHSAS 18001:2007

certification for the Health and Safety Management System

**12.6** million euros invested in safety projects

The nature of the Group's industrial and commercial operations -refining, storage, transportation and marketing of fuelscombined with our corporate principles and values, prescribe for an implicit commitment to achieving high standards of occupational Health and Safety. In order to secure the safety of the working environment, and the continuous improvement of health and safety standards in the workplace, we rigorously apply a soundlystructured Health and Safety Management System. On the other hand, our standing view to achieving the goal of "Zero Accidents", imposes that we train our staff, that we assess, control and anticipate occupational hazards, and that we make significant investments in order to ensure the integrity of equipment used at our facilities.

In 2010, our activities in the field of Health and Safety, in addition to other projects, focused on further embedding the principles of the OHSAS 1801: 2007 standard, with which the company was certified compliant in 2008; on further developing the safety culture, on enhancing the safety consciousness and the accident prevention mentality amongst our employees; on making investments in accident prevention projects; on improving fire prevention measures and on training. Accident statistics, although not as encouraging as those of 2009, remain in line with the long-term downward trend. We are committed to Health and Safety, as it constitutes a moral obligation and a business necessity

# B1. Health and Safety Management

Health and Safety at work and the elimination of occupational hazard is a moral obligation and a business necessity which goes beyond the narrow limits of a simple legal obligation. Our principal concern, arising from our **Health**, **Safety and Environmental Protection Policy**, is to take all necessary measures, and to implement all appropriate projects and programmes, for achieving our **established goals** for Health and Safety in the workplace, which are laid down as follows:

- To minimize the risk of major accidents to the lowest possible level.
- To eliminate occupational accidents.
- Constant monitoring and upgrading of the quality of equipment so as to ensure that conditions conducive to safe work operations are continuously improved.
- Effective protection of people (our personnel, contractors' personnel, our neighbours, associates and site visitors), as well as the environment and our own installations, from the hazards that may arise from the company's activities.
- Effective training of personnel and continuous efforts to establish a culture of safe working.
- Full compliance with regulatory requirements.

At the refinery, delivering on this commitment relies on the effective operation of the integrated *Health and Safety Management System*, which is certified compliant -since 2008- with the internationally recognised Health and Safety standard OHSAS 18001:2007. Group company OFC is also certified with this standard.





Component parts of the Health and Safety Management System				
Policy	MOTOR OIL's commitment to Health and Safety and a description of the arrangements for implementing the policy.			
Planning	<ul> <li>Specification of annual goals, programmes and investment projects for equipment upgrades, to ensure optimum performance with respect to both productivity and safety.</li> <li>Designation of responsibilities and accountabilities.</li> <li>Systematic identification, control and assessment of all risks associated with the hazards arising from the refinery's operations.</li> <li>Strict compliance with relevant legislation, with international standards and codes of practice and with established operational rules.</li> </ul>			
Implementation	<ul> <li>Visible and systematic management by competent executives at all management levels.</li> <li>Provision of appropriate and full training to all employees.</li> <li>Ensuring that all personnel, at all management levels, are aware of occupational risks and understand the protective measures required to control them.</li> <li>Strict application and documentation of procedures for operational safety and efficiency.</li> <li>Ensuring that all operations are carried out in full compliance with safety rules and regulations.</li> <li>Systematic recording of all incidents.</li> <li>Excellent cooperation and communication with public authorities and other stakeholders, including providing them with all relevant information.</li> <li>Systematic measurement of results and target setting, using established industry indicators, so as to ensure constant improvement in performance and identification of malfunctioning and of vulnerabilities.</li> <li>Carrying out of exercises for the updating of the company's <i>Emergency Response Plan</i>.</li> </ul>			

С	Component parts of the Health and Safety Management System				
Compliance monitoring and corrective actions	<ul> <li>Continuous inspections of all mechanical and other equipment in use, to ensure its operational integrity throughout its life-cycle.</li> <li>Regular auditing of safety procedures.</li> <li>Systematic investigation and analysis of all incidents.</li> <li>Communication of the results of risk assessments.</li> <li>Creating incentives for improved performance.</li> </ul>				
Continuous improvement	<ul> <li>Generating recommendations for improvement and revision of current arrangements.</li> <li>Management commitment to implementing improvements.</li> </ul>				

The operation of the *Health and Safety Management System* is assigned to the refinery's *Health, Safety and Environment Section.* Moreover, the Health and Safety organisation includes in-house safety engineers, occupational physicians and nursing staff – both at the refinery and at MOTOR OIL's head office – at a level that goes beyond the requirements of the relevant Greek legislation (Law 1568/1985 and Presidential Decree 17/1996).

In addition, there are also two institutional committees: the *Safety and Environment Committee* – consisting of refinery section heads; and the *Employee Health and Safety Committee* – established in accordance with the requirements of Law 1568/1985 – whose members are elected every two years by refinery employees.

Similar arrangements operate in the other companies of the Group, taking appropriate account of the particular conditions of each workplace.

During 2010, our efforts to achieve our Health and Safety goals were focused on the following:

B2. Technical Safety - Investments

- Realisation of the programme of horizontal and vertical inspections.
- Upgrading and improvement of work practices and procedures.
- Carrying out of hazard identification, risk assessment and risk control studies.
- Training of, and the development of safety consciousness in, our own and contractors' personnel, developing emergency preparedness and cooperation with stakeholders.
- Implementing suitable measures for the prevention of accidents during construction works of new projects, and in the course of carrying out the scheduled for 2010 refinery maintenance shutdowns.
- Investments in upgrading of, and improvements in, operating equipment.
- Appropriate registration of all refinery products according to the requirements of the European Union's REACH (Registration, Evaluation and Authorization of Chemicals) Regulation.



Improvements in working conditions and in the safety of the work environment are achieved by making the necessary investments in equipment, through the upgrading of existing or the introduction of new procedures, and by means of Health and Safety inspections.

The refinery design, construction and operation is in accordance with Greek and international regulations and standards. Nevertheless, a comprehensive investment programme in the proper maintenance of electrical, mechanical and electronic equipment and in technical upgrading and renewal of that equipment is continually implemented, taking account of developing technology, so as to maintain the highest possible standards of safety and accident prevention.

In 2010, for the Group as a whole, the cost of investments related to improvements in health and safety standards, and for the procurement of durable safety and medical equipment, was 8.1 million euros, while the cost of other, related expenses was 4.5 million euros. Thus the overall cost of investments and running costs amounted to 12.6 million euros in 2010, representing a 57% increase compared to 2009. This increase was primarily the result of the incorporation of the CORAL and CORAL GAS companies, but was also a reflection of increased costs at the refinery. It

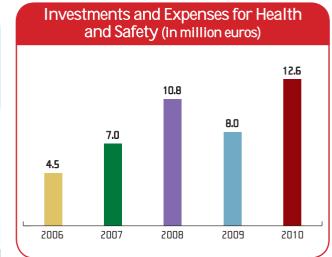
# 12.6 million euros

the investments and running costs related to health and safety improvements in 2010

should be noted that the above-mentioned figures do not include costs of routine maintenance -which have direct implications for safety- nor safety related components of

# 2010 Investments and Expenses for Health and Safety (in thou. euros)

Investments	8,094
Fire Safety	1,491
Emergency Response	378
Personal Protective and Medical Equipment	143
Risk reduction	5,940
Security	142
Expenses	4,492
Total in Investments and Expenses	12,586



investments related to work on major extensions and upgrades to the refinery, the total costs of which amounted to several million euros.

The greater part of the above-mentioned investments are associated with projects whose aim is to reduce the risk of accidents and to improve working conditions, as well as projects aimed at upgrading fire safety measures.



#### **B3.** Inspections

Planned Health and Safety inspections are essential procedures by means of which equipment and workplaces are continuously monitored to identify potential hazards, and they are given the highest priority. At the refinery, planned Health and Safety inspections are carried out by both internal inspection teams and external safety auditors, including Greek and foreign consultants.

Projects under construction are subject to daily, ad hoc inspections, while planned **Horizontal Inspections** -carried out by teams of different composition and mandate, comprising refinery executives and other competent personnel- are performed according to an annual schedule, as follows:

- Safety and Environment Inspections: Carried out by fourmember teams headed by a section head and including engineers and supervisors as members. There are 24 such teams, each responsible for inspecting, once a year, six of the 23 sections into which the refinery is divided for this purpose.
- Executive Safety and Environment Inspections: Carried out by teams headed by the refinery General Manager and including departmental managers and the Head of the Health, Safety and Environment Section.

Recommendations for improvements in working conditions and safety also arise following meetings of the *Safety and Environment Committee* and the *Employee Health and Safety Committee*.

The findings and recommendations arising from the abovementioned horizontal inspection procedures, and recommendations arising from meetings of the two committees, after evaluation, lead to appropriate technical or organizational measures being taken. In 2010, 708 new recommendations were put forward, while 720 were implemented (including some pending from the previous year), with another 164 recommendations pending at the end of the year.

Vertical Inspections were introduced in 2009; these are performed, on a three-monthly basis, by Section Heads,

### **B4. Safety Procedures**

Engineers and Supervisors from different refinery sections. Each section of the refinery will undergo four such inspections each year, one for every shift. In 2010, 216 new recommendations were put forward following vertical inspections covering all refinery sections; 133 recommendations were implemented (including some from the previous year) and 409 remained pending.

In addition to the above, **technical inspections and monitoring** of equipment carried out by the Technical and Maintenance Departments also have a safety dimension in that they lead to measures which reduce hazard and risk and contribute to the improvement of occupational health and safety conditions. The scheduling and management of such inspection/ monitoring and maintenance activity is based on the use of sophisticated computer systems -such as the Plant Condition Management System (PCMS)- that help to determine the most effective and safe technical operating conditions of equipment, combined with the most efficient use of resources.

Finally, the company takes special care to the operational readiness of the fire prevention system and the installed fire-fighting equipment. The routine, and periodically scheduled checking of these facilities is carried out according to a very carefully planned annual programme under the supervision of the Fire safety Service.



Technical integrity of equipment and safe working conditions are amongst the primary factors affecting safety in the workplace. Even more important is how individuals behave (the "human factor"). Refinery employees are able to perform their work

# Complying with Legislation

The company is fully aware of, and strictly complies with, all relevant Greek and European Health and Safety legislation, while also applies any relevant international standards, codes of practice and other operational norms, where these are judged likely to help achieve even higher standards of protection than would be achieved by legal compliance alone.

An online database containing all Health and Safety provisions of Greek law relevant to the refinery's operations is constantly updated and made available to all employees on the company intranet. This database is exceptionally important, not only for the legality of our operations, but also for safely not only as a result of the strict work procedures they are required to follow and as a result of having been provided with appropriate skills and competencies, but also because they have been trained so that their safety awareness is maintained.

the wealth of information it contains on a wide range of issues, including on hazard identification and control, on the drafting of emergency preparedness plans, on maximum acceptable levels of exposure to hazardous substances, etc.

Besides official regulatory documentation, the database contains other significant resources relating to refinery safety, including: all training material; the complete internal safety regulations for the refinery; hazard and risk assessment reports covering all individuals workplaces; specifications for all safety equipment (e.g. personal protective equipment -PPE- and fire fighting equipment), and material safety data sheets (MSDS).

# Hazard Identification, Risk Assessment and Control

We continuously seek to implement best practice in the identification of hazards to health or to safety in our workplaces, and to apply practices and procedures to eliminate them or to mitigate the risk of harm. The framework for hazard identification and control is provided by Greek legislation (Presidential Decree 17/1996) and by other European and international codes of practice.

- Systematic risk assessment studies have been carried out for all jobs, all workplaces and all hazard types within the refinery site and appropriate measures to eliminate hazards or to control risks to acceptable levels- have been taken. Whenever changes are made to workplaces or to working practices, these risk assessments are reviewed so as always to be up-to-date. In order to align practices with the requirements of OHSAS certification, these procedures underwent a further process of systematisation. Within each refinery section, occupational hazards and risks identified are classified into three categories according to the hazard level: *low, medium* or *high*. For each hazard category, a schedule for the completion of measures to eliminate hazards, or to reduce risk to as low as practicable, is determined as follows:
  - Low risk: measures to be put into effect within one year.
  - *Medium risk:* measures to be put into effect within six months.
  - High risk: measures to be put into effect within one week.

Personal responsibility for completion of these actions is allocated, and compliance with these schedules is monitored by the Health, Safety and Environment Section, while senior management is accordingly kept informed.

- We provide appropriate and adequate training to all our workers covering: information and instruction relevant to the hazards arising from their work, measures for the elimination of hazards or control of risk, correct use of personal protective equipment, safe working practices, appropriate emergency response procedures and first aid provision.
- We enforce safety rules in all situations so as to ensure full implementation of protective measures and compliance with safe working procedures. In this context, the protocol related to the issue of Permits to Work is particularly important in ensuring high levels of worker protection during the repair and maintenance operations; for this reason, the issuing of these Permits is the subject of continuous training activity, covering both those who issue them and those who receive them, both company em-



ployees and any sub-contractor personnel who may be involved in work activities on the refinery site.

- In order to properly assess risk associated with particular refinery operations, detailed hazard and operability (HAZOP) studies are carried out, as a matter of absolute necessity, for all new facilities and for all modifications to existing facilities, on a case-by-case basis. Similarly, fire prevention studies required by legislation are carried out and submitted to the competent authorities for approval.
- Specifications have been issued for all types of safety equipment (ie personal protective equipment, fire-fighting equipment, etc), and in order to facilitate its effective replacement as and when necessary, equipment types are so far as possible standardised. Safety equipment specifications are amended and updated in line with technological developments.

# Indicative actions in safety procedures during 2010

- A HAZOP study was conducted for the Catalytic Cracking unit, as well as studies on fire prevention measures for the new Sulphur Recovery unit, the new electrical substation at the port, a new tank and for the new gas turbine power generator.
- The implementation of the novel automated technique (introduced despite the higher cost involved) that allows crude oil tanks to be cleaned without the neces-

sity for personnel to enter them, thus entirely eliminating the associated hazards, continued.

Hot-works and work in confined spaces are subject to a programme of intensive auditing and inspection. Between five and seven such audits are carried out each day, and close to 2,000 such audits took place in 2010, including those carried out during shut downs for maintenance works.

- The radical revision of training material associated with Permit to Work arrangements covering 29 different job functions was completed. The aim was to ensure that the training takes account of recent changes to refinery installations and of changes in the course of action for various issues.
- The programme of monitoring and evaluation of contractors, regarding their compliance with the company's Health and Safety regulations while working on refinery premises, first introduced in 2006, continued in operation. A system of imposing penalties on contractors, who breach these regulations, is also associated with the above programme. Persistent breaches lead to a graduated scale of sanctions being applied, depending on the seriousness of the breach. An outcome of this programme is a sub-contractor reliability index, based on the evaluation of ascertained breaches.
- A Contractor Safety Regulation was established, as part of documented safety procedures, codifying the

existing requirements covering the written procedures contractors have to be aware of before they are issued with Permits to Work. The regulation lists the procedures to be complied with by the contractor for all types of work, as well as any additional required depending on the type of work to be carried out.

- An internal inspection, including evaluation of four Health and Safety procedures, a revision of twelve other procedures, and an issue of a new procedure were carried out. The new procedure describes how occupational health measurements relevant to plant operators' workplaces are carried out, so as to prevent any risks to their health, as well as the way by which the concentration of hazardous substances are contained within the limits anticipated by legislation.
- Fifteen Material Safety Data Sheets (MSDS) for refinery products were reviewed and four new ones were issued, in the context of implementing the REACH Regulation.

### Reports, Measurements and Indices

We systematically record, investigate and analyse all incidents (ignitions, accidents, near-misses) with a view to implementing corrective and preventive measures. Moreover, we strive to enhance our experience by studying investigations carried out following of serious accidents in similar facilities abroad, taking advantage of their conclusions and recommendations, as and when they are applicable to our own facilities. We systematically record and analyse all relevant operational data, which create a picture of our Health and Safety performance, so as to monitor this performance statistically. At the same time, through goal-setting and benchmarking on the basis of internationally-established performance indicators we seek to achieve continuous improvements and to highlight potential weaknesses and vulnerabilities.

# **B5. Emergency Response Plans**

Our emergency response arrangements are based on the *Emergency Response Plan*, which is regularly reviewed and updated to take account of expansions and other changes to the refinery's configuration changing legal requirements, and changes to "best practices" resulting from technical developments or experience gained by others in dealing with major or non-major accidents. We have also prepared and submitted studies to the competent authorities, in line with the requirements of the SEVESO II EU Directive, which describe significant potential accident scenarios and related prevention and confrontation measures.

The *Emergency Response Plan* describes, with particular reference to a major accident situation, the public health protection measures -including warnings for neighbouring communities, and related advice- that would be put into effect in the event that the Major Accidents Response Plans were activated; these plans are drafted by the competent authorities and determine how the state might intervene in emergency situations.



The *Emergency Response Plan* prescribes equipment, organization and facilities available (both internally and from off-site sources) to mitigate the effects of an emergency. Features of the plan include:

- The Mutual Aid Agreement whereby all Greek refineries co-operate in the event of an emergency, which dates from 1988. The effectiveness of this collaboration is ensured through joint exercises involving MOTOR OIL, the local fire brigade and the other refineries.
- The safety drills, organized weekly, and the preparedness exercises on dealing with major accidents that are organized several times a year. During these exercises, the Major Incident Response procedure is activated. Seven such exercises were carried out in 2010. Safety drills and major exercises contribute greatly to the training and preparedness of employees, and to the evaluation and modification of the plan itself. They also contrib-

ute to the assessment and upgrading of fire prevention equipment, since one of the outputs from these exercises, as far as fire safety is concerned, are recommendations for further improvements to fire safety facilities.

- The fixed and portable equipment for fire detection, firefighting, and leakage detection and containing, which are upgraded according to a regular annual investment plan.
- The availability on the refinery site of six fire engines and one 12,000-litre bulk foam tender, that are available on 24-hour standby, and are operated by trained firefighter crews.
- The existence of alternative locations for the Incident Control Room at four different strategic points on the refinery site, and the availability of a state-of-the-art emergency telephone system that provides for refinery staff to be contacted at times of emergency outside of normal working hours.

# **B6. Medical Services – Health Protection**

For refinery personnel we have in place a programme of inoculations and regular medical examinations (including blood tests, X-rays, cardiograms, eye tests, etc.). A comprehensive occupational health service is provided at the refinery, with the appropriate personnel and material resources in place to provide medical and first-aid services, including:

- The central medical centre, housed in modern premises covering around 100 sq. metres, staffed by an Occupational Physician and nursing staff, where all necessary hospital equipment for emergency treatment is available. It has five patient examination/first aid beds, as well as one fully-equipped, short-term treatment ward.
- A pharmacy stocked with all necessary medicines, surgical dressings and other medical equipment.
- A suitably-equipped first aid station at the Alkylation Unit, where there is medical assistance available on a 24-hour basis.
- Three suitably-equipped first aid stations (located in the Central Control Room, the Chemical Laboratory and the Hydrocracker Complex).
- Equipment for the production of electrocardiograms (ECG) to cover situations where there is an emergency requirement for cardiological examination, which makes it possible for ECG reports to be transferred to a special Cardiology Centre for acquiring an immediate diagnosis and recommendations for treatment from a specialist Cardiologist.
- Three fully-equipped ambulances.

Fire-fighting crews are also trained in rescue practices and in first aid provision.

Specifications have been issued covering Personal Protective Equipment supplied to employees. These specifications are aimed at facilitating the effective replacement of this equipment, and its so far as possible standardisation; these specifications are amended and updated in line with technological developments and relevant EU specifications.



The quality of drinking water is subject to periodical analysis by an independent laboratory, and staff working at the refinery's restaurant are subject to periodical medical checks as required by law.

A medical centre, staffed by two doctors, is available on the company's head office premises to cater for the needs of MOTOR OIL and AVIN OIL personnel located there. An occupational health service and arrangements for general medical procedures and screening examinations are also in place for the benefit of other subsidiary companies of the Group (CORAL, CORAL GAS and OFC).

Finally, the effective protection of employees from exposure to toxic substances that might harm their health is monitored through workplace concentration measurements, in accordance with the provisions of the relevant legislation. In 2010, a special procedure for the regulation of these measurements was instituted. Workplace monitoring carried out in 2009 demonstrated that, in respect of all samples of chemical substances taken, concentrations were below official occupational exposure limits.

### **B7. Planned Shutdowns – New Projects**

Every year, planned shutdowns of refinery units take place which are necessary to allow for periodic maintenance to be carried out and thus ensure their reliable operation, both in respect of efficiency and in respect of safe operation, while new projects construction works are constantly carried out. These shutdowns can be large-scale and lengthy -as was the case with the major shutdown that took place in 2008- or smaller, as was the case with those that took place in 2009 and 2010.

Such extended shutdowns of refinery units require vigilance, and special precautionary safety measures, because of the greatly increased risk of accidents. Careful planning and continuous supervision are required during the shutdown period in order to prevent accidents. Measures taken include: provision of information to all those involved for ensuring they are aware of the necessary safety measures and for empowering their safety awareness; daily co-operation with site managers for identifying hazards or unsafe conditions and for the concomitant implementation of remedial measures; and daily site safety inspections.

Inspection teams are established at such times, headed by executives from the Health, Safety and Environment Section and staffed by engineers from the Technical Department, according to the specific circumstances and the type of unit being shut down. The teams are charged with the duty of continuous monitoring of the maintenance works with respect to application of safety rules, so that immediate corrective measures can be taken if any irregularities arise.

In 2010, construction of two major projects was completed without any serious incident: the new Crude Distillation Unit and the new Sulphur Recovery Units. In addition, three planned refinery unit shutdowns were carried out in complete safety, while two unplanned shutdowns were successfully handled with no accidents occurring, through the application of a similar range of preventive measures.



#### **B8. Training, Safety Awareness and Cooperations**

The continuous training of our employees, their updating with the required information, the creation of a high level safety awareness, together with the technical and organisational measures are the essential pillars for accident prevention and the maintenance of a safe work environment. This fundamental approach underpins the *Health and Safety Management System* of MOTOR OIL.

Considerable emphasis is placed on the systematic supply of Health and Safety information to sub-contractors who are materially involved in carrying out various refinery site works, in particular relating to the general principles of accident prevention and the safe work procedures of the company, the aim being to ensure the safe execution of their work assignments. In addition, the leaflet *Safety Instructions for Visitors*, handed over to visitors upon their entrance to the refinery aims at providing them with what they need to know.

The general content of Health and Safety training includes the following subjects:

- Ignitions, fires, fire safety and use of fire-fighting equipment.
- Carrying out preparedness exercises.
- Permits to Work.
- Work in confined spaces.
- Identification of occupational hazards and risk evaluation.
- Personal Protective Equipment.
- Classification, packaging and labelling of hazardous substances.
- Material Safety Data Sheets.
- Emergency response procedures and participation in relevant drills.
- First-aid.
- Cleanliness ergonomics.
- Presentations analyses of accidents occurring abroad.
- Safe road transport of fuels.

Health and Safety Training Data for 2010					
	MOTOR OIL	Other Companies of the Group <sup>1</sup>			
Employees	1,267	716			
Employees trained	817	221			
Employees training man-hours	12,110	2,764			
Sub-contractors trained	202	434			
Subcontractors training man-hours	1,616	4,338			

1. AVIN OIL, CORAL, CORAL GAS and OFC

In 2010, special emphasis was placed on: fire safety training; training of new operators of refinery units; safety procedures relating to hydrogen fluoride; the training/ certification of those issuing Permits to Work (i.e. company personnel), and those being issued with them (i.e. subcontractor personnel); occupational health procedures; safe road transport of fuels; and on a number of other special themes:

# Fire Safety Training

In order to improve the readiness of refinery personnel to respond to emergency situations, as well as to rehearse the procedures of the *Emergency Response* Plan and check the operability of equipment, regular emergency preparedness exercises are carried out. The 2010 programme included 12 field training sessions and 40 actual drills (one per week), of which seven evolved into Major Incidents, for testing the preparedness to respond to such emergencies. About half of these drills were pre-announced and pre-scheduled, while the rest were unexpected and impromptu, i.e. with no warning of the date, time, location or scenario, involving the deployment of emergency response equipment as well. The pre-scheduled drills took place in various areas of the refinery and the fire crew training field, involving rehearsal of fire crews in the theoretical and practical aspects of their duties, and their familiarisation with fire-fighting equipment and related Personal Protective Equipment. A number of desktop exercises were also carried out in the control rooms of various sections of the refinery -covering all shifts- involving employees working in the relevant area and the fire-fighting crews, covering a range of fire safety themes of special interest.

The duty engineers at the refinery take part in the fire safety exercises, with the main focus of training being the response to Major Incidents and the management of crises.

Following the fire-fighting training in 2010, 19 suggestions for new projects to improve fire protection were put forward, of which five were implemented immediately, while the remaining 14 -requiring a more detailed technical study- were classified into the annual capital investment programme of the refinery.

#### In addition, in 2010:

For the constant upgrading of the competence level of



fire fighting crews, and the training of new operators as reserve crews, the routine six month programme of courses was ran, involving 120 sessions in a six month period. In addition, five new fire-fighting leaders were also trained.

- All shift-workers passed the annual training in the use of Respiratory Protective Equipment.
- The weekly training of the rescue team continued in operation.
- Fire engine drivers training aimed at maintaining their competence level, and at ensuring familiarity with road access to the sites of new units. Similar training was provided for new fire engine drivers to ensure familiarity with both the vehicles and the access roads within the refinery.
- Finally, all refinery staff not employed in the production units, received training in the use of fire extinguishers.

#### II. Responsibility Towards Our Employees - Health and Safety

- Induction training for new operators of refinery units and new maintenance technicians (see section concerned with education and training in the *Human Resources* chapter).
- Re-training and re-certification of 107 foremen from among the refinery workforce who are authorised to issue Permits to Work. Because of the exceptional importance attached to the comprehensive training of Permits to Work issuers, they have to complete this course every three years. The training covers all aspects of Permits to Work issuance, without exception. On completion of the training, participants have to satisfactorily undergo and pass a written examination, otherwise they can no longer be authorised to issue permits. In 2010, an extensive review of the training material was carried out and the syllabus was extended so as to include new subjects, including, work on tank roofs, loading and unloading of Road Tankers, and the sub-contractors "atelier".
- The structured and focused efforts to provide information to employees of contractors continued in 2010, covering:
  - A training programme (including provision of information, question-and-answer sessions, recording results in a database, issuing certificates of attendance on the course) for all employees of contractors who are issued with Permits to Work. The general component of this training concerns Health and Safety matters relevant to aspects of refinery work, while a further, specialist component addresses 29 different types of jobs. Approximately 162 people attended the eight-hour programme in 2010, adding to the 778 who had received the training in the previous years. In total, therefore, 940 individuals have received this training. A further 40 individuals were retrained in additional specialist subjects.
  - Toolbox Meetings that are held on the first Monday of every month, attended by the subcontractors working on the refinery site at that time; they are concerned with Health and Safety issues relevant to the work they are engaged on, and -mainly- provide an opportunity for discussion about irregularities noted during workplace inspections.
- In order to raise safety awareness among refinery personnel, safety messages and posters, the results of accident and near-miss investigations, etc, are displayed on 13 Health and Safety notice boards, reserved for this purpose, and located throughout the refinery site.
- Since the end of 2008, instruction of unit operators on specific safety issues has been carried out using training videos shown on TV monitors located in the various refinery sections. Operators are able to watch the videos at a time that suits them, but on the basis of a pre-determined schedule. In 2010, the target of this programme, (achieved to at least the extent of 80%), was for the technical refinery staff to watch a widely-known video, relating the experience of a work accident suffered by Charlie Morecraft, which covered the consequences for him and his family due to the extraordinarily long and very painful recovery period that followed the accident.



- Special information/training session-presentation was organised for operatives working on the Alkylation unit, and for maintenance personnel involved with that unit, covering safe handling procedures for hydrogen fluoride.
- Foremen and engineers participated in a series of presentation-discussions concerned with incidents that had occurred at the refinery – analysing their causes, the consequences and corrective actions taken.

Cooperation with other stakeholders is a necessary element of the responsible handling of Health and Safety issues. For this purpose, Greek Refineries Cooperation Meetings on Health, Safety and Environment issues are organized and attended by representatives of the refineries, the competent ministries, local government, the fire department, academics and other stakeholders. MOTOR OIL specialists are actively involved in these meetings, making presentations on various topics. These meetings promote cooperation and synergy in a field where there are great possibilities for exchange of knowledge and experience.

The 30th Cooperation Meeting in this series, held on 2-3 December 2010, was organised by KAVALA OIL AE. MOTOR OIL participants included Mrs E Stepha and Mr L. Katechis of the Health, Safety and Environment Department, and the occupational physician Dr I. Bartzis. Their presentations covered: (a) Handling of sulphur at the refinery, (b) Incidents – causes, consequences and corrective measures, and (c) Data on the effects of aromatic hydrocarbons, cardiovascular diseases.

Finally, the company's cooperation with the First Search and Rescue Team (EMAK) of the Elefsina Fire Brigade, should be mentioned. EMAK officers provide invaluable training to the refinery's Emergency Rescue Teams and generously pass on their experience relating to the rescue of people from high above the ground and inaccessible parts of the refinery.

# Road Safety Training

Fuels are a category of hazardous materials and their safe transport requires precautionary measures to be taken at three levels, i.e.:

- The maintenance of a high technical standard of transport equipment, in particular the safety and reliability of Road Tankers.
- The promulgation and implementation of strict safety procedures and the monitoring of their implementation.
- The continuous upadating and training of Road Tanker drivers.

The Group's commercial companies -AVIN OIL, CORAL and CORAL GAS- in running their business operations in a responsible manner, have always strived to ensure that the above precautions are taken, and that the regulations prescribed by the state and by the oil industry itself are maintained. In order to achieve this goal, the they have established Integrated Transport Safety Systems encompassing the registration and monitoring of all Road Tankers involved in the transportation of fuels for their own account, (which applies to both the company owned vehicles and those owned by subcontracted freight companies), and the training of all drivers that are engaged in the operation of these Road Tankers.

A thorough annual safety check is carried out on all Road Tankers in accordance with the requirements of the Regulation for the "Safe Road Tanker Loading at Fuel Terminals", issued by the Hellenic Petroleum Marketing Companies Association (SEEPE). This check extends to the full compliance with the terms included



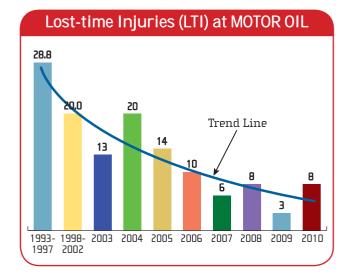
in the European Agreement concerning the Carriage of Dangerous Goods by Road (ADR).

A continuous training programme is available encompassing the following main themes: cautious and safe driving skills; loading and unloading procedures; antiskid precautions (i.e. the handling reactions in a skidding incident); anti-rollover precautions (i.e. the handling reactions of avoiding a rollover); the chemistry of fuels; dealing with customer complaints; the vehicle safety equipment; vapour recovery; and others. A part of this training programme is covered in every year, so that both new and existing drivers will receive full training every 2-3 years.

During 2010, within the framework of implementing these Integrated Transport Safety Programmes, more than 340 Road Tanker drivers (both company staff and subcontractors) passed through this training programme.

# **B9. Safety Indices**

The extent to which the *Health and Safety Management System* operates successfully is reflected in trends in the



most important safety indices, i.e. the number, frequency and severity of lost-time injuries, which have shown a clear downward trend over time.

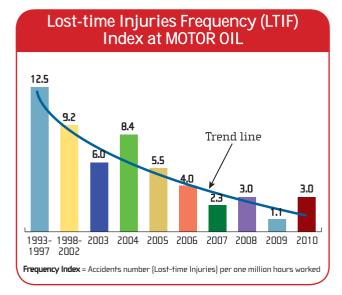
At MOTOR OIL sites (i.e. the refinery and head office) eight Lost-time injuries were recorded in 2010 - in line with the targeted level for the year- compared with three in 2009.

The *Lost-time Injuries Frequency Index (LTIF)*, which had been quite low in recent years, recorded a value of 3.0 in 2010 -in line with the targeted level for the year- compared with 1.1 in 2009.

The above-mentioned data should be considered together with the value of the *Lost-time Injuries Severity Index* (*LTIS*) that increased in 2010 to 0.7, from 0.1 in 2009, compared with the level that had been targeted of 0.5. This indicates that accidents in 2010 were more serious than those occurring in 2009 (they were associated with a greater number of working hours lost).

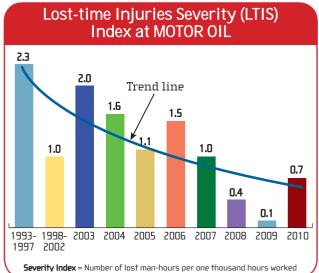
Lost-time injuries were thoroughly analysed so as to identify causes and the preventive measures that need to be taken. The company's management has instructed that safety instructions to staff should be more effectively implemented, and that technical and organisational preventive measures should be strengthened -notwithstanding that accident frequency and severity indices have been within targets, and that long term trends remain downward- so that we remain firmly committed to the endeavour for *"Zero Accidents"*.

These statistics relate to the company's own employees and do not include Lost-time accidents involving subcontractors' employees, the level of which remains very low: although two such accidents were recorded in 2010,



there was only one in 2009, and there were none in 2008, one in 2007, one in 2006, five in 2005, four in 2004 and nine in 2003.

Finally, it has not been deemed necessary for the other companies in the Group to be included in the above graphical analyses, given that in the five year period 2006-2010 only one Lost-time accident was recorded at AVIN OIL (in 2008), while none have been recorded at OFC, during its two years of being a member of the Group, and none as well at CORAL, or at CORAL GAS, during their six months with the Group.



# B10. The REACH Regulation

The European Union REACH Regulation (Registration, Evaluation and Authorization of Chemicals) came into force on 1 June 2007. The Regulation completes the existing body of European Union legislation on the assessment and control of potential effects of chemicals on human health and the environment. It has transferred to industry the responsibility for researching the potentially harmful effects associated with the production, transport and use of its products; the legal framework that it introduced has immediate implications for producers, importers and users of chemical substances and preparations in the European Union.

In the years since the Regulation came into force, numerous research institutes and other bodies of the chemical and related industries have been working intensively to register on time with the European Chemicals Agency the chemical substances which are produced and supplied in the European Union, having characterised and quantified the risks to human health and to the environment that might arise during the entire "life cycle" of those materials. The ultimate goal is to prohibit the import into, or the production within, the EU of any unregistered substance at any quantity above one ton a year. 2010 was a significant year with the completion of the first registration phase of the Regulation: substances produced or imported in quantities greater than 1,000 tons per year, or which are classified as dangerous to man or the environment, were the first to be registered with the European Chemicals Agency.

MOTOR OIL successfully completed in a timely manner the required registration of substances it produces or supplies; this was achieved through the mobilisation of inhouse expertise and involvement with external collaborators. However, the REACH procedures initiated in 2007 continue. Currently, during the evaluation stage -when dossiers submitted to the European Chemicals Agency are being scrutinised- MOTOR OIL, through its participation in industry bodies and consortia (CONCAWE, FERC, MERC), remains ready to fulfil any further requirements that may arise. At the same time, the company has started work on the process of adapting the Material Safety Data Sheets associated with its products, so as to comply with the requirements of the new standards of the Globally Harmonised System for classification and labelling of dangerous substances.



# B11. Security Measures – Port Installations

We take all necessary preventive measures to protect our installations against possible security threats, both deliberate and non-deliberate. Those of our personnel responsible for this protection are suitably trained, both in security and safety matters, so as to be able to effectively and swiftly fulfil their responsibilities, being fully aware of the duties assigned to them, while at the same time fully respecting individual freedoms and fundamental human rights.

We give the highest priority to security measures relating to our port facilities in order to prevent any incident whatsoever, which apart from any other consequences, may also cause accidents or marine pollution. It should be noted that, in 2004, MOTOR OIL became the first Greek company to be certified by the Ministry of Mercantile Marine for compliance with the International Ship and Port Facility Security (ISPS) Code, which is applied according to the requirements of chapter XI-2 of the International Convention for the Safety of Life at Sea (SOLAS). The accreditation is reviewed each year, in accordance with the existing legislative provisions.

In accordance with the ISPS code requirement, that exer-

cises should be carried out at least every sixteen months to test preparedness for marine pollution incidents, an emergency exercise was carried out in 2010, in cooperation with local port authorities, to test the response to a significant pollution incident scenario (see *Responsibility for the Environment* chapter); the exercise confirmed that the arrangements in place, are adequate and quite effective.

The revised *Port Information and Regulations* became applicable in year 2007. We consider the existence of these regulations, which are specific to our port and codify in a single volume all the requirements for the safe docking of vessels at our terminal -according to Ministry of Mercantile Marine guidelines, and international codes and conventions- to be a prerequisite for the best possible protection of both our installations and the vessels themselves. The *Port Information and Regulations* consolidate all provisions arising from the ISPS Code, while describing clearly and in detail our minimum requirements relating to safety and security, as well as the measures to be taken to avoid pollution.

# III. Responsibility for the Environment

14.4% reduction in specific carbon dioxide emissions and 14.9% in specific energy consumption

**37.6** million euros in investments and expenses for the Environment

**Best Available Techniques** and state-ofthe-art environmental protection technology for all new units commissioned in 2010 Respect and care for the environment is a common denominator in all activities of the MOTOR OIL Group. We operate competitively but, at the same time, as a responsible corporate organisation we espouse the principles of sustainable development; that is, development which is based on environmental protection, mutual respect and responsibility towards future generations. For these reasons we continue with investments aimed at the steady improvement of our environmental performance.

In 2010, the construction of the new crude oil Distillation unit, as well as of the new Sulphur Recovery units, was completed, which incorporate Best Available Techniques and

# **1. ENVIRONMENTAL MANAGEMENT**

Our principal aim is to ensure that our facilities operate in the most energy efficient manner possible, to minimize emissions of greenhouse gases and other pollutants, to function within the framework of approved environmental terms, to rigorously adhere to the relevant Greek and European legislation, and to implement projects and actions that go beyond the basic legal compliance.

Selection of the most efficient means and measures to reduce environmental impact covers the entire spectrum of our activities; from the selection of technologies when building new process units, to the practices applied during the refinery's daily operation, and from the use of advanced process control systems to the training provided to employees working at the refinery.

# Environmental Management System

The focal commitment of the company to the minimization of the environmental impact resulting from its operation, is expressed through our *Health, Safety and Environmental Protection Policy*. Our commitment could not be realised without the application of an effective environmental management system that has been certified compliant with international standards. This system ensures that environmental performance is measured systematically and that activities requiring intervention and improvement are identified. Thus, the **principle of prevention** is successfully implemented and resources are allocated so as to achieve the maximum possible environmental benefit.



# **Environmental Objectives**

The *Environmental Management System* is an effective tool for implementing and monitoring compliance with the various environmental protection policy objectives, which are:

- Keeping abreast of, and fully compliant with, all Greek and EU environmental protection legislative requirements.
- Distributing products that comply with the European environmental protection norms, by taking steps to



state-of-the-art environmental protection technologies. We invested 37.6 million euros in both large and small projects, which directly or indirectly contribute towards environmental protection. These included the improvement of the energy efficiency of the refinery, which had significant positive results. Our environmental footprint -as measured by declining specific energy and water consumptions, and specific carbon dioxide and sulphur dioxide emissionscontinued dropping off. In addition, we revised a number of the Environmental Management System procedures, and published our voluntary Environmental Statement 2009, in accordance with the EMAS ER 761/2001 regulation.

*Applying the principle of prevention, we protect the environment and minimise our environmental footprint* 

upgrade production facilities accordingly.

- Operating the refinery facilities within the framework of approved environmental terms.
- Planning and implementing investment projects with due regard for the need to minimise environmental effects.
- Applying Best Available Techniques to the greatest possible extent.
- Monitoring and continually minimising the emissions of greenhouse gases, as well as those of other pollutants, and of solid and liquid waste, as far as technically and economically possible.
- Monitoring and, as far as possible, minimising, the consumption of energy.
- Pre-empting risks of environmental pollution, reducing the probability of environmental accidents, and preparing, implementing and testing the appropriate emergency response procedures.
- Training of, and awareness-raising among, all our personnel and contractors' employees who work on our premises, on the implementation of our environmental protection policy.
- Evaluating our environmental performance and continuously improving our *Environmental Management System.*
- Developing communication and dialogue with all stakeholders, especially with local communities in areas around the company's facilities.

The company's *Environmental Management System* was first ISO-certified in 2000, according to ISO 14000:1996. In 2004 it was certified compliant with ISO 14000:2004, in 2007, it was certified compliant with the new version ISO 14001:2004, while in 2008 the certification expanded to include the production, trade and delivery of biofuels, asphalt and special petroleum products. In 2010, the system was re-certified, by Bureau Veritas, confirming compliance with ISO 14001: 2004.

The *Environmental Management System* is part of the *Integrated Management System*, which is ISO 9001:2008 certified for quality. Therefore, the various internal operations and procedures of the *Environmental Management System* are themselves subject to the strict documentation imposed by the ISO 9001:2008 standard.

Our commitment to making public any data relating to our environmental performance and the effects arising from the operation of our facilities, as expressly mentioned in our Policy for the Environment, has led to the voluntary adoption and application of the *European Eco-Management and Audit Scheme (EMAS)*, as foreseen by European Union Regulations 761/2001 and 196/2006. This system requires that we implement appropriate procedures for the identification of the material environmental impacts arising from our activities, and define strategies and implement programmes to mitigate them, insofar as is reasonably possible.

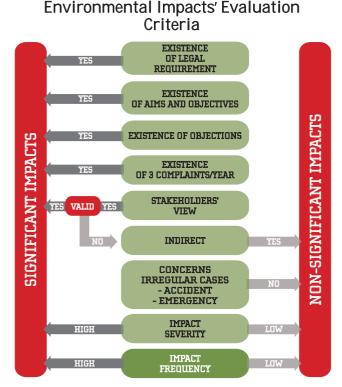
Additionally, within the framework of EMAS, the company is committed to publishing, on an annual basis, information about its environmental performance in the form of an *Environmental Statement*, as required by its membership to the Eco-Management and Audit Scheme System, an arrangement that has to be endorsed annually by decision of the Ministry of the Environment, Energy and Climate Change. In 2010, MOTOR OIL issued its BV-certified *Environmental Statement 2009*, its fourth such annual report. It should be noted that, in the oil refining sector, the triple combination of certified compliance with ISO 14001:2004 and EMAS, in respect of environmental performance, and ISO 9001:2008, in respect of quality management, is particularly significant and provides advantages at many levels. Such multiple certification is unusual among European refineries as complex as MOTOR OIL's.

In 2010, as part of the ongoing effort for developing and improving the *Environmental Management System*, seven procedures were subjected to a review, while work began on the review of a further four. The main trigger for these reviews was the approval, in 2009, of the refinery's new Environmental Operating Terms (ministerial decree 145996/22.6.2009). As a result of that decision, all the operations of the refinery -including ancillary facilities such as the Truck Loading Terminal and the port facilitieswere brought within the scope of the EU directive 96/61/EC, relating to Integrated Pollution Prevention and Control (IPPC), and directive 2001/80/EC, on the control of atmospheric emissions of large combustion plants.

The new Environmental Terms applying to the refinery require the operation of an integrated monitoring and control system, aiming at the prevention and avoidance of air and water pollution, or the contamination of soil, and ensuring the most effective means are adopted to deal with all environmental protection aspects of the refinery's operations.

# 2. MANAGING ENVIRONMENTAL IMPACTS – ENVIRONMENTAL CHALLENGES

MOTOR OIL, in striving to continuously improve its environmental performance, over and above consistent legal compliance, implements a programme of measures for the **prevention and response to** the environmental impacts that are unavoidably associated with its operations. An important tool in this endeavour is the measurement, regular evaluation of results of, and the systematic assessment of the environmental impacts at all stages of the production process. This assessment is based on a set of criteria -including legislative requirements and stakeholder views- which lead to the classification of impacts according to their significance and their characterisation as *significantor non-significant*. This classification procedure is also carried out whenever there are any changes to the refinery's configuration, re-evaluating the classification and characterisation of the impacts.





This procedure for classifying the environmental impacts associated with the refinery's operation, and their severity classification, has led to the following impacts being classified as *significant*, therefore constituting the challenges we are called upon to manage:

- Gas emissions from fixed combustion sources and from the refinery's production processes.
- Energy and water consumption.
- Hazardous and non-hazardous solid waste.
- Liquid industrial effluents and urban waste.
- Noise.

The above environmental impacts are recorded on a regular basis, and suitable environmental indexes are used for their monitoring, on the basis of which the appropriate actions are planned and implemented so as to ensure that proper measures are taken, and that there is effective management and continuous improvement of the company's environmental performance.

When new projects are being planned, alternative designs are evaluated taking account of their respective environmental impacts, with the aim of minimising these impacts as far as practicable, incorporating *Best Available Techniques* and choosing the most environmentally friendly solution.

# 3. ENVIRONMENTAL INVESTMENTS AND EXPENSES

The company's investment policy is oriented towards producing products that comply with European quality specifications, using technologies that minimize environmental impacts, and towards capital investments aiming at improving and enhancing the refinery's environmental performance.

Between 2000 and 2010, the Group realised a massive investment project, totalling 1,166.3 million euros (as shown in the table below), the major part of which related to the construction of the new Crude Distillation Unit with its peripheral facilities, which was commissioned in May 2010, as well as the Hydrocracker complex, and its associated facilities, which produces "clean fuels" (i.e. of low sulphur content) satisfying the EU specifications that came into force on 1.1.2009. Investments in "clean fuels" absorbed 39.2% of total capital investment, while investments for the further improvement of environmental performance absorbed an additional 14.3%. In total, environment-related investments amounted to 624.1 million euros, or 53.5% of the total investment programme.

In 2010, total investments amounted to 123.2 million euros, of which 33.0 million euros (26.8% of the total) concerned projects whose main purpose was the improvement and protection of the environment.



Group Environmen	tal Investi	ments and	d Expens	es 2000 -2	2010 (in n	hillion euro	os)
Year	2000-2006	2007	2008	2009	2010	Total	Percent
Total Capital Investments	714.8	51.4	78.4	<b>198</b> .5	123.2	1,166.3	
Environmental Investments	524.8	21.9	16.7	27.7	33.0	624.1	53.5%
- For "Clean Fuels"	456.3	0.0	0.0	0.5	0.0	456.8	39.2%
- For Improving Performance	e 68.5	21.9	16.7	27.2	33.0	167.3	14.3%
Environmental Expenses	15.5	2.9	4.0	4.3	4.6	31.3	
TOTAL OF ENVIRONMENTAL	540.3	24.8	20.7	32.0	37.6	655.4	

2010 saw the commissioning of the new Crude Distillation Unit, the design of which satisfies the latest European specifications for environmental protection and safety, while incorporating Best Available

# 655 million euros in environmental investments between 2000 and 2010

Techniques, and making particular provisions for enhanced energy efficiency. Furthermore, in 2010 the construction of the new Sulphur Recovery units and of the new reverse osmosis Desalination plant were completed, which further improve the refinery's en-

vironmental performance, while the completion of the upgrading of the lubricants production complex involved the replacement of compressors and heat exchangers with new more energy-efficient units. At the Power Cogeneration Plant, work progressed on the installation of the fifth gas turbine, after completion of which the expanded refinery will be self-sufficient in energy and thus more energy efficient. Also progressing was the upgrading of an Amine (MDEA) Regeneration unit that will improve the efficiency of the sulphur recovery system. In addition, a series of other projects were implemented during the year, within the framework of the energy efficiency improvement programme, concerning the reduction of energy consumption, and subsequently of carbon dioxide emissions as well. Finally, new measurement devices were purchased and installed for improving the emissions monitoring system.

# 4. BEST AVAILABLE TECHNIQUES

*The Integrated Pollution Prevention and Control (IPPC)* Directive (96/61/EC), prescribes an integrated system for prevention and control of pollution that may be caused by industrial activities.

This directive introduced the concept of *Best Avail-able Techniques (BATs)* into legal requirements. BATs are techniques that can prevent (primary prevention measures that are intrinsic to the production process itself), or control (secondary measures or "end-of-pipe" techniques) -in a most efficient manner- the pollution caused by an industrial activity, while being economically feasible and technically practicable. Best Available Techniques for various sectors are prescribed in the relevant *Best Available Techniques Reference Documents (BREFs).* 

MOTOR OIL incorporates the above-mentioned techniques, both during the design of new refinery units and when existing facilities are upgraded, in order to minimise the impacts arising from their operation. At the same time, the company incorporates automations and control systems into the operation of the refinery, that contribute to efficient management of raw materials and energy, while ensuring high levels of reliability and safety in the units. Finally, Best Available Techniques that reinforce pollution prevention capacity have been adopted, and are applied in the refinery's daily operations.

Some typical examples of BAT applications are shown in the following table:

Production of Fuels and Lubricants	Ancillary Facilities
Hydrocracker complex	Use of natural gas
Upgraded pre-heat furnaces	Electricity cogeneration
Maximisation of refinery-gas recovery	Low-NOx burners
Upgrading of Amine Regeneration unit	Reverse osmosis desalination technology
New Sulphur Recovery units and closed-circuit sulphur management	Optimisation of crude oil preheating circuit
Crude oil desalting water re-use	Forced draft furnaces
Optimisation of crude oil desalting	Optimised steam circuit
Environmental Protection Systems	Control Systems
Sour Water treatment units	Distributed Control System (DCS)
Nasta Water Treatment Plant	Dowor Management System (DMS)

- Waste Water Treatment Plant
- Electrostatic filter at the Fluid Catalytic Cracking unit
- Vapour recovery system at the Truck Loading Terminal
- Power Management System (PMS)
- Advanced Process Control (APC)

#### **Daily Operation**

Leak Detection and Repair (LDAR) programme for detecting and controlling fugitive emissionsAutomated tank cleaning method

Heat exchanger maintenance and cleaning programme

# 5. CLIMATE CHANGE

Climate change is one of the most important global challenges – for human health, for social cohesion, for economic development and for the security of food supplies.

According to the *Intergovernmental Panel on Climate Change (IPCC)*, changes to the climate itself (increased average temperature, changes to atmospheric conditions, etc.), and the effects of such changes (altered ecosystem composition, reduced polar ice caps, observed variations in the duration of each season, etc.) are already clearly detectable.

It has been widely accepted that the principal cause of climate change is the increased concentration of anthro-

pogenic greenhouse gases in the atmosphere: most importantly carbon dioxide (CO<sub>2</sub>), but also methane (CH<sub>4</sub>), chlorofluorocarbons (CFCs), sulphur hexafluoride (SF<sub>6</sub>) and nitrous oxide (N<sub>2</sub> $\square$ ). The urgency of the situation is underlined by the fact that carbon dioxide emissions have increased approximately 12-fold in the last 100 years.

In order to avoid increases to the earth's temperature, it is necessary to stabilize the concentration of greenhouse gases in the atmosphere, which means that by 2020 the emissions will have to be reduced by at least 20% compared with 1990 levels.

### MOTOR OIL's Position

MOTOR OIL recognises and shares society's concerns over the effects of anthropogenic activities on the environment, and the likely consequences of climate change.

Our belief is that measures to confront the phenomenon of climate change, of necessity, have to extend beyond national and political boundaries and require cooperation, and coordinated action, at a global level, while a strong commitment to action is required from all stakeholder groups, including consumers. Intensive and targeted dissemination of information on issues related to the rational use of energy -as well as of the other resources that are becoming insufficient, such as water- and the associated attitudinal changes, are necessary if these initiatives are to succeed.

To address these challenges -in line with our commit-

ment in carrying out our business in a responsible manner and according to the principles of Corporate Social Responsibility and sustainable developmentwe are committed to:

- Measuring and improving, on a continuous basis, our performance with respect to the use of energy and the reduction of greenhouse gases emissions.
- Investing in the application of economically feasible technologies that contribute to the reduction of emissions.
- Cooperating with the competent state authorities and other stakeholders in planning and implementing technologically feasible and financially viable environmental protection policies.
- Reporting our actions and results to all stakeholders.

#### Support for Initiatives on Climate Change

Climate change reached the top of the international political agenda in 2009, following the United Nations Climate Change Conference held in Copenhagen in December of that year (COP15). During the preparation phase of the COP15 summit, MOTOR OIL, having environmental protection as one of the pillars of its corporate strategy, participated in the international initiative – known as the *Copenhagen Communiqué* campaign, jointly sponsored by the University of Cambridge Programme for Sustainability and The Prince of Wales's Corporate Leaders Group on Climate Change; the campaign succeeded in persuading more than a thousand senior corporate leaders, from all parts of the world, to sign a submission to political leaders, encouraging them to reach an agreement on the issue of climate change. We continued to support this same international initiative at the COP16 summit conference, held in Cancun, Mexico, in December 2010.

Also in 2009, we supported the organisation of the international conference, "Climate change and challenges for future generations", which took place on 2-3 June 2009 at the Athens Megaron Concert Hall on the initiative of UNESCO Goodwill Ambassador, and President of the Foundation for the Child and the Family, Mrs Marianna V. Vardinoyiannis, and the president of the UN Intergovernmental Panel on Climate Change, Dr Rajendra Pachauri.

#### "The land of two suns"

In 2010, we supported Mrs Helen Korka (Doctor of Archaeology and Head of Documentation and Protection of Cultural Artefacts at the Ministry of Culture and Tourism), by exclusively sponsoring the publication of her bilingual -Greek and English- children's book *"The land of two suns"*. The book was inspired by the UNES-CO *"International Workshop on Disaster Risk Management at World Heritage Properties"*, held at ancient Olympia in 2008.

This is a book dedicated to children around the world, aiming at raising their awareness on issues relating to culture, nature and the consequences of climate change.

In the book, two courageous characters, the Angel and the Princess, teach us that the courage, dedication and collective effort are the best ways to tackle climate change and protect World Heritage Sites and other monuments.

UNESCO Goodwill Ambassador Mrs Marianna V. Vard-

inoyiannis, prefaced the book as follows:

"The Hope for saving nature's creations and protecting the masterpieces of human civilisation, undoubtedly rests with the younger generation.

Into the tender hands of children, with love and sensitivity, we place this book, which aims to foster nature conservation and the protection of heritage sites, with the firm conviction that appropriate methods of protection are available, provided that proper education and vigilance have preceded.

The saving of heritage sites from the effects of climate change and natural disasters, requires individual and collective consciousness and action. This action is correctly taught to us by the much loved heroes of this tale. It is an action that can succeed, an action which has its foundation in the vision to build a world of peace, solidarity and mutual understanding, where the masterpieces of world art, act as teachers to the peoples of the planet and ambassadors for its civilisation".



# 6. ENERGY EFFICIENCY IMPROVEMENT

Refining of crude oil and conversion of its fractions into end products are particularly energy-intensive processes. Requirements for energy (i.e. electric power, fuel oil, fuel gas and natural gas) are such that its rational use is of paramount importance, both for the environment and for the company's economic results. The refinery's "energy footprint", therefore, is an important consideration that leads us actively to seek to identify areas where there is potential for enhancing energy efficiency, and to implement appropriate projects through the use of Best Available Techniques or equivalent technologies.

**25.5%** reduction in energy use per ton of raw material in 2010 compared with 2005

Energy Consumption

27,550

3.42

2008

Energy consumption per crude and feedstock thousand

26,952

3.22

2009

25,496

2.74

2010

29,033

3.61

-25.5%

2007

Annual energy consumption (in TJ)

27,491

3.56

2006

tons (TJ/kMt)

20,042

3.68

2005

Steady progress has been made in recent years in reducing the refinery's overall energy consumption, even though production levels have increased. This has been made possible because a number of projects, completed in 2010 and in earlier years, that were part of the energy efficiency improvement programme of the refinery, or of its expansion and upgrading programme, (i.e. construction of the new Crude Distillation Unit, which was designed with particular emphasis on energy efficiency, use of new generation catalysts in the new Sulphur Recovery units, which can therefore operate at lower temperatures, 240°C instead of 290°C, introduction of natural gas into refinery's fuel mix, replacement or extensive maintenance of gas turbines, upgrading of pre-heat furnaces, improving the ratio of condensates recovery, installation of an Advanced Process Control system, etc.), in conjunction with the continuous monitoring of energy performance and the preventive maintenance programmes. As a result, in 2010, the refinery achieved a reduction of 25.5% in the specific energy consumption, compared with 2005 (2.74 TJ per crude and feedstock thousand tons, down from 3.68 TJ).

#### Use of Natural Gas at the Refinery

The introduction of natural gas to the refinery, in 2008, was a major advance towards reducing the refinery's "energy footprint", which not only had the effect of improving the economics of its operation (providing for the most efficient means of power generation and of hydrogen production), but also of enhancing its environmental protection performance (by reducing the emissions of carbon dioxide and other pollutants in flue gases).

Natural gas is used:

As an alternative raw material for the hydrogen production unit (instead of naphtha or LPG), which

allows the quantities of carbon dioxide emitted to be reduced by approximately 19% and 8%, respectively.

- As an alternative fuel for the Power Cogeneration Plant gas turbines, instead of either fuel gas or propane, achieving a reduction of carbon dioxide emissions by as much as 16%.
- As an alternative or supplementary fuel for preheat furnaces and steam boilers in the place of heavy fuel oil fractions, thus both increasing energy efficiency and significantly reducing emissions of air pollutants.

#### Electricity and Steam Cogeneration

The Power Cogeneration Plant comprises four gas turbines with a total capacity of 68.3 MW -in conjunction with two boilers that produce about 120 tons of steam per hour, through recovery of waste heat from flue gases- which enable the refinery to be almost self-sufficient as far as electrical power is concerned (in 2010 the level of self-sufficiency was approximately 90%), while at the same time supplying a significant proportion of its steam requirements.

During 2010, the installation of a fifth gas turbine proceeded; after commissioning, this will raise installed capacity to 85 MW, re-ensuring the full energy self-sufficiency of the refinery after the completion of the expansion projects, while at the same time improving its energy efficiency.

The total efficiency ratio of the cogeneration is about 80%, compared with the 30-40% efficiency that would be associated with steam and power production without the combined-cycle process. This approach ensures an optimum combination of environmental and economic advantages, given that the energy remaining in the super-heated flue gases of the gas turbines is utilized in the boilers to produce high-pressure steam. Through its ability to utilise either fuel gas produced by various refinery units, or natural gas as an alternative fuel, the Plant is one of the most important contributors to energy efficiency on the refinery complex.

#### III. Responsibility for the Environment

The operation of the Plant contributes to the reduction of greenhouse gas emissions at a national level by drastically reducing electricity imports from the Public Power Corporation (PPC), the production of which would require the conventional fuel mix that PPC uses. The resulting benefit for the environment -in terms of lower  $CO_2$  emissions- is indicated in the following table:

	CO2 emissions avoided (tons)
2007	38,700
2008	61,000
2009	94,000
2010	86,000

In addition:

- The co-production of 120 tons of steam per hour by the Plant, is translated into a benefit for the environment amounting to around 220,000 tons of CO2 per annum, which would have otherwise been released from the burning of additional fuel in the refinery's steam boilers.
- The environmental benefit is enhanced from the Plant's increased use of natural gas (40 thousand tons in 2010 compared with19 thousand in 2009 and 13 thousand in 2008), and corresponding reductions in the burning of

fuel gas and LPG.

The refinery's electricity network is controlled by an automated *Power Management System* -a Best AvailableTechnique- which increases its reliability significantly, thus also improving its environmental performance.





# Upgrading of Burners and Pre-heat Furnaces

The upgrading of furnaces provides for the more efficient exploitation of the heat content of flue gases, thus, achieving reductions in both fuel consumption and in the emissions of  $CO_2$  and other air pollutants.

A programme of gradual upgrades to the refinery's furnaces involving the adoption of the forced-draft technology -which increases the efficiency by more than 6%- is in place, while a similar programme applies to the replacement of existing burners with more energy-efficient units, which emit lower levels of nitrogen oxides (low-NOx burners). For example, in 2007, the upgrading of the pre-heat furnace of the Crude Distillation Unit (the largest furnace on the refinery complex), resulted in the heat efficiency to be increased from 80% to 87%, and in the subsequent fuel consumption reduction by approximately one ton per hour.

#### Gas and Condensates Recovery

Levels of condensates recovery -which are fed into steam generation boilers for steam production- increased by about 3%. The exploitation of the energy content of condensates, contributes towards the reduction of fuel gas and liquid fuel volumes that would otherwise be used for steam generation by the steam boilers.

In addition, there is an ongoing programme for maximising the recovery of gases, to be used as fuel, and thus minimize flaring.

#### Desalination

Reverse osmosis is the most energy-efficient type of desalination technology, and is extensively being exploited: two such units are currently in operation.

## Monitoring and Daily Practice

The energy performance of production units is constantly monitored, so as to correct any malfunctions that come to light. The *Advanced Process Control* system, through continuous monitoring achieves the optimisation of energy use in the units where it has been installed.

With the same aim, the refinery's preventive maintenance programme provides for:

The systematic re-tubing, repair and cleaning of heat exchangers and air coolers in order to increase the per-

centage of heat recovery.

- Replacing, through annual programmes, of pipeline and equipment insulation, thus minimizing losses to the environment.
- The maintenance and/or replacement of rotating equipment, whose energy performance has fallen below specification, as a result of length of use.
- Repairing and/or replacing of the refractory material, burners and tubes of pre-heat furnaces.

# 7. CARBON DIOXIDE EMISSIONS

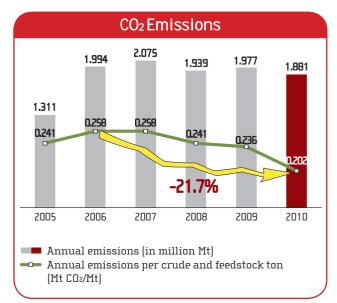
2010 was the third year of the second stage of implementation of Kyoto Protocol decisions for the period 2008-2012. Apart from the requirements in respect to the reduction of  $CO_2$  emissions, the second implementation stage imposes stricter specifications relating to the accuracy of measurements and the evaluation of their relative uncertainty.

# **21.7%** reduction in CO<sub>2</sub> emissions per ton of raw material in 2010 compared with 2006

In order to comply with these requirements, MOTOR OIL:

- Operates suitable methodology for monitoring emissions of CO<sub>2</sub> from its facilities that combines computational methods with the results of measurements taken by CO<sub>2</sub> monitors installed on the flares of the Fuels, Lubricants and Hydrocracker complexes. Equipment that continuously measures airflow and molecular weight is installed at the flare of the Hydrocracker complex.
- The accreditation of the refinery's Chemical Laboratory, as per the EN 17025:2005 standard, takes account of its capacity to measure the carbon content of refinery fuel gas using gas chromatography.

In accordance with legal requirements, annual reports on carbon dioxide emissions are compiled and submitted to the competent ministry. These reports are verified by an accredited body as to their accuracy and validity.



Total Carbon dioxide emissions in 2010 totalled 1.881 million tons, a decrease of 4.9% over 2009, whereas total production increased by 11.7% over the same period; this reflects, mainly, the increased use of natural gas as a raw material and fuel at the Hydrogen production unit, as well as the benefits resulting from the company's investment in energy efficiency measures described in the preceding section. A fortiori, total emissions expressed as tons of CO<sub>2</sub> per ton of crude oil and feedstock (0.202) were lower than in previous year (0.236). It should be noted that the low level of emissions in 2005 are attributable to the very different configuration and level of complexity of the refinery at that time.

Finally, the company contributes indirectly towards mitigating the effects of climate change by operating a bus service for use by employees travelling to and from work – a facility that helps reduce automobile carbon dioxide emissions from the private vehicles of those employees that take advantage of this opportunity, which in the case of the refinery concerns more than 50% of all employees.

# 8. AIR QUALITY MANAGEMENT

Maintaining air quality within the refinery's boundaries and in the surrounding area is an obligation for the

company reflecting its commitment to Corporate Social Responsibility, as well as arising from legal requirements.

#### Gaseous Emissions by Source and Type

#### CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>2</sub>, suspended solids

Gaseous emissions from fixed combustion sources.

#### SO<sub>2</sub>, H<sub>2</sub>S

Hydrogen sulphide emissions are minimal due to their full conversion to solid sulphur.

#### Fuels storage

Furnaces

Boilers - burners

Gas Stripping Unit

Sulphur Recovery Units

- API oil separators
- Feedstock and products receipt and delivery

(catalytic conversion of hydrogen sulphide into sulphur followed by incineration of flue gases)

Pipeline leakages

#### VOCs emissions

The emissions of Volatile Organic Compounds (VOCs) originate from fuels storage tanks, the operation of API oil separators, and from leakages that may occur during intra-refinery fuels movement.

# **Emissions Monitoring**

To protect and improve air quality, air pollutant emissions are monitored using a wide range of techniques; state-of-the-art measurement equipment -continuously renewed and upgraded- is employed. The measurement programme, including continuous as well as intermittent readings, covers both, point and diffuse emission sources.

**In the peripheral zone** of the refinery, air quality is monitored by four appropriately equipped stations:

- Three *fixed monitoring stations* are capable of continuously measuring the concentration of hydrogen sulphide (H<sub>2</sub>S) and sulphur dioxide (SO<sub>2</sub>).
- A mobile station equipped with automated state-of-art measuring and recording devices, which can perform a wide range of measurements, including meteorological parameters and the concentrations of nitrogen oxides (ND and ND<sub>2</sub>), sulphur dioxide (SO<sub>2</sub>), hydrogen sulphide (H<sub>2</sub>S), carbon monoxide (CO), total hydrocarbons, hydrocarbons excluding methane (CH<sub>4</sub>), benzene, and particulate matter PM<sub>10</sub> and PM<sub>25</sub>.

Within the refinery, flue gases from the chimneys of the main combustion plants (point emissions) of the Fuels, Hydrocracking and Lubricants complexes are continuously monitored by online analysers. The parameters measured are: temperature, flow and concentrations of oxygen, nitrogen oxides, sulphur dioxide and suspended particulates (PM<sub>10</sub>). At the Catalytic Cracking unit, continuous monitoring of temperature, carbon monoxide and of all the above pollutants is carried out. It should be noted that the analysers are connected to the refinery's *Distributed Control System (DCS)*, a configuration that allows for the complete control of the combustion taking place in the furnaces.

An automated performance control system operates at the



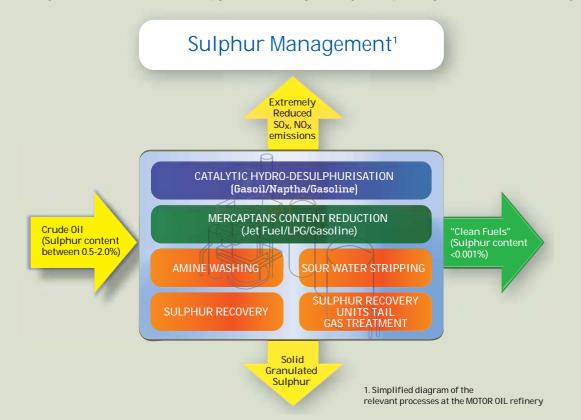
**Sulphur Recovery units**, which continuously monitors and records H<sub>2</sub>S concentrations at the entry points, and H<sub>2</sub>S and SD<sub>2</sub> concentrations at the exit points of these units. Also, the H<sub>2</sub>S/SD<sub>2</sub> ratio is continuously measured, recorded and adjusted, so as to ensure maximization of recovery performance (which is of the order of 99.9% in the case of the new, SCOT-type units). The smooth operation of the afterburners (incinerators) associated with these units is achieved through continuous monitoring of SD<sub>2</sub> and D<sub>2</sub> at the exit points, and of the temperature at the radiant section of the furnaces. Operation of both the Sulphur Recovery units, and the afterburners, is automatically controlled via the refinery's *Distributed Control System (DCS)*.

#### Integrated Sulphur Management System

Refineries are faced with the following paradox: the amount of sulphur in the available crude oil types is increasing in the course of time, while the specifications for allowable sulphur content in "clean fuels" produced have reached extremely low levels (e.g. for petrol and automotive diesel, the 2009 specification for sulphur content is a maximum of 10 ppm or the equivalent of 0.001 %). Moreover, the maximum acceptable level of sulphur emissions is also low, since the concentration of sulphur dioxide in the atmosphere around a refinery, on an hourly basis, should not exceed 350 µg/m<sup>3</sup>. In this

context, the removal of sulphur coming into the refinery with crude oil -at a concentration varying between 0.5 and 2.0%- is a significant challenge.

MOTOR OIL, as a responsible corporate citizen with respect for the environment, has in place a particularly effective system which incorporates Best Available Techniques, in order to achieve the best results possible, both in terms of maximising the degree of sulphur removal and minimising the amount of energy consumed. The schematic diagram below illustrates the *Sulphur Management System* operating at the MOTOR OIL refinery.



The basic process for the removal of sulphur from the fuel takes place in the **Catalytic Hydro-desulphurisa**tion units, where (following the addition of hydrogen), sulphur compounds react to form hydrogen sulphide. The **Mercaptans Content Reduction** process does not remove sulphur but results only in the conversion of mercaptans to disulphides. Following the separation of hydrogen sulphide in the **Amine Stripping (washing)** units and in the **Sour Water Stripping** units, it is then transferred to the **Sulphur Recovery** units where it is treated using the Claus process. The Claus process is simply described by the following chemical reaction which, in the presence of the appropriate catalysts, results in the formation of elemental sulphur and water vapour:

3H<sub>2</sub>S + 3/2 O<sub>2</sub> → 3S +3 H<sub>2</sub>O

The hot gases at the exit of the Claus units are treated by the **Tail Gas Treatment** units, where the remaining sulphur compounds are converted to hydrogen sulphide, and are then fed back into the Sulphur Recovery units. This results in reduced sulphur emissions within the refinery, while the overall rate of hydrogen sulphide conversion into elemental sulphur of the new SCOT-type Sulphur Recovery units -commissioned in 2010- is of the order of **99.9%**.

Elemental sulphur is initially produced in liquid phase, which by relevant cooling and appropriate processing, is converted to a solid granular form, stored in silos for sale as a raw material for the production of sulphuric acid and fertilisers. The whole process is carried out in a completely closed circuit, thus avoiding the dispersing of sulphur particles in the air, and minimising entirely any environmental impacts. As in the case of the main refinery stacks, the main pipelines of the flares of both the Fuels production unit and the Hydrocracker unit, are subject to continuous measurement of total sulphur concentration. The analysers installed are also connected to the DCS.

Emissions from the refinery's other stacks are monitored every three months by a suitably accredited external organisation.

### Leak Detection and Repair (LDAR)

A modern refinery comprises lots of different types of installed equipment, through which large quantities of crude oil and feedstock circulate, as well as intermediates and final products. In such a system, it is to be expected that there will be particular points with a higher risk of hydrocarbons being accidentally released into the atmosphere. In order to contain such fugitive emissions from equipment, a programme of periodic checks of selected equipment points is implemented for detecting fugitive emissions and immediately repairing the leaks causing these emissions. In the industry, this is known as *Leak* Detection and Repair (LDAR) Programme, and is based on the EPA 21 method of the United States Environmental Protection Agency.

Fugitive emissions may arise from valves, pumps, flanges, safety valves and other related equipment installed on pipelines, pressure vessels, reactors or storage tanks on the site.

In 2010, the LDAR programme at MOTOR OIL's refinery included 5,721 predetermined control points, covering all production units, the Truck Loading Terinals, port facilities, storage tanks and oil separators. These points are regularly checked by refinery personnel, at least once a year, the frequency depending on the process being controlled, using portable volatile hydrocarbon concentration measurement equipment. In the event that concentrations are found to exceed 5,000 ppm, a repair request for the equipment checked is issued.

In 2010, 14,063 checks were carried out as a result of which 65 points (1.1 %) were detected, requiring some sort of intervention.



In 2010, in the context of the anticipated by the new environmental operational standards, a series of industrial hygiene measurements were carried out at the refinery to determine the atmospheric concentrations of the following substances: arsenic, cadmium, nickel, mercury, benzo-α-pyrene and polyaromatic hydrocarbons. The results of these measurements indicated that ambient concentrations of these pollutants are well below maximum allowable concentrations specified in relevant legislation.

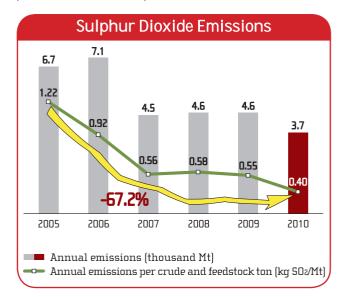
# **Controlling Emissions**

Besides the measures for monitoring concentrations of air pollutants, a number of other measures to reduce air pollution are in operation, within the refinery complex and elsewhre, including:

- Reduction of emissions of suspended catalyst particles in flue gases from the Catalytic Cracking unit is achieved by means of an electrostatic precipitator, which treats the flue gases stream; this preventive measure achieves far greater reduction in suspended particulate matter than the acceptable limits.
- Fuel gases used as fuel in the refinery are desulphurised (as a result of which sulphur dioxide emissions are minimised) before entering the refinery fuel gas system.
- Upgrading of the four steam boilers at the refinery's steam production plant included the installation of low-NOx burners, significantly reducing the level of nitrogen oxides emissions.
- Reduction of fugitive hydrocarbon emissions by means of various measures, including: the installation of closed circuits in gas processes; the routing of gases released from safety valves to the flares; the installation of

In Numbers

Sulphur dioxide emissions have declined significantly since 2007 compared with earlier years, despite the fact that refinery production has increased over the same period; this is attributable to a reduction in sulphur content of fuel used in the refinery's furnaces, and to the greater use of natural gas in the fuel mix. This trend continued in 2010, when further reductions in sulphur emissions were achieved, both in terms of total emissions and emissions per ton of raw material processed.



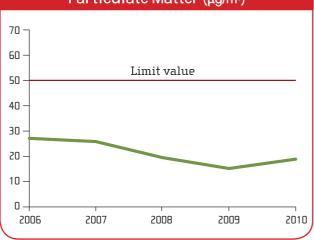
As far as air quality during 2010 is concerned, the processing of the recordings at the four air quality monitoring stations, in the context of the emissions monitoring programme, has shown, as in previous years, that air secondary seals in floating roof tanks; the installation of floating covers on oil separators; and the installation of a vapour recovery unit at the Truck Loading Terminal at the same time as bottom-loading of road tankers was introduced.

- Vapour recovery units -as anticipated by legislation- are also installed at all AVIN OIL and CORAL terminals, and bottom-loading of road tankers is in use at all terminals (except for that at Kavalla).
- Vapour recovery equipment is also installed at all AVIN OIL and CORAL filling stations, for use during the unloading of gasoline form tankers, in anticipation of relevant requirements of EU directive 94/63 (Stage 1).

67.2% reduction in SO<sub>2</sub> emissions per ton of raw material in 2010 compared with 2005

quality in the vicinity of the refinery remains highly satisfactory. The detailed records for the past five years demonstrate that concentrations of pollutants not only have not exceeded the legally anticipated hourly limit values (200  $\mu$ g/m<sup>3</sup> for NDx and 350  $\mu$ g/m<sup>3</sup> for SD<sub>2</sub>), and the daily limit values (50  $\mu$ g/m<sup>3</sup> for PM<sub>10</sub> and 125  $\mu$ g/m<sup>3</sup> for SD<sub>2</sub>), but the recorded values were well below these limits as well.

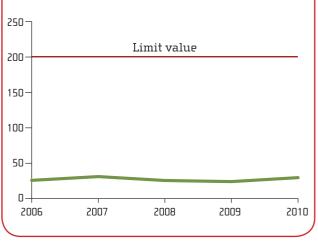
The diagrams below show the annual average concentrations of sulphur dioxide, nitrogen oxides and PM<sub>10</sub> particulate matter over the past five years, compared with the corresponding limit values. Further related information on control of emissions during 2010 can be found in the *Environmental Statement 2010*, which contains tabulations and illustrations relating to all air pollutants.



#### Annual Average Concentration of PM<sub>10</sub> Particulate Matter (µg/m<sup>3</sup>)



#### NOx Average Annual Concentration (µg/m³)



# 9. LIQUID WASTE MANAGEMENT

Liquid waste produced by the refinery's various processes fall into two categories: **industrial waste** and **urban waste**. The management and processing of liquid waste incorporates Best Available Techniques, while due to their different pollutant load, the industrial and urban waste streams undergo different types of processing prior to their final disposal. Industrial liquid waste is pre-processed in specific refinery units and then transferred to the *Industrial Waste Water Treatment Plant*, while urban waste is transferred directly to the *Urban Liquid Waste Treatment Plant*. The residual sludge left after the waste is processed is dehydrated and compressed prior to final disposal, according to the approved refinery environmental standards.

The effectiveness of operation of the *Industrial Waste Water Treatment Plant* is evidenced by the fact that concentrations of various pollutant substances at the outlet of the unit have been shown to be below relevant legal limit values by as much as 70%. In the case of some substances (including benzene, toluene, ethyl benzene, xylene and a number of heavy metals), their concentrations are very much below corresponding limit values, approaching the limits of detection in some cases, which was confirmed in 2010 by a pilot programme of monthly measurements.



Concentration of Pollutants at the Outflow of the Industrial Waste Water Treatment Plant (annual averages)				
Parameter	2008	Average va 2009	alue 2010	Limit value
рН	7.9	7.7	7.6	6-9
Temperature (°C)	34.0	33.0	30.5	35
Oil (mg/l)	5.0	3.0	3.3	10
BOD <sub>5</sub> (mg/l)	26.0	23.0	23.4	40
COD (mg/l)	108.0	106.0	106.0	150
NH₃ (mg/I)	14.0	14.0	13.8	15
Phenols (mg/l)	0.4	0.4	0.3	0.5
Sulphides (mg/l)	0.6	0.7	0.9	2
Suspended solids (mg/l)	17.0	17.0	16.9	40

- The installation of a continuous online analyser for measuring and recording of chlorine and temperature at the exit of the *Industrial Waste Water Treatment Plant* was completed in 2010, for improving the monitoring and control of this unit. In addition, work began on installing some available redundant equipment aiming at further improving its operating parameters.
- Significant attention is paid to the management of residual sludge, and in 2009 a special study was carried out in cooperation with the Geology Department of Athens University, on the evaluation of alternative treatment processes that might be applied before the final disposal of this material. The study aimed at providing the scientific information to aid the selection of the most appropriate sludge stabilisation method, so that it can be converted into a soil-like, odourless and free of harmful microbiological agents material, which could be safely disposed of in Sanitary Landfill sites or used as soil additive. This effort went on during 2010.
- On the basis of a hydro-geological study carried out in 2009, the location of eight boreholes was determined for monitoring and testing the quality of subsoil and aquifers. During 2010, in accordance with the refinery's environmental operating standards, two sets of samples were taken at these boreholes -one in every six monthsin order to determine the value of a number of parameters, such as concentrations of heavy metals and hydro-carbons, the results of which were found to be extremely low, and even non-detectable in some cases.
- In mid 2010, a new series of sampling and measurements was initiated in the context of the programme for monitoring the sea water quality in the coastal zone of the refinery. This is a year-long study, being carried out by the Laboratory of Applied Geochemistry at the Geology Department of the University of Patras, which is due to produce a report in 2011.

# 10. SOLID WASTE MANAGEMENT - RECYCLING

The management of solid waste produced during the operation of the refinery is founded on an integrated procedure that covers all stages of the life cycle of refinery solid waste, from its collection, packaging, labelling, processing (where necessary), temporary storage and final exploitation or disposal via one of the following alternative means: recycling outside the refinery; recovery outside the refinery; final disposal outside the refinery; or processing within the refinery and re-use.

The main aims of the solid waste management programme are:

- I reduction of quantities produced, at source,
- separation into hazardous and non-hazardous waste at source, wherever possible,
- I maximum exploitation prior to final disposal, through

recycling or re-use or recovery of useful components or regeneration, and finally,

safe transportation and final disposal without putting at risk human health or the environment.

Only licensed companies specializing in the handling of solid waste are being contacted for carrying out disposal of such waste.

Spent catalysts, which, depending on the particular case may be classified as hazardous solid waste, are disposed of in a number of ways (either exported, or regenerated for re-use by specialised firms abroad, or used in cement manufacture). In 2010, 60.6 tons of spent catalysts were removed by specialist companies. Also disposed of by licensed contractors were 8.5 tons of packaging material that had contained hazardous materials and 112.0 tons of contaminated soil. As far as the programme for the removal of asbestos components is concerned, in 2010, 520 m<sup>2</sup> of asbestos sheets (7.8 tons) were removed, compared with 1,500 m<sup>2</sup> that had been removed in 2009, 1,075 m<sup>2</sup> in 2008 and 4,150 m<sup>2</sup> in 2007. Removal is carried out by a specialist company appropriately licensed both for the collection and export of asbestos; stringent precautions are taken during removal operations to ensure no hazard is posed for company employees.

The company, as a solid waste producer, submits an annual report to the Ministry of the Environment, Energy and Climate Change which records all types of solid waste arising from its operations and how solid waste is handled, while identifying the legally-approved recipients.

As far as used lubricants and their packaging is concerned, contracts are in place with a firm specialised in used mineral oil recycling and with a firm specialised in handling packaging materials. These two contracts provide for recycling of used lubricants and their packaging, thus contributing to the protection of the environment and raw material savings. We also collaborate with accredited firms specialised in the recycling of batteries, ink toner cartridges, motor vehicle tyres, bulbs and computers.

Recycling	<ul> <li>Disposal of</li> </ul>	Solid Was <sup>-</sup>	te (Mt/year)		
	2006	2007	2008	2009	2010
Spent catalysts	565.7	685.7	836.8	158.3	60.6
Batteries and accumulators	3.5	0.2	2.7	3.1	10.6
Tyres					3.3
Lubricants <sup>1</sup>	22.1	29.6	13.1	4.5	2.8
Wooden packaging	12.0	17.8	44.7	15.2	123.4
Paper and paper packaging <sup>2,3</sup>	17.1	14.3	11.4	35.7	21.1
Plastic and plastic packaging	9.2	27.6		0.4	377.8
Metal (scrap)	2,165.1	704.1	2,731.8	1,012.1	1,394.8
Electrical/electronic equipment	7.2			3.9	2.9
Storage tanks sludge		301.9			600.0
Contaminated soils		21.2		439.9	112.0
Contaminated packaging		8.2	3.1	26.0	8.5
Asbestos containing material		40.6	11.6	20.5	7.8
Toner cartridges (pieces) <sup>3</sup>	1,120	1,250	1,300	1,800	2,150

1. These quantities refer to the refinery alone, since corresponding reliable figures for the AVIN OIL and CORAL retail networks are not available.

2. Recycled and non-chemically bleached paper is being used by all the companies of the Group.

3. Money raised from paper and toner cartridges recycling at the Group Head Office is donated to the "ELPIDA" foundation.

#### **Recovery of Raw Materials**

A special form of recycling is the recovery of raw materials from various waste streams in order to minimise the loss of raw materials (reprocessing). Major efforts are made to maximise reprocessing due to its environmental and economic significance; the aim is, firstly, to minimise the presence of raw materials in the waste streams and, secondly, to maximise the amount recovered.

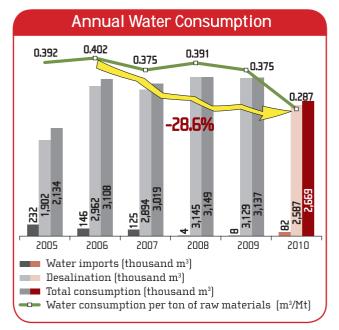
	Raw Materials Recovery (Mt)
2006	103,000
2007	106,800
2008	67,500
2009	71,500
2010	51,000

# **11. WATER MANAGEMENT**

The importance of the sustainable management of water resources is a major issue of our time, because the supply of this natural resource is constantly under threat of shortage, underlined by the more and more frequent and prolonged periods of droughts. We recognise this reality, and we take steps to reduce water consumption, and ensure its rational and responsible management at the refinery.

Water used in various process operations at the refinery is sourced through the processing of sea water at desalination units. The desalination facilities have been supplemented by the addition of two units of the reverse osmosis technology -which is the optimum desalination technique both in terms of economic efficiency and environmental impact- as a result of which the refinery's requirements are almost fully covered, and the need to import fresh water has been practically eliminated. Thus, while it was necessary to import 125 thousand m<sup>3</sup> of water in 2007, this requirement fell to below 10 thousand in each of the following two years, while in 2010, due to the refinery expansion that took place, an additional 82 thousand m<sup>3</sup> of water had to be imported.

It should be noted that following the commissioning of the Hydrocracker complex in November 2005, the quantity of water consumed per ton of raw material processed increased to 0.402 in 2006. Subsequently, this ratio reduced steadily (with an exception in 2008 when increased to 0.391, due to the extensive preparation of equipment during the large preventive maintenance programme in that year), falling noticeably in 2010 to 0.287; this extremely good result is attributable to work done to reduce energy consumption (reduced steam consumption, operational efficiencies, etc.).





# Re-use and Recycling of Water

An important process in the refinery is the treatment of sour water streams and their recycling, which results in significant reduction in the consumption of fresh water and the volume of waste water to be treated. Specifically, in 2010, some 850 thousand m<sup>3</sup> of sour water from the crude oil desalting process was treated and returned back to the desalter. The corresponding amount in 2009 was 819 thousand m<sup>3</sup>.

#### **12. NOISE MANAGEMENT**

Noise caused by industrial facilities, such as the MOTOR OIL refinery, is an inevitable and unavoidable consequence of the activities taking place.

MOTOR OIL monitors noise levels on a regular basis, by carrying out measurements at a large number of loca-

tions around the refinery, and takes suitable measures to minimize any disturbance caused to the neighbours. Such measures include the installation of silencers and sound curtains, as well as the procurement of equipment of low noise level.

## 13. PROTECTION OF THE MARINE ENVIRONMENT

Due to its location, the operation of MOTOR OIL's refinery is completely linked with the marine environment. Owing to the extensive impacts of a potential pollution incident, both for the marine ecosystem and the economic and social life of adjacent areas, as well as the tremendous expense that rehabilitation would involve, extensive prior planning and preparation for successfully responding to such incidents is imperative.

In this context, MOTOR OIL:

- Implements all necessary active and passive protection measures to minimize the risk of oil spills during the operation of its refinery.
- Implements all necessary measures and provides all equipment for the safe sail in and sail out of tankers at its port facilities, as well as for the safe loading/unloading thereof.
- Has drafted an *Oil Spill Contingency Plan*, which is harmonized with the Local Contingency Plan and the *National*

Contingency Plan drafted by the competent state agencies.

- Maintains all necessary equipment for responding to local small and medium scale water pollution incidents (Tiers 1 and 2), such as absorbents, booms, skimmers, coastline cleaning equipment and vessels (boats, tugboats and a special vessel equipped with tanks for storing the collected oil). There are also appropriate stocks of oil dispersants, used at the final stage of clean-up operations, when authorised by the port authorities.
- Audits its preparedness and the suitability of the above plans and maintains personnel response capability at a high level, with an annual schedule of exercises, which includes both Tier 1 (small scale) and Tier 2 (medium scale) pollution incident drills.
- Is a member of international and regional organizations, whose aim is the prevention and timely response to oil spill incidents (see Participations – Collaborations section).



# Joint Medium Scale (Tier 2) Oil Spill Response Exercise

On 1 July 2010, a joint medium-scale (Tier 2) oil spill response exercise was executed by refinery employees and the Port Authorities of Isthmia. The exercise scenario contemplated for a mobilisation, in accordance with the provisions of the ISPS code for the security of the port facilities, and the provisions of the *Oil Spill Contingency* plan for responding to an oil spill incident in the area.

More specifically, the scenario involved: telephone alerts taking place for the factual existence of an explosive device at the port, which detonates resulting in a fuel leakage that causes pollution between the piers of the port. Subsequently the oil spill extends to the west coast of Sousaki.

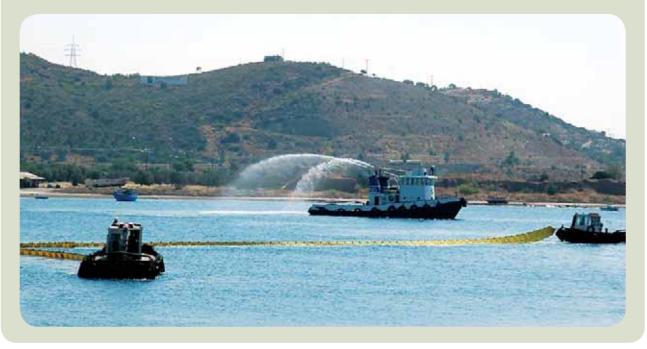
The aim of the exercise was:

The training and assessment of the operational pre-

paredness of security and port personnel in the implementation of the ISPS code provisions, and in responding to pollution in the area of the piers, which subsequently spreads at the neighbouring coast, with the mobilisation and use of available response equipment and materials.

The training of the additionally mobilised personnel in the use of the available equipment and materials for the decontamination of the coast.

This exercise was extremely useful and completely satisfied the purpose for which it was held. The cooperation and co-ordination with Port Authorities was efficient, while the lessons learned will help in further improving the preparedness for effective response to such incidents.



# 14. COMMUNICATION WITH STAKEHOLDERS

MOTOR OIL uses various means of keeping Local Authorities and other stakeholders informed of its activities, either by involving its own staff in conferences and meetings, or keeping local organisations informed about its investment plans and its programmes relating to environmental protection.

Besides briefing Local Authorities, the company also maintains open communication lines with refinery neighbours, hearing any complaints they may have. Such complaints expressed by neighbours are recorded, investigated and evaluated according to the refinery's complaint-handling procedures and short or long-term corrective measures taken to address them, depending on the cause of the disturbance. Typical examples of actions to reduce disturbance are: the selection of low noise-emitting equipment wherever possible; the installation of sound curtains on the compressors at the Waste Water Treatment Plant; installation of a foam breakdown system at the same facility, and the installation of a silencer on a steam exhaust line at the Hydrocracker complex.

	Complaints Recorded
2006	24
2007	35
2008	27
2009	28
2010	61

The number of complaints in 2010 showed a significant increase; it should be noted, however, that 40 of these concerned noise related cases reported by neighbours. The majority of these cases were attributed to the standard safety procedures that preceded the commissioning of the new Crude Distillation Unit, during which the testing of pipelines with high pressure steam is an unavoidable source of high level noise.

# 15. PARTICIPATIONS – COLLABORATIONS

MOTOR OIL acknowledges the value of the exchange of information, opinions and knowledge between companies, organizations and other entities on environmental protection issues. The progress of science and technology, as well as developments taking place at a legislative level, render the need for communication and cooperation between entities imperative.

# concawe

We are an active member of the CONCAWE organisation (CONservation of Clean Air and Water in Europe), which provides technical support to European refineries on Health, Safety and Environmental protection issues. Our participation ensures constant, complete and systematic information provision on matters concerning Environmental protection, during production, distribution, handling and use of the products we produce. The conclusions of research projects are evaluated and incorporated in our daily business practices in the most suitable manner, thus further improving the company's environmental performance.



We are a member of the *Oil Companies International Marine Forum (OCIMF)*, an association of petroleum companies with an interest in the marine transportation of crude oil and petroleum products, as well as the operation of oil terminals. The forum's activities are aimed at promoting the safe and environmentally-friendly operation of facilities and oil tankers, through the continuous improvement of design standards and operating practices.



At a regional level, we are a member of the *Mediterranean Oil Industry Group (MOIG)*, a regional oil industry forum on the coordination of the industry in preventing marine pollution and in the preparedness

for responding to major oil spill incidents in the Mediter-ranean Sea.

We support the academic community both in carrying out pure science research projects, and in applied research projects related to environmental protection refining industry issues.

In this context, MOTOR OIL:

- Continues to cooperate with the Applied Geochemistry Laboratory of the Geology Department, Patras University, for the determination of prevailing chemical conditions in the sea water in the refinery's coastal zone.
- Participates in the research programme entitled "Development of new chemical processes for the production of biodiesel from biomass and its uses on the Greek market"; apart from MOTOR OIL, eight other parties are involved, including the National Technical University, the Centre for Research and Technology Hellas (CE.R.T.H.), and the Agricultural University of Athens. The aim of this programme is to examine the basic operating parameters of a Hydro-treating plant for converting mixtures of vegetable oils to de-sulphurised diesel oil, the possibility of using conventional catalysts for this purpose and finally, the examination of the possibility of simultaneous processing of gas oils and vegetable oils.

# 16. COMPLIANCE WITH ENVIRONMENTAL LEGISLATION

An essential aspect of our environmental policy is to rigorously comply with the environmental operating standards of our operating licence as laid down by the relevant state authorities, and with all the other related obligations arising from the effective Greek and European environmental legislation. Moreover, our investment programme does not only aim at timely compliance with any new requirements, but also provides for implementing projects that go beyond the requirements of the current legislation. In addition we fully comply with all reporting requirements of current legislation.

During 2010:

- The annual report on greenhouse gas emissions for 2009 was submitted to the Ministry of the Environment, Energy and Climate Change.
- The annual report on hazardous and non-hazardous waste (liquid and solid) production for 2009 was submitted to the same ministry and to the Peloponnese Regional Authorities; the corresponding year 2008 report was submitted to the Hellenic Statistical Authority.
- The annual report on gaseous and liquid pollutant emissions for 2009 was submitted to the same ministry and the competent Prefecture Council.



#### Additionally:

- The plan for the collection and processing of waste generated by ships sailing in MOTOR OIL's port facilities was approved by the competent ministry.
- Clarification was obtained from the Ministry of the Environment, Energy and Climate Change about the necessary frequency of measuring the concentration of metals, benzene, toluene, xylene and ethylbenzene at the outlet of the Industrial Waste Water Treatment Plant.
- Clarification was obtained from the same Ministry about the necessary frequency of monitoring the refinery coastal zone, by way of the appropriate samplings and analyses.
- The *Environmental Statement 2009* was submitted to the Ministry of the Environment, Energy and Climate Change, in accordance with the requirements of EMAS ER 761/2001. The company is registered with the European Eco-Management and Audit Scheme (EMAS), and in the corresponding Hellenic Register, under number EL 000067.

# IV. Social Contribution

**4.5** million euros in social contribution projects, more than **3.4%** of the Group's after tax earnings

The first **Children's Oncology Hospital** was inaugurated, for which we made significant contributions

**13** years of continuous support for the Corinth General Hospital

# We are closely connected with local

-

Our responsible position towards society is demonstrated primarily through our contribution to the country's overall economic development, and our efforts to benefit local communities in the vicinity of our facilities, by way of job creation, fostering local entrepreneurial activity and purchasing goods and services from local suppliers.

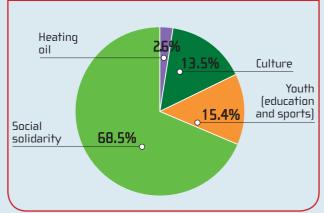
Moreover, we believe that our business activities should be based on positive and productive interaction with the social environment in which we operate. Our responsibility towards society is to participate actively in enhancing social values and helping to improve social cohesion and

Through the implementation of social contribution and community involvement projects, we aim at building consistent ties with society, at staying in touch with the local population and, in line with our corporate objectives and principles, to provide support for initiatives that improve the quality of social life and promote **education, health care, sports** and **culture.** 

During 2010, and in line with our long-standing tradition as a socially active corporate citizen, we sponsored and donated to a broad range of activities organised by worthy organisations and foundations. The activities we supported were selected by company executives at local and corporate level, implementing the relevant policy procedures and applying our strategy for community involvement, which is structured around the following main objectives:

- Social solidarity
- Culture
- Education
- Environment and infrastructure
- Entrepreneurship
- Sports

# Distribution of the 2010 social contribution outlay

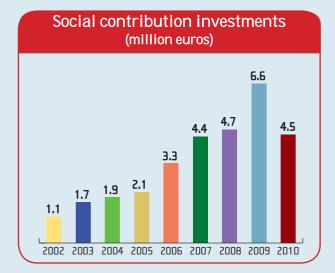




# communities and the broader society, which we responsibly and consistently support

optimism for a humane future. For these reasons, we implement a comprehensive programme of donations and sponsorships that benefit local communities, improve quality of life, help in protecting the environment and promote social and cultural activities in these areas, as well as enriching the social and cultural life of society as a whole.

In 2010, we invested 4.5 million euros in many social responsibility projects, two of which are particularly important to us. The first, the cost of which was entirely undertaken by the MOTOR OIL Group and of which we are especially proud, involves the formal completion of the restoration of homes in Makistos village of Ilia prefecture -ravaged by the 2007 blaze- with the organisation of the official handing-over ceremony. The second project entails long-standing and substantive support for the aims of the "ELPIDA" Association of Friends of Children with Cancer, involving the construction of the first Children's Oncology Hospital in Greece. Following many years' efforts, the Hospital has now been established, offering valuable treatment, relief and hope for children of all ages. These two projects are very close to our hearts and we are extremely happy about their completion, offering joy and optimism to our fellow citizens.



With respect to the Corinth prefecture **local communities** adjacent to the refinery, or within its broader area, our social responsibility is demonstrated through our consistent aspiration and efforts to ensure that we remain a solid source of prosperity – not only by offering a large number of job opportunities, and fostering the local entrepreneurial activity, but also through our efforts to protect their general welfare. We thus develop constructive relationships, aimed at maintaining our continued balanced and harmonious coexistence.

More than 600 of our employees live in municipalities adjacent to the refinery. In 2010, we paid 0.7 million euros in municipal taxes and we spent some 9 million euros for the purchase of goods and services from businesses in the Corinth area.

Indicant is the fact, that on the basis of 2008 data, the Hellenic Statistical Authority considers that the added value created by the MOTOR OIL refinery in the Corinth Prefecture contributed decisively to placing the prefecture in seventh place in terms of GDP per head.

The social contribution programmes we support for local communities, are selected through a process of dialogue, communication and cooperation with the various authorities and organisations in the municipalities of Aghioi Theodoroi, Corinth, Loutraki, Saronikos and Solygeia. The main factors we take into consideration when selecting particular programmes are: their potential contribution to the development and promotion of these communities, the enhancement of their social fabric, and the extent to which they help develop and exploit synergies that produce real improvements in quality of life, rather than merely meeting basic societal needs.



# **1. SOCIAL SOLIDARITY**

**30.3** million euros for social responsibility projects over the past nine years

Demonstrating our social responsibility and sensitivity, as well as undertaking activities that aspire to support local bodies involved in significant social solidarity activities, is a primary point of reference for consolidating our company values. We observe events and developments taking place in our society, monitoring the needs of our fellow-men and, subsequently, determine our activities on the

# 1a. Broader society

# The first Children's Oncology Hospital opens

In 2010, we took an even greater step in health care, contributing significantly for the completion of the construction of the first paediatric oncology hospital in Greece, the *Children's Oncology Unit "Marianna V. Vardinoyannis-ELPIDA"*.

The starting-point for completion of this project, was an initiative by the *"ELPIDA"* Association of Friends of Children with Cancer and its President and UNESCO Goodwill Ambassador, Mrs Marianna V. Vardinoyannis. From its inception, the Association's activities have revolved around social contribution and philanthropy. As MOTOR OIL is also very sensitive to these sectors, we considered it an honour and our obligation to participate in such a vital venture.

The Hospital's foundation stone was laid in April 2007, and it was inaugurated on 14 October 2010, by the President of the Hellenic Republic, Mr Karolos Papoulias. The state and the Greek people supported *"ELPIDA"* in this project, as well as foreign backers. Full-scale support was also offered by MO-TOR OIL, which contributed substantial financial donations.





The Oncology Hospital aspires to provide the best possible treatment for children with neoplastic diseases and haematological malignancies. The primary aim was to construct a unit that would offer state-of-the-art medical care in a "fairytale" environment, especially designed for children, so that the physical treatment would be combined with the equally important psychological support. In this context, special mention should be made of the exceptional and highly original interior decoration -considered a global first- which ensures that "in the hospital, the children's journey towards their recovery becomes a childhood *voyage"*, as Mrs Marianna V. Vardinoyannis noted during her speech at the inauguration ceremony. "Each building, as you will see", she added, "is also a different continent. Each corner a different country. With paintings, pictures of monuments and figures familiar to children, we have tried to create a fairytale that seeks to keep them smiling, even at the most difficult times".

Built in the Athens district of Goudi, on a site donated by the Hellenic Ministry of Defence, the Hospital complex comprises five inter-connected buildings, with 138 beds, and covering a total area of 14,911 sq. metres.

Its operational infrastructure, cutting-edge medical equipment and highly trained staff, create the finest



conditions for the most effective treatment of child cancer, as well as development of research in the field of cellular and gene therapy to treat genetic and neoplastic diseases.

In the near future, the construction of overhead corridors is scheduled, which will connect the Unit with the adjoining "Aghia Sophia" and "P. & A. Kyriakou" children's hospitals, while their oncology departments will be transferred to the new Unit. Moreover, in order to ensure constant development in therapeutic methods and continual improvement of services, the medical personnel will regularly be receiving high standard further training at Harvard and other major medical institutions.

The Hospital's reputation has been recognised beyond national borders, as it serves the broader Balkan region, which lacks hospital beds in the treatment of child cancer.

The Children's Oncology Hospital includes the following operational units:

A Bone Marrow Transplant Nursing Unit with a capacity of 18 beds.

- Three Oncology-Haematology Nursing Units with a capacity of 29 beds each.
- Three Outpatient Clinics for the Oncology-Haematology Units with a capacity of 8 beds each.
- An Outpatient Clinic for the Bone Marrow Transplant Unit with a capacity of 4 beds.
- A Radiotherapy Unit with a capacity of one bed.
- In Nitro Laboratory.
- Pain Clinic.
- Regular Outpatient Consulting Rooms.
- Blood Donor Centre.
- Positron Emission Technology Diagnostic Unit.
- Nuclear Medicine Unit (with gamma camera).
- Conference room for approximately 50 people.
- School for hospitalised children.
- Guesthouse for parents.
- Psychological Support Centre run by "ELPIDA".



#### IV. Social Contribution

- For 31 years now, within the framework of its charitable work, MOTOR OIL has been the main patron of the "Vardinoyannis Foundation" based at, and supervised by, the Panagia Kalyviani Women's Holy Monastery in the Heraklion Prefecture of Crete. We cover part of the Foundation's expenses, while the Holy Monastery is responsible for the remainder of the operating costs. The Foundation's mission is the accommodation and social/professional rehabilitation of orphaned girls, or of girls from destitute families.
- We systematically support the activities of the "Foundation for the Child and the Family", which -with UNESCO Goodwill Ambassador Mrs Marianna V. Vardinoyannis as its founder and president- aims at promoting issues involving protection of children's rights and family institutions, as well as the improvement of living conditions for children in all aspects.
- We regularly donate to the humanitarian organisation, "Lifeline Hellas", which was established in 2003 as the Greek branch of "Lifeline", a humanitarian and non-profit body. Princess Katherine of Yugoslavia has been the head of "Lifeline" since its establishment in 1993. It is mainly active in



Serbia and Montenegro, where it cooperates with local and foreign NGOs to assist children, the elderly, hospitals and social welfare foundations, as well as people who are in extreme need. In 2010, we contributed towards events run by the organisation, the proceeds of which were donated to the cardiology departments of the children's hospitals, *"P. & A. Kyriakou"* in Athens and *"Tirsova"* in Serbia.

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#### Heating oil donations

In 2010, through the budget allocation for heating oil donations during the winter months, approximately 165,000 litres -worth over 117,000 euros-were provided free of charge. The objective of this social contribution is to meet part of the heating expenses of schools, orphanages, public kindergartens, municipal childcare centres, public elderly people's homes, churches, church institutions, etc. in the neighbouring municipalities, as well as the similar expenses of a large number of other recipients in other regions of the country. Such recipients included the Maritime Museum of Greece, the "Amymoni" Panhellenic Association of Parents, Guardians and Friends of People with Visual Problems and Other Disabilities, the "Aghia Olympias" Philanthropic Association, the Workshop for Special Professional Education and Training in Isthmia, the "Margarita" Special Training Workshop in Nea Pendeli, the "Argo" Association of Seafarer Parents of Children with Special Needs, the "Smile of the Child" charity organisation, the "Efthymeion Cen*tre*" for treatment and rehabilitation of people with special needs, the Corinth Special Elementary School for children with special needs, the Corinth elderly people's home, the Corinth Orphanage, schools in Aghioi Theodoroi, Corinth and other adjacent municipalities, the Holy Monasteries of Aghios Ioannis Theologos, Aghioi Anargyroi and Sotiros, and schools in Perama, Attica.

- We provided liquid petroleum gas to the Makariotissa Holy Monastery in Dombraina, Viotia.
- We offered individual financial aid to some 150 indigent people who needed assistance.
- We assisted the "Megalohari" Day Care Centre for Autistic Children in Chania, which attends 14 autistic and mentally retarded children.



### Life and joy returns to Makistos

Four years ago, in the summer of 2007, our country suffered from a series of wildfires that left in their wake not only devastating environmental destruction, but cost the lives of dozens of people and reduced entire villages to ashes. One of these was Makistos in the Ileia province. The Chairman and Managing Director of MOTOR OIL, Mr Vardis J. Vardinoyannis and his wife, UNESCO Goodwill Ambassador Mrs Marianna V. Vardinoyannis, were among the first to stand by our fire-stricken fellow citizens, announcing that the Group would undertake the entire cost of repairing the village homes.

In October 2007, under MOTOR OIL's guidance and full support, works for the restoration of Makistos housing began. Extensive preliminary studies were conducted, documenting house plans and property ownerships, as well as the extent and assessment of damage, with the aim of restoring the original architectural character of the village. Meanwhile, modern building methods were implemented and high quality construction materials used, to ensure the greatest possible structural strength of the constructions against natural and other disasters, also improving their earthquake resistance characteristics, while antiflood works were set up as required. Following the same design philosophy for the interior of the homes, we carried out repairs in accordance with the previous floor plans, while ensuring the provision of all modern house amenities. Particular importance was placed on the re-building of two churches which had suffered great damage -Aghios Giorgis and Panagitsa- as well as on the reconstruction of the village square. The successful and speedy completion of the project within the set time frame, was due to the constant monitoring of its progress and, to a large degree, to the continuous communication with the inhabitants and the competent local authorities, which facilitated and accelerated the reconstruction process. Execution of the works required more than 25 engineers of all specialties, and a considerable number of technicians and workers. The total cost, which came to 4.6 million euros, was paid entirely by the MOTOR OIL Group.

This project is tangible proof of our beliefs regarding social responsibility and symbolically emphasizes the importance we give to both people and the environment, as well as to the institutions and values that comprise the traditional spirit of our society. We were able to "give back" to some of our fellow human beings the place where they grew up, the roots from which they originated.

As Mrs Marianna V. Vardinoyannis said in her speech during the handing-over ceremony on 27 September 2010, "For my husband and I, support for you and your village was a human obligation. We could not remain uninvolved in the face of such a disaster. It was a sincere expression of our support for our fellow human beings who were in need. And, on our part, it was not merely a promise and a commitment. It was care. Because of this, we wanted to re-build the village with our own study. Without losing its character, to embrace its inhabitants, offering security and protection. And our greatest reward is the children's smiles we see today around us, the children who are the future of this place. My ties with you are now very strong, because we have been involved together in the re-construction, stone-by-stone, for the past three years. They are ties of mutual friendship and appreciation that will never fade".

At the handing-over ceremony, as a token of their gratitude to Mr Vardis V. Vardinoyannis and his wife, the inhabitants of Makistos gave the golden key of the village to Mrs Marianna V. Vardinoyannis, named the village square *"Vardis and Marianna Vardinoyannis Square"* and declared them honorary citizens.



#### IV. Social Contribution

We contributed to the humanitarian/charitable work conducted by the Hellenic Red Cross, UNICEF, the "ELPIDA" Association, the Greek Office of the NATO HQ for Allied Forces based in Naples, Italy, the "Argo" Association for Seafarer Parents of Children with Special Needs, the "Theotokos" Foundation for the Protection of Maladjusted Children, the Organisation Against Drugs (OKANA), the "Oasis" Support Centre for Addicts, the Hellenic Society for the Protection and Rehabilitation of Disabled Children (ELEPAP), the Athens Elderly People's Home, the elderly people's home "Aghios Haralambos" in Aigion of the Agapis Melathron Ecclesiastical Foundation, the Ermoupolis elderly people's home in Syros, the "Theofilos" Social Welfare NGO, the "Arogi" Welfare Association, the "Fos ton Tyflon" Organisation to Assist the Destitute Blind, the "Tranquillity" Association for people with special needs, the "Iliachtida" Cretan Association of Parents and Friends of Children with Cancer, etc.

# 1b. Corinth area



# Corinth General Hospital

Demonstrating our interest and sensitivity towards society, we support the Corinth General Hospital in a systematic and diversified way, covering the cost of medical equipment, the cost of improving the infrastructure of buildings, or by supporting scientific events and publications. Over the last thirteen years, our collaboration with the Corinth General Hospital has included the following:

- 2010: Donation of specialised medical equipment (examination beds, pulse oximeters, mobile monitors, electrocardiographs, defibrillators, etc.), for the needs of the Emergency Pathology Clinic.
- 2008: Donation of a portable echo-cardiograph to the Cardiology Clinic.
  - Sponsorship for the organisation of the 1st Cardiometabolic Risk Factors Conference, 29-31 May 2008.
- 2007: Financial assistance towards the organisation of a seminar on cardiology, paediatrics and intensive care treatment.
  - Coverage of the cost of cleaning and painting works at the *"Psychargo"* psychiatric clinic.
- 2006: Donation of a complete gastroscope-orthoscope. - Financial assistance towards the organisa-

tion of the seminar "Treatment of casualties in massive road accidents".

- 2005: Donation of special surgical equipment for the General Surgery, Orthopaedics and Urol-ogy Clinics.
  - Funding the publication of an informative leaflet on the hazards of smoking.
- 2004: Donation of a series of medical textbooks to the hospital's library.
  - Financial assistance for the Cardiology Clinic's educational programme.
- 2003: Donation of a plasmaphaeresis device for the Blood Donation unit.
- 2002: Donation for covering the cost of building improvements.
- 2001: Donation of medical equipment (electrocardiographs, etc.) for the Pathology Clinic.
- 2000: Donation of an 8-12 blood units centrifugation device for the Blood Donation unit.
- **1999:** Donation of a fully-equipped laparoscopy unit for the General Surgery Clinic.
- 1998: Donation of a complete laryngoscope for the Otorhinolaryngology Clinic.

#### Support for senior citizens



#### Meals for destitute elderly people

About 10 years ago, MOTOL OIL launched a very important social solidarity initiative in cooperation with the Corinth Municipality Protection Centre for the Elderly (K.A.II.H), which the company supports unfailingly. The initiative involves a meals programme for Corinth's destitute elderly people, within the framework of which free lunches and dinner supplements (milk and yoghurt) are offered 365 days a year. The meals are prepared at the refinery's restaurant, and are the same as those offered to refinery employees. In 2010, the refinery restaurant provided meals for 75 elderly people at the Corinth Centre and another seven at the similar Centre of Aghioi Theodoroi.

#### Aghioi Theodoroi

Since its establishment in 2000, every year we have offered significant economic aid to the Aghioi Theodoroi Protection Centre for Elderly People (K.A.II.H) -which has around 350 members- to meet part of its operational expenses and to enrich the events it organises for the elderly in the area. In 2010, this assistance facilitated the organisation of numerous events, including excursions, an Easter party and various lectures on numerous subjects, including medical issues relevant to geriatric illnesses and problems of the elderly.

We financially assisted the "Efthymeion Centre" for Treatment and Rehabilitation of People with Special Needs, in Corinth, with the purchase of the institution's Christ-



mas cards, raffle tickets for their lottery, and Easter candles made by children. The Centre enjoys broad recognition for the quality of its services, and accommodates around 150 people with special needs. Through both its therapy programme and its occupational workshops, provides assistance and relief by way of specialised medical and social care support. MOTOR OIL's interest in the "Efthymeion Centre" is longstanding, stemming from our

conviction that social exclusion has no place in contemporary society, and that people with special needs should be incorporated in society through appropriate actions and programmes.

- We offered economic aid to the Aghioi Theodoroi Regional Department of the Hellenic Red Cross, to meet part of the operational costs of the ambulance and the coastal First Aid station, which are staffed with volunteer lifeguards.
- We donated to the work of the Hellenic Red Cross which operates in the Loutraki region.

- We supported the Argolida Nephropathy Association for its bimonthly publication, *"Diavimata"*, which offers valuable information and news for kidney sufferers.
- We offered Christmas gifts to schoolchildren in Aghioi Theodoroi, Isthmia and Kyra-Vryssi, as well as to the teachers of elementary schools and kindergartens in Aghiou Theodoroi. We also financially supported the organisation of Christmas events by the Isthmia Special Vocational Training Workshop, the Corinth Special Elementary School, and the Corinth Union of Police Employees for the children of police officers.
- During the Christmas and Easter periods, we made monetary contributions to over 620 destitute people in Corinth, Aghioi Theodoroi, Isthmia, Loutraki, Saronikos and Solygeia, as well as donations to seven charity organisations in the region. At Easter, we provided roasting lambs and beverages for various institutions in the Corinth prefecture.
- We donated to various bodies, including the Union of Police Employees in the Corinth prefecture, and contributed to an appeal by the Kalamaki Holy Church, the charitable work of the *"Panaghia Giatrissa"* Church in Loutraki, the Panhellenic Union of Refinery Retirees for the organisation of events and for the publication of its magazine, as well as to the MOTOR OIL Retirees Association to meet the cost of medical insurance programmes.
- We provide emergency assistance to neighbouring communities, placing at their disposal the refinery's personnel and its technical, fire-fighting, anti-pollution and medical equipment whenever necessary.

# 2. CULTURE

We believe in the role of the arts, culture and history as the mainstays of healthy social development, based on solid spiritual foundations, and we provide multifaceted support for activities that highlight and promote our traditional cultural heritage.

# 2a. Broader society



# St. Stratigos

On 1 April 2010, a political patrician passed away – the former prime minister, Tzannis Tzannetakis, who served the country and democracy all his life with a strong sense of responsibility. With his long and selfless contribution to public life, his involvement in the anti-dictatorship struggle, his clear commitment to promoting national consensus, and his ethos, wisdom and moderation, he won the respect of all Greeks. However, politics was just a part of his interests. He loved literature and was a very close friend of Patrick Leigh Fermor -whose *"Mani - Travels in the Southern Peloponnese"* he translated- being a writer himself. He published the books,

*"Elections from the Upanishads"* in 1961 and *"Choros esti tes agoras"* in 1994, as well as *"India: Another Way of Life"*, which was translated in English too.

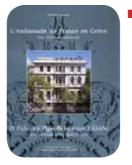
Tzannis Tzannetakis was extremely fond of his birthplace, Mani. There, he frequently visited the Byzantine church of St. Stratigos, a marvelous historic monument in the village of Ano Boularioi, in the Laconia prefecture, which is built on the highest point of the village, not far from the sea. Honouring the memory of Tzannis Tzannetakis, and in order to preserve the holy presence of this church for generations to come, MO-TOR OIL made a donation to the Sparti Cultural Centre, for renovations to St. Stratigos and for the preservation of its frescoes and sculptured embellishments.



# Underwater excavations of a Mycenaean shipwreck

As in 2009, we offered economic assistance to the Hellenic Institute of Marine Archaeology (HIMA), a well established body that conducts and promotes underwater archaeology in Greece through ground-breaking research and educational work, in order to facilitate the continuation of the underwater research and study of a shipwreck from the Mycenaean period (13th-12th century BC), which was found south of Poros island. The cargo of the shipwreck was linked to the life of a Mycenaean maritime settlement, located on the rocky islet of Modi. It is the second shipwreck dating from the Late Copper Period to be found by HIMA in Greek seas, following systematic underwater archaeological research, and is considered to be of major importance, because it dates from a period of radical re-structuring of the Mycenaean world, the period which followed the decline and fall of Mycenaean palaces. The aim of the additional research scheduled by HIMA in 2010 -under extremely demanding conditions, due to the great depth (over 40m) and exposure to strong winds and currents- was further examination of the shipwreck, in order to bring new data to light about a particularly important period in the pre-history of the Aegean Sea.

We donated funds for the publication of an autobiography by Katerina Vellidis, the former owner of the "Macedonia" newspaper, entitled "It was a heavy winter when I was born".



• We sponsored the publication of the album, "The French Embassy in Greece: A visit without protocol" by Hélène Farnaud, the wife of the present French ambassador. The book outlines the history of the French consular presence in Greece, from the establishment of the Greek state up to now.

We have frequently supported the Ermioni Music Club in its intensive efforts to organise high-standard cultural events in picturesque Ermioni. In 2010, we supported the "4th International Ermioni Festival", which hosted many outstanding performances. The most remarkable was an appearance by the "Peiraiki Armonia" Choir at the Aghios Nikolaos Didymon church, who chanted the entire service, impressing those who were fortunate enough to attend. At the same time, we support efforts by the Ermioni Municipality's Cultural Centre to establish a Municipal Philarmonic Orchestra, which adds a very special note to the municipality's religious, national and cultural events.



The Philharmonic comprises volunteer musicians from the Ermioni area. With the donations we made in 2007 and 2010, 22 instruments were purchased, as well as uniforms for the orchestra members, while the training expenses for two conductors/musicians were also defrayed.

We made a donation to the Hellenic Maritime Union for the magazine, "Nautical Hellas", a traditional shipping publication – the oldest of its kind – circulating since 1928. It is published every month by the Greek Navy printing house, with illustrations, literary articles, historical material and old naval stories. Its contributors are distinguished writers and journalists.



#### **Rethymno Renaissance Festival**

Every summer since 1987, the Rethymno Municipality has been organising its famous Renaissance Festival, now a well-established institution, not only for Crete and Greece, but also abroad. Rethymno's great renaissance background in architecture and literature has made it the natural place for a series of events highlighting the Cretan and the European renaissance in general. In 2010, from 12 to 17 July, the 24th festival was held, featuring high standard performances by music and theatre groups from all over Europe.

# "OIL" Magazine

The quarterly magazine, *"OIL"*, was first issued in 1971 and has been circulating on a regular basis since then, published by MOTOR OIL and other companies from the Vardinoyannis Group. The magazine incorporates articles on historical, sociological, religious, energy, environmental, scientific and techno-

logical topics, and promotes specific important company activities with a broad public impact. The magazine has a run of 3,000 copies and is read by a significant number of both public and private organisations, as well as by higher education institutions.

In 2010, two issues of the maga-



zine were published, featuring articles on historical subjects, such as essays on the science of history, the events which led to the siege of Paris, the role of Patras in the 1821 revolution; topics of ecological interest, including the Gulf of Mexico devastation following the oil leak from the Deepwater Horizon

platform; energy issues such as an analysis of the prospects for global oil demand and, finally, social topics including features on the *"Marianna V. Vardinoyannis-ELPIDA" Children's Oncology Hospital* and on the reconstruction of Makistos village after its destruction by fire in 2007.



We donated to the Society of "Vrakoforoi" of Crete -the biggest organisation preserving Cretan traditions- for its trip costs to Australia to participate in events organised by the "Arcadia 2010" festival, held annually by the Cretan Union of Melbourne to honour the anniversary of the historic holocaust. It was the Society's first visit to the faraway continent, where its performances revived historic memories, and offered to the large Cretan community living there, the opportunity to experience the popular Cretan tradition in its most authentic form.

- We supported the Chief Captains' Club magazine, "Sextant" and the newspaper, "Cycladic Light", as well as other important, but of small circulation, local publications and newspapers.
- We also donated towards cultural and other events staged by numerous organisations, such as the Hydra Maritime Academy Graduates Club, the Ekali Community Employees Association, the Goulandris Museum of Natural History, the Worldwide Union of Sfakians, the *"Erotokritos"* Music & Dance Club of the *"Crytagenis Zeus"* Cretans association for the organisation of the *"Klydonas"* festivities, and the Cretan Union for its Annual Children's Festival.

# 2b. Corinth area

In 2010, we contributed to many cultural events, assisting the work of local associations, which offer traditional dancing courses and theatre workshops, organise concerts and theatrical performances, thus having a part in promoting the cultural level of the region.

# Concert by the "Mikis Theodorakis" Orchestra

For the eighth consecutive year, since the beautiful 1,600-seat open-air theatre was inaugurated in Examilia, Corinth, and named after the renowned Greek composer Mikis Theodorakis, the Lysippeion Cultural Centre of the Corinth Prefecture organised a large popular music concert featuring the *«Mikis Theodorakis»* Orchestra. The 2010 concert took place on 31 July.

MOTOR OIL sponsors this event each year. The purpose of this ongoing sponsorship is to pay tribute to the invaluable musical heritage of Mikis Theodorakis, who -apart from his enormous symphonic work- has also composed ninety four song cycles originating from the roots of Greek popular tradition, that promote poetry in a simple and authentic way. In addition, the company supports this particular orchestra, which, for many years, under the composer's supervision, has presented major productions, cooperated with renowned artists, musicians and singers, and has travelled throughout the world, promoting the power of Mikis Theodorakis' music.

The 2010 concert was dedicated to Vassilis Tsitsanis, the "patriarch" of rebetika music. Two very distinctive, yet different, musical worlds. Two artists who have worthily served Greece's popular music, each in his own way and in his own musical style, with popular music as their meeting point, in terms of sources and influences. The distinguished singers, Vassilis Lekkas, Calliope Vetta, Doros Dimosthenous and Panayotis Petrakis, undertook to present this performance of seemingly inconsonant songs by the two great artists, presenting a superb programme, which thrilled and uplifted their audience.



# Aghioi Theodoroi Cultural Centre

As every year, in 2010 we supported events organised by the Aghioi Theodoroi Cultural Centre, which -since 1988- has been developing multifaceted cultural activities, that are not limited only to the prefecture.

Many different departments operate within the framework of the Cultural Centre, such as: guitar for children, theatre, modern and traditional dance for children and adults, philharmonic, parental consultancy, art workshop for elementary school and kindergarten, puppet theatre for kindergarten, and adult and children's choir. Numerous events were organised in 2010, including Carnival celebrations with 1,000 participants, chorus concerts, art exhibitions, puppet theatre presentations with accompanying puppet-making exhibition, and theatre performances featuring excerpts from Lorca plays and from Greek cinema.

- We financially assisted local newspapers and magazines, which have inevitable difficulties meeting publishing expenses because of the low circulation and limited resources.
- We offered economic aid to the Loutraki Municipal Cultural Centre for the organisation of the Carnival in Loutraki.
- We supported the *"Vassilis Rotas"* Corinthian theatre for the staging of the Sophocles tragedy, *"Antigone"*.
- Finally, we donated to a series of cultural events organised by various local associations, such as the "Galini Ag. Philippas" and "Nea Zoi", of Katsiviri; the "Pineios" association of Thessalians in Corinth Prefecture; the "Aghios Dimi*trios"* cultural association of Xilokeriza for the publication of its annual magazine; the Aghioi Theodoroi Women's Association; the "Aghios Haralambos" Association, Kalamaki, to organise a beach party; the "Arakoukia" Saronikos Municipal Cultural Association for the organisation of a musical and cultural night; the "Eleni Sot. Didaskalou" Athikia Cultural Centre; the "Cosmas o Aitolos" Aitoloakarnanians Association in Corinth Prefecture: the "Mainalo" Arcadians Union of the Corinth Prefecture: The Minor Asians Union of Corinth; the "Alkyonides" Literature and Art Society, Corinth; the Union of Messinians, Corinth Prefecture, and the "Protoporos" Cultural Association of Ano Kalyvizes.



# Corinth Municipal Cultural Centre

The Corinth Municipal Cultural Centre is the official body for the municipality's cultural activities, which include concerts, theatre and dance performances, art exhibitions, scientific conferences and sports events. The Centre, with its outstanding summer events over the past years, proved to be a patron of all forms of art and of the promotion of the local cultural life.

In 2010, we sponsored the Centre's organisation of *"Carnival 2010"*, and the summer events *"Cultural Routes 2010"*, which included -amongst other activities- concerts (by singers Portokaloglou, Ziogalas and Famellos, the *"Pantos Kairou"* and *"Gordios Desmos"* groups, and the *"Attica Orchestra of Plucked String Insruments"*), as well as theatre performances (*"The Knights"* by Theatriki Diadromi and *"The Germans are returning"* by the Cultural Centre's Theatre Workshop).

# 3. EDUCATION

Education has always enjoyed our company's support. We believe in the power of knowledge as a factor that cultivates and fosters the development of both individuals and groups, and this is why we are interested in boosting and promoting education, research and technology – the three main pillars that constitute the driving force of progress and enhance the future of society.

# 3a. Broader society

# The *"Vardinoyanneion Foundation"*

The "Vardinoyanneion Foundation", sponsored primarily by MO-TOR OIL, was established in 1989, and is run by a seven-member Board of Trustees. Its mission is to grant scholarships and awards, as well as to provide annual financial assistance, without examinations, for candidates who have distinguished themselves academically, or who are in need of support for graduate or post-graduate studies at tertiary education institutions either in Greece or abroad. Through these scholarships and financial support, candidates are assisted in overcoming financial problems, allowing them to continue their studies unhindered.

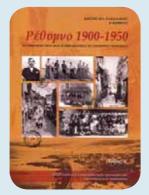
The supported study fields vary in each academic year. A total of nine scholarships were awarded for the academic year 2010-2011:

- One postgraduate scholarship for an Engineering School abroad.
- Four postgraduate scholarships for studies in Greece, in the fields of Chemical Engineering, Business Administration, Maritime Studies and Geology/Geophysics.
- Four undergraduate scholarships at Greek universities in the fields of Geology, Medicine, Naval Engineering and Economics.

Moreover, 101 additional annual assistantships were awarded for the academic year 2010-2011.

Since its establishment, the Foundation has awarded 141 scholarships and 1,474 annual assistantships.

# 1st Rethymno High School



We have "adopted" and we support the 1st Rethymno High School's annual pupil exchange programme with the Finsterwaltergymnasium in Rosenheim, Germany. This school employs dedicated and inspired teachers, who do not limit learning to the boundaries of a small classroom.

In 2010, the school utilised our financial support for two other programmes as well:

A five-day educational excursion to Paris, with the aim of becoming better acquainted with France's history and culture. Within thecontext of the programme, the students

-divided into groups- worked on various themes, including: the French Enlightenment; France-Greece: interactions; the French educational system; Paris: famous sites and culture, etc. Each day, the students visited the various sites in Paris and, at the end of the day, presented projects and reported on their impressions. They travelled, learnt and were entertained.

Issuing of the book, *"Rethymno 1900-1950"*, published by the 1st Rethymno High School, within the framework of its environmental training programme and compiled by the teacher, Costas Papadakis, with a group of school students. It deals with the history, culture and tradition of the city of Rethymno over the 50-year period.



# Internship programme

Each year, we accept a number of university and technical school students for paid internships of 1-2 months in various positions in the refinery and the head office. During their stay, trainees are introduced to the company's work environment and take part in projects involving teamwork with our experienced members of staff who are tasked for this particular purpose. Furthermore, a number of students are offered the possibility of six months' practical work experience, relevant to their specific areas of study. We also accept foreign students for practical work, who are registered with the International Association for the Exchange of Students for Technical Experience (IAESTE). During 2010, within this context, eight 1-2 month internship positions and 16 six-month positions were offered, as well as one position for a student in the IAESTE programme, at a total cost of around 65,000 euros. The total cost of these programmes over the past 5-year period was 750,000 euros.

### Informative visits to the refinery



Every year, we organise informative oneday seminars and visits to our refinery for university, technical, military academy and high school students. Visitors are given guided tours of the production and work areas and are briefed on the operation of one of Europe's most modern refineries, as well as on the environmental protection programmes that MOTOR OIL is implementing or developing, and the company's ongoing contribution to both local communities and society in general. Within the framework of these events, some 150 people visited the refinery in 2010.

- We donated a total of 12 computers to various schools and foundations.
- The company supported the Saint Constantinos and Saint Eleni parish in Rethymno for their Sunday school's excursion to Athens.
- We offered financial assistance to the Episkopi-Rethymno Senior High School for a five-day educational/recreational excursion to Thessaloniki in 2010.
- We contributed financially to an educational excursion to Athens by the 14th Rethymno Elementary School.

# 3b. Corinth area

We offer financial support to schools in the Corinth region for the enhancement of their technical infrastructure, and for various educational activities and programmes that boost the level of their educational work.

Some examples of such initiatives in 2010 were:

- Financial aid to the Isthmia Kindergarten for maintenance work to the building and front yard.
- Economic support for Aghioi Theodoroi 3rd Kindergarten for the construction of a shelter and for tackling humidity and sanitation problems.
- Financial assistance for the Aghioi Theodoroi day care centre.
- Donation to the Vochaiko Elementary School for the purchase of books to enrich the school library.
- Economic assistance to the Almyri Elementary School in Corinth for the maintenance of its facilities.
- Support for the Isthmia Elementary and Junior High Schools for cultural events and educational trips.
- Donation to the Aghioi Theodoroi 1st and 2nd Elementary Schools for the enhancement of their Natural Sciences laboratory, the purchase of interactive boards, computers, etc.
- Financial support to the Aghioi Theodoroi Junior High School for the enrichment of its school library.
- <image>
- Donation to the 2nd Corinth Senior High School for the purchase of technical equipment.

# 4. ENVIRONMENT PROTECTION - INFRASTRUCTURE

We firmly support activities that contribute to improving infrastructure and to raising society's awareness of environment protection and sustainable development.

# 4a. Broader society

- We undertook the full cost of publishing the children's book, "*The Land of Two Suns*", the subject of which is the protection of environment and cultural heritage (for more details, see the "*Environment*" chapter).
- We offered donation to the Aghia Anastasia tis Romaias Holy Monastery in Rethymno, for works to complete the church.
- We gave financial assistance to the Holy Diocese of Hydra, Spetses, Aegina, Ermioni and Troizinia for works related to the Diocese's summer camps, which can host some 300 children.

# 4b. Corinth area

- We met the needs of some 150 local households in vicinity with the refinery, in terms of water for sanitation and garden irrigation, with quantities produced by the refinery's desalination plants. This water is a source of life for the area's vegetation. MOTOR OIL has built and maintains the water supply mains to these homes, as they are not covered by the existing Aghioi Theodoroi water supply network. In 2010, 58,000 cubic metres of water were provided free of charge, exceeding 180,000 euros in value.
- We provided economic aid to the "Aghioi Theodoroi" Forest Protection Association, which owns three fire engines and other equipment, to facilitate its important work involving direct and effective intervention by its volunteer firemen in the event of a forest fire in the region.
- We offered financial aid to the Corinth Army Officer's Club for renovation projects, and donated a significant quantity of car engine lubricants to

various organisations and bodies.

- We financially assisted the Solygeia Municipality, for repairing a damage of the region's water supply system.
- We also made donations to various local development and other associations for infrastructure projects. These associations included: "Apostolos Pavlos" and "Philothei", Keghraia: "Klara Elias", Sousaki; "Alkyon", Kyra Vryssi Isthmia; "Ano Kinetta"; "Arion", Isthmia; "Paradisos", Isthmia; "Galini", Isthmia; "Glykia Zoi", Sousaki, and "Panorama 2", Kinetta, for the construction of a children's playground; "Protoporos", Ano Kalyvizes, for the fencing of a children's playground and its enhancement with toys; "Aghios Charalambos", Kalamaki, for coastal street lighting, and the Aghioi Theodoroi Federation of Settlement Associations. We also donated to the Metastasi tis Theotokou Church in Almyri and the Apostolos Pavlos Church in Corinth.

# 5. SPORTS

Supporting sports means embracing young people, because athletic activities cultivate the mind and the body, enhance a spirit of sportsmanship and create healthy personalities. We sponsor team sports and championships, as well as less popular athletics, while we do support small clubs and amateur sports associations as well.

# 5a. Broader society

# "Spartathlon 2010"

Each year, MOTOR OIL contributes towards the organisation of the famous long-distance race known as the *«Spartathlon»*, by providing a physician and a fullyequipped ambulance, as well as assisting the Control and Supply Station in front of the refinery. The 28th event was held in 2010, on the 245.3-km historic Athens-Sparta route, run by the Athenian messenger, Pheidippides, in 490 BC, to enlist Sparta's support against the Persian army in Marathon. In 2010, the race was particularly significant, as it marked 2,500 years since the Battle of Marathon and Pheidippides' feat. The race began on 24 September from the sacred rock of the Acropolis in Athens, with 325 athletes (both men and women) participating from 32 countries. Of these, 128 crossed the finishing line, including 13 women and 11 Greeks. The winning time was 23:03:06, by Ivan Kudin, and the last runner's time was 35:50:15. The athletes are awarded an olive branch and water from Evrotas River, presented by a young Spartan girl.





In 2010, we continued our tradition of sponsoring the following sports clubs:

■ The basketball team of the Rethymno Athletics and Gymnastics Club (AGOR), which competed in the A2 National League in 2009-10 and also offers social work with basketball lessons in all the villages of the prefecture, academies (of approximately 230) children of all ages -who are also Cretan champions in their respective age categories- and other activities.



- The Athletic Club of Episkopi, Rethymno.
- The Rethymno Union of Soccer Associations.
- The *"Kallipateira"* Panhellenic Women's Athletic Association.
- The *"Poseidonas"* Sports Club of Gerani, Rethymno.

The *"Koronis"* Sports Club of Koilada.



- The Rethymno Volleyball Club, whose teams dominate in regional championships, and its women's team is competing in the A2 National League in 2010-2011.
- We financially assisted the AON Asteras Athletic-Soccer Association of Rethymno, which has been active in Rethymno since 1945 and comprises three main sections: preparatory; the *"Keravnos"* A-category team of the Rethymno Union of Soccer Associations, and the *"Asteras"* team which participates in the Cretan regional championship, with a total number of athletes and coaches exceeding 200.



*"Vardinoyanneia"* EAA Premium International Track and Field Meeting



Two Panhellenic records, two event records and other outstanding performances were achieved at the 26th *"Vard-inoyanneia"* organised in Rethymno on 7 July 2010. The event was, once again, a real celebration of world-wide classic athletics, and an occasion for top athletes from all over the globe to meet. The programme included 16 events, in which 156 athletes from 36 countries participated. Of these, 43 were from Greece and 19 from the United States.

Competing athletes were of an exceptionally high standard, with 7 Olympic Champions, 15 world champions, 7 European champions and some of Greece's top sportsmen, such as Pericles Iakovakis.

Two Panhellenic records and two event records were the highlights of the 26th *"Vardinoyanneia"*, which earned a general rating of "Excellent", according to the European Athletics Association's Technical Delegate Report.



The 26th *"Vardinoyanneia"* aroused great interest throughout Europe and beyond, as it was televised and broadcast live in Greece, Russia, Finland, Ukraine, France, Cyprus and Sweden.

The two event records were set in the Women's Hammer Throw and in the Women's 3,000m. In the Hammer Throw, German world champion Kathrin Klaas won with a throw of 72.40m, while Gedo Sule Utura from Ethiopia ran to victory in the Women's 3,000m with a time of 8:43:72.

Two young Greek athletes also performed outstandingly: Lykourgos Tsakonas and Anastasia Karakatsani, who broke the Panhellenic Junior records -the former in the men's 200m with a time of 20:67 and the latter in the women's 3,000m with a time of 9:29:82, breaking the 1990 record (9:42:35).

The Men's Triple Jump was also an impressive event, in which Rumanian Olympic Champion Marian Oprea achieved victory with a jump of 17.02m, while Pericles Iakovakis finished third in the 400m Hurdle, with a time of 49:82. As expected Hungarian Olympic Champion Robert Fazekas earned first place in the Discus with a throw of 66.21m. The Women's High Jump was dominated by Ukrainian Olympic Champion Vita Stiopina and Bulgarian World Champion Vanelina Veneva, ending in victory for Stiopina with a jump of 1.94m.





100m 100m under 23 years 110m Hurdle 400m Hurdle 3,000m Steeplechase Long Jump Triple jump Discus throw 100m 200m 200m under 23 years 3,000m 400m Hurdle High Jump Pole vault Hammer throw



MOTOR OIL is a permanent official sponsor of the "Vardinoyanneia" International Track and Field Meeting, which has been held every year since 1985 in Rethymno, Crete, in honour of Pavlos Vardinoyiannis. Organised by the Atromitos Union of Rethymno, it is held under the aegis of the European Athletics Association (EAA) and conforms to the rules of the International Association of Athletics Federations (IAAF). The "Vardinoyannia" meeting is hosted at the Olympic-standards "Pavlos I. Vardinoyannis" Gallos Municipal Athletics Centre stadium in Rethymno. MOTOR OIL provides a significant amount of special funding for the maintenance and upgrading of the stadium's infrastructure.

All major Greek athletes and many foreign sports champions have competed in the "Vardinoyanneia" meetings. Twenty-nine national records have been set, as well as one European Junior record, and a world record in 2001 by Cuban Javelin thrower Osleidy Menendez. Reflecting the wide participation of athletes from all over the world, the outstanding scores achieved and the high standard of organisation, the «Vardinoyanneia» meetings were promoted to the EAA Premium category in 2006. Every year since 2002 (with the exception of 2008), the meetings have enjoyed the highest scores of the European Athletics Association, which ensure that they are top in their category.



### Milestones

- 1985: First games on dirt track
- 2000: Inclusion in the EEA Permit category
- 2001: World record in Women's Javelin Throw
- 2006: Inclusion in the EEA Premium category
- The best EAA Permit games 2002, 2003, 2004, 2005
- The best EAA Premium games 2006, 2007, 2009
- 2010: A general rating of "Excellent" in the EAA Technical Delegate Report



# 5b. Corinth area

We support activities that promote a spirit of sportsmanship among young people in the local community. Some examples of such contribution in 2010 were:

- A significant donation to the football team of the *"Corinthos"* Pan-Corinthian Athletics Club, which we have been supporting for a number of years. The *"Corinthos"* team competes in the Professional Championship in the National C-category, as well as in the Greece Cup. The team also maintains academies for some 150 children with the appropriate coaches and trainers.
- Economic aid for the Isthmia "Poseidon" Soccer Association.
- Financial support for the Aghioi Theodoroi Tennis Club.
- Donation to the Aghioi Theodoroi *"Theseas"* Karate Sports Club to partially cover the costs of its relocation.

# 6. ENTREPRENEURSHIP

MOTOR OIL, as the largest economic entity and employer in the Corinth Prefecture, provides income, directly or indirectly, to a large number of families in the area – more than 600 refinery employees live in neighbouring municipalities. And as the main pillar of the region's economic growth, the company supports local initiatives aimed at promoting entrepreneurship.

Moreover, we implement a policy of preference for local businesses in order to meet the refinery's needs in services, consumables, food, etc. -even if cheaper sources are available elsewhere- thus further supporting the Corinth economy. Relevant expenditure in 2010 was approximately nine million euros.

In 2010, we donated to various bodies, such as the Labour Ministry Employees Association, the Aghioi Theodoroi Trade Association, the Corinth Prefecture IKA Employees Association, and the Argolida-Corinth Public Finance Services' Employees Association.

### Panhellenic "Corinthia 2010" exhibition

On 22 to 26 September 2010, the Corinth Chamber of Commerce organised the 2nd Panhellenic General Exhibition, *"Corinthia 2010"*, which we supported. The exhibition, with 177 exhibitors and over 20,000 visitors, was an important economic, social and cultural





event for the Corinth region. Its aim was to highlight and endorse economic activities, promote regional products both locally and abroad, facilitate commercial agreements and increase tourist traffic. The exhibition revolved mainly around Agrotourism in Corinth, Health-Woman and Beauty, Wine and Gastronomy, and Education. Parallel activities included interesting conferences and cultural events, such as a conference on *"Corinth 2020 – Growth Prospects"*, schoolchildren's award presentations, dance performances and a fashion show by the Corinth Trade Association.

# V. Global Compact: Communication on Progress 2010



MOTOR OIL participates in the United Nations Global Compact, which constitutes the biggest Corporate Responsibility initiative in the world. In year 2008, MOTOR OIL became a signatory of the UN Global Compact; at the same time the company became a member of the Global Compact Network Hellas.

The Global Compact incorporates ten fundamental principles relating to human rights, labour rights, environmental protection and anti-corruption. We are committed to these principles, which we have integrated in the policies and processes of the company. MOTOR OIL's *Environmental and Social Report 2010* contains information relating to our social and environmental practices and actions and the outcomes thereof, which underline our commitment to the Global Compact, as referred to in the Management Message as well. The following chart lists the com-

pliance of MOTOR with the ten Global Compact Principles, by making reference to the relevant chapters of the *Environmental and Social Report 2010*, and to the GRI indicators taken into account in compiling the Report.

The ten Principles of the Global Compact	Reference in the <i>Environmental and Social Report</i> or Description of the Implementation Approach	GRI Indicator (G3)
Human Rights		
Principle 1 Businesses should support and re- spect the protection of internation- ally proclaimed human rights.	Chapters IIA and IIB. Full compliance with relevant Greek legisla- tion and international conventions.	EC5, LA4, LA6-9, LA13-14, HR1-9, SO5, PR1-2, PR8
Principle 2 Businesses should make sure that they are not complicit in hu- man rights abuses.	Chapter IIA. Full compliance with relevant Greek legisla- tion and international conventions.	HR1-9, SO5
Labour		
Principle 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	Chapter IIA.	LA4, HR1-3, HR5, SO5
Principle 4 Businesses should uphold the elimination of all forms of forced and compulsory labour.	Chapter IIA. Full compliance with relevant Greek legisla- tion and international conventions.	HR1-3, HR7, S05
Principle 5 Businesses should uphold the ef- fective abolition of child labour.	Chapter IIA. Full compliance with relevant Greek legisla- tion and international conventions.	HR1-3, HR6, S05
Principle 6 Businesses should uphold the elim- ination of discrimination in respect of employment and occupation.	Chapter IIA.	EC7, LA2, LA13-14, HR1-4, SO5
Environment		
Principle 7 Businesses should support a pre- cautionary approach to environ- mental challenges.	Chapters I and III.	EC2,EN18, EN26, EN30, SO5
Principle 8 Businesses should undertake ini- tiatives to promote greater envi- ronmental responsibility.	Chapters I and III.	EN1-13, EN16-28, EN30, SO5, PR3-4
Principle 9 Businesses should encourage the development and diffusion of environmentally friendly technologies.	Chapters I and III.	EN2, EN5-7, EN18, EN26-27, EN30, SO5
Anti-corruption		
Principle 10 Businesses should work against corruption in all its forms, in- cluding extortion and bribery.	Chapter I.	4.1-4.9, 4.12, SO2, SO5

# VI. GRI Compliance Level

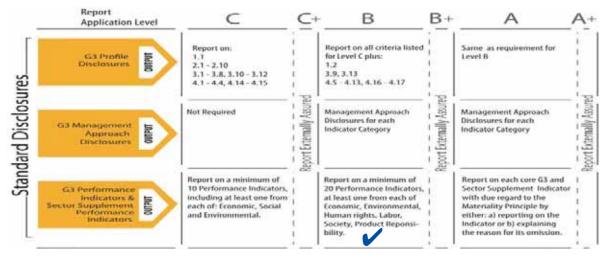
The MOTOR OIL *Environmental and Social Report*, which has been published every year since 2002, is the main tool available for communicating with our stakeholders about the Group's efforts and performance in achieving sustainable development through the application of the principles and objectives of Corporate Social Responsibility. It contains the most important facts and data relating to the previous year's financial, social and environmental performance.

The *Environmental and Social Report 2010* has a similar structure to previous editions, so as to facilitate comparisons of performance over time. The information and data presented in the report concern the parent company MO-TOR OIL, the Group subsidiaries AVIN OIL, CORAL, CORAL GAS and OFC, which are controlled by MOTOR OIL, and

whose activities have a significant impact on issues considered as material for sustainable development.

The compilation of *Environmental and Social Report 2010* takes full consideration of the ten principles of the United Nations Global Compact -as done since 2008- while it is based on the 3rd revised edition (2006) of the Global Reporting Initiative (GRI) guidelines for a B application level, just as in the three previous editions of the Report. The GRI guidelines have provided a sound basis for the selection of the material issues that had to be covered by the Report, for an effective communication with stakeholders.

The *Environmental and Social Report 2010* is not certified by an external certification authority.



Where numerical data or performance indicators are presented, the method of data collection and calculation of results is also stated. The Environmental and Health and Safety performance indicators are specifically calculated according to internationally accepted procedures. The following clarifications should also be noted:

- 2010 is the first year when data related to the CORAL, CORAL GAS and OFC companies are incorporated in the *Environmental and Social Report*. With regard to OFC, the data included relate to the whole year, whereas for the first two companies they relate only to the second half of the year, given that these were previously the SHELL subsidiaries SHELL HELLAS and SHELL GAS, which after the takeover by MOTOR OIL of SHELL's downstream operations in Greece, were renamed -with effect from 1 July 2010- and absorbed within the MOTOR OIL Group.
- Chapter *"IIA. Responsibility Towards Our Employees Human Resources"*, includes more detailed and accurate calculations relating to the indicators of hours allocated to, and the costs of, training than are collected by the Human Resources Departments (e.g. data on fire safety and Personal Protective Equipment training); the corresponding data reported for previous years have been adjusted accordingly for retaining comparability.

- In chapter *"IIB. Responsibility Towards Our Employees Health and Safety"* the MOTOR OIL accident indicators presented, now relate to the whole of MOTOR OIL (i.e. the refinery and head offices); the relevant data for previous years has been adjusted accordingly.
- In chapter *"III. Responsibility for the Environment"* the data relating to investments and recycling refer to the whole MOTOR OIL Group, whereas other indicators in this chapter refer to the MOTOR OIL refinery only; also, in contrast to the *Environmental and Social Report 2009*, carbon dioxide emissions are per ton of raw material processed, as opposed to per ton of end product, while the sulphur emissions are calculated as tons of sulphur dioxide emitted per year, as opposed to kilogrammes of sulphur emitted per hour.

The following table records the GRI Indicators, and in the column headed *"Reference"* the source of information relating to each indicator is given. There is no reference to the compliance level for each indicator (full or partial). The symbols used in the table are:

**p.:** indicates the page(s) of the *Environmental and Social Report 2010* that include information on the indicator.

- Image: indicates reference to the Annual Financial Report 2010.
- $\sim$  : indicates reference to the company's website.

ndicato	r Description	Reference
Compan	y Profile	
.1	Management statement	p.
.2	Description of key impacts, risks, and opportunities	p. 15-16, 52, 🕁 28-3
ranio	ational Drafile	
rganisa .1	ational Profile Name of the reporting organisation	n back cove
.1 .2	Primary brands, products, and/or services	p. back cove p. 6-9, <b></b> 12-13, 21-26, ~
.2 .3	Operational structure of the organisation	p. 8, 21-26, 59-60, ~
.3 .4	Location of organisation's headquarters	p. 0, 21-20, 37-00, 9
. <del>-</del> .5	Countries where the organisation operates	p. back cove
.6	Ownership structure and legal form	ې 27, 84-87, پ
.7	Markets served	p. 6-7, <b>1</b> 1-1
.8	Scale of the organisation	p. iii, 8-13, 28-30, 🕁 9-19, 80-8
.9	Significant organisational changes in the reporting period	p. ii, 6-8, 17-18, 92, 19-2
.10	Awards received in the reporting period	p. 24-2
		r
eport P	arameters Reporting period	1/1/2010-31/12/201
. 1 .2	Most recent previous report	p. inside back cove
.z .3	Reporting cycle	p. Inside back cove
.s .4	Contact point for questions	p. 5, 9 p.
.5	Process for defining report content	p. 5, 9
.6	Boundary of the report	p. 5, 9
.7	Limitations on the scope or boundary of the report	p. 5, 9
.8	Joint ventures, subsidiaries and outsourcing	p. 5, 9
.9	Data measurement techniques	p. 9
.10	Explanation of the reasons for re-stating information provided	in earlier reports p. 9
.11	Changes from previous reports	p. 5, 9
.12	Location of the Standard GRI Disclosures	p. 93-9
.13	External assurance	p. 9
overna	nce, Commitments and Engagement	
.1	Corporate governance structure	p. 14-15, 🚃 34, 🗸
.2	Role and function of the Chairman of the Board of Directors	p. 14-15, 🚃 84-87, 🗸
.3	lindependent and non-executive members of the Board of Direc	
.4	Co-determination right of employees and shareholders	p. 21-23, 28, 📷 30-3
.5	Linkage between Executive compensation and achievement of	
.6	Processes in place to avoid conflicts of interest in the Board	The vote equality of the non-executive an
		independent Board Members safeguard
		the avoidance of conflicts of interes
	A	ssurance is also provided by the Internal Audit Syster
		(⁄ 🕆: Corporate Governance Code
.7	Qualifications and expertise of Board Members	The professional experience of Board Member
	regarding sustainability issues	along with their educational level and social statu
		provide assurance for an unbiased global an
		objective view of the issue
Q	Corporate policies, mission and value	(~ <sup>4</sup> : Corporate Governance Code
.8	statements related to sustainability	p. i, 3, 15-1
9	Board procedures for sustainability management	p. 1, 3, 13-1 p. 15-1
.7	Evaluation of the Board's performance regarding sustainability	
		in the Rules of Company Procedure:
.11	Application of the precautionary principle	p. 19-20, 36-38, 50-5
.12	Voluntary support for external economic,	P. 17 20,00 00,00 0
·	environmental and social charters or initiatives	р. 15-16, 2
.13	Memberships in associations and advocacy organisations	p. 10, 10, 2 p. 24, 7
.14	Stakeholder groups engaged by the organisation	p. 20-2
.15	Stakeholder identification	p. 20-2
.16	Approaches to stakeholder engagement	р. 20-2

	Description	Reference
Economic	: Performance Indicators	
DMA EC	Disclosure on Management Approach EC	p. iii, 6-10, 12-13, 17-18, 🚃 18-20
EC1	Directly generated and distributed economic value, includir	ng revenues,
	operating costs, employee compensation, donations and oth	
	investments, taxes, and payments to capital providers	p. 9-10, 12-13, 📰 9-10
EC2	Climate change financial implications,	Climate change impacts regarding the possible
LUZ	risks or opportunities	financial implications, risks or opportunities
		constitute parameters thoroughly taken into account
		in the process of analysing, evaluating, approving and
		planning for investments or other initiatives
EC3	Organisation's defined benefit plan obligations	72-74
EC4	Significant state financial assistance	MOTOR OIL has not received any significan
		financial assistance by the state
EC5	Entry level wage compared to local minimum wage	Employees are compensated over and above
		the National Collective Labour Agreements
EC6	Local suppliers approach	p. 90
EC7	Local recruitment	p. 28, 73
EC8	Infrastructure investments and services for public benefit	p. 12-13, 73
EC9	Indirect economic impacts	p. 12-13, <b>p</b> . 28-30, 74-7
	·····	p. 12 13, <u>m.</u> 20-30, 74-77
Environn	nental Performance Indicators	
DMA EN	Disclosure on Management Approach EN	p. i, 15-16, 19-20, 50-52, 🏧 30-32, 🦯
EN1	Materials used by weight or volume	
EN2	Percentage of materials used that are recycled materials	p. 66
EN3	Direct energy consumption by primary energy source	p. iii, 57
EN4	Indirect energy consumption by primary source	59,322 MWh from Public Power Corporation
EN5	Energy savings	p. 56-59
EN6	Initiatives to produce energy-efficient or renewable energy	p. 30-3 :
ENO		- //
	based products and services	p. 66
EN7	Initiatives to reduce indirect energy consumption	p. 56-59
EN8	Total water withdrawal by source	p. 67-68
EN9	Effects of water withdrawal	p. 67-68
EN10	Percentage and total volume of water recycled and reused	p. 68
EN11	Land management in, or adjacent to sensitive areas,	The refinery is not adjacent to protected
	and in areas of high biodiversity value	or high biodiversity areas
	outside protected areas	
EN12	Significant impacts of activities, products and services	Refer to EN11, in conjunction with the described
	upon biodiversity in protected areas, and in areas	in the Environmental and Social Report efforts
	of high biodiversity value outside protected areas	for reducing the environmental footprint
EN13	Habitats protected or restored	There are no protected or restored habitats
EN16	Direct and indirect greenhouse gas emissions	p. 58-59
EN10 EN17	Other relevant greenhouse gas emissions	58,136 Mt (estimation of the Public Power Corporation
ENI/	other relevant greenhouse gas enrissions	
		emissions for its energy consumed at the refinery)
EN18	Initiatives to reduce greenhouse gas emissions	p. 53-59
EN19	Emissions of ozone-depleting substances	Non-existent
EN20	NOx, and SOx emissions	p. iii, 60-64
en21		p. 64-65; the waste water discharge rate was 10,523 m <sup>3</sup> /day
EN22	Solid waste	p. 65-66
EN23	Significant spills	There were no significant spills
EN24	Quantity of hazardous solid waste	p. 65-66
EN25	Areas impacted by the organisation's discharge	Non-existent
	of water and runoff	
EN26	Environmental impacts mitigation	Marketing of "clean fuels" (zero sulphur content)
11120	Environmental impacts mitigation	addition of Biodiesel in the produced automotive Diesel.
EN107	Dependent of products cold and their realization	
EN27	Percentage of products sold and their packaging	No packaging material is involved
	materials that are reclaimed	in the handling and distribution of fuels
EN28	Significant fines and sanctions for	
	non-compliance with environmental laws Environmental protection investments and expenses	No such fines or sanctions
EN30		p. 53

	Description	Reference
Social Per	formance Indicators: Labour	
DMA LA	Disclosure on Management Approach LA	p. i, 26-2
LA1	Workforce profile	p. 28-3
LA2	Employee turnover	p. 20 0
LA2 LA3	Benefits provided to full-time employees	p. 30-3.
		p. 30-3.
LA4	Percentage of employees covered	
	by collective bargaining agreements	p. 2
LA5	Minimum notice periods regarding	Notice periods are legally regulated
	significant operational changes	and we accordingly comply
LA6	Workforce representation in	The Health and Safety Committe
2,10	occupational health and safety committees	of the refinery employee
	occupational nearth and safety committees	
		represents all the employees
LA7	Occupational injuries and lost day rates	p. 47-4
_A8	Preventive healthcare counselling and	p. 43; counselling is provide
	training regarding serious diseases	by workplaces' medical services
_A9	Health and safety topics covered in formal	
	agreements with trade unions	p. 28-3
_A10	Average hours of training per year per employee	p. 33-3
	Average nours or training per year per employee	
_A11	Programs for skills development and lifelong learning	p. 33-3
_A12	Employee pperformance and career development reviews	p. 26-2
_A13	Breakdown of employees by category according to gender, age group,	· · · · · · · · · · · · · · · · · · ·
	minority group membership, and other indicators of diversity	p. 28-3
_A14	Men to women basic salary ratio	There is no differentiation
Social Per	formance Indicators: Human Rights	
DMA HR	Disclosure on Management Approach HR	p. 26-2
HR1	Investment agreements including	Human rights violations have not bee
		aither reported or opportained honce no relativ
	human rights clauses	either reported or ascertained, hence no relativ
		initiatives have been undertaker
HR2	Suppliers having undergone screening on human rights	See HR
HR3	Employee training on human rights	See HR
HR4	Incidents of discrimination	No such incidents
HR5	Operations that limit freedom of association and collective bargainin	
HR6	Child labour	p. 2
HR7	Forced or compulsory labour	p. 2
HR8	Security personnel training on issues relating	
	to the protection of human rights	p. 4
HR9	Violations of the rights of indigenous people	Irrelevan
	violations of the rights of margeneas people	interovan
Social Per	formance Indicators: Society	
DMA SO	Disclosure on Management Approach SO	p. i, 72-7
501	Impacts on local communities	p. i, 72-9
504	Anti-corruption measures	No actions have been taken as no incident
504	Anti-con uption measures	
		have been brought to the attention of the Boar
		through the internal audit procedures
SO5	Participation in public policy development	We are members of business association
		which participate in public policy developmen
607	Legal actions for anti-competitive behaviour	None
507 508	Fines for non-compliance with laws	
000		None
Social Per	formance Indicators: Product Responsibility	
DMA PR	Disclosure on Management Approach PR	р. 19-20, 4
PR1	Health and safety impacts of products and services	p. 19-20, 4
	Non-compliance incidents with regulations and codes concerning	
		No such incidents
	health and safety impacts of products and services	No such incluent.
PR2		
PR2	health and safety impacts of products and services Products information and labeling	Material Safety Data sheet
PR2 PR3	Products information and labeling	Material Safety Data sheet
PR2 PR3	Products information and labeling Non-compliance incidents with regulations and codes	Material Safety Data sheet for all our products
PR2 PR3 PR4	Products information and labeling Non-compliance incidents with regulations and codes concerning labeling and product information	Material Safety Data sheet for all our products No such incidents
PR2 PR3 PR4	Products information and labeling Non-compliance incidents with regulations and codes concerning labeling and product information Customer satisfaction	Material Safety Data sheet for all our products No such incidents p. 2
PR2 PR3 PR4 PR5	Products information and labeling Non-compliance incidents with regulations and codes concerning labeling and product information Customer satisfaction	Material Safety Data sheet for all our products No such incidents p. 2
PR2 PR3 PR4 PR5	Products information and labeling Non-compliance incidents with regulations and codes concerning labeling and product information	Material Safety Data sheet for all our products No such incidents p. 2 Marketing communicatio
PR2 PR3 PR4 PR5 PR6	Products information and labeling Non-compliance incidents with regulations and codes concerning labeling and product information Customer satisfaction Legal compliance of marketing communication programs	Material Safety Data sheet for all our products No such incidents p. 2 Marketing communicatio
PR2 PR3 PR4 PR5 PR6	Products information and labeling Non-compliance incidents with regulations and codes concerning labeling and product information Customer satisfaction Legal compliance of marketing communication programs Non-compliance incidents of marketing communication	Material Safety Data sheet for all our products No such incidents p. 2 Marketing communicatio programmes are legally complian
PR2 PR3 PR4 PR5 PR6 PR7	Products information and labeling Non-compliance incidents with regulations and codes concerning labeling and product information Customer satisfaction Legal compliance of marketing communication programs Non-compliance incidents of marketing communication programs with regulations and codes	Material Safety Data sheet for all our products No such incidents p. 2 Marketing communicatio programmes are legally complian No such incidents
PR2 PR3 PR4 PR5 PR6 PR7 PR7	Products information and labeling Non-compliance incidents with regulations and codes concerning labeling and product information Customer satisfaction Legal compliance of marketing communication programs Non-compliance incidents of marketing communication	Material Safety Data sheet for all our products No such incidents p. 2 Marketing communication programmes are legally complian No such incidents No such complaints

# **ENVIRONMENTAL and SOCIAL REPORTS OF PREVIOUS YEARS**





ALL THE MATERIALS USED FOR PRINTING THE MOTOR OIL ENVIRONMENTAL AND SOCIAL REPORT ARE FRIENDLY TO THE ENVIRONMENT



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