

Environmental
and
Social Report
2002



Contents

Responsibility and Integrity	4
Company Profile	6
Corporate Social Responsibility	8
Economic Benefit to Society	10
The Human Factor	12
Quality	20
Health & Safety	22
Environment	26
Community Involvement	32

Responsibility & Integrity

"Our key objective is to conduct business in a way that will add value to the company, benefiting all those who have an interest in MOTOR OIL – shareholders, employees, clients, suppliers, and associates, as well as society. Our practices for achieving this objective are based on the values of responsibility and integrity."

An excerpt from MOTOR OIL's mission statement is that "Our key objective is to conduct business in a way that will add value to the company, benefiting all those who have an interest in MOTOR OIL – shareholders, employees, clients, suppliers, and associates, as well as society. Our practices for achieving this objective are based on the values of responsibility

and integrity."

This excerpt encompasses the company's philosophy of operating as an active and responsible member of society and as a modern enterprise.

This operational framework also encompasses the philosophy of Corporate Social Responsibility, which MOTOR OIL strongly espouses.



Evidence of this is the company's participation in the Greek Corporate Social Responsibility Network and, more importantly, the activities and programs it has adopted to develop its human resources, protect the environment, promote health & safety, secure quality and ensure the social well-being of the community in which it operates.

MOTOR OIL's business strategy is comprised of the following key points:

- Financial development based on social cohesion and the responsible management of natural resources, so as not to deprive future generations.

- Promoting social prosperity through constructive dialogue, mutual trust and respect.
- Respect for the individual, the environment and society: an investment which assures long-term financial performance.



MOTOR OIL has decided to issue the present Environmental and Social Report, which explicitly describes its activities in this area. This report concerns 2002, but since the activities described herein are a continuation of actions of the recent past, the report also contains references to previous years.

In 2002, MOTOR OIL acquired the total shares of the fuels and lubes retail company, AVINOIL. However, the data mentioned in the present Environmental and Social Report do not refer to AVINOIL. Future editions of the report will also include AVINOIL, thus presenting a complete picture of the company's social contribution.

Company Profile

MOTOR OIL (HELLAS) is a leading oil refining and marketing company in southeast Europe, providing its clients with a wide range of high-quality energy products. With a turnover equivalent to 1% of Greece's GNP, the company has become one of the main pillars of the national economy, while at the same time playing a primary role in the entire region.

The company's refinery is located in Aghioi Theodoroi, Corinth, approximately 70km outside Athens. Together with the auxiliary facilities and the fuels offsites it is the biggest private industrial complex in Greece and is regarded as one of the most flexible refineries of southeast Europe. It processes crude oil of various types, producing a wide range of oil products

which comply with the most rigid international specifications, thus serving major oil companies in Greece and abroad. Furthermore, MOTOR OIL is the only Greek refinery that produces base oils.

Its head office is located in a newly constructed building in Maroussi, a suburb north of Athens.



Highlights of the company's history, covering a period of steady expansion, are:

- **1970-1972:** Refinery is built and begins operations. It has a crude oil distillation unit, base oils production unit, a pier for loading and unloading vessels and a gantry for loading road tankers.
- **1975:** Expansion in fuels production by the addition of an atmospheric distillation unit.
- **1978:** Construction of a naphtha reformer unit for gasoline production.
- **1980:** Installation of a fluid catalytic cracking unit (FCC, for converting fuel oil to higher-value products).
- **1984:** Construction of a power plant which runs on gas fuels. Surplus energy is sold to Public Power Corporation.
- **1993:** ISO 9002 certification for the company's activities.
- **1996:** Purchase of 50% of the company's shares by Aramco Overseas Company BV, a wholly-owned subsidiary of the Saudi Arabian Oil Company (Saudi Aramco), the world's biggest oil production company. Through this strategic alliance, the company has a reliable crude oil supply source, and is now organized according to internationally accepted management standards. Relocation of head office in new modern facilities in Maroussi.
- **2000:** Completion of the FCC Unit modernization, for producing high-quality fuels conforming to current EU specifications. The Environmental Management System ISO 14001 was certified the same year.
- **2001:** Increase of the company's equity capital through flotation on the Athens stock exchange. Installation of a new gas turbine in the power production plant. Upgrade of the lubes vacuum distillation unit.



- **2002:** Full acquisition of AVINOIL's shares. ISO 9001:2002 certification.(finalized in January 2003).

The continuous and dynamic growth of MOTOR OIL has contributed to the company's financial strength and to its modern corporate philosophy and has allowed it to attract and retain competent staff and management, thus enabling the company to perform its social role effectively and guaranteeing its future growth prospects.

Growth is grounded on a firm but flexible business strategy based on the following three themes:

- Continuous upgrading of the refinery, in order to achieve the best possible financial performance.
- Presence in domestic, bunkering and international markets in a way that enables the company to achieve an optimum overall selling price.
- Implementing technical, operational and organizational improvements in the refinery so as to achieve the highest possible standards of health & safety, environmental protection, and quality.

This successful strategy has allowed the company to maintain high profitability.

During 2002, its turnover was 1,361.8 million Euros with a pre-tax profit of 83.8 million Euros.

MOTOR OIL's contributions to society and the national economy (discussed in a separate chapter) has been commensurate with its overall performance. For example, in the last two years MOTOR OIL has contributed to the state more than 77 million Euros in taxes and has paid 59 million Euros to its personnel in salaries and other benefits. In the last three years, MOTOR OIL's contribution to societal programs and investment in environmental protection programs has exceeded 86 million Euros.

Corporate Social Responsibility

The concept of Corporate Social Responsibility was developed in the last decade, in the US and the European Union. It is based on the concepts of the Society of Citizens and social cohesion, which in fact imply that the society's constituent elements must behave, act and participate in public events, not only for their benefit, but also for the promotion of common objectives and visions.

Members of the Society of Citizens are not only individuals but also various entities operating within society, such as organizations, companies and governments. These groups must prove all the more that their actions keep pace with and promote the general interests of society.

The concept of Corporate Social Responsibility in its essence – i.e. companies' willingness to integrate social and environmental activities in their programs – is not new.

For many years, companies took practical initiatives in favor of social cohesion. Nowadays, however, as a consequence of the prevailing circumstances in the globalized economy, this is one of the most important issues of the day. Corporate Social Responsibility is neither a charity nor public relations. It is a company's commitment to strictly abide by all its statutory responsibilities, but also, its voluntary commitment to actions and programs that exceed the minimum standards laid down by legislation.





- Development of human resources,
- Health & Safety in the workplace,
- Environmental and natural resources management,
- Cooperation with local communities,
- Contribution to sustainable development.

The European Network for Corporate Social Responsibility was established in 1996. The Greek Network for Corporate Social Responsibility was established three years later, becoming a member of the European Network. The Greek Network's objective is to promote the concept of the companies' social sensitivity and responsibility, as well as the promotion of the social cohesion concept. In order to do so, companies focus on the following actions:

MOTOR OIL is a member of the Greek Corporate Social Responsibility Network.

The company through its participation in the Network and by implementing existing "best practices" aims to promote social cohesion, social prosperity and sustainable development (i.e. development that caters for current needs without depleting resources for future generations).

Economic Benefit to Society

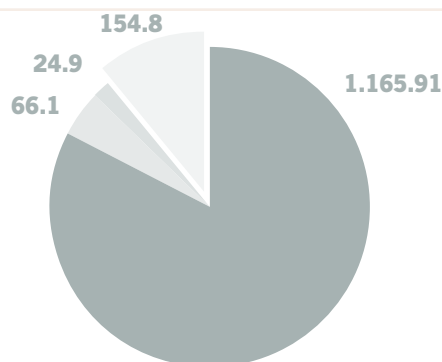
Because of the scale of its operations and its expanding activities, MOTOR OIL inevitably makes a major contribution to society and the public purse – its "social product".

At a time when globalisation creates pressures on national social and economic systems, the company's financial contribution to society is particularly important.

Social product can be termed that part of the company's income which is allocated to its stakeholders: that is, its personnel, the state, shareholders and the community. Particularly, it refers to personnel expenditure and the provision of benefits to employees, over and above that required by legislation. It also refers to contributions to pension

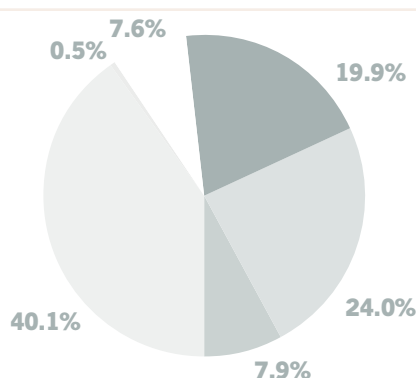
funds, income taxes paid, charitable donations and sponsorships, interest payments to credit institutions, dividend payments to shareholders and increases in company reserves. In a broader sense, the company's operational expenses also comprise a social product, since they generate income for other enterprises which in turn produce a social product in its narrow sense. Nevertheless, for the purposes of this report only direct social product as described above is considered.

2002 Income Distribution (All Sources) (million Euros)



Total 2002:
1,411.8 million Euros (about 1% of GNP)

2002 Social Product Components



Total 2002:
154.8 million Euros

- Raw and Trading Materials
- Operating Expenses
- Depreciation (for financing new investments)
- Social Product

- Salaries & Other Staff Benefits
- State Revenues
- Pension Funds
- Shareholders/Banks
- Donations/Sponsorships
- Reserves/non Distributed Profits (for financing future growth investments)



Of the company's 2002 income of 1,411.8 million Euros, 1,257 million Euros was allocated to operational expenses. It should be noted that due to the nature of the company's activity (oil refining), expenditure on raw materials (crude oil) and oil product imports accounts for 83% of total income.

The remaining 154.8 million Euros (169.9 million Euros in 2001) is the direct social product allocated to the stakeholders.

The Human Factor

Operating in a globalized and technologically advanced environment, MOTOR OIL recognizes and places great emphasis on the proper management and development of its personnel – a valuable asset which contributes greatly to the company’s level of competitiveness.

Its overall operation, the quality of its products and services, depend on the performance of its staff, the working conditions and the working environment in general. Thus, MOTOR OIL’s concern for its employees and their families is a basic social and business obligation.

In 2002, MOTOR OIL began a gradual restructuring of human resources policies and administration practices. In the framework of this program, the Departments’ responsibilities and personnel policies have been restated and codified.

Employees

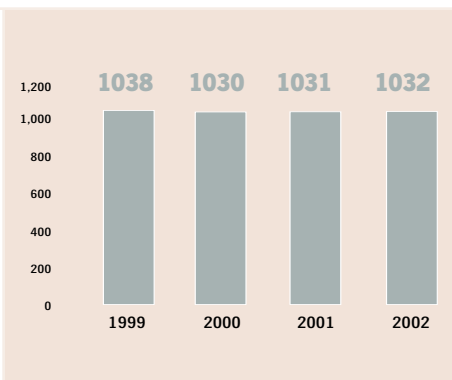
MOTOR OIL is one of the biggest employers in Greece. Its main activity area is the refinery in Aghioi Theodori, Corinth, where on an average basis, in 2002, 842 of the company’s 1,032 employees were based (the remaining 190 based at the company’s head office in Maroussi). About half the refinery personnel live in the area of Aghioi Theodori, where MOTOR OIL is the biggest employer, while the other half live in the Athens metropolitan area. It must be noted that, besides the employees directly employed by the company, a significant number of other personnel are indirectly employed through contractors. Over the last four years, staffing levels have been virtually constant despite new investments in production automation.

The company, committed to a non-discrimination policy, was employing 14 disabled persons in 2002.

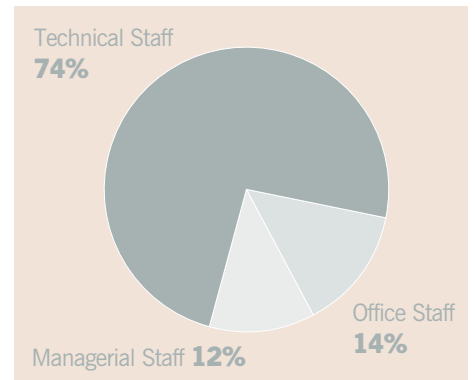
While the nature of MOTOR OIL’s activities favors the employment of men, the company is an equal opportunity employer. Thus, of the total personnel 13.5% are women, while in the head office that percentage comes to 48.0%. Out of the total number of managerial level employees, women comprise 14.0%.

Great importance is attached to retaining highly qualified staff. An approximate 17% of company employees have a university or college degree. 12% of the staff hold executive posts, while the remaining 88% are technical and office employees.

Evolution of Staff Numbers



Categories of Staff



Managerial Staff





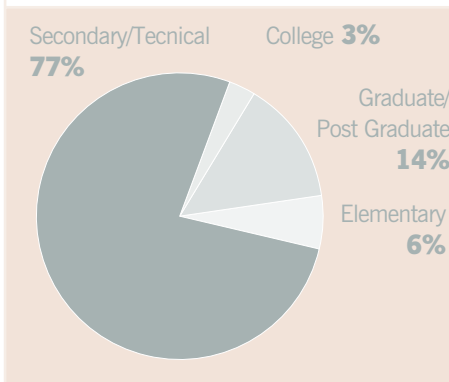
The Human Factor

The average seniority of personnel is 16.5 years indicating the high level of employee loyalty.

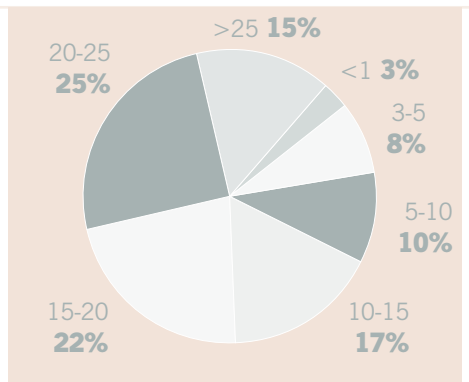
The average age of a MOTOR OIL employee is 44 years of age. An analytical breakdown of personnel by age category is depicted in the chart. There is a preference to young candidates when filling vacant positions. The refinery has in place a comprehensive training program for new hires so that the required competences are adequately acquired.

During 2002, 34 new employees joined MOTOR OIL, while 36 resigned for various reasons. This data determines a particularly low personnel mobility factor (3.4%). A similar factor is calculated for the previous years, a fact that underlines personnel loyalty to the company and the maintenance of long-term business relationships.

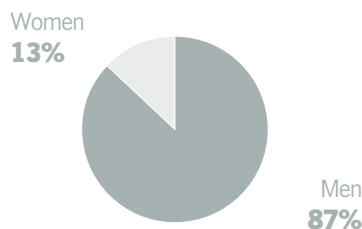
Educational Level of Staff



Distribution of Staff by Service Years



Office and Technical Staff



Salaries

Total personnel expenditure during 2002 amounted to 46.6 million Euros. This includes the costs of both regular and overtime working, employer's contributions to various social insurance organizations and additional employee benefits.

Additional benefits are offered by the company to its personnel, encouraging the development of long-standing relationships ("long-service bonus") and rewarding regular attendance ("attendance bonus" given only to refinery employees). For example, every employee who completes five years' employment with the company

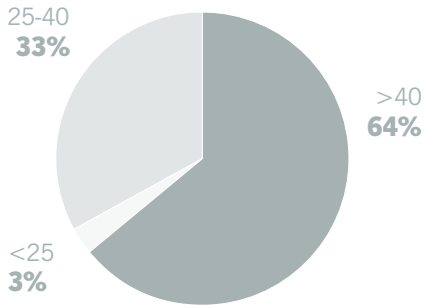
receives an additional leave bonus, while those who complete 10 years receive an additional Easter bonus. This means that the employee with 10-years' employment with the company receives the equivalent of 15 months' pay each year.

All MOTOR OIL employees earn more than the legal minimum wage. The minimum salary in the company for 2002 was 858 Euros as opposed to the minimum required by law which is 499 Euros for operatives and 559 Euros for white-collar staff.

The majority of the employees, even in the refinery, have terms and conditions of employment equivalent to white-collar staff contracts.

Annual salary increments, as a rule, exceed the Average Consumer Price Index (CPI), as shown in the diagram of payroll cost in comparison with the Average CPI.

Age Distribution of Staff

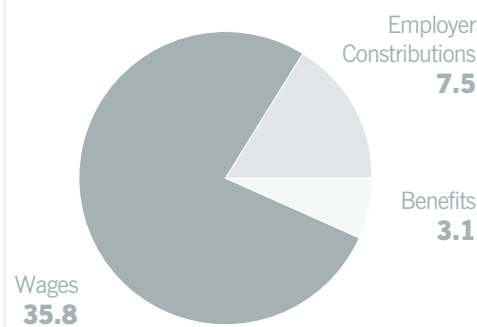


Hirings

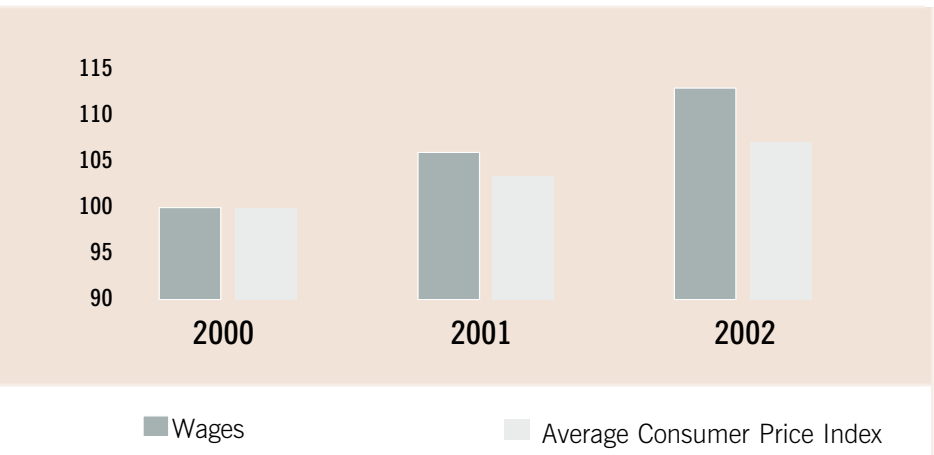
	2000	2001	2002
New Hirings	25	35	34
Reasons for Leaving			
	2000	2001	2002
Retirement	24	23	25
Resignation	9	6	7
Other	7	5	4
Total	40	34	36
Staff Mobility *			
	2000	2001	2002
	3,2	3,3	3,4

$$*Staff\ Mobility = \frac{Hirings + Leavers}{2 \times Average\ Staff\ Number} \times 100$$

Expenditure on Employees Salaries and other Benefits (million Euros)



Wages and the Average Price Index (Base Year 2000=100.0)



Labor Relations

Labor relations are particularly good at MOTOR OIL. Terms and conditions of employment are covered by a company collective labor agreement, approved by the Ministry of Labor, which has been in place since September 1974. A reflection of the harmonious state of industrial relations is the fact that there have been no strikes in recent years. Refinery employees have their own union which since 1986 has signed a national collective

labor agreement with the Federation of Greek Industries. This agreement lays down minimum pay levels and terms of employment in the refinery and is supplemented by an annual local agreement between the company and the union. The local agreement covers matters such as the attendance bonus mentioned above and other allowances such as student's grants, paid maternity leave, bereavement leave, etc.

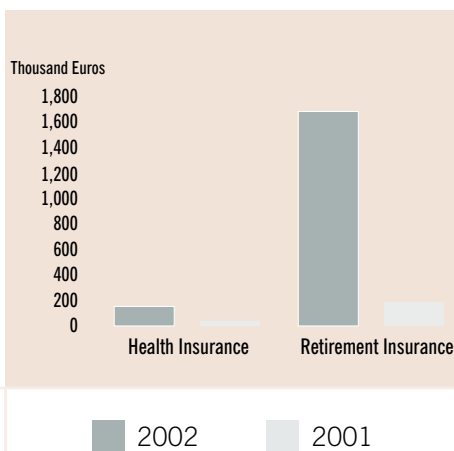
The Human Factor

Other Benefits

MOTOR OIL, in its effort to provide the best and most flexible benefits for its employees, introduced a group insurance plan in 2002 which provides employees with valuable financial support in cases

of a medical or financial emergency. The cost of the plan is covered by the company. The program benefits apply to employees and their dependants.

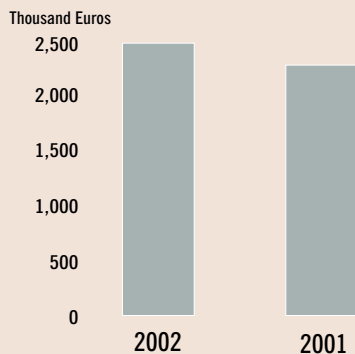
Expenditure of Supplementary Health Insurance and Company Pensions



The group insurance policy provides compensation in the following cases:

- Loss of life caused by illness or accident,
- Permanent total disability caused by illness or accident,
- Permanent partial disability caused by accident,
- Loss of earning capacity caused by illness or accident,
- Hospital care,
- Maternity (childbirth allowance).

Expenditure on Social Programmes for Employees and their Families



The annual cost of this plan for 2003 comes to 420 thousand Euros (the relevant chart for 2002 shows the cost of the plan for the five months it was in force during this year).

Since 1997, MOTOR OIL employees have benefited from a private pension plan which pays out a "lump sum" to those retiring (either early or at normal retirement age)

or becoming disabled, the costs of which are paid by the company. The high cost of the program during 2002, in comparison with 2001, is due to the readjustment of premiums.

It should be noted that the above programs also cover AVINOIL personnel with effect as of 2003.



Other benefits offered to employees and their families include a variety of activities which aim at strengthening relations with the company and developing a team spirit. The main activities during 2002 were:

- The refinery canteen (cost: 1.3 million Euros),
- Excursions,
- Christmas parties for employees' children,
- "Name-day" gifts,
- Transportation of employees to work by bus,
- Financial support of the employees' football team,
- Special benefits for the refinery personnel (63 school performance awards given to children, 97 student's grants, participation in summer camps for 70 children, 38 long-service awards, 11 wedding gifts).

The Human Factor

Training

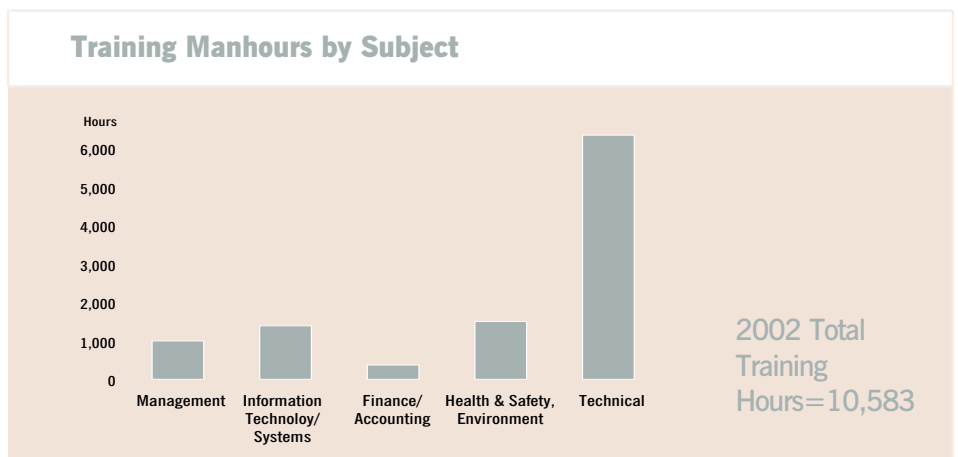
The development of employee skills, through individual training as well as professional group training, is a matter of strategic importance for the company. Its growth strategy requires matching training with business objectives. This is achieved by investing in the improvement and development of staff skills. Therefore, personnel participate in intra-company training seminars, as well as seminars and conferences held in Greece and abroad. Moreover, both the head office and the refinery have libraries for employee use, while the company also pays for magazine subscriptions and professional society membership fees.

During 2002, 442 employees (130 executives, 292 employees) participated in training programs which totaled 10,583 man-hours (or 25 training hours per person). A significant number of these training programs were financed by OAED, the state training and employment agency, however the total cost of training in 2002 paid for by the company was 567 thousand

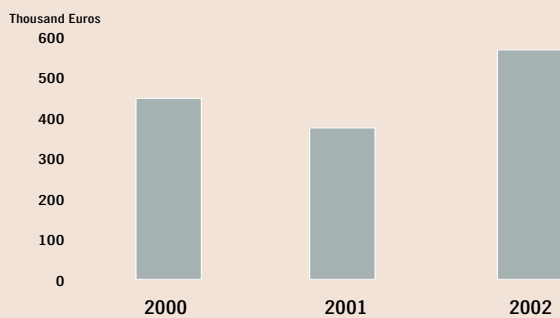
Euros. Additionally, the company covered the MBA expenses for one of its executives.

The following charts describe the subjects of the 2002 training programs, showing the equivalent training man-hours per subject, as well as the progression of training costs during the last three years.

Due to the nature of MOTOR OIL's activities, technical, health & safety and environmental subjects make up the core of training programs.



Expenditure on Training



Special reference should be made to the introductory training program applied in the refinery for new personnel (technicians, operators). This is to ensure they acquire the skills and competences required in a very demanding and hazardous environment.

This program lasts approximately 10 months, and is conducted at the refinery by engineers and operators of the various refinery units, depending on the new employee's position. The time schedule and the subjects of the introductory program are:

- Two-month training on general subjects (health & safety, quality, environment, fire protection, first aid, properties of petroleum products, basic refining principles, maintenance, English, computers, etc.).
- One and a half months morning shift training tailored to the individual's particular occupation.
- Six-month shift-working (without the assumption of operational responsibilities).



Quality

Since the start of its operations, MOTOR OIL has focused on satisfying its customers' needs by supplying them with reliable and high-quality products.

Management and staff are fully committed to achieving this objective and quality control procedures are in place to prevent problems and ensure that all relevant standards are complied with.

Since 1992 the company has been developing a quality assurance system covering all its activities based on the principles of ISO 9002. The company's system was certified in December 1993.

Aiming to achieve even higher quality standards and to further strengthen the competitive advantage of quality which is considered as an essential tool in meeting the company's business objectives, it was decided to proceed with certification according to the new, stricter ISO 9001: 2000 standard. The laborious internal process of upgrading the existing system was carried out during 2002. Within the framework of this effort, an Integrated Management System was designed as a result of which:



- Quality objectives are aligned with other business objectives.
- The management procedures that affect the quality system were identified and the criteria for the effective control and monitoring of these procedures were established.
- Mechanisms were established to ensure that the quality system is constantly improved.

The certification according to ISO 9001:2000 was awarded in January 2003 by the certification organization Bureau Veritas Quality International (BVQI).

It is a principle of the quality assurance policy that both management and the company's workforce as a whole are committed to the following key aims:

- **MOTOR OIL will produce and sell products that satisfy its customers while at the same time taking account of all stakeholders' interests.**
- **MOTOR OIL focuses on, and is constantly evaluating customer requirements, applying the necessary technical and other measures required to avoid compromising quality and is constantly improving the effectiveness of the Quality Management System. Quality is everyone's business.**



Health & Safety

Safety is an integral part of the company's management system and a primary concern of management.

The aim of the company's accident prevention policy is:

- **To reduce the risk of accidents to a minimum,**
- **To eliminate lost time injuries and continuously improving working conditions,**
- **To protect personnel, the environment and facilities from risks arising from the company's activities.**

A multi-faceted program has been developed to implement this policy, the main elements of which are:

- The Strict compliance with relevant legislation, with international standards and codes of practice and with established operational rules. The refinery was designed and built, and operates, in accordance with Greek and international

regulations and standards. Moreover, there is a continuing investment program in technical upgrades, taking account of engineering developments, aimed at maintaining the highest possible standards of safety and accident prevention.

- The refinery risk assessment, which was carried out in 1993 and revised in 2001 by the Dutch organization TNO, an internationally recognized leader in matters of industrial safety.
- The occupational health risk assessment, which was revised in 2002.
- The continuous improvement of the health & safety management system and of operating procedures, within the context of the Integrated Management System and the Quality Management System ISO 9001:2000.
- The participation of all employees, both individually and through the Health & Safety Committee.





- The recording and assessment of all accidents and near-misses so that appropriate corrective and precautionary measures can be taken.
- The continuous upgrading of fire-fighting facilities and personal protective equipment, as well as the continuous training of personnel in their proper use. The refinery's fire-fighting facilities include five fire engines, operated by trained fire-fighters, plus a large number of stationary and portable fire detection and fire-fighting systems.
- The availability of three in-house occupational physicians and three fully-equipped ambulances. The refinery has a fully equipped medical center, staffed by a doctor and a nurse, while the alkylation unit also has a medical center staffed by a nurse.
- The staff training programs covering: the proper use of personal protective equipment and fire-fighting equipment, first aid, and compliance with health and safety regulations.
- The continuous monitoring of equipment and workplaces for potential risks through the systematic application of health and safety inspection programs involving both internal and external inspections. The external inspections are conducted by specialized Greek or international bodies. The internal inspections are conducted by teams consisting of refinery engineers and technicians according to an annual

Health & Safety

inspection program. Recommendations arising from these inspections lead to appropriate technical and/or organizational measures being taken to eliminate hazard or, if that is not possible, to reduce risk to the minimum level reasonably practicable.

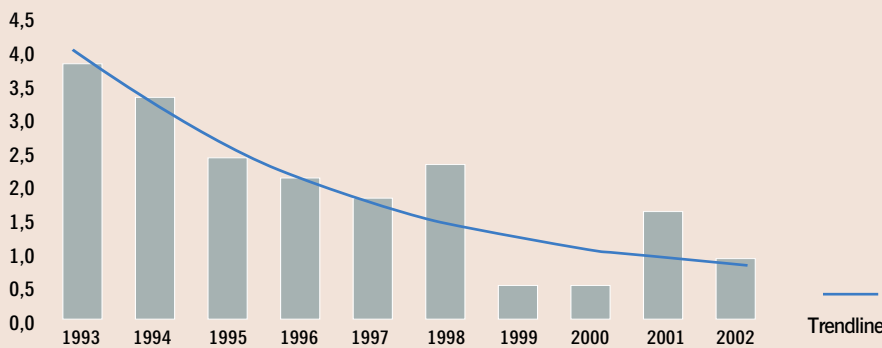
- The excellent cooperation with the public authorities, including the provision to them of all information relevant to matters of safety and environmental protection.
- The operation, since 1988, of a Mutual Aid Agreement whereby all Greek refineries co-operate in the event of an emergency. The effectiveness of this collaboration is ensured through six-monthly joint exercises involving MOTOR OIL, the local fire brigade and the other refineries.
- Six-monthly joint conferences on health,

safety and environmental protection, involving representatives of Greek and Cypriot oil refineries and public authorities. In 2002, the 20th and 21st such meetings were held.

- Safety drills, organized weekly, and preparedness exercises concerned with the consequences of major accidents which take place 2-3 times a year. During the latter, the major incident emergency plan is activated and all relevant public services are involved.

The company's health & safety budget in 2002 was 1.9 million Euros. A new, high-effectiveness, triple-mode (foam, powder, water) fire engine was acquired and there were improvements in the fire safety systems at various units and in the safety system of the alkylation unit.

Accident Severity Index



$$\text{*Severity Index} = \frac{1,000 \times \text{Lost Hours}}{\text{Total Work Hours}}$$

Two of the most important safety-related investment projects of the last three years were:

- Installation of a new gas-turbine in the power production section (cost: 23.3 million Euros).
- Implementation of a Distributed Control System (cost: 20.9 million Euros).

A major upgrade of the company's health & safety management system, involving its incorporation within the overall Integrated Management System, is being implemented and is expected to be in place by the end of 2003.

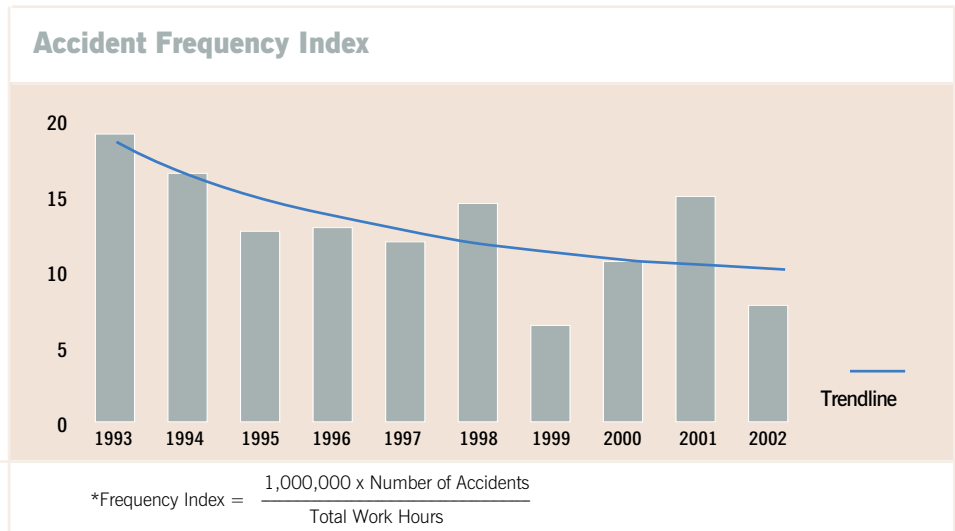
Success in implementation of the company accident prevention policy is apparent from

the trends in annual safety statistics (accident frequency and severity indices) which show a steady decline. These statistics concern the accidents related to company personnel but do not include accidents suffered by those employed by contractors.

In 2002 three serious accidents occurred involving contractors' personnel as a result of which four people lost their lives and another one was seriously injured. The accidents occurred in the course of work being carried out by the contractors within the refinery and in each case the basic cause was a breach of refinery safety rules.

During the entire 31 years of the refinery's operation there has been no fatal accident involving the company's own staff. However,

it is a fundamental principle of the company's health & safety policy that no accident is acceptable, let alone one that endangers human life. The company has therefore not only expressed its regret about the four fatalities but has taken practical steps to reduce to the minimum possible the likelihood of similar accidents occurring in the future.



Environment

MOTOR OIL has always acted responsibly and been concerned with environmental protection. It has continuously strived to apply all available methods and procedures for the effective protection of the environment.

Being a member of the Greek Corporate Social Responsibility Network and having espoused its principles (which include the principle of sustainable development), MOTOR OIL has accordingly formed its own environmental policy:

- **"For MOTOR OIL the protection of the environment is a factor of vital importance for a long-term, reliable and successful business strategy. Within this framework, the company continuously applies and improves the Environmental Management System according to ISO 14001:1996 for all activities of its Refinery."**

In December 2000, the company was certified with the ISO 14001:1996 by BVQI for all activities of the refinery. Environmental Management is governed by the Integrated Management System.

This simultaneous certification with ISO 14001:1996 and ISO 9001:2000 is unique in the refinery sector in Greece, and is even rare in Europe.



MOTOR OIL's environmental policy includes the two following commitments:

- **Compliance with all Greek and European environmental legislation in force relating to the Refinery's products and operations, as well as adoption of internationally approved codes, where it is thought necessary, for matters of environmental management.**
- **Continuous effort to minimize the environmental effects of its operations and continuous improvement of its**

environmental performance.

The respective Ministry approved the company's renewed Environmental Operation Terms in 2000.

The particular **Environmental Management** objectives are:

- Active participation of the company's personnel through continuous training.
- Communication with interested third parties, including the local community,



Environment

aimed at creative information exchange and the building of mutual trust.

- Three years ago, MOTOR OIL began holding annual meetings at the refinery, among representatives of the local communities. During these meetings, the participants are briefed, and exchange opinions on the company's investment plans, with a special emphasis on environmental protection programs.

- The complaints expressed by refinery neighbors are recorded and analyzed, and accordingly, short or long-term measures are taken to address the complaints. The number of complaints expressed in 2002 decreased by 20% compared with 2001.

- Frequent internal and external evaluation, in order to monitor the environmental

performance of the refinery.

- In June 2002, BVQI conducted the third ISO 14001:1996 audit, while several other internal audits were conducted.

A very important part of the company's overall investment plan concerns investment directly related to **environmental protection objectives**, which include:

- **Producing of environment-friendly products, to the extent allowed by technological, legislative and financial factors.**

- The most important investment made in the refinery in the last three years, as well as those planned for the next three, concern the production of cleaner fuels.

- In 2000, the company invested in reducing sulfur and benzene in fuels according to specifications set by the corresponding European Union program. The total cost of this investment was 66.6 million Euros and involved:

- The construction of a new benzene hydrogenation unit,
- The construction of a new gasoline hydrodesulfurization unit,
- The revamping of the reformer unit.

- **Reducing consumption of natural resources and power by optimizing the consumption of water, steam and fuels, and aiming at covering the refinery energy requirements by own electricity production.**



CAPITAL INVESTMENTS 2000 - 2002 (million Euros)

Year	2000	2001	2002	Total	Percent
Total Capital expenditure *	80.8	38.0	45.1	163.9	
Environmental	62.1	13.4	8.9	84.4	51%
- For Clean Fuels	48.6	-	1.0	49.6	30%
- For Improving the Performance	13.5	13.4	7.9	34.8	21%

* Acquisitions not included

- During 2001 the installation of a new (3rd) gas-turbine in the power production unit was completed, totaling 23.4 million Euros. The new gas-turbine allowed for the self-sufficiency of the refinery in matters of energy, thus reducing the required fuels.

- During 2002 the installation of the Distributed Control System (DCS) was completed. This investment (which concerns the computerized monitoring of the refinery

production processes), although not a direct environmental investment, will have a significantly positive effect on the environment through the automation of production.

- The heat contained in the concentrates of heat exchangers, is regained in the boiler feed system. In 2001, an investment in reducing the consumption of processed water by approximately 5% was made.

- A project for the optimization of the refinery's slop management was in progress in 2002, in an effort to save energy.

● **Using environment-friendly technology, where feasible, in order to prevent pollution.**

This objective is a guideline for all projects carried out in the refinery.

- Management of gas emissions and constant monitoring of atmospheric quality, conducted by fixed analyzers and a mobile measurement station, which record the main gas pollutants (NO_x, H₂S, SO₂, hydrocarbons and particulate matter.

- In 2002, the monitoring of the sulfur units was improved through the installation

of fixed analyzers; four hydrogen sulphide measurement stations were installed and a number of portable hydrogen sulphide meters were purchased.

- A program aiming at reducing pollution from hydrocarbon leakages by 10% by using method EPA21 was completed in 2002.

- The surface of the API oil separators was covered in 2001 to reduce the air pollution from gaseous hydrocarbons.

- A program for the reduction of air pollution and energy consumption by burning incondensable gases in low pressure burners was completed in 2001.

- The height of the refinery's emission

stacks is much higher than the statutory requirement so as to achieve better gas dispersion.

- The use of gas fuels in the refinery was increased, thus reducing the emitted air pollutants.

- The refinery collaborated with the University of Patras in a research program relevant to air quality and air pollutants measurement.

- The installation of a new 8.9 million Euros sulphur recovery unit was in progress in 2002.

- The loading arms at the pier have been replaced with new ones equipped with shut-off mechanisms that can stop the loading process in an emergency, thus reducing the risk of water pollution.

● **The effective management of solid and liquid waste by implementing recycling and re-use wherever possible.**

- Liquid effluents are treated twice before re-use or disposal, over and above the limits set by Greek environmental ruling. Moreover, waste water collected from all possible sources (sewage system, ballast, rain water) is properly treated before disposal in the sea.



- Projects in collaboration with the universities of Athens and Patras were carried out concerning the condition of the sea water in the area of the refinery. Both projects demonstrated that the sea water was not polluted.

- Particular care is taken for the disposal of solid wastes:

■ The oily mud from crude oil tanks is treated for crude oil removal and then is subjected to biological treatment in landfarms before disposal as filling soil.

■ Exhausted catalysts are disposed of in a number of ways (sold abroad, regenerated, or disposed of at cement factories to be used in cement kilns, if recycling is not possible).

Environment

- Office paper is collected for recycling.
- **The prevention of environmental damage in case of oil spills through the implementation of proper action plans, like the Oil Spill Contingency Plan.**

In the sections above, the main environment-related projects and plans of MOTOR OIL of the last three years were briefly presented. Their main focus is prevention. Of equal importance is, of course, the ability to deal with small – or large – scale incidents, if they occur. Cases of water pollution are of particular concern due to the extensive consequences they may have, affecting large areas by destroying marine life and causing an economic slowdown in the affected areas. The

recovery cost in large-scale accidents of this type is indeed huge.

MOTOR OIL is committed to taking all possible measures to prevent damage to the land, or the Saronic Gulf, that may occur from the normal operation of its refinery. However, due to the scale of operations and unforeseen natural occurrences, the possibility of a fuel leakage cannot be completely eliminated. In light of this possibility, MOTOR OIL's Oil Spill Contingency Plan provides measures for dealing with an oil spill. This plan is in accordance with the Local Contingency Plan (managed by the local port authorities) and the National Contingency Plan (managed by the Ministry of Mercantile Marine).



MOTOR OIL's equipment (anti-pollutant agents, booms, collection vessel, etc.) is adequate for dealing with Tier 2 pollution, and the refinery personnel has been trained to use this equipment. Due to the distance of the refinery from state and private pollution support centers of Attica, the equipment is much more enhanced than what is required by law. Furthermore, the company is a member



of Southampton Oil Spill Response Limited (an international organization that provides know-how and technical support in dealing with oil pollution, especially Tier 3 incidents).

MOTOR OIL's Oil Spill Contingency Plan lists all tourist and other installations in the area along with the corresponding anti-pollutant agent that may be used in each case.

Practice drills are carried out on an annual basis (eight for dealing with a Tier 1 incident, two for dealing with a Tier 2 incident).

In June 2001 MOTOR OIL sponsored and organized the annual conference of the Mediterranean Oil Industry Group in which participants included 28 companies, the Ministry of Mercantile Marine, the Local Port Authorities and the Local Municipalities.

The agenda of the conference included a Tier 2 drill for which MOTOR OIL made available its personnel and equipment.

On the occasion of the 2002 World Environment Protection Day (June 5th), the Isthmia Port Authorities organized a pollution drill which was carried out with MOTOR OIL's support.

Community Involvement

MOTOR OIL, as a socially responsible business, takes its community involvement role very seriously. This role is manifested through participation in, and support for, social and cultural life in the refinery area and generally through sponsorships and donations to sports meetings, sports clubs, hospitals, religious institutes, education and non-governmental organizations, as well as through the support of public welfare initiatives, charity events, etc.

Contribution to local society

- Every year, MOTOR OIL supports the cultural activities of the municipalities near the refinery site, i.e. the municipalities of Corinth, Loutraki, Aghioi Theodoroi, Saronikos and Solygia. In 2002, for example, the company sponsored a concert by the Mikis Theodorakis Orchestra, organized by the municipality of Corinth.
- As a support to the earthquake-stricken area of west Attica the "Creative Engagement House" was donated to the municipality of Ano Liosia. In this house little children are preoccupied in various creative actions.
- The company makes a financial contribution to the heating expenses of a number of schools in the local municipalities and elsewhere in the Athens area. Similar support is provided to other public institutions such as the Corinth old people's home and orphanage. The MOTOR OIL refinery canteen provides a daily lunch service for residents of the old people's home.
- The company also provides financial support for the old people's home of Aghioi Theodoroi and for a number of local athletics clubs, cultural centers, school and church committees and drug rehabilitation centres.
- By buying many of its supplies locally, the company supports local businesses even though cheaper sources of supply exist elsewhere.
- Donations are made to hospitals. A fully-equipped clinic was donated some years ago to the Crete University Hospital while more recently, in 2001, medical equipment was donated to Corinth's main hospital (including an electrocardiograph, a cryogenic centrifuge and other treatment devices). Financial support was also given to the Aghia Sofia hospital.
- Company personnel are encouraged to participate in blood donation programs organized by the Corinth hospital (in which refinery personnel participate) and the Metaxa hospital (in which head office staff are involved).
- When necessary, the company places its fire-fighting and medical facilities at the disposal of the local community. In



2000, for example, when a fire broke out in the area of Aghioi Theodoroi near the refinery, MOTOR OIL was able to provide significant assistance to the local fire service – in the form of three fire-fighting vehicles. The Greek refineries mutual assistance arrangement was activated so that the nearby Hellenic Petroleum refinery was able to provide temporary cover for MOTOR OIL's facilities during the local emergency, while MOTOR OIL vehicles were assisting in the fire extinguishing.

Broader social contribution

MOTOR OIL's social activity is not restricted to the local community but also involves support for national and international sports, cultural and academic events.

- MOTOR OIL was a Golden Sponsor of the Greek Olympic Team for the Disabled at the Sydney Para-Olympics. The team of 42 athletes was very successful, collecting four gold, four silver and three



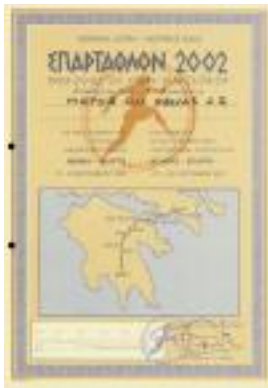
Community Involvement

bronze medals and ranking 33rd overall out of 123 participating countries. MOTOR OIL is a regular sponsor of the Greek Olympic Team for the Disabled.

- In 490 B.C. Feidipides ran from Athens to Sparta to summon help from the Spartans against the Persians at the battle of Marathon. The historic 250 km course that Feidipides took has become the route of an annual international athletics event – the Spartathlon – which MOTOR OIL supports.
- The company is also the main sponsor of the international sports meeting known as Vardinogianneia, held every year in Rethymno, Crete, in honor and memory of Pavlos Vardinogiannis, the late brother of MOTOR OIL's current president. Pavlos Vardinogiannis, a member of the Greek Parliament for many years and also a cabinet Minister, was an ardent patriot with a strong attachment to his birthplace Crete and a great supporter of athletics

events. The Vardinogianneia are held to honour his memory and the principles and ideals he stood for during his life. Many famous Greek and foreign athletics champions have participated in these games and 24 national records have been established. At the 2001 meeting, the Cuban javelin athlete Menendez set a new world record.

- The company has sponsored a number of national and international conferences including: an international meeting on the Balkans in 2001, organized by the Defense Officials Association; the 3rd International Conference on Urban Air Pollution (Loutraki, 2001), organized by the Institute of Physics; and the Panhellenic Oncology Conference (in 2001).
- The company was a Golden Sponsor of a recent concert given by Jean Michel Jarre at the Herod Atticus theatre on the Acropolis, organized by the Elpida Association of Friends of Children with Cancer. Elpida's aim was to collect money for the construction



of the Oncology Hospital for Children and the new Acropolis museum, and for supporting Melina Merkouri foundation the purpose of which is the return of the Parthenon (Elgin) marbles in Athens.

- Supports the Vardinogiannis Foundation which awards scholarships for postgraduate studies to students who could not otherwise afford to continue their education.
- Refinery visits for university, military academy and school students are organized annually with the aim of informing them about technical, commercial and career matters. More than 500 students visited the refinery in 2002.
- A large number of students receive work experience training at the refinery or at MOTOR OIL's head office every year; in 2002, 95 students were involved.
- Finally, the company has supported the research activities of various academic institutions, either through sponsorship or by funding studies related to the refinery's activities (eg. those carried out by the universities of Athens, Piraeus, Patras and Crete).





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