

HSE. COMPENDIUM OF THE 2004 REPORT

# HEALTH, SAFETY AND ENVIRONMENT.





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## LETTER FROM THE CHIEF EXECUTIVE OFFICER

The Group's mission, which is to create sustainable value over time, is expressed through a series of acts focused on the development and efficient management of the Group's industrial activities, simultaneously fulfilling its expectations as regards environmental sustainability.

The 2004 HSE Report reflects this performance through ERG's major initiatives for the improvement in and certification of its HSE Management Systems, achieved by the individual industrial sites of the Group and through the use of the best available technologies for the integrated prevention of pollution. The Group's investments in the interconnection of the Priolo refineries and the new desulphurisation and sulphur recovery plants, which aim to increase our production of fuels with an improved environmental quality, meet these objectives. The total cost of these projects will be Euro 287 million.

Now that we have an accurate system of CO<sub>2</sub> measurement and monitoring, that is certifiable and coherent with European standards, CO<sub>2</sub> has become another variable within the Group's major processes such as production planning and investment evaluation. An example is the scheduled repowering of the refinery's power plant with combined cycle gas turbines for a total cost of Euro 360 million.

Moreover, we have projects related to renewable energy production: in Italy we are counting on GEI Eolica to build wind farms with a total generating capacity of around 300 MW. During the next few years we expect to be investing Euro 300 million in this area.

In the safety field, we firmly believe that our management systems are able to minimise and keep under control the typical risks related to our industrial activities. The results achieved, after prevention activities and targeted personnel training, confirm our plan of action. Moreover, voluntary initiatives such as the "Piano di Prevenzione Sanitaria" (Health Plan) show that social commitment is an essential part of our shareholders' mission.



ALESSANDRO GARRONE

Chief Executive Officer





# THE ERG GROUP.









ERG Petroli sells gasoline, diesel, fuel oils, bitumen and LPG in the wholesale market through a network of retailers in Italy and Switzerland. Moreover ERG Petroli sells oil products to other national and international market operators. Through the controlled company ERG Petroleos (100% ERG Petroli), ERG Petroli also operates in the Spanish retail outlets and also within the wholesale market.

## ENERGY

Through the controlled company ERG Power & Gas (100% ERG), ERG is active both in plant repowering and in the realization of new production units, including in the renewable energy sector. In particular ISAB Energy, the associated company of ERG Power & Gas, owns the Integrated Gasification Combined Cycle (IGCC) plant which produces electrical energy using the residues of ISAB Impianti Sud refining process. It generates some 528 MW, making one of the most efficient plants worldwide. The plant is operationally managed by ISAB Energy Services, another associated company of ERG Power & Gas. The repowering of the ISAB Impianti Sud power plants will increase capacity by around 30 MW to 99 MW. In addition, the repowering of the ISAB Impianti Nord plants will attain a 450 MW capacity level. These power plants will be fuelled mainly by natural gas. Such plants refer to ERG Nuove Centrali (ERG NuCe), a subsidiary company of ERG Power & Gas.



During 2004 an agreement was signed by ERG Power & Gas and Corporación Eólica CESA S.A. to create a joint venture (GEI Eólica) to build wind farms in Italy totalling around 300 MW in the next four years.

## MAIN ECONOMIC AND FINANCIAL DATA

(SOURCE: ERG S.P.A. ANNUAL REPORT 2004)

(Million Euro)	2002	2003	2004
	PRO-FORMA		
TOTAL REVENUES <sup>(1)</sup>	4,134	5,128	6,433
<b>EBITDA</b>	<b>288</b>	<b>367</b>	<b>542</b>
EBIT	167	220	400
<b>INCOME FROM ORDINARY OPERATIONS</b>	<b>100</b>	<b>124</b>	<b>344</b>
EXTRAORDINARY FINANCIAL INCOME	(1)	(1)	1
<b>NET INCOME</b>	<b>87</b>	<b>92</b>	<b>199</b>
OF WHICH NET GROUP INCOME	33	52	128
<b>CASH FLOW FROM OPERATIONS</b>	<b>116</b>	<b>295</b>	<b>605</b>
INVESTMENTS/DISINVESTMENTS	(136)	(114)	(136)
CHANGES IN SHAREHOLDERS' EQUITY	(44)	(40)	(51)
CHANGES IN SCOPE OF CONSOLIDATION	(40)	1	2
<b>CHANGE IN NET FINANCIAL DEBT</b>	<b>(104)</b>	<b>142</b>	<b>420</b>
NET INVESTED CAPITAL	2,117	2,026	1,801
ROACE	8%	8%	13%
ROE	13%	12%	22%
FINANCIAL LEVERAGE	64%	59%	44%
NUMBER OF EMPLOYEES IN THE FINAL PERIOD	2,429	2,429	2,643

<sup>(1)</sup> not including excise duties, swaps, differences in the exchange rate and forward dealings on crude oil and products

# HSE MANAGEMENT AND RESULTS.





# HSE MANAGEMENT AND RESULTS

## THE ERG POLICY

Health, public safety and protection of the environment are primary values in the ERG Group enterprise culture and therefore they represent an important commitment in the activity of the different ERG functional realities as well as in the relationships with the external community. ERG is convinced that the complete integration of its activities is the primary condition for the achievement of its objectives of development.

In the observance of such principles ERG intends:

- to promote and put into practice each reasonable initiative aiming at minimizing risks and removing causes that can endanger the safety and health of its employees as well as of people who live near its operational sites;
- to guarantee continuous attention and commitment in order to improve its own performance with regard to the environment, through reducing air, water and soil emissions, as well as through a responsible and aware use of natural resources;
- to evaluate beforehand the environmental impact of all new activities, processes and products;
- to develop a relationship of constructive collaboration, based on transparency and trust, both within the Group itself, with the external community and with the institutions in the management of environmental, health and safety topics;
- to safeguard high standards of environment and safety through the implementation of effective management systems.

Being aware that in order to achieve the above-mentioned objectives the active contribution of all personnel is crucial, ERG is going to develop a continuous activity of targeted information, awareness and training.

The adoption of behaviours coherent with the corporate policy will be considered as an element of evaluation for individual performance, whereas the respect of laws and regulations must be constantly ensured by the Company as well as by all the personnel, at any level of responsibility.

ERG promotes the diffusion of the policy between suppliers and clients, particularly towards contracting enterprises working inside ERG operational sites.

Proper reviews and verifications will be performed periodically in order to evaluate the results, according to the reference system identified by the Company, and to define any possible corrective action.

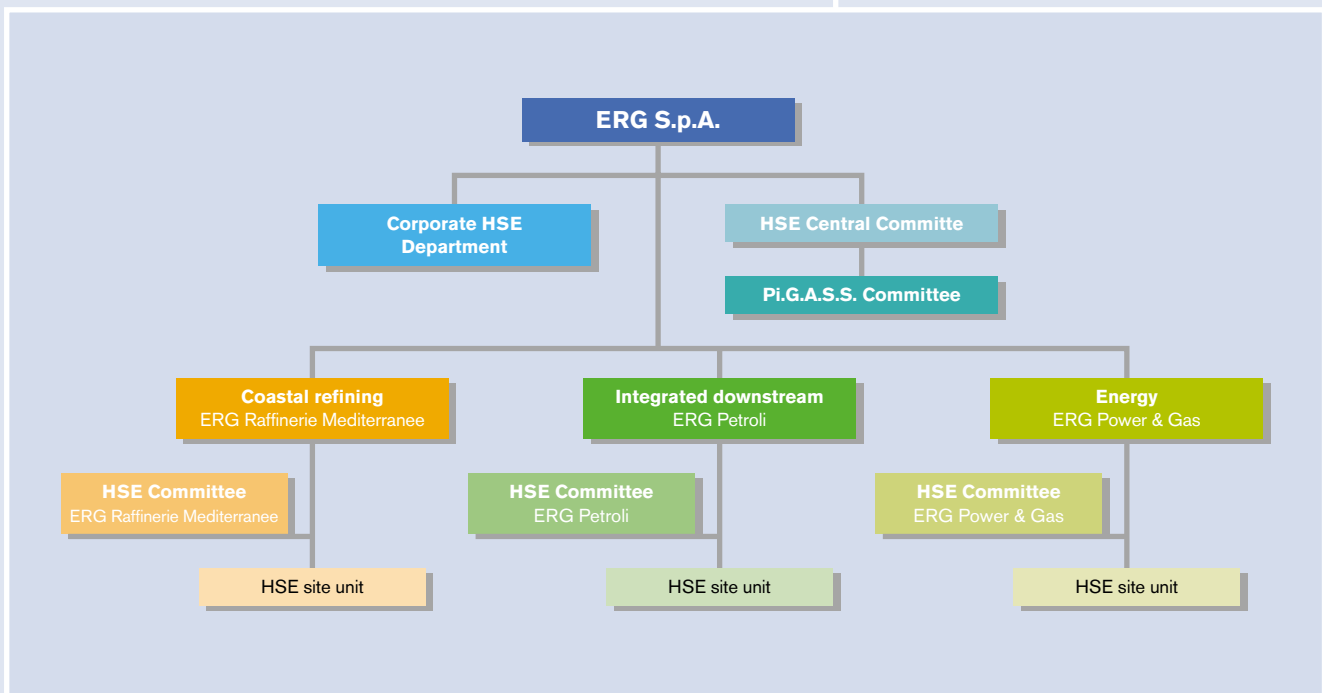


## ORGANISATION

ERG manages the Group's HSE through a Committee structure that is designed to ensure maximum involvement of the whole personnel and the widest participation in dealing with the topics related to workers' health, safety and environmental protection.

The Group's management bodies are

- the HSE Central Committee;
- the Pi.G.A.S.S. Committee (Pianificazione e Gestione Ambiente, Salute e Sicurezza - Planning and Environment, Health and Safety Management);
- the Corporate HSE Department.



The HSE Central Committee determines policies and strategies at the Group level for continuous improvement in the health, safety and environment performance of sites. It also sets general and specific targets, systematically checking their achievement, while respecting a wide autonomy in the individual Group companies management. The Committee includes the chairing ERG management, the management of subsidiary companies, site managers, ERG staff functions and the Corporate HSE Department. The Committee is constantly and technically supported by the Pi.G.A.S.S. Committee, which carries out checks, investigations and studies focused on various items requiring attention. It also promotes contacts and collaborations between all parts involved in the HSE management. Chaired by the Corporate HSE Manager, the Committee is formed by representatives from each site: people in charge of HSE, people in charge of Prevention and Protection Service (RSPP – Responsabili Servizio Prevenzione e Protezione), Legal Representatives and Competent Doctors.



Similar HSE Committees have been conceived for each business company. The homogenization of the management between single companies, is guaranteed both by the Group HSE Guidelines and by the participation of the Corporate HSE Department to such Committees.

Moreover specific HSE functions have been created for each production site, with full time personnel to permit the adoption of a strategy focused on environment protection and prevention and optimal management of risks. Specifically, the RSSP ensure the correct application of safety regulations and perform all expected tasks in this area cooperating with union representatives.

Management of topics relating to workers' health is entrusted to a group of Competent Doctors, specialists in labour medicine, who perform continuous monitoring of the working population, taking appropriate action to prevent specific pathologies.

During the last few years, the Group has reviewed the documents regarding roles and responsibilities related to HSE management according to ERG new organisation. This ongoing activity is influenced by the integration of the HSE management systems for each production site.

The ERG Policy foresees HSE commitment expressed by human resources working in activities connected with personnel health and environmental safety and protection. The number of equivalents working on HSE topics during 2004 is of 234 units, corresponding to 10.4% of ERG personnel (8.8% in 2003).

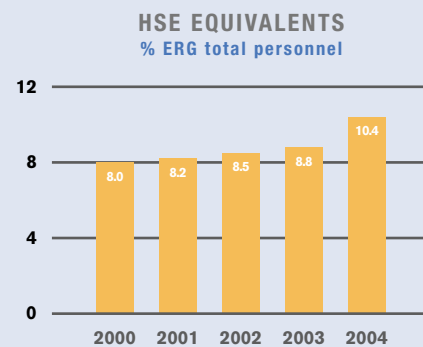
More than 90% of HSE personnel work in both the coastal refining and energy area. Operational integration between the industrial units in the Priolo area (ISAB Impianti Sud Refinery and IGCC power plant) also led to HSE personnel operative synergies, especially as far as fire service is concerned.

## INFORMATION AND TRAINING

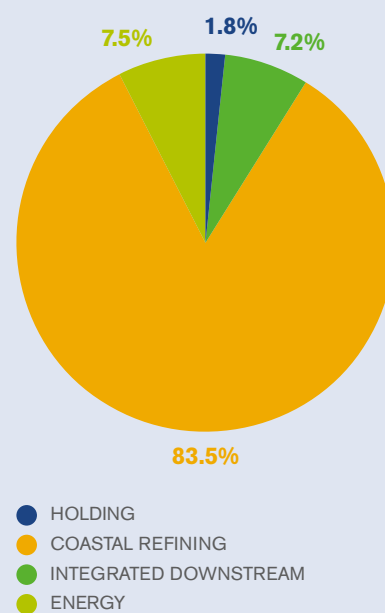
The development of management systems aiming at preventing as much as possible all the risks connected to the Group activities, have represented the basis for the implementation both of corporate training programs and of each production site specific activities.

For the latter, training programs are addressed to ERG personnel and to operators of contracting companies.

All internal information and training activities concern newly employed, personnel subjected to transfers or changes within their working position, personnel involved in changes regarding legal, organizational and/or technological affairs.



**PERSONNEL DEDICATED TO HSE ACTIVITIES PER BUSINESS AREA**  
total: 234 full time equivalents



Training activities are also addressed to:

- first aid and rescue team officers;
- prevention and protection service officers;
- union representatives for Health and Safety;
- qualified personnel in specific activities (people in charge of boilers' maintenance, people handling toxic gases, etc.);
- personnel trainers.

Specific information concerning general risks, main regulations and actions to take in case of emergency are given also to occasional visitors to the factories.

#### HSE TRAINING AND INFORMATION

(n. of hours)	2002 <sup>(1)</sup>	2003	2004
INTEGRATED DOWNSTREAM	1,250	1,443	2,437
COASTAL REFINING	28,816	20,827	21,024
ENERGY	7,508	7,168	6,012
<b>TOTAL</b>	<b>37,574</b>	<b>29,438</b>	<b>29,473</b>

<sup>(1)</sup> the number of hours related to the ISAB Impianti Nord Refinery refers to the last three months of the year according to when it has been incorporated in the ERG Group.

During 2004 training was focused on specific issues concerning accidents prevention, fire procedures and HSE Management Systems. Much attention has also been dedicated to safe driving training (for about 500 hours), which will be further implemented in 2005. The total time dedicated to HSE information and training was of 29,473 hours; 2,834 of these were dedicated to further studies carried out in qualified structures outside the Group. Most of the hours related to 2002 consider the great number of newly employed training and job rotations.

#### SAFETY AND HEALTH PROTECTION

The HSE Policy and the Integrated Management Guidelines, not only provide for behaviours' standardisation, but also tend to focus the attention on the safety management awareness.

In recent years, Safety Management Systems have been implemented and have been intended as the fundamental instrument for the correct application of the Policy. Analyses of the operability of the most hazardous plants and work environment quality monitoring follow the Systems' activity.

As far as protection of health at work is concerned, 2003 was marked by intense health activities including over 3,000 check-ups and about 2,000 blood tests. The results revealed no sign of vocational disease.



Voluntary initiatives such as the “Piano di Prevenzione Sanitaria” (Health Plan) have also been set out by the ERG Group to inform and give sanitary diagnostics to the employees.

In 2004 there were 19 injury events increasing its frequency index. Most of the injuries have been caused by lack of attention and road accidents. The Trecate depot has achieved the zero accident level in the last 8 years while the IGCC power plant has obtained the same result in 5 years.

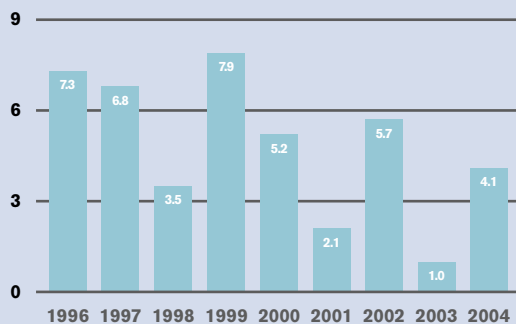
### NEAR ACCIDENTS

The traditional analysis of accidents and injuries has, for some years now, been integrated with instruments to increase the awareness of prevention as the monitoring of 'near accidents', events that might have led to accidents or injuries.

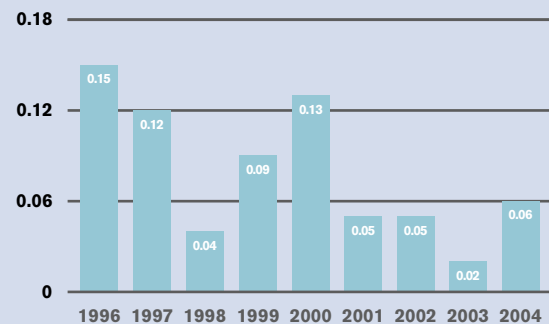
	2003	2004
(No.)	107	90

These activities are producing tangible improvements in disseminating the “safety culture”.

**FREQUENCY INDEX**  
no. accidents x 10<sup>6</sup> / hours worked



**SEVERITY INDEX**  
days lost x 10<sup>3</sup> / hours worked



### SAFETY IN TRANSPORT BY SEA

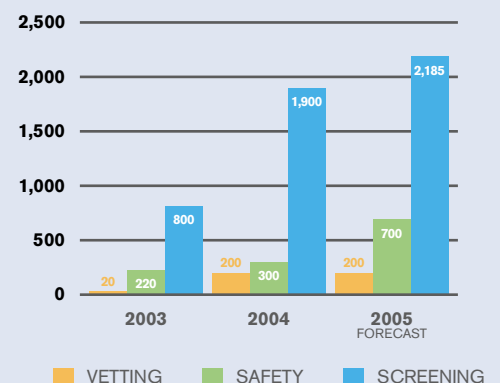
During 2004, the Group has implemented the new system elaborated in 2003 for the control and inspection of the cargoes. The whole system relies on structural analysis and HSE managing activities. In particular, measures were adopted for pre-selection procedures on all ships chartered directly, nominated by third parties and accepted at ERG terminals (*Screening*).

In addition to Screening activities there has been an increasing number of inspections performed by ERG internationally accredited inspectors according to two different procedures:

- before acceptance, through the application of the ERG minimum specific requirements, which include both structural and operational aspects, in line with international standards (OCIMF, Oil Companies International Marine Forum) – *Vetting*.
- after acceptance, through the control of the ships' performance in terms of safety and environment, not only during transport but also once the ship comes alongside the deck – *Safety Inspection*.

The Group aims to increase the number of Screening activities in order to attain more performing prevention levels.

**SAFETY IN TRANSPORT BY SEA**  
(no.)



## COMMUNICATION AND SOCIAL COMMITMENT

Solidarity, social commitment and communication are part of ERG values' system. This explains the Group's engagement and commitment both to support a series of initiatives favouring the social realities in which ERG operates, and to confront its own HSE fundamental guidelines and management activities with the national and the international community.

### "PIANO DI PREVENZIONE SANITARIA" (HEALTH PLAN)

People's health and safety represent an important commitment in the activity of the different ERG functional realities as well as in the relationships with the external community. The "Piano di Prevenzione Sanitaria" (Health Plan) shows how important this commitment is. Its main objective is to apply a wide-ranging prevention for cancer pathologies and other emerging pathologies within the Italian territory according to WHO and Ministry of Health reports.

This project, to which employees voluntarily take part, follows early oncological diagnosis through clinical analysis and specific information sessions.

In 2004 there have been 297 check-ups and 320 diagnostic analysis.

### "LA STRADA SIAMO NOI" (WE ARE THE ROAD)

Since 1997 ERG has been organising a project called "We are the road" ("La strada siamo noi"), a road educational school program. This initiative was born because of the serious road safety problems and it is part of a broader program that pays constant attention to the young and the school education. It is a didactic project for Junior High Schools carried out in collaboration with the Genoa Walden Studio (Studio Walden di Genova) which is in charge of planning and coordinating this activity. The project starting point is that, as far as road education is concerned, the knowledge of general information is not enough: the rules of the road must be interiorized. "We are the road" is a way to teach young people to live the road as well aware users. Throughout all its editions, the project has seen the involvement of over 22,000 students and of about 70 teachers coming from 65 Junior and High Schools located in Catania, Genoa, Rome and Siracusa.

### "MUS-E"

ERG supports the "Associazione MUS-E Genova" and its project for multi-ethnic and intercultural development and integration in nursery and primary schools through music, dance, acting, mimes and the figurative arts.

### "FONDAZIONE EDOARDO GARRONE" (THE EDOARDO GARRONE FOUNDATION)

The Edoardo Garrone Foundation, established on December 23<sup>rd</sup>, 2004, is the natural result of the Garrone and Mondini families' involvement, as well as that of ERG Group companies, in social and cultural spheres. The aim is to give a tangible contribution to propagate benefit from art and science as well as to actively collaborate in ethical and solidarity projects.



FONDAZIONE EDOARDO GARRONE



#### MAKE A WISH ITALIA

ERG supports “Make a Wish Italia Onlus” activities, an important and highly respected worldwide charity organization whose aim is to “make a dream come true” and support the families of children suffering from serious illnesses.

#### “MOPAMBIENTE”

(MONITORING ORIENTATION AND POLICIES FOR THE ENVIRONMENT)

ERG has contributed to the realization of the MOPAmbiente Project, (Monitoraggio degli Orientamenti e delle Politiche per l'Ambiente – Monitoring Orientation and Policies for the Environment), sponsored by the Ministry for the Environment and the Protection of the Territory. MOPAmbiente was born from a consolidated collaboration with Professor Renato Mannheimer and the ISPO (Istituto per gli Studi sulla Pubblica Opinione – Institute for the Study of the Public Opinion), who have edited different surveys based on the idea of integrating the analysis of the changes of environmental policies' laws and regulations with the changes of the main social and institutional subjects' opinions and expectations. Reciprocal interactions and solicitations have been therefore emphasized, creating a permanent 'site' for the dialogue on environmental issues between central and local institutions, city dwellers and enterprises. The MOPAmbiente project also wants to develop the analysis and the experimentation for environmental accounting, both public and private.

#### “LIPU”

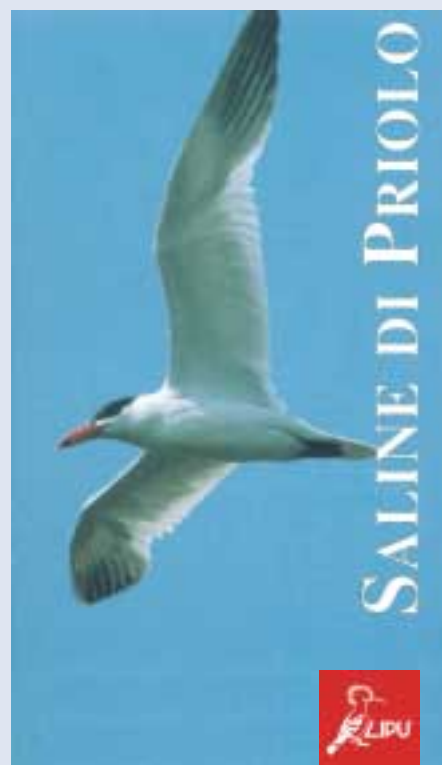
(ITALIAN ASSOCIATION FOR THE PROTECTION OF BIRDS)

Since a few years ERG takes part in the protection and the development of the Priolo Salt Mines Nature Reserve, managed by the Sicilian LIPU association (Lega Italiana Protezione Uccelli – Italian Association for the Protection of Birds). The area includes a wide coastal pond corresponding to the ancient catchments salt water basins and it is part of the humid brackish areas in the south-eastern part of Sicily. The Reserve faunal richness is due to the presence of over 200 species of birds which witness a real balance of the ecosystem. Especially during autumn migrations, the Reserve is a privileged destination for bird-watching lovers.

#### “IL CAPITALE INVISIBILE” (THE INVISIBLE RICHNESS)

ERG organizes and follows, together with the Priolo's CIAPI (Centro Internazionale Addestramento Professionale Integrato – International Professional Integrated Training School) the so-called “Il Capitale invisibile” (The invisible richness) project.

The fourth edition of this initiative is addressed to young people living within the Siracusa area who must answer questionnaires, tests and who must undergo personal interviews to guide them, with their parents help, towards the best choice to be made for their future.





## ECONOMIC RESOURCES

The strategic investment policy of the Group is to present itself as a reference “multi-energy” company able to ensure sustainability from an economic, environmental and social point of view.

ERG commitment in accordance to its code of conduct and ethic values is reflected in the improvement of the refineries’ sulphur recovery capacity, the new power plants mainly fuelled by natural gas, the continuous improvement of the retail network storage facilities and the excellence in practicing HSE Management System.

During the last few years the Group’s investment policy within the Sicilian industrial area has confirmed this commitment. The integration of the two refineries and the repowering of the power plants are to add to the ERG environmental characterization and remediation activity within industrial sites. These projects foresee the construction of new environmental plants such as the desulphurisation of feedstock to catalytic cracking and the hydrogen production plant, sulphur recovery plants.

In 2004 ERG has invested Euro 28.4 million, for a total increase of 34.7% compared to the year before. The main environment expenses have been linked to activities aimed to soil and water protection (remediation and pollution prevention structures). As far as safety is concerned, strong impulse was given to prevention activities, particularly regarding the fire fighting area.



### HSE CAPITAL EXPENDITURE

(Thousands of Euro)	2002 <sup>(*)</sup>	2003	2004
<b>ENVIRONMENT</b>	<b>5,062</b>	<b>11,687</b>	<b>17,398</b>
<b>HEALTH AND SAFETY</b>	<b>6,301</b>	<b>9,380</b>	<b>10,986</b>
<b>TOTAL</b>	<b>11,363</b>	<b>21,067</b>	<b>28,385</b>

<sup>(\*)</sup> the expenses related to the ISAB Impianti Nord Refinery refers to the last three months of the year according to when it has been incorporated in the ERG Group

Euro 77.2 million represent the current expenditure for a total growth of 11% compared to 2003.

62.9% of the total environment expenses is due to remediation activities and to improve discharged water systems. The relevant expenses in the field of health and safety regard the managing of fire fighting systems and the inspection and testing activities.

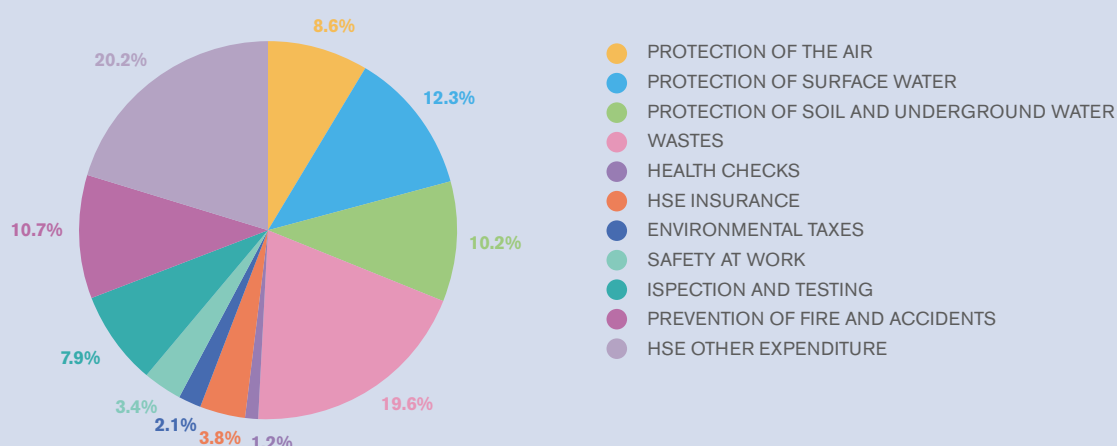
HSE insurance costs, according to the different types of policies employed are 3.8% of the total current expenditure (4.7% in 2003). The “HSE other expenditure”, increased of over 20% compared to 2003 and corresponding to Euro 15.6 million considers HSE personnel expenses growth (Euro 13.8 million), also because of the Group’s reorganization and activities for the integration of HSE Management Systems and their certifications for production sites.

## HSE CURRENT EXPENDITURE

(Thousands of Euro)	2002 <sup>(1)</sup>	2003	2004
<b>ENVIRONMENT</b>	<b>20,621</b>	<b>32,716</b>	<b>39,044</b>
PROTECTION OF AIR (ATMOSPHERIC EMISSIONS)	5,716	9,637	6,610
PROTECTION OF SURFACE WATER (DISCHARGES TO WATER)	4,584	8,744	9,459
PROTECTION OF SOIL AND UNDERGROUND WATER	3,839	5,934	7,868
WASTES	6,482	8,340	15,107
<b>HEALTH AND SAFETY</b>	<b>13,602</b>	<b>17,698</b>	<b>17,953</b>
<b>HSE INSURANCE</b>	<b>2,294</b>	<b>3,216</b>	<b>2,959</b>
<b>ENVIRONMENTAL TAXES</b>	<b>1,276</b>	<b>1,815</b>	<b>1,646</b>
<b>HSE OTHER EXPENDITURE</b>	<b>8,419</b>	<b>12,896</b>	<b>15,593</b>
<b>TOTALE</b>	<b>46,212</b>	<b>69,558</b>	<b>77,195</b>

<sup>(1)</sup> the expenses related to the ISAB Impianti Nord Refinery refers to the last three months of the year according to when it has been incorporated in the ERG Group

## HSE ECONOMIC RESOURCES current expenditure - 2004



## ENVIRONMENTAL DATA

At the end of 2002, with the ISAB Impianti Nord Refinery entrance in ERG, the Group's environmental data impact are strictly linked to the increase of the coastal refining capacity and energy production.

As far as water management is concerned, the strong difference in relation to the year 2002 is essentially due to sea water used by the ISAB Impianti Nord Refinery (including its power plant) for the equipments and the plants' devices cooling.

The wastes production trend is fundamentally a result of the intense environmental remediation activity in the Priolo refineries. To be more specific, most of the hydrocarbon contaminated water is purified, after adequate pre-treatment, inside off site plants.

ENVIRONMENTAL DATA

	2002 <sup>(*)</sup>	2003	2004
<b>ENERGY CONSUMPTION</b> (thousands of toe)	<b>1,422</b>	<b>2,091</b>	<b>2,229</b>
<b>DRAWN WATER</b> (thousands of m <sup>3</sup> )	<b>79.9</b>	<b>574.6</b>	<b>563.3</b>
DRINKING WATER	0.3	0.5	0.5
INDUSTRIAL WATER	2.6	13.1	13.4
SEA WATER	77	561	549
<b>DISCHARGED WATER</b> (millions of m <sup>3</sup> ) <sup>(**)</sup>	<b>63,2</b>	<b>537,6</b>	<b>536,0</b>
OILS (ton)	10	12	12
<b>WASTES</b> (ton)	<b>17,860</b>	<b>186,855</b>	<b>781,486</b>
OF WHICH:			
FROM REMEDIATION ACTIVITIES	977	134,436	724,144
HAZARDOUS	977	134,436	724,144
NON-HAZARDOUS	–	–	–
DISPOSED	–	131,468	720,501
RECYCLED	977	2,968	3,643
FROM ROUTINE AND MAINTENANCE ACTIVITIES	16,883	52,419	57,342
HAZARDOUS	3,569	11,030	20,698
NON-HAZARDOUS	13,314	41,390	36,643
DISPOSED	12,162	43,118	44,633
RECYCLED	4,721	9,301	12,709
<b>AIR EMISSIONS</b> (ton)			
NO <sub>x</sub>	3,190	5,673	5,256
SO <sub>2</sub>	11,180	25,395	25,386
PARTICULATE	408	959	1,017
CO <sub>2</sub>	4,923,379	7,310,077	7,535,648
VOC	2,833	5,170	5,728

<sup>(\*)</sup> data do not consider the ISAB Impianti Nord Refinery activity (only three operating months in ERG)

<sup>(\*\*)</sup> do not include the quantities conveyed to off site waste water treatment plants



# HSE COMMITMENT.







# HSE COMMITMENT

## MANAGEMENT SYSTEM CERTIFICATIONS

The 2003 HSE Integrated Management Guidelines implemented in 2004 after the Group's reorganization allow to every single industrial site to integrate the HSE Management System according to international reference standards.

This ERG decision confirms the Group's commitment for the integration of HSE management processes, objectives planning and results analysis.

It is within the industrial sites HSE Management Systems Certifications that ERG expresses its total commitment:

- ERG Raffinerie Mediterranee has obtained the ISO 14001 Certification for the ISAB Impianti Sud Refinery in 2004 and during 2005 the environmental Management System should be implemented for the ISAB Impianti Nord Refinery as well; in 2006 the ISAB Impianti Sud Refinery should obtain the OHSAS 18001 Certification;
- the ERG Petroli Treccate depot has obtained the ISO 14001 Certification in 2004 and should achieve the OHSAS 18001 Certification within the end of 2005;
- the ERG Petroli Savona depot, already certificated ISO 9001, has obtained simultaneously the ISO 14001 and the OHSAS 18001 Certifications at the end of 2004;
- ISAB Energy Services and ISAB Energy have achieved the ISO 14001 Certification in 2003. The OHSAS 18001 Certification will be obtained by ISAB Energy Services within the first months of 2005;
- the ERG Nuove Centrali power plants will obtain the ISO 14001 Certification during 2006.



## WHY SHOULD THE HSE INTEGRATED MANAGEMENT SYSTEM BE APPLIED

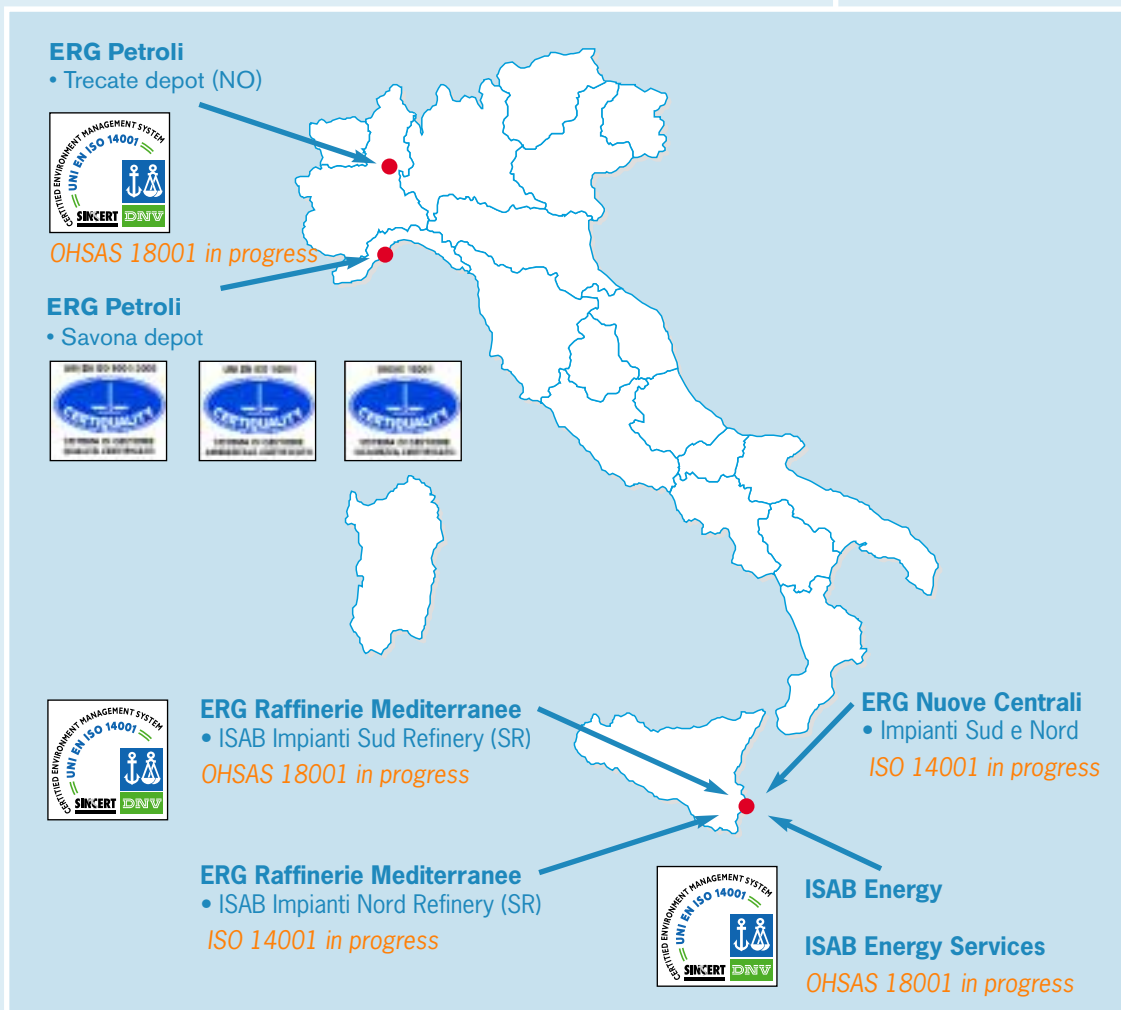
The definition "Integrated Management" should be analysed according to two different aspects:

- the first one is to be associated to the always more evident union between health, safety and environment safeguard and prevention;
- the second one is linked to the uniqueness of the HSE Policy and Guidelines of the company.

The complexity of certain industrial activities and all risks related to them sets a priority to the company which must organize an integrated and coordinated system, paying much attention to the HSE management to be perfectly in line with working procedures.

Within the different business areas, ERG carries out HSE controls, achieved results analysis and investment planning besides its normal activities.

Therefore, it is only through an Integrated Management System that the health, safety and environment protection and prevention activities are part of the production process and not only assigned to technical experts.



## GHG EMISSIONS' EVALUATION

At the end of 2004, the Italian Government has implemented the European Emission Trading Directive.

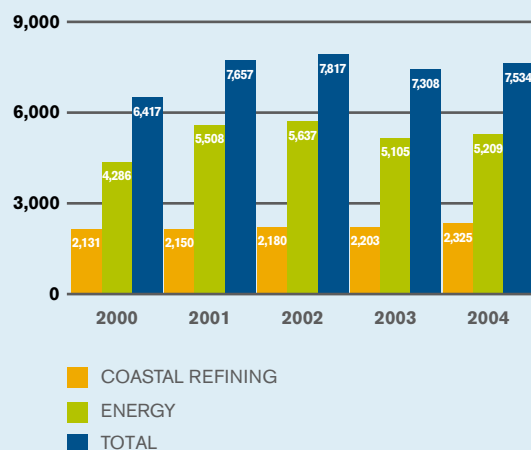
On December the 31<sup>st</sup>, 2004 the following plants have obtained the needed authorisation for GHG emissions:

- ERG Raffinerie Mediterranee – ISAB Impianti Sud Refinery
- ERG Raffinerie Mediterranee – ISAB Impianti Nord Refinery
- ERG Nuove Centrali – Impianti Sud (NuCe Sud)
- ERG Nuove Centrali – Impianti Nord (NuCe Nord)
- ISAB Energy – IGCC power plant

### EMISSIONS ACCOUNTING AND MONITORING SYSTEMS

During 2004 ERG industrial sites have already implemented CO<sub>2</sub> emissions accounting and monitoring systems according to European Guidelines on GHG considering peculiar methods to specify used fuels quality and quantity. Moreover competent operators have been chosen in order to collect data, to elaborate and report emissions. GHG have been integrated in the industrial processing management. CO<sub>2</sub> analysis will be part of the plants' performance reports together with other HSE indicators currently employed.

**CARBON DIOXIDE EMISSIONS**  
(kton)



## CO<sub>2</sub> EMISSIONS DATA

ERG plants have published CO<sub>2</sub> emissions data before the expiring date established by the Italian law (December 30<sup>th</sup>, 2004).

The sites emissions have been recalculated according to emissions' coefficients and national criteria set out for this data collection.

In particular, compared to the last few years, refinery's consumption emissions have been separated from steam and power production plants emissions (ERG Nuove Centrali Impianti Sud and Nord). Moreover, emissions from specific refining activities such as catalytic cracking and hydrogen production plants and from safety devices as flares, have also been considered in accordance to the European Guidelines.

## FUTURE GOALS

In order to achieve its goal, the Group has incorporated the carbon value within the company's activity as far as the new investment policy is concerned.

Through ERG Power & Gas, the Group intends to increase energy production according to environmental sustainability criteria such as increasing power plants' efficiency and investing in the field of renewable energies.

From 2005 to 2007, the repowering projects of the ERG Nuove Centrali power plants (which will be mainly fuelled by natural gas) will bring to air emissions general decrease and in particular the CO<sub>2</sub> emissions per kW produced.

As far as the renewable energy investments through GEI Eolica are concerned, ERG sets out projects to build wind farms in Italy and especially in the South of the country and on islands, in the Umbria and in the Liguria regions. GEI Eolica intends to develop around 300 MW within 2007 (about 8% of the total wind power in Italy). The Group will be investing Euro 300 million.

## THE KYOTO PROTOCOL

The Kyoto Protocol came into force on February 16<sup>th</sup>, 2005, following ratification by the most industrialized European countries. The EU commits to reduce greenhouse gases emissions in order to fight climate changes.

The Protocol, signed in December 1997, was adopted at the third session of the Conference of Parties (COP3) to the UNFCCC (United Nation Framework Convention on Climate Change).

The Kyoto Protocol is a legally binding agreement under which industrialized countries will reduce their collective emissions of greenhouse gases by 5.2% compared to the year 1990 (but note that, compared to the emissions levels that would be expected by 2010 without the Protocol, this target represents a 29% cut).

The goal is to lower overall emissions from six greenhouse gases - carbon dioxide, methane, nitrous oxide, sulphur hexafluoride, HFCs, and PFCs - calculated as an average over the five-year period of 2008-12. The European Union reduction target is 8%.

The Italian reduction target is 6.5% compared to 1990 emissions level. It is an ambitious goal if we consider that since 1990 Italy's emissions have considerably increased and will continue to grow in the next years.

Even if the reduction target for Italy is lower than Europe's goal, Italy needs more efforts to achieve this objective.

As a matter of fact, the Italian energy system is characterized by a low potential for a further energy efficiency reduction. The already widespread use of natural gas, the high hydroelectric output and the lack of nuclear power do not contribute to significantly lower GHG emissions.

The Protocol foresees the possibility to apply the so-called flexible mechanisms which allow countries to acquire emission reduction units from developing countries and in Eastern Europe.

- The clean development mechanism allows countries to use reduction units gained through collaboration projects within other countries.
- The joint implementation allows to pursue objectives acquiring "emission rights" obtained from reduction projects achieved within another country.
- The emission trading foresees the creation of an "Emission Market" in which industrialized countries can exchange emission reduction units to achieve their goals.

## CONTAMINATION PREVENTION AND REMEDIATION ACTIVITY

2004 has been characterized by a strong commitment on industrial sites subsoil contamination, in particular within the Priolo area which has been described as “site of national interest” by the Ministry for the Environment.

The following step is the planning of operations for soil remediation in different areas.

Of particular interest is the intense activity of the ISAB Impianti Nord site where the inspection program of all tanks and underground pipes together with the sewer pipe maintenance aimed at preventing soil contamination, has been followed by the implementation of safety operations for the water-bearing stratum control.

The already achieved goal in relation to remediation activities are part of a wider program approved by the Ministry and involving several companies within the Priolo industrial area.

Moreover, ERG has obtained most of the authorisations needed for new investments anticipating remediation activities within the ERG Raffinerie Mediterranee and the ERG Power & Gas properties.

For ERG Petroli points of sale, an intense activity aimed at operating remediation activities where contamination episodes have occurred, and at the same time prevention initiatives consisting in the replacement of the oldest tanks with double wall tanks and the continuous control of tanks' holding.



## ERG'S 2004 ENVIRONMENTAL, HEALTH AND SAFETY REPORT VERIFICATION STATEMENT

This statement presents the results of the verification performed by Ernst & Young Financial Business Advisors on ERG's 2004 Environmental, Health and Safety Report.

The verification was performed according to the *Guidelines for the Certification of Company Environmental Reports* issued by the Forum promoted by FEEM and E&Y. The process has focused on:

- the completeness of the Report, in providing adequate data and information in order to describe the most significant impacts of ERG's activities;
- the comprehensibility of the Report, in terms of readability and interpretation of its information and data;
- the reliability of the data management system and the adequacy of the related acquisition, processing and filing procedures.

Verification activities have been performed in compliance with Ernst & Young procedures and ASTM (E1527-97) standards and have included sample analysis of the associated documents as well as interviews with company personnel involved. The process has examined the contents and structure of the Report as well as the procedures for the acquisition, processing and consolidation of its data. The truthfulness of data was not verified; therefore, this statement is not to be considered a certification of the data presented in the Report.

The verification process has focused, in particular, on the "Energy" and "Integrated Downstream" business areas and the audit was carried out at the Corporate HSE Department, responsible for collecting data from the various sites and for preparing the Report, as well as at the power plant IGCC in Priolo Gargallo (SR).

The audit performed showed the high level of operativeness reached by the reporting systems adopted for HSE data management; we verified the use of systems measuring key performance indicators aimed at achieving complete control of all activities.

The main areas of improvement identified within the verification process, concern the opportunity to harmonize the different accounting systems adopted in "Integrated Downstream" business area, with particular reference to enlargement of the reporting scope to the Spanish distribution network.


ERG's HSE Report 2004 edition is renewed considering the development of the Company structure in "Energy" business area, and more complete, especially for "Integrated Downstream" business area, with a document layout characterized by improved readability and accessibility for the reader; furthermore, the Report structure integrates our recommendations regarding reorganization of the paragraphs containing the HSE projects and initiatives promoted by ERG in the different business areas.



The Environmental, Health and Safety performances are described in a complete and transparent manner, commented knowledgeably in every single aspect and with balanced final assessments the accuracy of this analysis is a proof of the high level of effectiveness reached by ERG's accounting systems

Overall, we confirm a positive opinion on ERG's 2004 Environmental, Health and Safety Report that allows an exhaustive and complete presentation of the Group in line with the commitments made within the HSE policy.

Stefano Dionisio  
Partner



Roma, March 25, 2005

## ADOPTED METHODOLOGY

The methodology for the development of the HSE Report is based on the principal national and international guidelines: particularly referring to the scope of the Forum on “Environmental Reports” (Forum “Rapporti Ambientali”), promoted by the ENI Enrico Mattei Foundation (Fondazione ENI Enrico Mattei), as well as the scope of the Global Reporting Initiative.

The 2004 HSE Report analyses all the main activities over which ERG exercises its operative control and it is able to influence the HSE performance. The collection of data is reported both on a consolidated level and for each business area of the Group. In that sense the extent of the Report refers to and includes the following activities:

- Coastal refining
- Integrated downstream
- Energy

Aspects regarding employee health and safety, consumption of natural resources, wastewater, wastes and air emissions have been taken into consideration. As far as the quantitative data survey, the methodology adopted integrates estimation methods and criteria of identification and quantification set up by various national and international organisations such as Eurostat, FEE, CONCAWE, CORINAIR, EPA, Unione Petrolifera.

The main air emissions are determined by continuous measuring at the points of emissions and, if necessary, by estimates based on emission coefficients which consider both the combustion systems and the fuels’

used quality. In particular, in order to calculate the emissions of CO<sub>2</sub>, the quantity of emissions have been determined, according to what was reported in the European Guidelines.

Specifications as regards the activities of identification, quantification, management, aggregation and transmission, are defined in the ERG Environmental Accounting System, which is part of the Group HSE Guidelines. They homogeneously define HSE methodologies and tasks.

Within the economic accounting, the most interesting perspective concerns the integration of surveying activities of HSE expenditure in the SAP system. SAP is an integrated managing informatic system widespread and used in most process-based organized companies. HSE SAP implementation (which currently involves about 80% of the ERG structure) allows the improvement of the integrated expenditure recording which will be finished by the end of 2005.

As regards employees’ health and safety, the collected data refer to injury events’ frequency as well as problems of relevant severity (INAIL indexes) according to the laws and regulations in force.

Among prevention activities the Report considers the monitoring of near accidents, the potential events that could lead to injury events and/or accidents.

The HSE training and information data refer to the accomplished activity within every single business area.

## GLOSSARY

### CO<sub>2</sub>

Carbon dioxide. A gas produced in all processes of combustion, respiration and decomposition of organic material by total oxidation of carbon. Carbon dioxide emissions account for about 80% of greenhouse gas emissions produced by the European Union. Changes in the carbon dioxide concentration in the atmosphere, due essentially to human activities (combustion, deforestation) are at the root of climatic changes.

### CONCAWE

European organisation of petroleum companies with recognised competencies on questions of Health, Safety and Environment. Specifically, its studies are focused on the technical and economic implications of the refining, distribution and marketing of petroleum products in Europe.

### CORINAIR (COoRdination - INformation - AIR)

Polluting Air Emissions Inventory Project promoted by the EU (Bouscaren, 1989).

### EPA (Environmental Protection Agency)

The agency for protection of the environment in the United States.

### EUROSTAT

The European Union Statistics Institute is the European Commission General Managing Office. It provides reliable statistical data on member states and their regions, information concerning Switzerland and other countries of the European Market as far as certain sectors are concerned, it also provides statistical data regarding Japan and the United States. EUROSTAT does not deal directly with the gathering of such statistical data, but it receives them from the member states. Statistics are spread thanks to printed and electronic publications.

### FEE

European Federation of Expert Accountants.

### FREQUENCY INDEX

Combined with the severity index, of the typical indicators of Health and Safety performance at the working place: for a given period of time, it expresses the relationship between the number of accidents and the number of hours worked.

### FULL TIME EQUIVALENTS

Estimate of the number of people dedicated to a specific activity, obtained from the ratio between the total number of hours spent in one year on the activity by all those who perform it to some extent, and the total number of hours worked annually by one individual.

### HSE (Health, Safety, Environment)

Internationally recognised acronym from the English words for Health, Safety and Environment.

### HSE POLICY

Statement of a firm's intentions and principles in relation to its overall performance regarding the topics of Health, Safety and Environment, which provides a standard of reference for activities and for the setting of objectives and goals in that field.

IGCC (Integrated Gasification  
Combined Cycle)

A plant for producing syngas from refinery residues and then the combined production of electricity and heat.

ISO 14000

Series of international standards specifying principles, requisites and provisions regarding management of environmental variable.

MANAGEMENT SYSTEM

Organisation, planning, responsibilities, procedures, operating practices, processes and resources to prepare, implement, achieve, re-examine and maintain control over all internal and external variables.

NO<sub>x</sub>

Nitrogen oxides (in particular, NO and NO<sub>2</sub>). Gases produced mainly by photochemical oxidation of atmospheric nitrogen and by secondary reaction in high temperature combustion of fossil fuels. Jointly responsible with sulphur dioxide (SO<sub>2</sub>) for the phenomenon of acid rain.

OHSAS 18000

Series of international standards specifying principles, requisites and provisions regarding health and safety management.

PARTICULATES

Chemical compounds of diverse origin the particles of which are of dimensions between 10<sup>-3</sup> μm and a few hundred μm. The smaller particles predominate in the exhaust gases from coal or fuel oil fired combustion plant; the larger particles are found in the exhaust gases of internal combustion engines, especially diesel engines, as a result of incomplete combustion.

REMEDIATION

A set of physical, chemical or biological actions to remediate contaminated subsoil (soil and groundwater) or to remove plants that are no longer in use in order to limit or eliminate risks to human health and/or the environment.

SEVERITY INDEX

For a given period of time, it expresses the relationship between the number of days of temporary sickness associated with the occurring accidents and the number of worked hours.

SO<sub>x</sub>

Sulphur oxides (in particular SO<sub>2</sub> and SO<sub>3</sub>). Their production is mainly tied to the sulphur content of the fuels used, as well as to the weather conditions in which combustion occurs. They constitute the main cause of acid rain.

TOE  
(Tons oil equivalent)

Conventional unit of measure, equal to 10 million kcal, used to express the quantity of any energy source, comparing its heating value to that of crude oil.

UP (Unione Petrolifera -  
Oil Companies Association)

Italian association of oil companies.

VOC  
(Volatile Organic Compounds)

These comprise the volatile fraction of the hydrocarbons in fuels and essentially are substances with between 4 and 8 carbon atoms.

**ERG S.P.A.**

**HEALTH, SAFETY, ENVIRONMENT AND QUALITY DEPARTMENT**

Via Vitaliano Brancati, 60 – 00144 Rome, Italy

[www.erg.it](http://www.erg.it)

[info@erg.it](mailto:info@erg.it)

[dbivona@erg.it](mailto:dbivona@erg.it)



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WRITTEN BY: HEALTH SAFETY ENVIRONMENT AND QUALITY DEPARTMENT - [dbivona@erg.it](mailto:dbivona@erg.it)

EDITING: DIREZIONE COMUNICAZIONE - [rel-esterne@erg.it](mailto:rel-esterne@erg.it)

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