

**JOINT REPORT ON OCCUPATIONAL HEALTH,  
SAFETY AND ENVIRONMENTAL PROTECTION  
OF THE UNIPETROL GROUP FOR 2010**



**Joint report on occupational health, safety and environmental protection of the Unipetrol Group for 2010**

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## Contents

<b>UNIPETROL GROUP IN 2010</b> .....	<b>3</b>
UNIPETROL GROUP'S KEY FINANCIALS FOR 2010 .....	3
BRIEF HISTORY OF THE UNIPETROL GROUP .....	3
INTRODUCING THE UNIPETROL GROUP .....	5
BUSINESS PROFILES OF THE MAIN SUBSIDIARIES OF UNIPETROL A.S. ....	5
<b>JOINT POLICY FOR RESPONSIBLE CARE AND INTEGRATED MANAGEMENT SYSTEM OF OCCUPATIONAL HEALTH AND SAFETY, ENVIRONMENTAL PROTECTION AND QUALITY ASSURANCE</b> .....	<b>9</b>
<b>UNIPETROL GROUP'S ENVIRONMENTAL PROTECTION ACTIVITIES IN 2010</b> .....	<b>11</b>
ENVIRONMENTAL INVESTMENTS .....	11
ENVIRONMENTAL PROTECTION COSTS .....	13
MANAGEMENT SYSTEMS .....	15
RESPONSIBLE CARE PROGRAMME FOR CORPORATE RESPONSIBILITY IN CHEMISTRY .....	15
<b>COMPLIANCE WITH ENVIRONMENTAL PROTECTION LAWS</b> .....	<b>17</b>
INTEGRATED POLLUTION PREVENTION .....	17
AIR QUALITY CONTROL, WASTEWATER DISCHARGE AND WASTE MANAGEMENT .....	18
ENVIRONMENTAL IMPACT ASSESSMENT .....	21
FINES FOR VIOLATING ENVIRONMENTAL PROTECTION LAWS .....	22
<b>MITIGATION OF ENVIRONMENTAL AND OPERATING RISKS AND PREVENTION OF SERIOUS ACCIDENTS</b> .....	<b>23</b>
PREVENTION OF SERIOUS ACCIDENTS .....	23
TRANSPORT INFORMATION AND ACCIDENT SYSTEM (TRINS) .....	24
SERIOUS ACCIDENTS IN THE UNIPETROL GROUP IN 2010 .....	24
<b>OPEN APPROACH TO ENVIRONMENTAL ISSUES</b> .....	<b>25</b>
ROLE OF EMPLOYEES IN ENVIRONMENTAL PROTECTION .....	25
PUBLIC RELATIONS .....	25
<b>MITIGATING THE IMPACT OF HISTORICAL ENVIRONMENTAL DAMAGE</b> .....	<b>26</b>
PROGRAMME FOR ELIMINATING OLD ENVIRONMENTAL DAMAGE .....	26
OVERVIEW OF HISTORICAL ENVIRONMENTAL DAMAGE IN THE UNIPETROL GROUP COMPANIES .....	26
PROGRESS OF WORK IN 2010 .....	27
FUND SPENDING IN 2010 .....	28
<b>SUSTAINABLE DEVELOPMENT</b> .....	<b>29</b>
GLOBAL ASPECTS OF ENVIRONMENTAL PROTECTION .....	29
CHEMICAL SAFETY .....	29
WORKING WITH PRIMARY RESOURCES OF RAW MATERIALS AND ENERGY .....	30
<b>OCCUPATIONAL HEALTH AND SAFETY AND FIRE PROTECTION</b> .....	<b>32</b>
<b>IMPORTANT MILESTONES OF THE UNIPETROL GROUP IN 2010 FROM THE PERSPECTIVE OF ENVIRONMENTAL PROTECTION AND OCCUPATIONAL HEALTH AND SAFETY</b> .....	<b>34</b>
<b>CONTACT PERSONS FOR ENVIRONMENTAL MATTERS IN UNIPETROL GROUP COMPANIES</b> .....	<b>36</b>

## Unipetrol Group in 2010

### Unipetrol Group's key financials for 2010

Equity (CZK '000)	38,799,708
Registered capital (CZK '000)	18,133,476
Total sales (CZK '000)	85,966,537
Profit before tax (CZK '000)	1,185,693
Profit for the period (CZK '000)	936,733
Dividends (CZK)	0
Annual average number of employees (FTE)	3,976
Total capital expenditure (CZK million)	3,089

### Brief History of the Unipetrol Group

#### 1995

Establishment of UNIPETROL, a.s. The following companies became the key members of the Group: CHEMOPETROL, a.s., KAUČUK, a.s., ČESKÁ RAFINÉRSKÁ, a.s., and BENZINA, a.s.

#### 2000

Further major acquisitions took place starting in 2000. PARAMO, a.s., SPOLANA, a.s., UNIPETROL TRADE a.s., and UNIPETROL RAFINÉRIE, a.s. became new members of the Group.

#### 2003

KORAMO, a.s., and PARAMO, a.s. merged. PARAMO, a.s. became the successor company.

Česká rafinérská was transformed into a processing [cost centre] refinery.

#### 2004

Agreement on the sale of a 63% interest in UNIPETROL, a.s. was signed between PKN ORLEN S.A. and the National Property Fund.

#### 2006

A majority interest in Unipetrol's subsidiary SPOLANA, a.s. was sold to the Polish company Zakłady Azotowe ANWIL S.A.

#### 2007

Unipetrol's subsidiary KAUČUK, a.s. was sold to the Polish company Firma Chemiczna Dwory S.A.

UNIPETROL SERVICES, s.r.o., a new subsidiary, started operating.

Unipetrol Doprava, Benzina and Petrotrans changed their legal form from public limited companies to private limited companies.

Butadien Kralupy, a.s. was established. Its shareholders are UNIPETROL, a.s. (51%) and KAUČUK, a.s. (49%).

The subsidiaries CHEMOPETROL, a.s. and UNIPETROL RAFINÉRIE, a.s. merged with UNIPETROL RPA, s.r.o.

#### 2008

At the very beginning of the year, Unipetrol's Board of Directors adopted the investment plan to add new monomers to the product portfolio of Unipetrol RPA.

On 26 June 2008, Unipetrol's Annual General Meeting decided that dividends totalling CZK 3,200,558,584.60, would be paid from the retained profit of previous years.

Unipetrol purchased 49,660 shares of Paramo, thereby increasing its interest in Paramo to 91.77%. In October, Unipetrol announced its plan to buy the rest of the shares from minority shareholders.

Unipetrol adopted a plan of implementing an integrated management system across the Group and, on this basis, a pilot project was carried out between 1 and 17 October 2008, under which five selected companies were successfully certified: Unipetrol, Unipetrol RPA, Unipetrol Doprava, Unipetrol Services, and Benzina.

## 2009

The Supervisory Board elected Krzysztof Urbanowicz as the new Chairman and CEO.

Unipetrol became the full owner of Paramo. Paramo minority shareholders' ownership rights were transferred to Unipetrol as of this date in accordance with the Commercial Code.

The oxo-alcohol unit, in operation since 1969, was closed down definitively at Unipetrol RPA. Further extension of this production made no economic sense in the light of demand, condition of the equipment, and limited validity of the integrated permit.

Transpetrol on the one hand, and Česká rafinérská and Paramo on the other hand, signed an agreement on crude oil transport and storage in Slovakia for 2009.

The companies of the Unipetrol Group have started to use exclusively an electronic procurement system for selecting of suppliers of services and goods since the half of the year.

Benzina introduced a major improvement to its fuel portfolio; it was the first on the Czech fuels market to launch a new formulation of the Verva premium diesel with a cetane number of 60 and it made this product available at 130 filling stations.

In the fourth quarter Benzina began to phase out the sale of the no longer promising Speciál 91 petrol, the position of which had been eroded heavily. The company planned to withdraw this petrol from its range on offer in the second half of 2010.

Mr Miroslav Vlasák became the new Director of Unipetrol Doprava, replacing Luboš Kučera who had resigned from this office.

Unipetrol's Supervisory Board appointed Piotr Chelmiński, until now a member of the Board of Directors and Administrative Director, as the company's new Chairman and CEO to replace Krzysztof Urbanowicz, who had resigned from these offices. Artur Pazdzior became a new Director of Unipetrol RPA.

Unipetrol's extraordinary general meeting approved the formation of a new supervisory body for the company, a four-member Audit Committee. It elected Sławomir Robert Jędrzejczyk, Piotr Kearney, Ivan Kočárník and Iain Haggis to the committee.

Unipetrol Group reached the aims of the optimization plan. The significant savings of fixed and variable costs were achieved. The capital expenditures decreased as well.

## 2010

The Unipetrol Group's results for 2009 were markedly affected by the impacts of the unfavourable macroeconomic developments. Although the Group achieved significant cost reductions in all segments, the negative external factors such as weaker demand for motor fuels and other refinery products, low margins in the refinery and petrochemical segment, and the narrow Brent-Ural differential were the main reasons the Group reported an operating result of minus CZK 654 million for 2009.

UNIPETROL, a.s. and Unipetrol RPA decided to transfer their interests in Celio to Ticanor s.r.o. and B.E. Fin S.A. Celio operates in waste management and the divestiture of Celio is in line with the strategy pursued by the Unipetrol Group, which wants to focus more on its strategic segments.

Unipetrol's and Synthos Kralupy's joint venture, Butadien Kralupy a.s., started production in its new butadiene unit today. The 1.2 billion crown investment will replace the current production unit operated by Synthos Kralupy. The new unit helps to increase the capacity of production from 90 to 120 kt per year, which will place the company among the top ten butadiene producers in Europe.

Unipetrol again entered into an agreement on co-operation with the Institute of Chemical Technology in Prague. The Unipetrol Group has been VŠCHT's strategic partner for nine years.

The timetable for the closedown of the T200 heat & power plant at Chempark in Záluží was presented. The T200 heat & power plant is an obsolete source of electricity and steam and from 2012 its operation will no longer meet legislative requirements. The energy services unit of Unipetrol RPA will continue to operate a newer heat & power plant, T700, after the T200 closedown.

For technical reasons, the shutdown of the steam cracker in Litvínov was speeded up by three weeks. The shutdown took place in late September 2010 instead of October 2010, as originally announced. The unit was down for approximately two weeks. The technical measures applied to the steam cracker unit have helped to improve its efficiency.

Mariusz Kędra was appointed to the Board of Directors and as the CFO at Unipetrol. Having served for three years, Wojciech Ostrowski is leaving the position of the Unipetrol Group's CFO.

Unipetrol will build an education and research centre, UniCRE. The centre will integrate research and scientific work with educational activities and will be built in the Záluží industrial area. The total costs will amount to almost 800 million crowns. The EU will subsidise the project by 600 million crowns.

The Unipetrol Group won three of the four main prizes in the PETROLawards competition. Ivan Ottis, a representative of the Unipetrol Group, was named the personality of the year. Benzina received two PETROLaward 2010 awards: one for improving the properties of the Verva Diesel premium fuel and the other for the RIS (Retail Information System) information system installed at its fuel filling stations.

Paramo won a two-year contract for diesel supply to Správa a údržba silnic Královéhradeckého kraje [a road maintenance company]. The customer will pay some 15 million crowns for these supplies.

Benzina started co-operation with the Burger King fast food chain; at the Benzina plus fuel filling station located on kilometre three of the D11 Motorway in the direction from Prague, the chain has opened its first outlet on a Czech motorway.

Jan Řihák was elected to the Paramo Board of Directors as a new member, replacing in this position Jacek Kukier, who stepped down.

Pawel Kania has become a new Executive of Benzina.

## Introducing the Unipetrol Group

The Unipetrol Group's line of business is to make and sell refinery and petrochemical products in the Czech Republic and the Central European region. The Group's companies focus, in particular, on the manufacture and sale of refinery products, chemical and petrochemical products, polymers, fertilisers and special chemicals. The Group also operates its own transportation services and finances its own research and development. Unipetrol is the leading refinery and petrochemical group in the Czech Republic and a major player in Central and Eastern Europe. The Group focuses on three strategic business segments:

- Refinery processing of crude oil and wholesaling of refinery products;
- Petrochemical production;
- Motor fuel retailing.

UNIPETROL, a.s. is a 100% owner of:

- UNIPETROL RPA, s.r.o., refinery, petrochemical and agrochemical product manufacturer and trader;
- BENZINA, s.r.o., operator of the largest network of fuel filling stations in the Czech Republic;
- UNIPETROL SERVICES, s.r.o., support centre providing services to all Group companies;
- UNIPETROL DOPRAVA, s.r.o., railway forwarder specialising in chemical and petrochemical products and also transporting other goods, including the provision of related services (99.88% of its shares are held by UNIPETROL RPA, s.r.o.);
- PARAMO, a.s., the largest manufacturer of bitumen, lubricating oils and fuel oils, other fuels and other refinery products (100% owned by UNIPETROL, a.s.).

Other major equity interests:

- ČESKÁ RAFINÉRSKÁ, a.s. (51.22%), owned jointly with ENI INTERNATIONAL, B.V. and Shell Overseas Investment B.V., the largest crude oil processor in the Czech Republic for a wide range of products (its total annual output is 8.8 million tonnes);

The Unipetrol Group also includes two research and development companies with excellent research results and practical applications. These are:

- Výzkumný ústav anorganické chemie, a.s. (VÚAnCh, Inorganic Chemistry Research Institute),
- POLYMER INSTITUTE BRNO, spol. s r.o.

Refinery and petrochemical products make up a major part of the Group's output.

Refinery products: automobile petrol, diesel, light fuel oil, aviation fuel, LPG, bitumen, naphtha, lubricating oils and fuel oils.

Petrochemical products: ethylene, propylene, C4 fraction, benzene, high-density polyethylene, polypropylene, oxo-alcohols, ammonia, urea, Chezacarb carbon black.

## Business profiles of the main subsidiaries of UNIPETROL a.s.

### UNIPETROL RPA, s.r.o.

Merger of Chemopetrol, Unipetrol Rafinérie and Unipetrol RPA into Unipetrol RPA (refining, petrochemicals, agrochemicals) was a logical continuation of the implementation of the new model of management, which has been gradually introduced since the beginning of 2007.

The key advantages of the merger include the simplified flow of semi-finished products within a single firm and a better use of existing synergies. The increased efficiency of the internal purchase and sale of own products within the Group is another benefit. Not least, the change supports stricter control over the entire chain of production and sale, from the

purchase of crude oil to customer care. A single compact entity has been formed as a result of the merger, leading to a simplified structure of organisational, personnel, administrative and logistics activities.

The company is divided into production, business, and service units.

#### THE CHEMICAL PRODUCTION UNIT

This unit operates the following production units:

- Ethylene plant;
- Polypropylene production plant;
- Polyethylene production plant;
- Chezacarb carbon black production plant;
- Heavy oil (Mazut) gasification plant;
- Ammonia and urea production plant; and
- Gas compression and distribution plant.

It is also responsible for the capital expenditure process in the entire company, and the operation of the company's fire services and their dispatch control centre.

#### THE ENERGY SERVICES UNIT

This unit supplies the entire premises with energy (electricity and steam) and water. It is also responsible for waste water treatment in the whole complex.

#### THE SUPPLY CHAIN UNIT

This unit is responsible for plastics, urea, and carbon black logistics.

#### THE REFINERY UNIT

The unit is a crude oil processing operation. It plans and controls crude oil processing at Česká rafinářská to the resulting products in accordance with the ownership rights of UNIPETROL, a.s., with a specific focus on the requirements of the downstream production processes in the Unipetrol Group. BU I is the leading player in the Czech wholesale market for crude oil products. Its main business lines include:

Comprehensive supply of feedstock for petrochemical production in the Unipetrol Group;

Wholesale in motor fuels and other refinery products;

Purchase of crude oil for refinery production in the Unipetrol Group;

Optimising the alignment between refinery and petrochemical production, with emphasis on the maximum use of the synergy of technological processes;

Optimising refinery production in the Unipetrol Group.

#### *Key products of the unit:*

Motor fuels (unleaded petrol: Normal 91, Super 95, and Super plus 98, aviation kerosene, diesel), fuel oils (extra light fuel oil, heavy fuel oil, R2 fuel oil), bitumen, road bitumen, liquefied oil products, propane, propylene, propane-butane, LPG, butane, N-butane, raffinate II, oil hydrogenates, stabilised oil hydrogenates, other refinery products, naphtha, liquid sulphur, and MTBE.

#### THE MONOMERS AND AGRO PRODUCTS UNIT

The unit operates in the field of petrochemical products, ammonia and urea. It plans and controls the production downstream from crude oil processing and provides semi-finished products for the subsequent polyolefin segment. The unit is a key supplier of ethylene, propylene, benzene, ammonia and other chemical and petrochemical feedstock for other chemical firms in the Czech Republic and Central Europe. Its core operations are:

Provision of feedstock for polyolefin production in the Unipetrol Group;

Sale of petrochemical products, ammonia and urea;

Development and strategy of petrochemical and chemical production.

*Key products of the unit:*

Olefins and aromatics, ethylene for polymerisation, propylene for polymerisation, crude benzene, C4 fraction, C5 fraction, C9 fraction – redistilled, naphthalene concentrate, pyrolysis fuel oil, agrochemicals, ammonia, industrial ammonia water, urea, alcohols, technical grade 2-ethyl hexanol (octanol), hydration refined specially denatured fermentation alcohol, synthetic technical grade isobutanol, synthetic technical grade N-butanol, antifreeze liquid, carbon black and sorbents, highly conductive carbon black.

THE POLYOLEFIN UNIT

The unit operates in the field of plastics - polyolefins. It plans production in the plants that produce polypropylene and high density polyethylene and is responsible for the sale of finished PP and HDPE products. In co-operation with the research and development base of the Polymer Institute in Brno, the unit is also involved in the modification of the existing polyolefin products and development of new ones. BU III is the leading supplier of polyolefins on the Czech market and a major player in Central Europe, as it controls 5% and 2% of European HDPE and PP capacities, respectively. Its core operations are:

Sale of PP and HDPE products;

Co-ordination of polyolefin research and development at Polymer Institute in Brno

Technical services and advice for current and potential customers.

*Key products of the unit:*

Polyolefins, high-density polyethylene (HDPE), and polypropylene.

**ČESKÁ RAFINÉRSKÁ, a.s.**

ČESKÁ RAFINÉRSKÁ, a.s., based in Litvínov, is a production company active in crude oil processing; it operates refineries in Litvínov and Kralupy nad Vltavou. It is a joint venture of three shareholders: Unipetrol (51.23%), Eni (32.44%) and Shell (16.33%).

The main products that leave the gates of both refineries include automobile petrol, diesel fuel, jet kerosene, fuel oils, liquefied gases (LPG), bitumen, feedstock for petrochemical and lubricant production, and substances for other industrial use.

Since August 2003, Česká rafinérská has been a reprocessing refinery, which means that it processes the crude oil supplied by its owners, or their domestic trading companies. They sell the products on the domestic and foreign markets in volumes that match their respective ownership interests.

**BENZINA, s.r.o.**

As at 31 December 2010, the company operated 330 fuel filling stations offering a broad range of fuels with additives; a selected segment of the stations offers a collection of the VERVA premium fuels and also a broad range of additional goods, refreshments and services. Between 2006 and 2009, the network was gradually refurbished and modernised and is currently structured into two segments, the premium segment, represented on the Czech market by 107 Benzina plus stations, and the standard segment of Benzina stations. By the end of 2009, a total of 289 stations had been upgraded in both segments.

Taking into account the figures for 2009 and 2008, the company holds a market share of almost 14%. Compared with its minimum market share (9.9%), which Benzina achieved in 2005, the development of its market share is favourable considering the average over the last three years (13%) and the level and development of the Czech macroeconomic factors. At the same time, the overall number of fuel filling stations on the market is steadily rising every year (up 1% annually) and also the number and market share of hypermarket fuel filling stations are on the rise.

**PARAMO, a.s.**

PARAMO, a.s. processes crude oil into refinery and bitumen products and into lubricant and process oils, including related and ancillary products. Since 2003 the refinery has been purchasing and processing oil hydrogenation and hydrocrack products. The intermediate products are used for the production of base and lubricant oils with a very low sulphur content. The company primarily places its products on the domestic market.

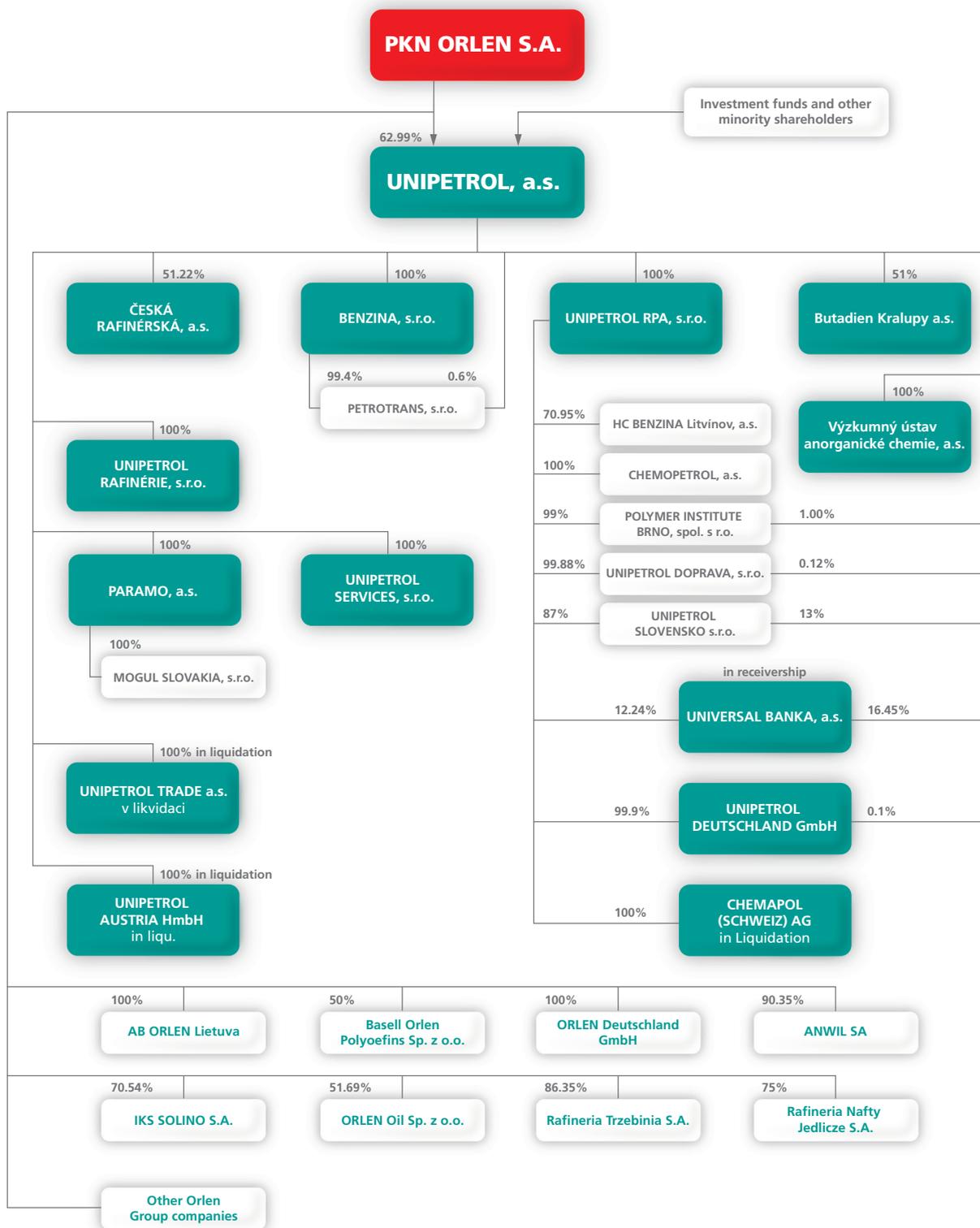
Diesel oil is and will remain the key commercial product of the refinery. With the gradual reduction in bitumen production at Česká rafinérská, Paramo will become the leading Czech bitumen producer. One advantage of the company is its broad range of products and the state-of-the-art Biturox base bitumen production unit, which was commissioned in the third quarter of 2006.

**UNIPETROL SERVICES, s.r.o.**

The Shared Services Centre (SSC) was opened on 1 January 2007. To create the SSC, some of the administrative and support activities were transferred to it from Unipetrol, Chemopetrol, Unipetrol Doprava, Benzina and Unipetrol Trade. Later it was demerged to form a new company, UNIPETROL SERVICES, s.r.o.

The mission of Unipetrol Services is to provide its services to other companies within and outside the Group, to improve their efficiency and to reduce their costs.

**Structure of UNIPETROL, a.s. as of 31 December 2010**



## Joint policy for responsible care and integrated management system of occupational health and safety, environmental protection and quality assurance

In November 2007 the Board of Directors of UNIPETROL, a.s. adopted a new “Policy for Responsible Care and Integrated Management System of Occupational Health and Safety, Environmental Protection, and Quality Assurance” as a follow up to the previous “Joint Environmental Policy of the Unipetrol Group” from 1999, which reflects the new structure of the Unipetrol Group and new challenges of the company’s Corporate Social Responsibility (CSR).

### **Policy for responsible care and integrated management system of occupational health and safety, environmental protection, and quality assurance**

The Unipetrol Group is one of the leading Czech industrial corporations and a national leader in the fields of crude oil refining and petrochemistry.

The Unipetrol Group endeavours to achieve long-term profitability and competitiveness, a high quality of products and services, and a high level of safety and environmental responsibility in respect of its production, commercial and logistics operations, comprising the refining of crude oil, petrochemical and agrochemical production, distribution, railway transportation and shipping services, and the wholesale and retail sale of motor fuels, oils and other products.

As a member of the Orlen industrial group, the Unipetrol Group adheres to the principles of the Responsible Care Global Charter, and the principles of sustainable development and corporate responsibility.

The Unipetrol Group considers it to be its priority to develop, manufacture, and distribute products with minimal risks of adverse impact on human health and the environment. To mitigate potential risks, Unipetrol is introducing the Product Stewardship programme, which consists in product testing, provision of information to customer chains about the broad range of product attributes, and risk management measures in areas where potential safety, health, and environmental risks occur.

The Unipetrol Group implements and maintains an integrated management system, comprising an occupational health and safety system, an environmental system, and a quality assurance system. In accordance with the integrated management system, the Unipetrol Group has committed to the following obligations:

### **Product supervision and care**

- Develop, manufacture, and distribute products with minimal risks of adverse impact on human health and the environment;
- Test products and provide information to customers and the public, either directly or through customer chains, about the broad range of product attributes and risk management measures in areas where potential safety, health, and environmental risks occur;

### **Compliance with legal and other requirements concerning occupational health and safety, quality assurance and environmental protection**

- Meet the requirements of legal and other regulations binding on the company in the areas of occupational health and safety, environmental protection, and the quality of products and services;
- Implement the best available technology wherever appropriate and effective;

### **Integrated management system**

- Regularly check the suitability and adequacy of the integrated management system policy;
- Monitor, measure, and assess the processes and specific measures to achieve continuous improvement in the efficiency of the integrated management system;
- Record discrepancies and analyse the causes of such discrepancies in processes and take the appropriate corrective and preventive measures for their elimination;
- Continuously improve performance in the areas of occupational health and safety, environmental protection, and quality assurance for products and services;
- Engage suppliers, both juristic and natural persons, in the management system, acquaint them with the principles and procedures used by the company, and demand the application thereof;
- Secure the resources necessary for implementing and maintaining the integrated management system and for financing the activities in the relevant areas;

#### **Preventive approach**

- Prefer prevention in occupational health and safety, environmental protection, product and service quality assurance and property protection to elimination of the consequences of emergencies; maintain and test emergency and accident response systems;
- Operate facilities in a manner that is safe and protects the health of employees, suppliers, other companies and residents of the region and that has a minimal impact on the environment, product quality and product value;

#### **Mitigating the risks to health, safety, and the environment**

- Apply a system of the prevention and management of risks to health, safety, and the environment, with a view to minimising the adverse effects of such risks and accidents; and provide compensation for damage caused by such accidents to health, the environment or property;
- Inform the public about the existence of health, safety, and environmental risks and about the safety and preventive measures that have been taken;
- Continuously identify dangers, assess risks and health and environmental impacts, adopt and apply measures for their elimination or mitigation, and minimise the adverse impacts of any accidents;
- Ensure that employees are involved in efforts to prevent any adverse impacts of their activities on occupational health and safety, the environment, product quality, and property;

#### **Open approach**

- Apply an open approach to all stakeholders;
- Maintain contacts with all stakeholders and support an open approach to the public, especially the neighbouring communities;

#### **Assessment of impacts on safety, health, and the environment**

- Assess the impacts on health, safety, and the environment before starting any new operations, projects, changes, or before closing any operations, and apply the results of the assessment so as to minimise any adverse effects;

#### **Logistics and transport services**

- Provide logistics and transport services with due regard to a high standard of safety, quality, and environmental performance; implement and maintain the European Safety and Quality Assessment System (SQAS) for transport services and for the cleaning of transport equipment, based on the European Cleaning Document (ECD);

#### **Removal of old environmental damage**

- Implement a long-term programme of removing old environmental damage;

#### **Customer focus**

- Maintain a high quality of products and services; modify the specifications of products and services to meet customer requirements wherever possible and effective;
- Monitor information on customers' perception of how their requirements are met; meet customers' needs and expectations; meet the requirements of other stakeholders (suppliers, employees, and owners) to achieve their satisfaction and gain competitive advantages;

#### **Employee training and education**

- Educate, motivate and enhance employees', suppliers' and other trading partners' awareness in respect of the need to secure occupational health and safety, environmental protection, and the quality of the products and services delivered;

#### **Protection of company assets**

- Maintain and protect the company's assets and have them adequately insured against ineliminable risks to minimise any potential adverse impact on the company's assets.

## Unipetrol Group's environmental protection activities in 2010

### Environmental investments

Environmental investments are defined as capital investment projects directly caused by the requirements of legal regulations on environmental protection and closely related to the practical application of integrated pollution prevention.

In 2010, the following major environmental investments were made in the Group:

#### Česká rafinérská

In 2010, more than CZK 39 million was invested in environmental protection. These environmental projects accounted for 13% of total capital expenditure. In 2010, projects were carried out, or preparations were started for additional projects, both in respect of improving air quality control and emission monitoring as well as in respect of water protection. Some projects launched previously were completed, for example, the refurbishment of the sludge system at the wastewater treatment plant in Kralupy and tail gas desulphurisation at Litvínov.

The Kralupy refinery commenced projects conducive to the mitigation of risks to groundwater quality and achievement of BAT parameters in wastewater treatment. This group of projects includes the expansion of, and additions to, the hydraulic barrier system, revamp of a wastewater treatment plant, repair of the sewer system, and modernisation of a railway loading ramp. The Litvínov refinery refurbished the sewer system in the oil atmospheric vacuum distillation unit.

The Kralupy refinery completed a project for the replacement of continuous emission analysers in the refinery unit and started preparations for the installation of continuous emission analysers at the outlet from the Claus unit's incinerator. The Litvínov refinery is preparing a project for the adjustment of the flare system of the refinery unit and replacement of the lining of the Claus unit's stack.

#### Unipetrol RPA

In 2010, more than CZK 81 million was invested in environmental protection. The share of these projects in total capital expenditure increased to more than 13%. The most important investments made in 2010 include the following:

- Replacement of the TEA wash solution pumping set at the POX plant;
- Refurbishment of the sewer system in the steam cracker area;
- Measures to minimise pollution in the common sewer system on the premises by diversion of wastewater from the POX plant and other preparatory and design work;
- Commissioning of the project for the co-firing of modified sludge from BWWTP at the T700 heat and power plant;
- A set of capital investment projects related to the maximisation of the use of the Chezacarb production unit;
- Continuation of the preparatory work for the project of the Revitalisation of the Mračný Stream;
- Repair of the emergency sump in the oil storage facility on site 1133 - T 700;
- Arrangements for substance registration under the REACH regulation.

A number of other measures with a positive effect on the environment were implemented and financed from operating costs of equipment maintenance. This mainly included the repair of sewers, handling areas, and traps.

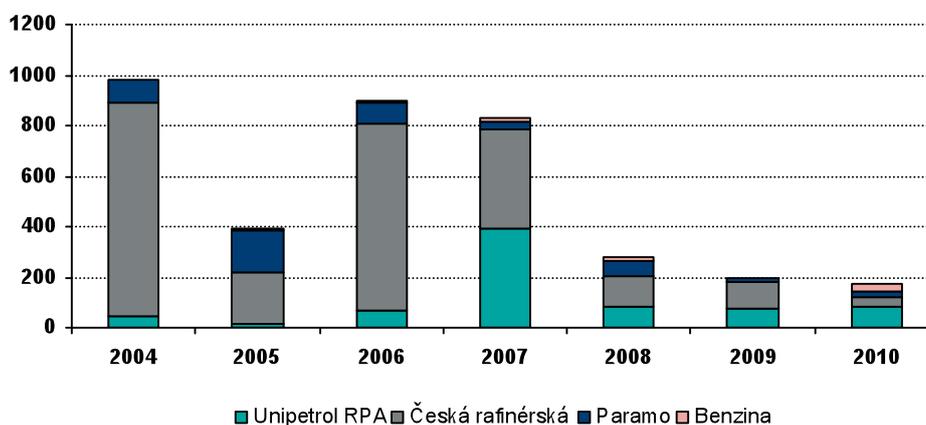
#### Paramo

In 2010, CZK 19.7 million was invested in environmental protection. These projects accounted for 29% of total capital expenditure. The most important investments made in 2010 include the following:

- Completion of the retrofit of the VR 28 tank; this capital investment project was co-financed from Operational Programme Environment. The successful completion of the project was an impetus for the administration of two more applications for subsidies – renovation of the VR 16 tank and the tanks in the Kolín mixing plant.
- Retrofit of the N11 and N12 tanks, which store fuel oil for the Energy operations, was started and the diesel fuel pumping station at the Kolín Centre was refurbished.
- The Improving Energy Efficiency of the Diesel Fuel Desulphurisation Process by Exchanger Field Extension project, which will help to significantly reduce CO<sub>2</sub> emissions, was approved for implementation last year. An application for a subsidy under Operational Programme Enterprise and Innovation – ECO-ENERGY was prepared in parallel with the approval process under the company's internal standards. The application is currently subject to review by CzechInvest and should the subsidy be granted, Paramo will obtain a subsidy of 40% of eligible costs.

**Capital expenditure on environmental protection in the Group (CZK million/year)**

Year	2004	2005	2006	2007	2008	2009	2010
<b>Unipetrol RPA</b>	46	17	65	389	85	76	81
<b>Česká rafinérská</b>	841	200	740	397	116	105	40
<b>Paramo</b>	92	168	87	26	59	14	20
<b>Benzina</b>	1	5	6	16	22	5	35
<b>Unipetrol Group</b>	<b>980</b>	<b>390</b>	<b>898</b>	<b>828</b>	<b>282</b>	<b>200</b>	<b>175</b>



**Overview of the companies' environmental investments and measures in 2010**

Measure adopted	Environmental effect
<b>Unipetrol RPA</b>	
Study on the replacement of equipment in the steam cracker unit's energy system	Reduction in atmospheric pollutant emissions, meeting of IED requirements, improved efficiency
Revitalisation of the Mračný Stream	Reduction in pollutant leakage into surface water, greening of the stream
Processing of wastewater from POX production, a study	Minimisation of pollutants released in effluent into surface water
Energy strategy for Unipetrol, a proposal	Reduction in atmospheric pollutant emissions, meeting of IED requirements, improved efficiency
Water collection and pumping at Block 22	Minimisation of pollutants released in effluent into surface water
Doubling of carbon black water piping in the ZM plant	Increased use of effluent as feedstock, reduced emissions to surface water
Doubling of carbon black water piping in the CHEZACARB plant	Increased use of effluent as feedstock, reduced emissions to surface water
Refurbishment of the sewer system in the steam cracker plant	Refurbishment and modernisation of the industrial effluent draining system to minimise effluent leaks
POX production wastewater processing	Minimisation of pollutants released in effluent into surface water
Turbidity meter for gauging leaked suspensions and sludge	Timely detection of leaks for an effective solution to emergency situations, surface water protection
Biofuel preparation and firing – stage 1	Minimisation of wastes and pollutants released in effluent into surface water
Emergency sump in the oil store in building 1133	Refurbishment and modernisation of the industrial sewage draining system to minimise the risk of leaks of harmful substances

<b>Česká rafinérská</b>	
Extension of and additions to the HOPV system	Groundwater clean-up and protection of surface and groundwater and the bedrock
Revamp of the Kralupy wastewater treatment plant	More efficient wastewater processing
Refurbishment of the sludge system	More efficient processing of sludge from the wastewater treatment plant
Modernisation of the railway loading ramp	Protection of surface and groundwater and the bedrock
Repair of the Kralupy sewer system, Stage 1	Protection of surface and groundwater and the bedrock
Repair of the Litvínov Block 34 sewer system	Protection of surface and groundwater and the bedrock
Replacement of continuous emission analysers	More efficient monitoring
<b>Paramo</b>	
Retrofit of the VR 28 tank	Elimination of the risk to groundwater and in the case of accidental oil product leakage
Start of the retrofit of N11 and N12 tanks	Elimination of the risk to groundwater and in the case of accidental oil product leakage
Refurbishment of a diesel pumping station, Kolín Centre	Elimination of the risk to groundwater and in the case of accidental oil product leakage
<b>Benzina</b>	
Adding and replacing recovery units at fuel stations	Reduced atmospheric emissions
Adding and replacing wastewater treatment plants, or connection to the municipal WWTP (Volary and Sadská fuel stations)	Reduced surface water contamination
Renovation of compacted areas	Reduced risk to groundwater and the bedrock
Renovation of drinking water sources (Vimperk and Olomouc fuel stations)	Reduced risk to the health of the station personnel and customers, which may be caused by water unsafe for healthy consumption

## Environmental protection costs

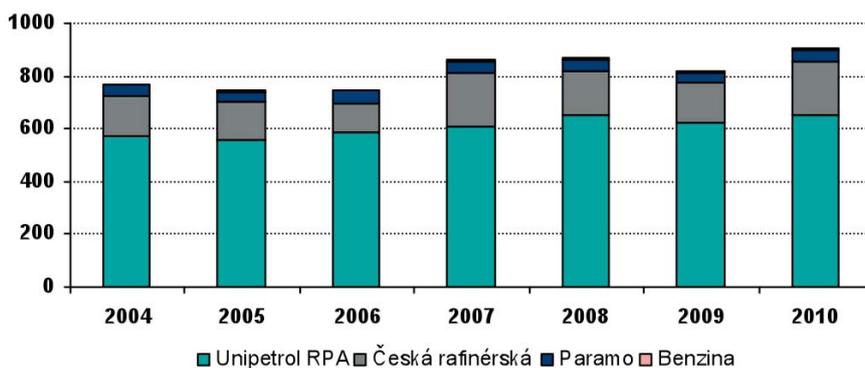
### *Environmental operating costs*

The costs incurred in the operation of air quality control systems, wastewater treatment plants, and waste disposal, operation of environmental management systems and monitoring of substances released into the environment, environmental impact assessment (EIA process), integrated pollution prevention, and in other related environmental activities, are referred to as environmental operating costs.

The recent installation of state-of-the-art equipment, characterised by a high degree of feedstock conversion, reduced waste volumes, and high energy efficiency, has resulted in an overall reduction in environmental operating costs compared with the preceding decade. The significant increase in Česká rafinérská's environmental operating costs in 2007 compared with 2006 was related to technical modifications of the Claus units in Litvínov (about CZK 90 million, paid from the maintenance operating costs). Environmental operating costs between 2004 and 2010 are shown in the following table.

**Environmental protection operating costs in the Unipetrol Group (CZK million/year)**

Year	2004	2005	2006	2007	2008	2009	2010
Unipetrol RPA	575	561	590	606	654	624	652
Česká rafinérská	147	139	106	203	166	144	202
Paramo	47	38	47	48	44	35	44
Benzina	-	5	5	5	5	5	6
<b>Unipetrol Group</b>	<b>769</b>	<b>743</b>	<b>748</b>	<b>862</b>	<b>869</b>	<b>808</b>	<b>904</b>

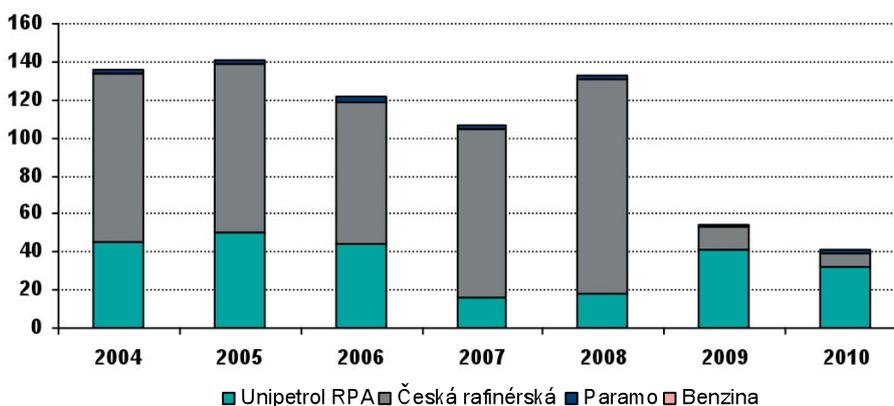


*Total environmental protection costs*

The total environmental protection costs in the Unipetrol Group include the costs of environmental investment, environmental operating costs, costs of the clean-up of old environmental damage, charges for air pollution, wastewater discharge, and waste dumping in tips, and creating provisions for landfill reclamation and for compensations for forest damage caused by ambient air pollution. An overview of environmental pollution charges and total environmental protection costs between 2004 and 2009 is shown below. In Česká rafinérská, the decrease in fees and levies in 2009 compared with 2008 was caused by a change of the methodology.

**Environmental pollution charges in the Group (CZK million/year)**

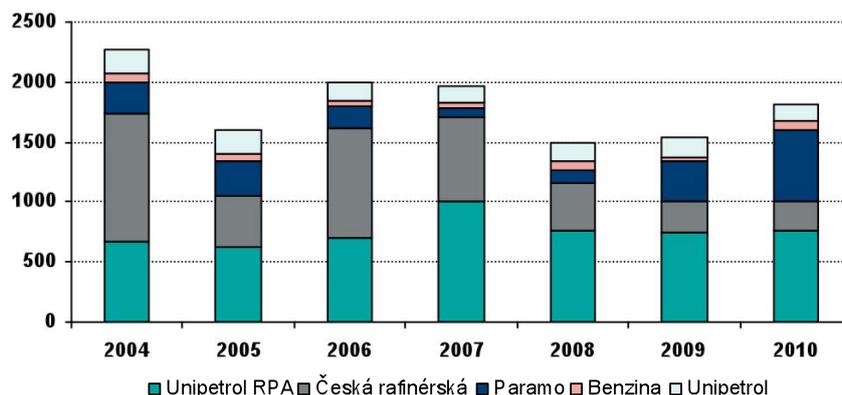
Year	2004	2005	2006	2007	2008	2009	2010
Unipetrol RPA	45	50	44	16	18	41	32
Česká rafinérská	89	89	75	89	113	12	7
Paramo	2	2	2	1	2	1,7	2,5
Benzina	-	0	0	0	0	0	0
<b>Unipetrol Group</b>	<b>136</b>	<b>141</b>	<b>121</b>	<b>106</b>	<b>133</b>	<b>55</b>	<b>41</b>



The environmental protection costs totalled CZK 1.82 billion in 2010. Compared with 2008, overall costs increased in 2009 and 2010, mainly because of the launch of new clean-up projects on both Paramo sites.

**Total environmental protection costs in the Unipetrol Group (CZK million/year)**

Year	2004	2005	2006	2007	2008	2009	2010
Unipetrol RPA	666	628	699	1,011	757	741	764
Česká rafinérská	1,077	428	921	689	395	261	249
Paramo	260	291	176	85	119	346	591
Benzina	41	36	26	38	73	31	67
Unipetrol	206	202	147	148	144	159	148
<b>Unipetrol Group</b>	<b>2,250</b>	<b>1,585</b>	<b>1,969</b>	<b>1,971</b>	<b>1,488</b>	<b>1,538</b>	<b>1,820</b>



## Management systems

Management systems are an important part of environmental protection, occupational health and safety and fire protection. To guarantee a systematic approach to environmental protection and to other issues, the following management systems have been implemented and certified in the Unipetrol Group companies: environmental management system (EMS), health and safety management system (HSMS), and quality management system (QMS).

These systems have been certified under ISO 14001, OHSAS 18001, and ISO 9001 international standards.

In October, a surveillance audit of the Integrated Management System took place at Unipetrol, Unipetrol RPA, Unipetrol Doprava, Benzina and Unipetrol Services. Lloyd's Register Quality Assurance, a certification organisation, confirmed compliance with the standards.

In late June and early July, a recertification audit took place at Česká rafinérská (Lloyd's Register Quality Assurance). This audit focused on evaluating the compliance of all processes at Česká rafinérská with the standards of the quality management system, environmental management system and occupational health and safety management system, and resulted in recertification under ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 standards for the following three-year period.

In June 2009 a joint audit, comprising all three systems (EMS, HSMS and QMS), was performed at PARAMO, a.s. Lloyd's Register Quality Assurance issued an integrated certificate valid until 2012.

## Responsible Care programme for corporate responsibility in chemistry

Responsible Care is a voluntary worldwide initiative in the chemical industry aimed at promoting its sustainable development through proactive improvement of the safety of facility operations, product transport, and protection of human health and the environment. The programme represents a long-term strategy coordinated by the International Council of Chemical Associations (ICCA) and the European Chemical Industry Council (CEFIC). The contribution of the Responsible Care programme to sustainable development was acknowledged by an award from the UN Environmental Programme at the world summit in Johannesburg.

At an international conference on chemical substances held under UN auspices in 2005, a Global Responsible Care Charter was adopted as a continuation of the Responsible Care programme.

The national version of Responsible Care, a programme entitled Odpovědné podnikání v chemii (Responsible Business in Chemistry), was officially launched in October 1994 by the Minister of Industry and Trade and the President of the Association of Chemical Industry of the Czech Republic (SCHP ČR). The programme has complied with the Responsible Care Global Charter since 2008.

For details of the Responsible Care programme and the conditions of compliance therewith, see the SCHP ČR information server at <http://www.schp.cz>.

For successfully meeting the programme conditions, the Group companies, Unipetrol RPA, Česká rafinérská, Paramo and Unipetrol, have been repeatedly awarded by the authorisation to use the programme logo (the Responsible Care protected trademark, administered in Europe by the European Chemical Industry Council).

**Certified/verified management systems in the Unipetrol Group in 2010**

Company	Verified by	Certified under standard	Certified in	Recertification outlook
Unipetrol RPA	LRQA	ISO 14001	2002, 2005, 2008	2011
Unipetrol RPA	LRQA	ISO 9001	1996, 1999, 2002, 2005, 2008	2011
Unipetrol RPA	LRQA	OHSAS 18001	2005, 2008	2011
Unipetrol RPA	SCHP ČR	Responsible Care	1996, 1998, 2000, 2002, 2004, 2008	2011
Paramo	LRQA	ISO 14001	2003, 2006, 2009	2009
Paramo	LRQA	ISO 9001	1996, 2000, 2003, 2006, 2009	2009
Paramo	LRQA	OHSAS 18001	2007, 2009	2010
Paramo	SCHP ČR	Responsible Care	2001, 2003, 2005, 2008	2012
Paramo	SCHP ČR	Sustainable Development Award	2008	
Unipetrol Doprava	LRQA	ISO 14001	2007, 2008	2011
Unipetrol Doprava	LRQA	ISO 9001	2005, 2008	2011
Unipetrol Doprava	LRQA	OHSAS 18001	2008	2011
Unipetrol Doprava	MOODY International	SQAS	2006, 2009	2012
Benzina	LRQA	ISO 14001	2008	2011
Benzina	LRQA	ISO 9001	1996, 1999, 2002, 2005, 2008	2011
Benzina	LRQA	OHSAS 18001	2008	2011
Česká rafinérská	LRQA	ISO 14001	2001 / 2005, 2007, 2010	2010
Česká rafinérská	LRQA	ISO 9001	2001 / 2004, 2007, 2010	2010
Česká rafinérská	LRQA	OHSAS 18001	2007, 2010	2010
Česká rafinérská	SCHP ČR	Responsible Care	2000 / 2002, 2004, 2008	2012
Unipetrol	LRQA	ISO 14001	2008	2011
Unipetrol	LRQA	ISO 9001	2008	2011
Unipetrol	LRQA	OHSAS 18001	2008	2011
Unipetrol	SCHP ČR	Responsible Care	2000, 2003, 2005, 2007	2011
Unipetrol Services	LRQA	ISO 14001	2008	2011
Unipetrol Services	LRQA	ISO 9001	2008	2011
Unipetrol Services	LRQA	OHSAS 18001	2008	2011

## Compliance with environmental protection laws

### Integrated pollution prevention

The obligations of selected industrial companies in the area of integrated pollution prevention and control (IPPC) are governed by Act No. 76/2002 as amended. This Act covers, among other things, all production companies of the chemical and refining industry.

The integrated permits for the refineries at Záluží and Kralupy have been issued for the refineries as a whole, without any breakdown to individual operations. The integrated permits have been amended in relation to new capital investment projects that required such amendments due to their size.

The integrated permit for the Záluží refinery was issued by the Regional Authority of the Ústí nad Labem Region on 15 December 2003. The same authority granted an amendment to the integrated permit on 20 July 2006, in relation to capital investment projects for the unloading, storage and use of light-cycle oil from the Kralupy refinery, and the unloading, storage and blending of the rapeseed methyl ester (MEĚO) biofuel. By its decision of 17 October 2006, the Regional Authority of the Ústí nad Labem Region granted an amendment to the integrated permit in relation to the capital investment project for the revamp of the splitting unit of the new hydrocrack and installation of the VBU recontacting system. On 12 June 2007, an amendment to the integrated permit was granted in relation to the capital investment projects for installing new low-emission burners in the furnaces of the new refinery, installing a preheating system for combustion air and replacing the old burners by low-emission burners in the gas oil hydrogenation unit, and intensifying the rich gas desulphurisation and MEA regeneration unit. On 5 May 2008, an amendment to the integrated permit was granted in connection with the capital investment project of oxygen supply to enrich combustion air in the Claus unit. An amendment to the integrated permit was granted on 27 June 2008 in connection with the capital investment project for the construction of the light product filling facility. In 2009, the integrated permit was amended as part of the project for changing the fuel used in the catalytic reforming furnaces. In 2010, an application was filed for an amendment to the integrated permit in connection with the planned implementation of the Modification of the Flare System on the Refinery Unit and Repair of the Lining of the Claus Unit Stack capital investment projects. The decision on the amendment to the integrated permit, which will also set out the extent of the monitoring of wastewater quality parameters, will be issued in 2011.

The integrated permit for the Kralupy refinery was issued by the Regional Authority of the Central Bohemian Region on 9 February 2004. Due primarily to the authority's procedural errors in issuing the permit, the decision was later reversed and on 13 March 2008 the authority issued a new decision on the integrated permit, covering all facilities of the Kralupy refinery. In 2010, an application was filed for an amendment to the integrated permit on account of the installation of continuous analysers at the outlet from the Claus unit and a change of the final date for the completion of the revamp of the wastewater treatment plant. The decision on the amendment to the integrated permit will be issued in 2011.

All the process equipment operated by PARAMO, a.s. has valid integrated permits. The Pardubice Centre has obtained integrated permits for the operation of its heat & power plant, and its Bitumen Operation, Fuels Operation and Oils Operation, issued by the Pardubice Region. The Kolin Centre obtained one integrated permit issued by the Central Bohemian Region. These permits are being amended in line with the planned investments and legislative changes.

All of UNIPETROL RPA, s.r.o.'s production units have valid integrated permits issued by the Regional Authority of the Ústecký Region. These permits are continuously updated in connection with the implementation of capital investment projects, changes of equipment and the used substances, production of wastes, and amendments to legal regulations. During 2010, eight amendments to integrated permits for the company's installations were issued.

The changes concerned, for example, the following: the method of emission measurement, additional requirements for pollution prevention (wastewater monitoring, provisions for the impermeability of handling areas and emergency sumps, segregation of industrial effluent from the common sewer system), approval of operating tests, preparation of a study on and installation of an emergency site on the river Bilina, and a long list of wastes.

## Overview of the issued integrated operating permits (IPs) as at 31 December 2010

Production unit	Integrated permit (who issued it and when)
<b>Unipetrol RPA</b>	
Polypropylene and polyethylene production	Regional Authority of the Ústí Region; issued on 16 December 2003 in perpetuity; nine amendments
Ethylene unit, including naphthalene concentrate production plant	Regional Authority of the Ústí Region; issued on 21 February 2005 in perpetuity; three amendments
Urea production	Regional Authority of the Ústí Region; issued on 22 September 2005 with validity until 2015; three amendments
Ammonia production	Regional Authority of the Ústí Region; issued on 12 June 2006 in perpetuity; three amendment
The <i>Mazut</i> gasification plant	Regional Authority of the Ústí Region; issued on 12 July 2006 in perpetuity; three amendments
Oxo-alcohol production	Regional Authority of the Ústí Region; issued on 16 July 2007 with validity until 31 March 2010; three amendments
T200 and T700 plants and the effluent & wastes plant	Regional Authority of the Ústí Region; issued on 11 October 2007 in perpetuity; five amendments
Dicyclopentadiene and Non-hydrogenated C <sub>9</sub> Fraction Production	Regional Authority of the Ústí Region; issued on 23 February 2009 in perpetuity, no amendments
<b>Česká rafinérská</b>	
<b>Litvínov Refinery</b>	
ČESKÁ RAFINÉRSKÁ, a.s., Litvínov Refinery	Regional Authority of the Ústí Region; issued on 15 December 2003 in perpetuity; six amendments
<b>Kralupy nad Vltavou Refinery</b>	
ČESKÁ RAFINÉRSKÁ, a.s., Litvínov Refinery	Regional Authority of the Central Bohemian Region; issued on 13 March 2008 in perpetuity, no amendments
<b>Paramo</b>	
Heat and power plant, Pardubice Centre	Regional Authority of the Pardubice Region; issued on 2 February 2004 for K2 and K3 boilers with validity until the end of 2013; three amendments
Bitumen operation, Pardubice Centre	Regional Authority of the Pardubice Region; issued on 2 October 2004 in perpetuity; four amendments
Fuels operation, Pardubice Centre	Regional Authority of the Pardubice Region; issued on 7 December 2004 in perpetuity; three amendments
Kolín Centre	Regional Authority of the Central Bohemian Region; issued on 31 May 2005 in perpetuity; six amendments
Oil operation, Pardubice Centre	Regional Authority of the Pardubice Region; issued on 23 January 2006 in perpetuity; three amendments

*Integrated Pollution Register*

The Integrated Pollution Register (IRZ) is operated in the Czech Republic under Act No. 25/2008 and in compliance with Regulation (EC) No 166/2006 of the European Parliament and of the Council concerning the establishment of a European Pollutant Release and Transfer Register (E-PRTR).

Pollution registers (IRZ and E-PRTR) contain records for each company and industry on 93 substances that are subject to notification, including information on their emissions to the air, water and soil, on their transfers in wastes and wastewater, and on the transfers of hazardous and other wastes. Data on the preceding year for both the IRZ and E-PRTR must be submitted, through the Integrated System for Meeting the Notification Obligations (ISPOP), by companies by 31 March and is subsequently published on the IRZ server by 30 September. In accordance with legislative requirements, substances the emissions of which reached or exceeded quantities set as the threshold value must be reported to the IRZ.

## Air quality control, wastewater discharge and waste management

Compliance of the companies' operations with the relevant statutory requirements for environmental protection has been maintained on a long-term basis in all Group companies. Sources of air pollution are operated in accordance with the operating rules in force. Official measurement of emissions is taken at statutory intervals. Approved water management plans are in place for all operations. Wastewater quality is monitored on a regular basis. Wastewater contamination limits are respected. Approved waste management plans are also in place for all operations. Wastes are monitored and recorded in accordance with applicable legislation.

Compliance with legal regulations is monitored by the management of the companies and the Group headquarters and is independently examined by administrative authorities and certification bodies; for companies involved in the Responsible Care programme, compliance is monitored by the Czech Chemical Industry Association. Should any non-compliance be identified, corrective measures are adopted immediately and fines may be imposed by administrative authorities.

*Wastewater discharge*

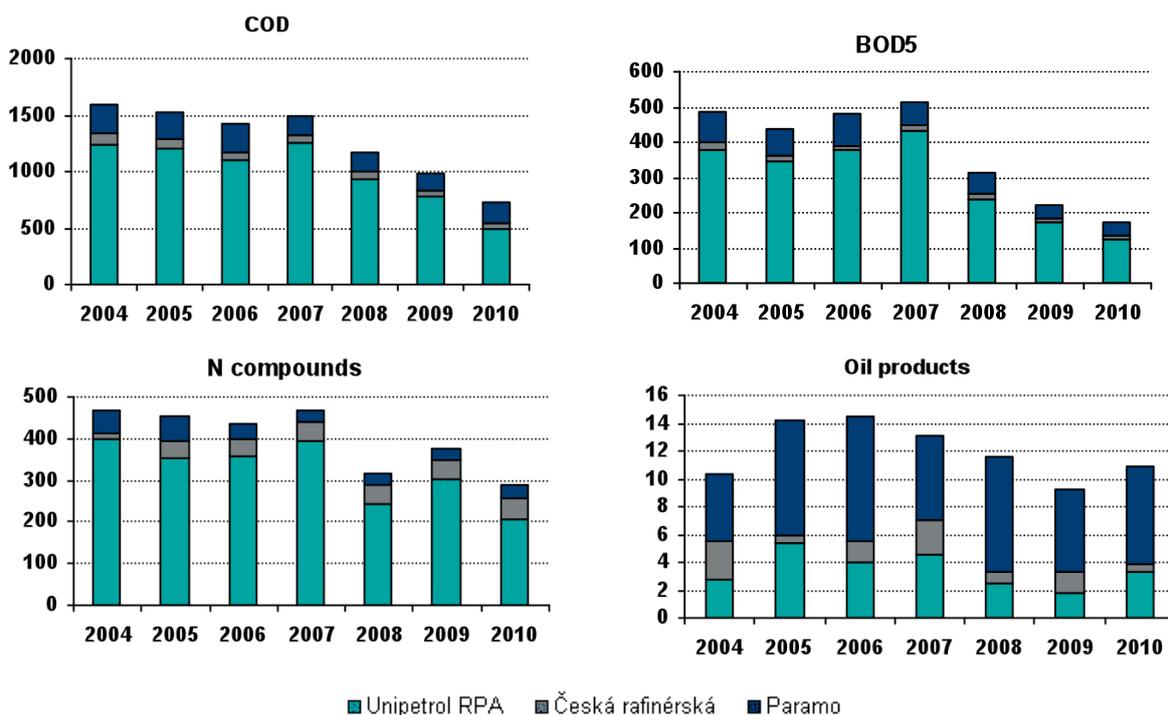
Over the last five years, pollutant emissions into the environment have been stabilised at a level achieved thanks to the massive environmental investments in the preceding decade.

In 2009, pollutants discharged into surface waters (the COD and BOD5 parameters) were reduced in the Unipetrol Group, mainly as a result of the extensive refurbishment of Unipetrol RPA's biological wastewater treatment plant between 2007 and 2009. The connection of municipal wastewater to the new wastewater treatment plant contributed significantly to the decrease in pollutants released by Unipetrol RPA in terms of the COD and BOD5 parameters.

**Pollutants discharged in wastewater in the Group (tonnes/year)**

Year	Parameter	2004	2005	2006	2007	2008	2009	2010
<b>Unipetrol RPA</b>	COD	1,239	1,197	1,107	1,261	932	780	500
	BOD <sub>5</sub>	381	344	379	435	237	171	122
	N compounds	398	355	357	395	241	302	208
	Oil products	3	5	4	5	3	2	3
<b>Česká rafinérská<sup>1)</sup></b>	COD	92	83	69	66	71	49	37
	BOD <sub>5</sub>	19	16	9	11	15	14	15
	N compounds	17	40	43	45	49	46	49
	Oil products	3	1	2	3	1	2	1
<b>Paramo</b>	COD	269	245	248	171	163	154	192
	BOD <sub>5</sub>	89	79	92	65	59	35	38
	N compounds	54	59	38	27	27	26	32
	Oil products	5	8	9	6	8	6	7
<b>Unipetrol Group</b>	COD	<b>1,600</b>	<b>1,525</b>	<b>1,424</b>	<b>1,498</b>	<b>1,166</b>	<b>983</b>	<b>729</b>
	BOD <sub>5</sub>	<b>489</b>	<b>439</b>	<b>480</b>	<b>511</b>	<b>311</b>	<b>220</b>	<b>175</b>
	N compounds	<b>469</b>	<b>454</b>	<b>438</b>	<b>467</b>	<b>317</b>	<b>374</b>	<b>289</b>
	Oil products	<b>10</b>	<b>14</b>	<b>15</b>	<b>13</b>	<b>12</b>	<b>10</b>	<b>11</b>

<sup>1)</sup> Kralupy site only



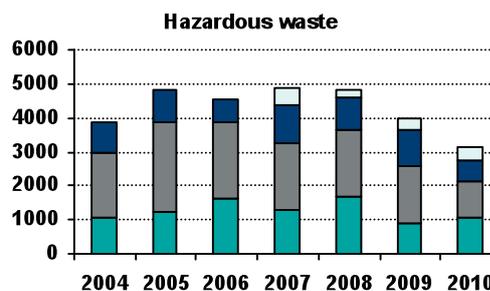
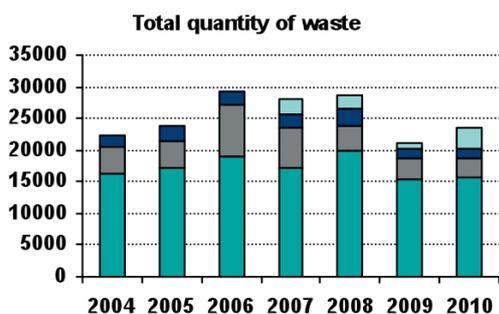
Waste management

The volume of both total and hazardous waste has been reduced significantly in the Unipetrol Group on a long-term basis. The quantity of waste was more or less stable between 2004 and 2010, but for some fluctuations due, for example, to work during shutdowns or more extensive capital construction. A slight increase in waste production occurred 2010, mainly at Unipetrol Doprava. A rather extensive and unplanned repair of rail tracks caused an increase in the category of other waste (soil and stones).

Waste production in the Group (tonnes/year)

Year	Parameter	2004	2005	2006	2007	2008	2009	2010
Unipetrol RPA	Total,	16,411	17,061	18,963	17,065	19,818	15,261	15,693
	of this, hazardous	1,059	1,215	1,620	1,309	1,661	914	1,067
Česká rafinérská <sup>1)</sup>	Total,	4,192	4,301	8,051	6,599	3,911	3,323	3,103
	of this, hazardous	1,895	2,628	2,253	1,932	1,985	1,663	1,078
Paramo	Total,	1,718	2,507	2,310	1,983	2,821	1,723	1,449
	of this, hazardous	920	963	665	1,115	939	1,060	629
Unipetrol Doprava	Total,		2,419	2,094	2,419	2,094	722	3,352
	of this, hazardous		527	214	527	214	344	393
Unipetrol Group	Total,	22,321	26,288	31,418	28,066	28,644	21,029	23,597
	of this, hazardous	3,874	5,333	4,752	4,883	4,799	3,981	3,167

<sup>1)</sup> including investment activities



■ Unipetrol RPA ■ Česká rafinérská ■ Paramo ■ Unipetrol Doprava

Air quality protection

In 2007, a year-on-year increase in total sulphur dioxide emissions was recorded in Unipetrol RPA and in the Záluží part of Česká rafinérská compared with 2006. This increase was due to the substitute burning of tail gases containing hydrogen sulphide from the Unipetrol RPA mazut gasification plant and the burning of excess tail gases from the Záluží refinery, which could not be processed in the rich gas desulphurisation units. Currently, after the implementation of the Modifications in the Rich Gas Desulphurisation Unit project, which has helped to increase the capacity of the desulphurisation unit, and the Construction of VBU Recontacting project, which enables the desulphurisation of the low-pressure gases from this unit, all the gases are being processed in the respective process units and are not burned. In 2008, no tail gas had to be burned due to lack of processing capacity.

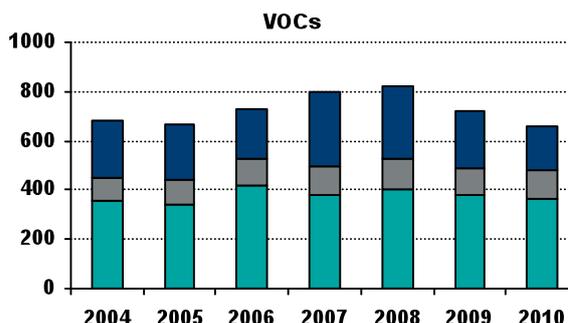
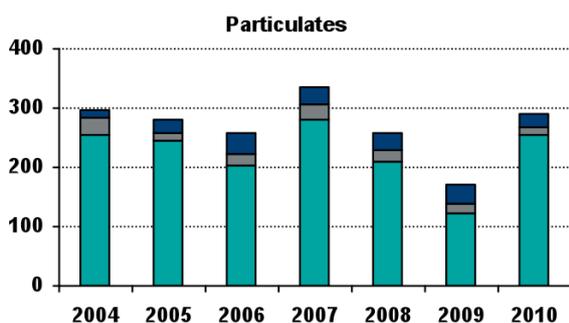
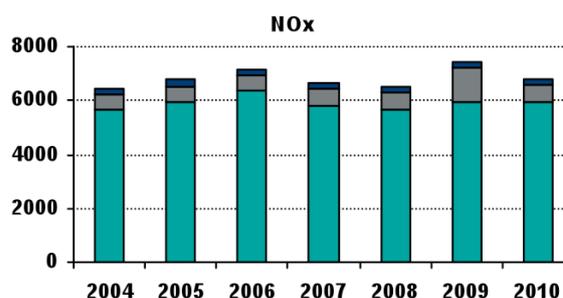
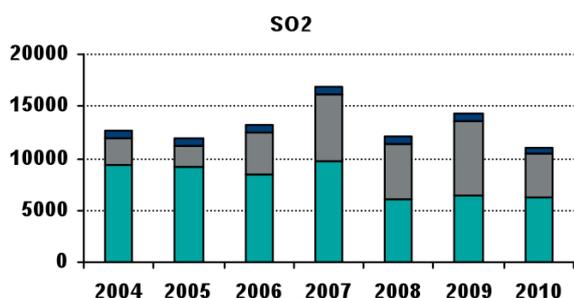
The increase in sulphur dioxide and nitrogen oxide emissions in the Litvínov refinery in 2009 was caused by a failure on the Claus III unit boiler, due to which new pipes had to be installed on the boiler. During the repair work, hydrogen sulphide gas was burned in a field burner; it contains ammonia whose emissions are converted to nitrogen oxides. In 2010, the operation was stabilised and emissions decreased.

A significant year-on-year reduction in total emissions of sulphur dioxide was recorded in Unipetrol RPA in 2008, thanks to putting one boiler into the standby mode in the T200 heat and power plant and to the smaller quantity of tail gas containing hydrogen sulphide from mazut gasification, burned in the emergency flare. Compared with 2008, emissions of particulate pollutants dropped by about 40% in 2009. This drop was mainly registered at the T200 and T700 heat and power plants and the urea production unit. The drop was caused by a lower use of T200's and the urea unit's production capacities and a partial replacement of cloth filters at both heat and power plants. Compared with 2009, 2010 saw higher emissions of particulates, mainly due to the lower quality of the filters prior to production shutdown at the T200 heat and power plant.

Pollutants emitted into the air in the Group (tonnes/year)

Year	Parameter	2004	2005	2006	2007	2008	2009	2010
<b>Unipetrol RPA</b>	SO <sub>2</sub>	9 334	9 197	8 409	9 691	6 143	6 397	6 290
	NO <sub>x</sub>	5 678	5 945	6 346	5 839	5 695	5 959	5 954
	Particulates	255	245	202	281	210	122	255
	VOCs	356	341	420	381	400	379	367
<b>Česká rafinérská</b>	SO <sub>2</sub>	2 530	1 910	4 107	6 469	5 166	7 121	4 234
	NO <sub>x</sub>	518	545	593	604	567	1 259	612
	Particulates	29	12	19	24	19	18	14
	VOCs	94	103	110	113	127	111	117
<b>Paramo</b>	SO <sub>2</sub>	717	835	704	749	721	742	546
	NO <sub>x</sub>	244	276	213	208	212	239	219
	Particulates	14	24	37	29	30	31	20
	VOCs <sup>1)</sup>	230	225	200	304	293	231	178
<b>Unipetrol Group</b>	SO <sub>2</sub>	<b>12 581</b>	<b>11 942</b>	<b>13 220</b>	<b>16 909</b>	<b>12 030</b>	<b>14 260</b>	<b>11 070</b>
	NO <sub>x</sub>	<b>6 440</b>	<b>6 766</b>	<b>7 152</b>	<b>6 651</b>	<b>6 474</b>	<b>7 457</b>	<b>6 785</b>
	Particulates	<b>298</b>	<b>281</b>	<b>258</b>	<b>334</b>	<b>259</b>	<b>171</b>	<b>289</b>
	VOCs	<b>680</b>	<b>669</b>	<b>730</b>	<b>798</b>	<b>820</b>	<b>721</b>	<b>662</b>

<sup>1)</sup> Ninety per cent of these volatile organics are fugitive emissions, reported only on the basis of the purchase of solvents in the respective calendar year.



■ Unipetrol RPA ■ Česká rafinérská ■ Paramo

## Environmental impact assessment

As part of the preparations for the project of the revamp of the wastewater treatment plant at the Kralupy refinery, ČESKÁ RAFINÉRSKÁ, a.s. was requested by the Regional Authority of the Central Bohemian Region to prepare and subject documents for a fact finding procedure. The preparation of the documents will also continue in early 2011. Thereupon a decision will be made on whether or not the project will be subject to environmental impact assessment (EIA).

No environmental impact assessment procedure took place in the other companies of the Group in 2010.

## Fines for violating environmental protection laws

Consistent efforts for compliance with environmental protection regulations are also borne out by the small number of cases of non-compliance with environmental laws, which occurred as a result of irregular operating conditions in 2004-2010. On the whole, 16 fines were imposed on the Group companies in this period, and only four of them, imposed for relatively serious breaches of water protection obligations, exceeded CZK 100,000.

### Overview of fines for breaches of environmental protection obligations in 2004-2010

Company	Year	Grounds for the penalty	Amount of the penalty (CZK '000)	Note
<b>Chemopetrol</b>	2006	Missed deadline for stopping discharge	100	Delay by about 4 months due to adverse weather and technical problems at the end of 2005
<b>Unipetrol RPA</b>	2007	Unauthorised wastewater discharge during wastewater treatment plant refurbishment	1,000	Paid without appeal
<b>Unipetrol RPA</b>	2010	Breach of obligations in the disposal of harmful substances (leak of PyBi to a river)	1,750	Paid, without appeal
<b>Benzina</b>	2004	Violation of water use obligations	130	
<b>Benzina</b>	2005	Violation of water use obligations	42	
<b>Benzina</b>	2006	Violation of water use obligations	20	Faulty operation of the biological wastewater treatment plant at Ostrov n/O.
<b>Benzina</b>	2006	Violation of water use obligations	48	Unauthorised operation of the biological wastewater treatment plant at Šlovice
<b>Benzina</b>	2007	Unauthorised oily water discharge from the oil trap at the Libhošť fuel filling station	15	Paid without appeal
<b>Česká rafinérská</b>	2005	Emission limit exceeded in 2004	20	Paid without appeal
<b>Česká rafinérská</b>	2006	NOx emission limit exceeded in 2005	100	Paid without appeal
<b>Česká rafinérská</b>	2009	Failure to observe the law in records of wastes	30	Paid without appeal
<b>Česká rafinérská</b>	2009	Breach of a provision of the Water Act	323.9	Appeal to the Regional Authority, the appellate body upheld the fine, which was paid
<b>Paramo</b>	2008	Failure to observe the IP conditions (technical condition of the sink at the fats plant)	41	Appeal to the Ministry of the Environment was dismissed
<b>Paramo</b>	2008	Failure to observe the law in records of wastes	31	
<b>Paramo</b>	2010	Incorrect labelling of the product Mogul Traktol Utto	30	Paid
<b>Paramo</b>	2010	Exceeding the noise exposure at the boundary of a residential area	12	Paid

## Mitigation of environmental and operating risks and prevention of serious accidents

### Prevention of serious accidents

The Group's companies have long paid great attention to preventing serious accidents. Reliable and fail-safe operation of the production installations is the cornerstone of accident prevention. Such equipment must be designed, operated, inspected and maintained in accordance with Czech legislation and the companies' internal rules. Some of these rules even go beyond what is required by laws and are based on the Group's best practice.

The production plants are equipped with control systems that signal any difference from standard operating parameters. Automatic shut-down systems are installed in some dangerous operations to stop the process if the required operating parameters are exceeded. Depending on the type of hazardous substances being handled, the plants are equipped with state-of-the-art detection systems (to detect flame, smoke, or hazardous substance leakage), with outputs routed to the company's control centre and fire station. The plants are equipped with fixed and semi-fixed sprinkler systems and fire monitors.

The Group's companies are subject to regular internal safety and accident risk prevention audits. In addition, there are regular external audits and inspections by the relevant specialised authorities such as the Czech Environmental Inspection Authority, Labour Inspection Authority, Fire Services, Czech professional organisations, insurance brokers, insurers and foreign reinsurers. The recommendations and conclusions of these audits are incorporated into the relevant implementation plans.

Regular instruction and training of employees is an important element of the efforts to prevent serious accidents. The functioning of the serious accident prevention system is tested throughout the year in exercises and drills organised in co-operation with emergency crews (both own and external) to prepare for accidents and crisis situations. Emergency training exercises, taking place at the individual production units and on the entire premises, involve all companies that manage the industrial premises or operate nearby.

Serious accident risk management also includes third-party liability insurance under Act No. 59/2006.

The safety level in the Group's companies is significantly influenced by new investments in production installations. The potential operating risks are addressed as early as the design stage, employing generally recognised methods for analysing the risks of serious accidents. New operations are always equipped with the latest safety systems available at the time and meeting the requirements of Czech and EU regulations.

Each of the production companies in the Group has a fire brigade of its own. They are perfectly trained and equipped and able to perform highly specialised interventions to control accidents that are combined with hazardous substance leakages.

The majority of the Group's production companies are classified in group B, which is subject to Act No. 59/2006 on the prevention of serious accidents in the handling of selected hazardous chemical substances/preparations.

#### Overview of Group companies' categorisation in groups under Act No. 59/2006 and the status of the consideration of the Safety Report as at 31 December 2010

Company	Group	Safety Report (SR)
UNIPETROL RPA, s.r.o.	B	1 March 2005 – 1st update of the SR (under Act No. 353/1999) approved by the Regional Authority of the Ústí Region  18 January 2008 – 2nd update of the SR (under Act No. 59/2006) approved by the Regional Authority
UNIPETROL DOPRAVA, s.r.o. – Operating area East, Railway Siding Unit, Pardubice	B	2 April 2008 – 1st update of the SR approved by the Regional Authority of the Pardubice Region under Ref. No. 36470-16/2007/OŽPZ/BT
UNIPETROL DOPRAVA, s.r.o. - Operating area East, Railway Siding Unit, Semtín	B	2 April 2008 – 1st update of the SR approved by the Regional Authority of the Pardubice Region under Ref. No. 36472-18/2007/OŽPZ/BT
UNIPETROL DOPRAVA, s.r.o. - Operating area West, Railway Siding Unit, Litvínov	B	23 June 2008 – SR update approved by the Regional Authority of the Ústí Region under Ref. No. 2053/ZP/07/H-20.2
UNIPETROL DOPRAVA, s.r.o. - Operating area West, Railway Siding Unit, Kralupy	B	11 November 2008 – SR update approved by the Regional Authority of the Central Bohemian Region under Ref. No. 120636/2007/KUSK OŽP Bo
UNIPETROL DOPRAVA, s.r.o. - Operating area West, Railway Siding Unit, Neratovice	B	5 December 2008 – SR update approved by the Regional Authority of the Central Bohemian Region under Ref. No. 119423/2007/KUSK OŽP Oh

ČESKÁ RAFINÉRSKÁ, a.s. Litvínov Refinery	B	16 February 2003 – approval by the Regional Authority of the Ústí Region 3 June 2009 – update approved by the Regional Authority of the Ústí Region under Ref. No. 23/09/ZPZ/H-02-2a/stát
Kralupy Refinery	B	8 October 2002 – approval by the Mělník District Authority 10 October 2008 – update approved by the Central Bohemian Regional Authority under Ref. No. 83689/2007KUSK OŽP
PARAMO, a.s., Pardubice Centre	B	3 August 2004 – approval by the Regional Authority of the Pardubice Region 16 June 2005 – approval of the updated Safety Report 10 October 2008 – approval of the updated Safety Report 16 October 2009 – approval of the updated Safety Report
PARAMO, a.s., Kolín Centre	-	Act No. 59/2006 does not apply here
BENZINA, s.r.o.	-	Act No. 59/2006 does not apply here Reports on the non-inclusion of fuel filling stations in groups under the law were updated and delivered to regional authorities.

## Transport Information and Accident System (TRINS)

The Transport Information and Accident System (TRINS) is a system of providing assistance in the event of accidents associated with the transportation of hazardous substances. TRINS was founded by the Czech Chemical Industry Association (SCHP ČR) as part of the Responsible Care programme in 1996 under an agreement between SCHP ČR and the headquarters of the Czech Fire Service. It has been incorporated into the country's Integrated Rescue System as one of its supporting systems. Counterparts of TRINS in other countries include, for example, CHEMSAFE in the United Kingdom and TUIS in Germany; the latter was a model for TRINS. Similar systems also exist in Slovakia (DINS), in Hungary (VERIK) and, for many years, in a number of other EU countries.

TRINS centres work in co-operation with the Czech Fire Service to provide urgent consultations concerning chemicals and products, their safe transport and storage, and practical experience with the handling of hazardous substances and control of emergencies associated with their transport. TRINS centres also provide practical assistance in the handling of such emergencies and in the removal of the subsequent environmental damage.

At present there are 34 regional TRINS centres, provided by 27 companies in the chemical industry (the number is one company less: on the basis of the majority shareholder's decision, PLIVA Lachema, a.s. Brno discontinued all of its production operations as of 31 December 2009 and has been in liquidation since January 2010). Unipetrol Group companies are among the TRINS founding members. In addition, Unipetrol RPA plays the role of the system's national coordination centre.

### Unipetrol Group companies' participation in TRINS

Company	Participation in the TRINS system
UNIPETROL RPA, s.r.o.	National centre, regional centre
ČESKÁ RAFINÉRSKÁ, a.s.	
- Litvínov Refinery - Kralupy Refinery	regional centre regional centre
PARAMO, a.s.	regional centre
PETROTRANS, s.r.o.	regional centre
UNIPETROL SERVICES, s.r.o.	REPRESENTATION OF THE CZECH CHEMICAL INDUSTRY ASSOCIATION – SECURING THE OPERATION OF THE WHOLE SYSTEM, INCLUDING REPORTING AND SUPPORT FOR THE NATIONAL CENTRE AT UNIPETROL RPA, S.R.O.

Česká rafinérská has acceded to the European Road Safety Charter and undertook specific obligations for the period of 2007 to 2009, responding to the initiative of the European Commission, which has launched a campaign for improving road safety and, specifically, reducing road accident fatalities by 10,000 (i.e. to a half) by 2010.

## Serious accidents in the Unipetrol Group in 2010

In 2010, Unipetrol Group companies experienced no serious accidents classified, within the meaning of Act No. 59/2006, as serious accidents. The companies managed minor operating accidents which occurred during the year, using their own resources and, if needed, with the help of the (company's) own fire service, and responded to them adequately to remedy the situation and to prevent their recurrence. The effects of minor operating accidents did not extend beyond the premises of the Group's companies.

## Open approach to environmental issues

### Role of employees in environmental protection

Employees are considered to be the key element in environmental protection, occupational health and safety, and fire protection in Unipetrol Group companies. The Group's companies have therefore introduced an effective employee training system. The training and education of all employees is part of the companies' management systems and is subject to regular review, assessment and updates under the ISO 9001, ISO 14001 and OHSAS 18001 standards.

All employees are actively and continuously involved in environmental protection and planning. At regular refresher courses they are acquainted with the environmental protection, occupational health and safety, and fire protection policies, the environmental aspects of their activities, and the goals and programmes established for their workplaces.

The regular training is not intended only for employees of the Group's companies; it is also attended by employees of all the other companies that operate on the production premises. Environmental protection, occupational health and safety, and fire protection obligations are part of the agreements concluded with each of the contractors.

### Public relations

Transparent and accessible information is one of the principles of Unipetrol Group's Policy for Responsible Care and Integrated Management System of Occupational Health and Safety, Environmental Protection, and Quality Assurance, a fundamental policy document of the Group.

Detailed information on the environmental impacts of the Group's operations is regularly published in the Joint Report on Occupational Health, Safety and Environmental Protection of the Unipetrol Group (referred to as the Joint Environmental Report until 2006), and on the Group companies' websites.

The Group companies meet with representatives of trade union organisations and local and regional self-government authorities to discuss their reports on compliance with the Responsible Care programme. On their websites, the companies provide overviews of their activities in environmental protection and occupational health and safety.

In respect of the communities and municipalities in the vicinity of their operations, Unipetrol Group companies apply the principles of Corporate Social Responsibility (CSR). As part of public relations, members of the management teams of the Group's companies take part in open door sessions of the local governing bodies to inform the residents of the surrounding towns and villages about the environmental impacts of the companies' operations. "Open House" days are held every year for the public. The companies meet with the local mayors on a regular basis to inform them about all of their activities, including environmental protection. In the event of irregular operating situations, mayors of surrounding municipalities are immediately notified. The companies use a "green number" for immediate communication with the public and with their employees. In addition, latest information is delivered to employees through the companies' internal communication channels (internal address system, printed materials, intranet).

The Environmental Centre in the town of Most is another example of how transparent environmental information is proactively provided to the public. This information centre, which has been in operation since 2000, is supported by Unipetrol RPA and Česká rafinářská. It plays a major role in the dialogue on environmental protection between the industrial companies and the general public. Another Environmental Centre was opened at Kralupy nad Vltavou in 2007 to provide similar services to the Kralupy area.

In co-operation with the Most Environmental Centre, a project for preparing the curricula of the "Chemistry and the Environment" programme, intended for primary and secondary schools, was completed in 2007. The specific goals of the project included the popularisation of environmental protection issues related to chemical production, explanation of the benefits and dangers of chemical production, and presentation of the activities of Unipetrol RPA in the area of environmental protection. The project was well received by schools and it therefore continued in 2008 upon their request.

#### An overview of Unipetrol Group companies' periodicals providing information on environmental protection

Company	Publication	Contact person
Unipetrol	<i>UNI</i> , newspaper for employees of the Unipetrol Group	Martin Pavlíček, tel. +420 225 001 490
Unipetrol	The company's website	<a href="http://www.unipetrol.cz">http://www.unipetrol.cz</a>
Unipetrol RPA	The company's website	<a href="http://www.unipetrolrpa.cz">http://www.unipetrolrpa.cz</a>
Unipetrol RPA	Occupational safety and fire protection monthly	František Hrobský, tel. +420 476 164 883
Unipetrol Doprava	The company's website	<a href="http://www.unipetroldoprava.cz">http://www.unipetroldoprava.cz</a>
Unipetrol Doprava	Occupational safety and fire protection monthly	František Hrobský, tel. +420 476 164 883
Česká rafinářská	<i>Echo</i> , Česká rafinářská information journal	Aleš Soukup tel. +420 315 718 579
Česká rafinářská	<i>Impuls</i> , occupational health and safety, fire protection, quality assurance, and environmental protection bulletin	Michaela Freyová tel. +420 476 164 041
Česká rafinářská	The company's website	<a href="http://www.ceskarafinerska.cz">http://www.ceskarafinerska.cz</a>
Paramo	The company's website	<a href="http://www.paramo.cz">http://www.paramo.cz</a>

## Mitigating the impact of historical environmental damage

### Programme for eliminating old environmental damage

On the basis of a Czech government decision, in connection with the privatisation Unipetrol Group companies have concluded the following agreements with the Ministry of Finance of the Czech Republic to address the pre-privatisation environmental obligations (Environmental Agreements):

1. Environmental Agreement No. 14/94, as amended by Amendment No. 3 of 25 January 2005 – for UNIPETROL, a.s.
2. Environmental Agreement No. 32/94, as amended by Amendment No. 1 of 4 July 2001– for UNIPETROL, a.s.
3. Environmental Agreement No. 39/94, as amended by Amendment No. 2 of 4 July 2001– for PARAMO, a.s.
4. Environmental Agreement No. 58/94, as amended by Amendment No. 3 of 26 September 2008 – for PARAMO, a.s.
5. Environmental Agreement No. 184/97, as amended by Amendment No. 7 of 18 January 2007 – for BENZINA s.r.o.

### Overview of historical environmental damage in the Unipetrol Group companies

The extent of historical environmental damage did not change in 2010 compared with the previous period. An overview of historical environmental damage in Unipetrol Group is shown below:

*Unipetrol, Litvínov – industrial premises and other sites*

#### **Ethylbenzene pipeline from Litvínov to Kralupy nad Vltavou – at Miletice near Velvary**

- groundwater and soil contamination with ethylbenzene
- clean-up work was completed; an updated risk analysis has been approved

#### **Industrial premises at Litvínov and the dumping sites in its vicinity**

Liquid sludge disposal sites at Růžodol

- contamination with residual tar and with petroleum refining waste

Fly ash dumps K1-K4

- clean-up work has been completed at the K1 and K2 ash disposal sites

Treatment plant sludge disposal site

- clean-up work has been completed

Protection of the river Bílina in the area of the treatment plant sludge disposal site

- clean-up work has been completed

Entrapment and separating drain

- clean-up work has been completed

Solid industrial waste disposal site; lime sludge disposal site; lime sludge disposal site at a railway siding

- contamination with solid waste, petroleum products and lime sludge with phenols

UHLÓDEHTA disposal site

- contamination with coal dust, ash, fly ash, lime sludge and brown coal tar

Area adjacent to ash disposal sites on the south

- contamination with fly ash and petroleum sludge, contaminated water pumping

Groundwater clean-up in “contamination clouds” on the premises

- groundwater contamination with oil hydrocarbons and phenols

Groundwater monitoring

Soil clean-up on the premises as part of environmental services associated with capital investment projects

- soil contaminated with oil hydrocarbons and phenols

*Unipetrol, Kralupy – industrial premises and other sites*

Block 19 (acid residues)

- acid residues from petrol refining
- a Feasibility Study for the Acid Residue Site Clean-up was submitted and approved

Nelahozeves disposal site

- styrene scrap in steel barrels
- preparation of an Addition to the Updated Risk Analysis was started

Kralupy industrial premises

- contamination with products of refining and petrochemical processes
- preparation of Addition No 1 to the Updated Risk Analysis of the Kralupy nad Vltavou Industrial Area was started
- construction of the system of Protective Clean-up Pumping from Contamination Cloud E was started

*Benzina*

Clean-up of 58 contaminated fuel filling station areas

- contamination with motor fuels

Clean-up of 13 contaminated former fuel distribution stores

- contamination with motor fuels

*Paramo, Pardubice*

The Časy disposal site

The Hlavečnick, Blato, Zdechovice, and Nová Ves disposal sites

Paramo's main plant and vicinity

The acid resin disposal site (LIDL and ČSAD BUS sites)

*Paramo, Kolín Centre (former Koramo)*

Clean-up of soil and groundwater

Closedown of the acid resin disposal site (old and new sludge lagoon)

## Progress of work in 2010

**The following clean-up work was performed in 2010 to mitigate historical environmental damage:**

*Unipetrol, Litvínov:*

- Groundwater clean-up in the area of four "contamination clouds" [plumes] and underground drain pumping from four "contamination clouds" were carried out; Methodological Change No 1, amending the sub-project for 2009-2010, was approved;
- Environmental service (supervision) – soil monitoring and biodegradation under four capital investment projects;
- Extraction of wastes from the Růžodol lagoons; approval of Addendum 4 to the project, which includes the extension of waste extraction by one year, construction of drains to remove the phase from groundwater table, additional financing, and postponement of the clean-up deadline;
- Preparation and approval of an updated Miletice risk analysis – a long-distance ethylbenzene pipeline in Miletice.

*Unipetrol, Kralupy*

- A Feasibility Study for the Acid Residue Site Clean-up was submitted and approved;
- A Final Report on Additional Hydrogeological Survey of the Kralupy nad Vltavou Industrial Area was submitted and approved;
- Preparatory work was started for protective clean-up pumping from contamination cloud E in Blocks 14 and 15;
- Start of the preparation of an Addition to the Updated Risk Analysis – the Feasibility Study.

*Paramo, Pardubice*

- Preparation of the clean-up engineering design, start of clean-up work (the Blato site);
- Clean-up pumping, monitoring, stabilisation of the lagoon dam (the Časy site);
- Clean-up of an acid resin disposal site (LIDL site, ČSAD BUS);
- Additional survey and preparation of design documents for clean-up (the U Trojice site).

*Paramo, Kolin*

- Clean-up of the bedrock and groundwater;
- Extraction and recycling of wastes from sludge lagoons;
- Inert reclamation material was brought to the site.

*Benzina*

- Maintenance clean-up work (protective clean-up pumping) at the fuel filling stations in Mikulov, Pardubice, Přelouč and Vysoké Mýto and in the distribution stores in Bartošovice, Jičín, Liberec, Nový Bohumín, Šumperk, Točnick and Žamberk; clean-up work at the Tachov fuel filling station.

*Other clean-up work in 2010:*

- Groundwater pumping and treatment, financed by Česká rafinérská, on the Litvínov premises (two pollution hot spots in the area of the storage facilities and the terminal) and at Kralupy (hydraulic barrier operation);
- Underground drain pumping at the Petrochemical Plant on the Litvínov premises, financed by Unipetrol RPA.

## Fund spending in 2010

**Overview of financial guarantees provided by the Czech Ministry of Finance and the drawdown of funds in the Unipetrol Group (situation - February 2011)**

	Unipetrol Litvínov	Unipetrol Kralupy	Benzina	Paramo Kolin	Paramo Pardubice	Group total
Financial guarantees by the Ministry of Finance	6,012	4,244	1,349	1,907	1,242	<b>14,754</b>
Costs paid by the Ministry of Finance in 2010	142	6	26	351	174	<b>699</b>
Costs of approved projects	4,680	48	395	1,853	374	<b>7,350</b>
Expected costs of future work	2,016	2,378	925	0	3,166	<b>8,485</b>
<b>Total (estimated) clean-up costs</b>	<b>6,696</b>	<b>2,426</b>	<b>1,320</b>	<b>1,853</b>	<b>3,540</b>	<b>15,835</b>
Balance of financial guarantees by the Ministry of Finance	-684	1,818	29	53	-2,299	-1,083

**Financial costs of clean-up work in Unipetrol Group (CZK million/year)**

Year	2004	2005	2006	2007	2008	2009	2010
Unipetrol/Litvínov	206	199	147	146	144	158	142
Unipetrol/Kralupy	0	3	0	2	0,4	1	6
Benzina	40	26	15	17	46	21	26
Paramo/Kolín	104	65	37	1	0,6	226	351
Paramo/Pardubice	15	18	3	9	13	69	174
<b>Unipetrol Group</b>	<b>365</b>	<b>311</b>	<b>202</b>	<b>175</b>	<b>204</b>	<b>475</b>	<b>699</b>

## Sustainable development

### Global aspects of environmental protection

#### *Carbon dioxide emissions control under the EU Emission Trading Scheme (EU ETS)*

Under Act No. 695/2004 on the Conditions of Trading in Greenhouse Gas Emission Allowances and under the related Directive 2003/87/EC of the European Parliament and of the Council, the Czech government issued, for selected companies, carbon dioxide emission allowances through Government Order No. 315/2005 of 20 July 2005 on the National Allocation Plan for 2005-2007.

For the 2008-2012 trading period, the government issued allowances through Government Order No. 80/2008 of 25 February 2008 on the National Allocation Plan.

#### **Allocation of allowances to Unipetrol Group companies in the National Allocation Plan for the 2005–2007 and 2008–2012 periods and the actual CO<sub>2</sub> emissions between 2005 and 2010**

Allocation of allowances (units/year)	Unipetrol RPA	Česká rafinérská	Paramo	Unipetrol Group
<b>Actual emissions (kt/year)</b>				
<b>Allocation under the NAP 2005-2007</b>	<b>3,495</b>	<b>1,100</b>	<b>270</b>	<b>4,865</b>
<i>2005: actual CO<sub>2</sub> emissions</i>	3,071	803	194	<b>4,068</b>
<i>2006: actual CO<sub>2</sub> emissions</i>	3,092	910	196	<b>4,198</b>
<i>2007: actual CO<sub>2</sub> emissions</i>	2,889	904	191	<b>3,984</b>
<b>Allocation under NAP 2008-2012</b>	<b>3,121</b>	<b>867</b>	<b>199</b>	<b>4,187</b>
<i>2008: actual CO<sub>2</sub> emissions</i>	2,762	910	176	<b>3,848</b>
<i>2009: actual CO<sub>2</sub> emissions</i>	2,558	806	172	<b>3,536</b>
<i>2010: actual CO<sub>2</sub> emissions</i>	2,468	883	170	<b>3,521</b>

Emission allowances allocated to Unipetrol Group companies met the companies' needs and covered the actual emission levels in the first trading period 2005-2007 and in 2008 and 2010 of the second trading period. Surplus allowances have been sold or will be sold in the future.

The Group companies met all the requirements of Act No. 695/2004 and the relevant implementing regulations. They prepared emission monitoring plans and performed their obligation to have the reported emission levels audited by an independent professionally competent auditing body.

#### *Protection of the Earth's ozone layer*

All Group companies operate their production facilities in accordance with the requirements for the protection of the Earth's ozone layer and in accordance with applicable international agreements. As early as 1999, Česká rafinérská replaced halons as fire extinguishing agents with environmentally friendlier substances. Chemopetrol (Unipetrol RPA at present) already replaced refrigerants used in its low-temperature petrochemical operations with environmentally friendlier ones in previous years.

### Chemical safety

All Group companies handle chemical substances and chemical mixtures (preparations) in compliance with the applicable legislation on chemical substances and chemical preparations and with Regulation (EC) No 1907/2006 (REACH).

Companies classify all of their chemical products that they market and on the basis of the identified properties of the products, prepare their safety data sheets, the format and content of which meet the requirements of Annex II to REACH. Safety data sheets are provided to all customers free of charge and they are also posted on the companies' websites. In compliance with REACH, Unipetrol RPA makes safety data sheets for produced and purchased hazardous chemical substances and mixtures (preparations) available to all employees through its intranet. ČESKÁ RAFINÉRSKÁ, a.s. makes safety data sheets of products available on the company's intranet; for its processors and shareholders, it operates an extranet portal, at which safety data sheets are available in three language versions.

All of the companies continuously monitor the handling of chemical substances and mixtures (preparations) ranging from feedstock to finished products, and ensure compliance with applicable legal regulations, including the obtaining of

certificates for specific applications of selected products, for example, health certificates for contact with drinking water or food, for medical use, etc. The companies have a customer service group that provides detailed information on the properties of the products on relation to their specific use.

The Group companies are monitored by the UN international inspection authority (UN-OPCW), which monitors the observance of the Chemical Weapons Convention. All international inspections that have taken place until now have confirmed our strict compliance with the obligations of the Convention.

#### *Compliance with Regulation (EC) No 1907/2006 (REACH)*

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) entered into force on 1 June 2007; it constitutes a new European legislative basis for the operation of the chemical industry in the EU single market.

Unipetrol Group is among the members of the chemical industry that produce chemicals in large volumes, i.e. exceeding 1,000 tonnes per year. At the same time, these are a limited number of substances that are subject to REACH obligations. In 2008, REACH entered into the preregistration stage: producers were obligated to notify the European Chemicals Agency (ECHA) of the key identification details of the chemical substances and preparations subject to REACH by 1 December 2008. Intensive preregistration took place at Česká rafinérská, Paramo and Unipetrol RPA. Česká rafinérská preregistered 43 substances, Paramo 51 substances and Unipetrol RPA 58 substances. Of the total number of preregistered substances, in 2010 Česká rafinérská registered 24 substances, Paramo 22 substances and Unipetrol RPA 17 substances. Registration took place by the required date, i.e., by 30 November 2010, in all the companies.

In the registration of substances under the REACH regulation, the Unipetrol Group companies cooperated in 2010 with PKN Orlen and, through it, with the technical consortia CONCAWE and LOA. Česká rafinérská and Unipetrol RPA also cooperated with other consortia in the preparation of the conditions for the registration of substances produced, which are not covered by the CONCAWE and LOA consortia, for example, with FERC, R4CC, CB4REACH, ASVEP, etc.

New safety data sheets were subsequently produced on the basis of the registration documents for the Group companies' products. These new safety data sheets contain hazard classification of products under DSD/DPD, and the new classification under CLP/GHS. At the same time, notifications were made for all substances where this is required by legislation in force.

## Working with primary resources of raw materials and energy

In conserving primary resources of raw materials and energy, the Unipetrol Group acts in accordance with the principles of sustainable development, pursuing the strategic objective of using innovative approaches to minimise energy and material inputs and applying a policy of continuously improving its environmental performance. Energy audits have been carried out in the Group's companies to achieve further energy savings.

Major savings have been achieved through a better utilisation of primary raw materials. For example, Česká rafinérská has carried out an extensive upgrade programme focused on a more thorough processing of crude oil to increase the output of 'light' products, particularly motor fuels.

In 2006, Česká rafinérská launched a series of projects that are jointly referred to as Biofuel, initiating a programme aimed at more efficient use of non-renewable resources by adding selected agricultural products, which are categorised as renewable resources, to motor fuels. The specific objective of the Biofuel programme was to provide for bio-component logistics, reception, storage and blending and biofuel storage and distribution. Both refineries currently turn out automobile petrol and diesel containing biofuels, as required by legislation and processors.

Continuous attention has been paid to water savings in the Unipetrol Group. Paramo has achieved particularly significant results in this area by installing closed cooling loop systems. The newly installed chemical water treatment facility at Paramo reduces the amount of leach water, which effectively reduces the consumption of make-up water.

#### Water consumption in the Group (million cubic metres/year)

Year	2004	2005	2006	2007	2008	2009	2010
Unipetrol RPA	24.2	22.5	23.7	22.2	24.5	23.0	22.0
Česká rafinérská	1.4	0.8	2.0	1.7	1.8	1.8	2.9
Paramo	1.6	1.0	1.0	1.0	1.0	1.0	1.0
<b>Unipetrol Group</b>	<b>27.2</b>	<b>24.3</b>	<b>26.7</b>	<b>24.9</b>	<b>27.3</b>	<b>25.8</b>	<b>25.8</b>

The Group's ability not to increase its consumption of energy has been accompanied by a remarkable growth in production volumes. The enhancement of the energy efficiency of the Group's production processes is therefore more apparent from the following table of specific energy consumption, expressed as an energy consumption coefficient in tonnes of oil equivalent (toe) related to tonnes of production per year:

**Energy consumption in the Group (thousand TJ/year)**

Year	2004	2005	2006	2007	2008	2009	2010
<b>Unipetrol RPA</b>	6.0	5.1	5.6	5.3	4.8	9.8	10.1
<b>Česká rafinérská</b>	12.0	13.8	15.1	13.6	16.8	16.6	14.6
<b>Paramo</b>	0.8	1.0	2.8	2.7	2.7	2.6	2.4
<b>Unipetrol Group</b>	<b>18.8</b>	<b>19.9</b>	<b>23.5</b>	<b>21.6</b>	<b>24.3</b>	<b>29.0</b>	<b>27.0</b>

Note: the 2004 and 2005 data for Paramo does not include former Koramo

**Specific energy consumption in the Group (toe/tonne of production/year)**

Year	2004	2005	2006	2007	2008	2009	2010
<b>Unipetrol RPA</b>	0.171	0.166	0.173	0.163	0.154	0.178	0.176
<b>Česká rafinérská, Litvínov</b>	0.038	0.037	0.038	0.035	0.032	0.034	0.049
<b>Česká rafinérská, Kralupy</b>	0.051	0.053	0.056	0.056	0.057	0.053	0.058
<b>Paramo, Pardubice</b>	0.079	0.093	0.096	0.087	0.086	0.097	0.106
<b>Paramo, Kolín</b>	0.384	0.227	0.303	0.297	0.221	0.355	0.333

## Occupational health and safety and fire protection

Unipetrol Group considers occupational health and safety and fire protection to be one of the highest values of its corporate policy. Companies of the Unipetrol Group

- improve the quality of working conditions and the measures to protect health and safety at work and fire protection measures in accordance with the applicable regulations and standards;
- improve methods of risk assessment and prevention of occupational injuries and illnesses;
- introduce measures to improve productivity;
- develop the skills of their employees and introduce measures intended to improve the working environment;
- inform their employees and the public about the applicable internal standards to ensure occupational health and safety and fire protection, and about their impacts.

### Accident rate

In 2010, the total number of registered work accidents in the Unipetrol Group increased quite significantly compared with 2009, in particular as regards less serious accidents (requiring medical treatment or other accidents). A slight decrease was recorded in the number of work injuries resulting in incapacity for work. The Group's management has adopted robust systemic measures, both short-term measures and those of a development and conceptual nature, to counter this trend. In 2010, the Unipetrol Group did not register any fatalities to its employees.

Data testifying to the level of occupational safety, maintained for many years in the Unipetrol Group, is shown in the following.

### Incidence of injuries in the Unipetrol Group (number of injuries per 100 employees)

Year	2004	2005	2006	2007	2008	2009	2010
Unipetrol RPA	0.27	0.24	0.17	0.27	0	0.24	0.26
Česká rafinérská	0.4	0.3	0	0.3	0.14	0.45	0.15
Paramo	0.11	0	0.7	0.49	0.39	0.28	0.3
Benzina	0.52	0.61	0	0	0	0	0
Unipetrol Doprava	1.34	2.33	0.58	0.81	0.41	0.22	0.46

### Frequency of occupational injuries in the Unipetrol Group (number of injuries per million of hours worked)

Year	2004	2005	2006	2007	2008	2009	2010
Unipetrol RPA	1.62	1.46	1.02	1.71	0	1.45	1.53
Česká rafinérská	2.4	1.7	0	1.7	0.8	2.8	0.89
Paramo	0.63	0.68	4.21	2.94	2.31	1.65	1.74
Benzina	3.15	3.55	0	0	0	0	0
Unipetrol Doprava	7.67	13.01	3.28	4.54	2.25	1.18	2.42

### Number of fatalities

Year	2004	2005	2006	2007	2008	2009	2010
Unipetrol RPA	0	0	0	0	0	0	0
Česká rafinérská	0	0	0	0	0	0	0
Paramo	0	0	0	1	0	0	0
Benzina	0	0	0	0	0	0	0
Unipetrol Doprava	0	1	0	0	0	0	0
Unipetrol Group	0	1	0	1	0	0	0

**Number of occupational injuries registered**

Year	2004	2005	2006	2007	2008	2009	2010
Unipetrol RPA	28	14	11	13	10	14	14
Česká rafinérská	7	9	9	10	3	4	7
Paramo	12	8	20	14	8	3	2
Benzina	1	1	0	0	0	0	0
Unipetrol Doprava	25	22	10	11	9	1	8
<b>Unipetrol Group</b>	<b>73</b>	<b>54</b>	<b>50</b>	<b>48</b>	<b>33</b>	<b>23</b>	<b>31</b>

**Number of occupational injuries resulting in incapacity to work for more than 3 days**

Year	2004	2005	2006	2007	2008	2009	2010
Unipetrol RPA	7	6	4	6	0	5	5
Česká rafinérská	3	2	0	2	1	3	1
Paramo	1	1	6	4	3	2	2
Benzina	1	1	0	0	0	0	0
Unipetrol Doprava	7	11	3	4	2	1	2
<b>Unipetrol Group</b>	<b>19</b>	<b>21</b>	<b>13</b>	<b>16</b>	<b>6</b>	<b>11</b>	<b>10</b>

*Occupational illnesses*

No cases of occupational illness were diagnosed in Unipetrol Group companies in 2009.

**Number of new cases of occupational illness**

Year	2004	2005	2006	2007	2008	2009	2010
Unipetrol RPA	0	0	0	1 <sup>1)</sup>	1 <sup>1)</sup>	0	0
Česká rafinérská	0	0	0	0	0	0	0
Paramo	0	0	0	0	0	0	0
Benzina	0	0	0	0	0	0	0
Unipetrol Doprava	0	0	0	0	0	0	0
<b>Unipetrol Group</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>

<sup>1)</sup> Illness caused by exposure to polycyclic condensed hydrocarbons

*Prevention, personal protective equipment and aids*

Employees professionally qualified in risk assessment are responsible for prevention in the area of safety at work, including inspections at individual workplaces. Personal protective gear is issued to company employees based upon actual risk assessment.

*Quality of the work environment*

Quality of the work environment is regularly checked in Unipetrol Group companies by measuring work environment factors, especially occupational exposure to noise, chemicals, and dust on the basis of a categorisation of types of work. Measurements taken in 2009 confirmed the declining number of cases where the admissible exposure limits and highest permissible concentrations are exceeded.

*Health care and prevention*

Unipetrol Group companies have entered into agreements with physicians for the provision of preventive medical care. Preventive medical check-ups are carried out as required by legal regulations and the decisions of the Public Health Inspection Service authorities.

In 2010, Česká rafinérská achieved a sickness rate of 1.0%. Such a low level of short-term illness can be attributed to the long-term implementation of health support programmes and above-standard periodical medical examinations. One of the measures to support employees' health taken in 2010 was, for example, an above-standard preventive examination, osteoporosis screening.

## Important milestones of the Unipetrol Group in 2010 from the perspective of environmental protection and occupational health and safety

### Unipetrol

The certification body, LRQA, carried out a surveillance audit related to compliance with ISO 14001, ISO 9001 and OHSAS 18001. No non-compliance was found.

A longer time period for the clean-up of the Růžodol lagoons was arranged.

Start of clean-up pumping in the Kralupy area, financed by the Ministry of Finance.

### Unipetrol RPA

The certification body, LRQA, carried out a surveillance audit related to compliance with ISO 14001, ISO 9001 and OHSAS 18001. No non-compliance was found.

An emergency training exercise was run to test the operability of the Internal Emergency Plans under Act No. 59/2006 on the prevention of serious accidents.

A test exercise was taken in the TRINS system of help in the transport of dangerous items and all the other participating European centres within CEFIC (European Chemical Industry Council).

A significant drop in emissions of biological and nitrogen oxide pollutants from the biological wastewater treatment plant.

### Unipetrol Doprava

The certification body, LRQA, carried out a surveillance audit related to compliance with ISO 14001, ISO 9001 and OHSAS 18001. No non-compliance was found.

An emergency exercise to test the operability of the Internal Emergency Plans under Act No. 59/2006 on the prevention of serious accidents took place in all the areas included in group B (5x) in co-operation with the fire services of the owners of these areas.

### Benzina

The certification body, LRQA, carried out a surveillance audit related to compliance with ISO 14001, ISO 9001 and OHSAS 18001. No non-compliance was found.

Standardisation of services related to waste management at fuel filling stations.

Completion of the Benzina Plus programme, upgrade of fuel filling stations; refurbishment of car washes and water management systems at 20 fuel filling stations.

Start of clean-up of some sites, financed by the Ministry of Finance.

### Česká rafinérská

Practical training (training of the practical procedure in fire fighting) of Česká rafinérská's operators and laboratory workers included in fire prevention patrols and fire supervision was started in co-operation with Unipetrol RPA's fire fighters.

A third Safety Day was held in the company, with the motto "Let's Do the Right Things".

Česká rafinérská's Integrated Management System was recertified.

The first stage of the Safe Behaviour project was started; the project focuses on occupational health and safety culture and on improving awareness of safe behaviour.

25 October 2010 – A milestone of 500,000 hours without injury resulting in absence from work was achieved.

### Paramo

One million hours without occupational injuries were achieved in 2010.

Disbursement of a subsidy of CZK 9.5 million from the funds of Operational Programme Environment, under the Limiting Industrial Pollution and Mitigating Environmental Risks priority axis, for the project of "Retrofit of the VR 28 Liquid Hydrocarbon Storage Tank".

Paramo prepared another application for a subsidy under Operational Programme Environment (refurbishment of storage tanks, including the construction of the PS 0404 emergency sump).

Application for a subsidy under Operational Programme Enterprise and Innovation for the project of “Improving Energy Efficiency of the Diesel Fuel Desulphurisation Process - Exchanger Field Expansion”. The capital investment project intended for energy savings and, therefore, reduction in CO2 emissions will be carried out during a company-wide shutdown in 2011.

The development of the TDAE process oil and the successful test of its application in the manufacture of tyres at customers (Barum Continental, Synthos and Mitas). The capital investment project (production of TDAE) will be started in 2011.

Sales of blended diesel fuel (diesel fuel containing more than 31% of the bio-component) more than quintupled compared with 2009.

Recertification under ISO 9001/ISO14001/OHSAS 18001 following a successful surveillance audit of the Integrated Management System.

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