## Environmental Statement











#### Introduction



The presented Statement of the Environment is based on the Guideline of the European Parliament and Council of the European Community (EC) No. 761/2001 of 19 March 2001 concerning voluntary participation of industrial plants in the system of management of companies and audits from the point of view of the environmental protection - for which the abbreviation EMAS is used.

The Statement has been elaborated for the public concerned, with the aim to inform all the interested parties about it in a brief and understandable way. For the first time, it has been prepared together for the companies Barum Continental, Continental výroba pneumatik (Continental Tires Production) and Continental HT Tyres in Otrokovice.

#### The Statement includes:

- environmental policy of the company and a brief description of the environmental management system,
- description of activities of the Continental Group companies, working on the common premises in Otrokovice,
- description and assessment of all fundamental direct and indirect environment aspects,
- data available on emissions of contaminants, waste quantity, consumption of raw materials, energy and water,
- description of important environmental targets,
- other factors which refer to influences of the activities of the companies on the environment,
- name and accreditation number of the Verifier of the status of the environment and date of approval,
- deadline for presenting the next Statement of the Environment.

Please do not hesitate and contact us at any time in case you have any remarks or questions.

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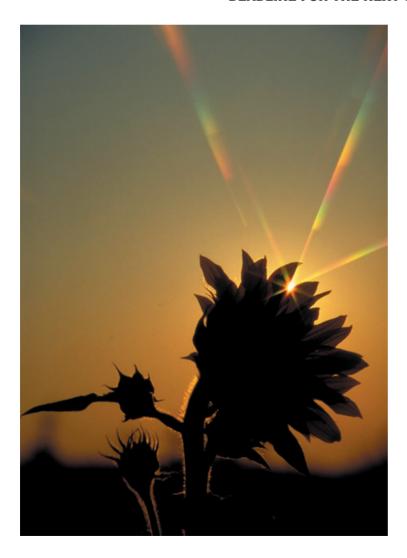


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#### **Introductory Word**

#### Dear colleagues, fellow-citizens, business partners, ladies and gentlemen,

Nine years after publishing the first Environmental Policy and Statement of the Environment, we are delighted to inform you that we have met again the set targets and programmes.

This Statement can be supported by improved environmental profile of our companies and by successful acknowledgment of the obtained certificates in accordance with ISO 14001 and EMAS.

In addition, we have implemented and certified the management system of occupational safety and health protection according to the specification OHSAS 18001. These systems are a part of the ESH management system which is the control system of the area of the environment, labour safety and hygiene, health protection at work, ergonomy, fire protection and plant security.

We prevent from possible emergency situations by continuous evaluation of potential risks and by timely reaction to them and systematically reduce negative influences on the life environment and working milieu. Mutual consensus between the top management, the employees and the public enables us to achieve sound development and prosperity.

When making decisions, we fulfil our commitment of permanent improvement and reduction of negative impacts of our activities, products and services of the areas of the environment and labour safety and health protection at work.

For the period 2006 through 2008, our special departments elaborated the material for realization of further 42 targets and this material was approved by the top management of the company.

Through active participation in seminars and exhibitions, in expert discussions and articles in special journals, we have transmitted and will be transmitting our acquired experience and knowledge to those who are interested.

By making accessible our fourth Statement of the Environment in the year 2006 we will provide the interested groups with objective information about influence of our company upon the environment, about our targets and their fulfillment. The target of the management is to ensure long-term competitiveness, versatile development and prosperity of our companies, and to maintain active process of permanent improvement of the environmental profile for the benefit of our employees and inhabitants of the region.

At the conclusion of the assessment of the lapsed period I would like to inform all the interested parties that the top management of our companies is going to support efficiently also in the future the implemented environmental management system as a progressive tool which positively influences the quality of the environment.

Dear ladies and gentlemen, contracting partners, representatives and owners of companies , herewith we invite you to introduce the environmental management system in accordance with ISO 14000 or EMAS standards, which supports the Programme of sustainable development in the sense of intentions of the World Council of Entrepreneurs for Sustainable Development and are a legislative part of the strategy of the Czech Republic.

In my name and in the name of the whole management of the companies Barum Continental, Continental výroba pneumatik and Continental HT Tyres Otrokovice, I wish you a lot of success in your business activities and expect positive news about the implementation of the environmental management in activities, services and products of your company.

Otrokovice, 6 June 2006

Ing. Pavel Pravec Executive Board Chairman



# Environmental policy

(Policy of the environment, fire protection, labour safety and hygiene) The environmental policy is a part of the production system Barum and is based on the policy of the Continental AG and on the principal ideas defined by the top management.

## The management of the companies Barum Continental, Continental výroba pneumatik and Continental HT Tyres undertake, within the framework of the environmental policy, to:

- meet requirements of legislation in force and other system requirements in the field of the environment, fire protection, labour safety and hygiene,
- ensure procedures for determination and examination of general and specific targets and target values by internal audits, regular system reviews by the management of the companies and by acknowledgement of the obtained certificates,
- make available the text of the environmental policy to all interested groups and particularly to the employees of the companies, inhabitants of the region and business partners.

#### Furthermore, they undertake to:

- ensure the requirement for permanent improvement in the above mentioned areas,
- reduce all negative influences in all their activities, products and services, by applying the best available and economically acceptable technologies,
- identify possible risks (danger) all the time, and implement remedial measures in order to eliminate the risks or to reduce them optimally,
- carry on an open dialogue with interested groups,
- by permanent and consistently performed analysis, reduce consumption of raw materials, auxiliary devices, energy demand for production,
- minimize negative impact of possible emergency situations,
- decrease quantity of contaminants emitted into the life environment and working milieu, and reduce the production of waste.

Otrokovice, May 2006

Ing. Pavel Pravec Executive Board Chairman Barum Continental spol. s r.o.

Roman Hančík

Head of Executive

Continental výroba pneumatik, s.r.o.

Ing. Libor Láznička Head of Executive

Barum Continental spol. s r.o.



Ing. Jan Pavliček Manager of EMS Division Barum Continental spol. s r.o.

Ing. Miloslav Bjalek Head of Executive Continental HT Tyres, s.r.o.



#### **Continental AG**

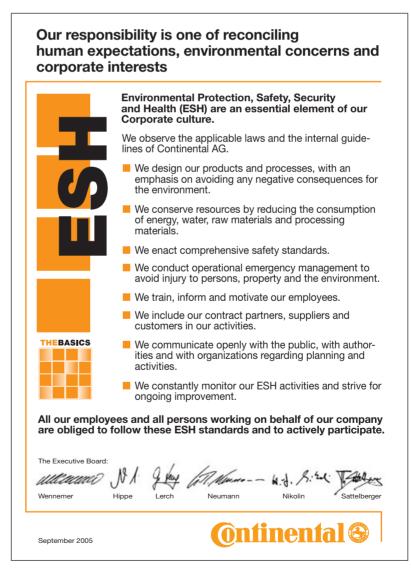
Companies Barum Continental, Continental výroba pneumatik and Continental HT Tyres are an integral part of the German corporation Continental AG that is working worldwide.

The Continental Corporation is the most significant rubber processing company in Germany, it ranks as the second largest producer of passenger tyres in Europe and the fourth biggest in the world.

At the present time, the corporation is divided into four divisions according to the character of products. The divisions Passenger Tires and Commercial Tires are focused on the tyre production. Our companies belong to both given divisions in the view of their production programme.

Another division is the division Automotive Systems that produces components for the vehicle manufacturers, such as chassis electronic systems, and the fourth division is ContiTech, producing rubber and plastics technical products, which are determined especially for further industrial use (V-belts, hoses, etc.).

All activities of the Corporation are based on fundamental visions and principles described in the BASICS. These principles are also the basis for the Environmental policy of the Corporation, to which we are linked up.





#### Description of Activities

#### History

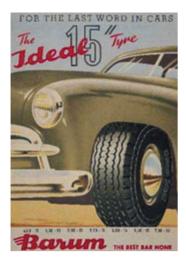
#### **History in dates**



## Companies Barum Continental, Continental výroba pneumatik and Continental HT Tyres

Company Barum Continental is not only the largest Czech tires producer, but it has been also the largest tire production plant in Europe since 1999. It profits both from the history in its branch (the first tires in this country were produced already in the Bata company in the 40s) and from modern development trends and commercial strategy. The merger of the Otrokovice tire plant with the strategical foreign partner in 1993 was an extremely right decision. The Continental Corporation, which ranks among the most significant enterprises in this branch worldwide, brought to Otrokovice not only the most modern technology and new machinery, but also a new company culture and a new approach to work. The establishment of the a new company Continental výroba pneumatik (Continental Tyres Production), followed by a new company Continental HT Tyres on the premises of the Barum Continental allowed to transfer the most modern state-of-the-art technologies for the production of high-speed tires to the Czech Republic.

- 1931 beginning of production of cycle tires
- 1932 production of the first tyre of the brand Bata for cars; beginning of the production of moulds for passenger tire curing
- 1939 dramatic increase in production, quality reaches the world level
- 1944 war years bring big production changes, and bombing caused considerable damages to the buildings
- 1945 nationalization of the Bata joint-stock company
- 1946 from the initial letters of the names Bata, Rubena Náchod and Mitas, the trademark Barum originates, the tyre production increases more and more
- 1953 from the former Bata corporation, the factory called Svit became, and five years later, an independent enterprise for tire production was excluded from SVIT and got the name Rudý Říjen
- 1967 the first radial tyre was produced on the machines imported from West Europe countries
- 1972 after a 6-year construction, a "New Tyre Plant" in Otrokovice was put into operation, with the main production hall having an area of 13 hectares
- 1983 according to an own technology, the first all-steel tires for trucks were produced, with the production of which Barum became one of few tyre producers of this type in the world
- 1989 commencing on 1st December, the company is registered under the business name Barum Otrokovice, joint-stock company
- 1990 discussions started with an objective to create a joint-venture Barum Continental
- 1992 in December, the agreement with Continental AG was signed, on the basis of which the second largest joint venture in the Czech Republic was established – the company Barum Continental spol. s r.o.
- 1993 on 1st March, the joint venture Barum Continental begins to work
- 1997 certification of the Barum Continental company according to ISO 14 001 and EMAS standards

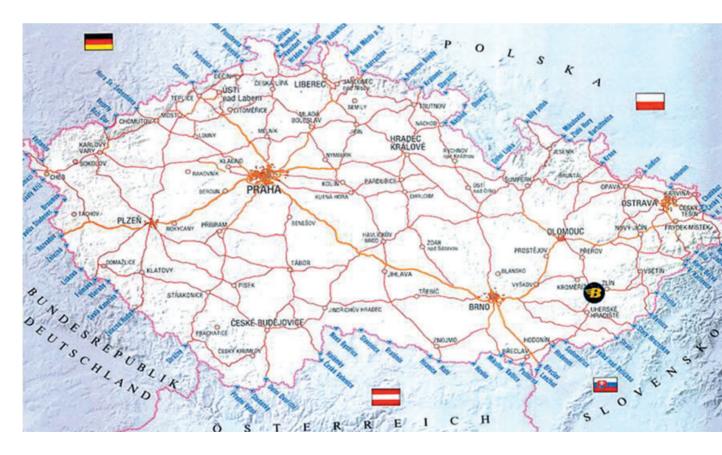


- 1997 in July, the floods devastated the whole area of the company, including the production halls and warehouses. This happened 10 days after obtaining the environmental certificates according to the standards 14001 and EMAS
- 2000 recertification of passenger radial tire production according to the standards QS 9000 and VDA 6.1, recertification and revalidation of the environmental certificates as per ISO 14 001 and EMAS
- 2001 establishing of the company Continental výroba pneumatik (Continental Tires Production)
- 2003 recertification and revalidation of the Barum Continental company according to ISO 14 001 and EMAS II.
- 2003 certification and validation of the company Continental výroba pneumatik (Continental Tire Production) acc. to ISO 14 001 and EMAS II.
- 2004 start-up of the production in a new plant Continental HT Tyres, extension of the production of high-speed tyres in Otrokovice
- 2004 sale of AGRO tyre production to MITAS a.s. company

### Location of the Company

The companies Barum Continental, spol. s r.o., Continental výroba pneumatik, s.r.o. and Continental HT Tyres s.r.o. have their registered headoffices in Otrokovice, situated about 10 kms southwest of the regional town of Zlín. The premises of the companies are to be found in the southeastern part of the industrial zone of the town of Otrokovice.

Company premises are situated at the confluence of the rivers Morava and Dřevnice, on their left-bank parts. Due to a close neighbourhood nearby rivers, there is a potential risk of flooding which is currently maximally eliminated after the realization of some efficient anti-flood precautions.



#### Personnel

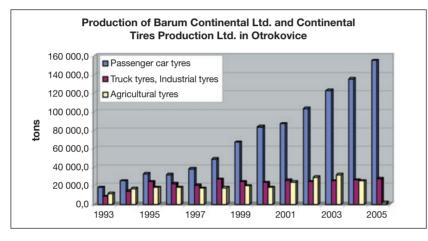
About 3 400 employees produce tyres in the companies of the corporation Continental in Otrokovice. To cover the demands of the market (of our customers), a three-shift working system has been launched in a number of workshops in this plant. This working cycle is spread into the whole calendar week, including Saturdays and Sundays.

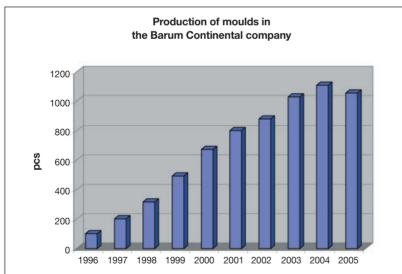
In order to ensure high quality of our production and to reduce risks of occupational accidents, newly hired employees are trained in the training center where they acquire the right practice for their future work in the company. One part of the educational programme also relates to problems of the environ-

One part of the educational programme also relates to problems of the environ mental protection, labour safety and fire protection.

#### **Production**

The main production programme of the companies Barum Continental, Continental výroba pneumatik and Continental HT Tyres is the production of passenger tyres. At present, the above mentioned companies produce around 64 000 pieces of these tyres.





In 2005, we produced 18.5 mil. passenger tyres represented in 1022 articles.

With regard to the limitation of extensive development of production, higher increase in daily production of passenger tyres is not expected.

In addition to that, the Barum Continental plant also produces commercial (truck and industrial) tires. In 2005 we produced in small quantities agricultural tires, the production of which was terminated due to the sale of this business.

An integral part of the Barum Continental company is the mechanical engineering plant that produces and repairs curing moulds for passenger, truck and agro tires. Our engineering plant ranks among the world leading companies in the production of passenger segment moulds. 80 % of these products are delivered to other tire factories of the Continental Corporaration in Western Europe, Africa, South America and the USA.

Barum

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#### **Raw Materials**



Raw materials used **for tires production** can be divided into three main groups: 1. Raw materials for production of rubber compounds (natural and synthetic rub-

- bers, carbon black, oils, resin, sulphur and other special rubber additives).
- 2. Reinforcing materials (steel wire ropes, wires, steel cords and textile cords).
- 3. Auxiliary agents (benzines, solvents...).

Rubber and other rubber additives (chemicals) are mixed in accordance with approved formulas. Plastic rubber compounds are then shaped in extruders or calenders. Prepared semi-products are used for production of green tires which also include reinforcing materials in addition to rubber semi-products. After that, green tires are cured in curing presses, under the effect of temperature and pressure. Cured tires already have the well-known elastic properties.

#### A curing mould consists of:

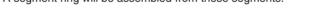
- aluminium segments
- assemblies of sidewalls
- assemblies of bead rings.

Raw materials used **for the production of moulds** can be divided into the following basic groups:

- 1. Aluminium alloy for the production of segments of the tire curing mould,
- 2. Standardized construction steel for the production of sidewalls and bead rings,
- 3. Artifical wood for the production of models,
- 4. Additional material (steel lamellas for production and models; deaerating pins, caoutchouc compound, exchangeable steel and aluminium plates).

#### Production of curing moulds - production of aluminium segments

On the basis of the drawing documentation, a model of the future product is made from artificial wood. With help of this model, a coutchouc copy is produced and is subsequently used for the production of plaster cores. The plaster cores are assembled in the shape of a circle that are moulded. Then an alumunium casting is cast. The finished casting is cut into individiual segments, which are machined and finished both on the convential and on the CNC machine. A segment ring will be assembled from these segments.



**Production of the curing mould – production of sidewalls and bead rings** Sidewalls and bead rings are first turned, then designated on engraving milling machines. Necessary grooves are milled for plates. Holes and clamping threads are drilled.



## **Important Environmental Areas**

## **Old contaminations**

#### Investigation

The first stage of investigation of contamination of soil and undeground water on the plant premises in Otrokovice was made in the years 1992 - 93. Within the framework of this investigation, local contamination with oil and chlorinated hydrocarbons contamination were found out.

One year later, the results of the first investigation were confirmed by a more detailed hydrogeological investigation, carried out by the German company GEO - DATA Hannover.

Both investigations confirmed that the contamination found out is only of local character, and neither potable water sources nor protected areas in the region are endangered.

#### **Remedial Actions**

In 1994, with the approval of the state administration, remedial actions for liquidation of contamination were launched, using biodegradation, removal of contaminated soil and its thermal liquidation and airing the soil contaminated with technical benzine.

In the years 1994 - 97 the majority of sources of land contamination was eliminated, an additional investigation of contaminated surfaces took place as well as their staking for remedial actions.

During the construction of the new operation of agro tires production in the production halls of the company EKO-RUBBER, the treatment plant of sewage water from reclaimed rubber production was removed in 1999. This plant had been a considerable source of soil and ground water contamination with oil.

> The main remedial work for the elimination of contamination with chlorinated hydrocarbons started in Septemer 1997 by exhaustion of soil air. Gradually ground water was abstracted from 4 bore holes and treated in 3 decontaminating units. At the end of the year 2000 we also started to decontaminate the areas contaminated with oil substances in the place where the former rubber regeneration station used to be. Even though the contamination of underground water was decreasing gradually, we did not succeed in achieving the limits required by the originally expected date, i.e. by the end of the year 2002. Only after extension of decontamination work the values required were achieved , and so, the remedial work could be finished, in the localities contaminated with chlorinated hydrocarbons, at the end of the year 2005. In one locality contaminated only with oil substances, the limits required were not yet achieved, and that is why this remedial work continues.

> The remedial work is done by professional suppliersī companies. Decontaminating work is carried out according to the approved projects on the basis of the permission and under supervision of the state administration organs. The expert supervision of the course of work is made by Mr Ing. RNDr. Ladislav Sovadina, CSc. from the Hydrogeological Services Zlín. Efficiency of remedial work is continuously monitored and evaluated.



## Protection of Neighbouring Population

Company premises are located in the industrial zone in town Otrokovice, and are closed to residential areas of the town in the south and in the north.

In spite of all the hitherto efforts, the inhabitants of surrounding houses are influenced by our activities.

Limited effects of emissions of pollutants, noise and smell from production, storage, transport and construction activities are particularly in question.

Effects of noise are not dominant due to the fact that there is a railway station and heavy traffic in our neighbourhood. This statement is supported by relevant measurements.

In order to limit or eliminate the above mentioned negative effects, our companies implemented in the past period a lot of technical measures, including modernization of production machinery, storage management, reduction of benzine and ethanol emissions, improvement of water protection, limitation of noise sources and maintenance of the surrounding areas.

Within the framework of air protection and improvement in air quality in the region, we connected an exhaust from the technogical lines from new production halls to the built-up air duct. This refers particularly to mixing lines in a new mixing hall and an extruding line in a new company Continental HT Tyres. This air duct enables to carry away polluted air containing organic substances to the local heating plant, where it is liquidated as a burning air during heat production. Through this air duct, we transported 164 tons of organic substances for liquidation from the companies of the Continental Corporation, and 120 tons from the Agro tyre production in the Mitas company that used this air duct until the end of the year 2005.

For improving the protection of surface waters, another separator of oil substances was installed during the reconstruction of car park area.

In order to improve the environment and reduce the noise load in the surroundings of premises, planting of greenery inside and outside the company location was supported in the last period.

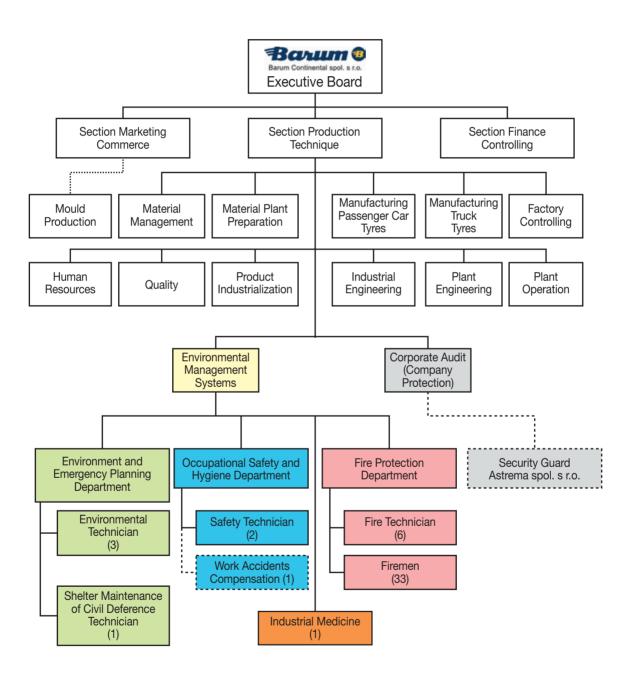
In line with the environmental policy, the management of the companies supports continuously the realization of targets and programmes to eliminate negative influences of the plant in relation to permanent improvement of living conditions of people in the region.



## Management of Environmental Systems

The Environmental management system of the companies is controlled and coordinated by the EMS division of the Barum Continental company. This division consists of the departmens labour safety and hygiene, fire protection and environmental protection and emergency planning. These special departments provide inspection and consultancy activities for all the other organizational units of the company in addition to common control of operation in their areas. The exception is the fire protection department whose part is the company fire brigade that is determined for promt actions in case of extraordinary emergency situations.

The technicians of the EMS division of the Barum Continental company also provide all technical and expert background for the companies Continental výroba pneumatik and Continental HT Tyres.



## **Basic Environmental Aspects of Production**

Within the framework of the environmental managements system, direct and indirect environmental aspects are evaluated, which are revaluated with regard to the company development and achieved control level of individual areas of the environment.

Basic environmental aspects					
Direct	Indirect				
<ul> <li>Emissions of dust, organic solvents, smell and water</li> <li>Water management (water / waste water)</li> <li>Protection of soil and underground water</li> <li>Flood prevention</li> <li>Control of waste management</li> <li>Legal background (regulations)</li> </ul>	<ul> <li>Activities of the suppliers on the basis of the orders of goods (raw materials) by our plants</li> <li>Consumption of raw materials and energies</li> <li>Emissions of pollutants into the environment</li> <li>Transport</li> <li>Transport of goods to the production plant</li> <li>Transport of products to our customers</li> <li>Transport of the employees to work</li> </ul>				
	<ul> <li>Packaging of goods and products</li> <li>Production of waste from the use of tyres <ul> <li>Disposal of worn-outs tyres (their withdrawal)</li> </ul> </li> <li>Creation of legislation <ul> <li>Market demands</li> <li>Natural influencies (flood, windstorm)</li> </ul> </li> </ul>				



#### **Emissions**

The companies in Otrokovice of the Continental Corporation produce emissions of solid and volatile organic substances, and also bad smell to a negligible degree.

Emissions of solid substances are formed by dust particles released from the weighing of chemicals, storage and handling of powdery materials, including the very processing at the mixer lines, tyre grinding and cleaning of the curing moulds by blasting. The solid emissions (dust particles) are trapped by textile heavy-duty filters and are brought back to the manufacturing process as much as possible. Solid emissions are - due to their quantity and composition - quite negligible.

The main component of gas emissions are the emissions of volatile organic matters which are used as ancillary material (technical benzine, isopropanol,...), for the tire production or originate as a secondary product of chemical reaction when mixing the silica mixtures (ethanol). In order to reduce undesirable emissions of organic matters, some changes in the manufacturing processes were made, with focus on reduction of consumption of materials based on organic solvents. Technologies, for which we do not know any other solution at the present time, are ensured by corresponding collector systems (the recuperation station of technical benzine, air duct to the Heating Plant in Otrokovice).

Odour emissions are curing fumes from the vulcanization process which irritate mainly the employees in the working environment. According to the todayīs knowledge, such curing products (vapours) do not endanger peopleīs health. In exceptional situations, odour traces can be felt after processing natural rubber. With regard to the location of bigger bad smell sources in the surroundings of the plant premises (piggery, waste water treatment station, carcass disposal plant), our smell load of the surroundings at the boundary of the plant is quite negligible.

The existing noise emissions of the companies are caused by the co-effects of the industrial factories and by the traffic noise that represents the dominant com-



ponent of noise. Despite certain noise load of the surroundings, we have not obtained any negative initiatives from the residents living in the neibourhood.

#### Water Management



#### Service filtered (fire extinguishing) water

Filtered service water is taken from the mains of Toma, a.s., a part of which is the water reservoir with a volume of 10,000 m3. This source provides water even at a fire. The repump station itself has been put out of operation and is maintained in readiness for supply of crude water from the river Morava in case of a big fire. On the basis of a contract, filtered service water is also supplied to the neighbouring companies, i.e. the Heating Station Otrokovice a.s., PSG, a.s., Pipe Life Czech s.r.o.

#### **Potable Water**

Potable water is taken from the public water mains of the company Zlínská vodárenská, a.s.for social and partially technological purposes. On the basis of a contract, drinking water is supplied also to the companies Teplárna Otrokovice a.s., and to all enterprises having their headoffices on our premises.

#### Sewage and Rain Waters

The company area has a separated system of sewerage. Sewage waters are carried away by means of two sewers to the regional sewage treatment plant in Otrokovice. Rain waters are also carried away through two sewers, to the rivers Dřevnice and Morava.

The sewerage network was built mostly between 1969 and 1971, and since 1995, it is subject to gradual checks and reconstructions, by using the most modern technologies without excavation.

#### **Sewage Waters**

Sewage waters are carried away to the local sewage water treatment plant in Otrokovice.

With this sewerage system, the following surrounding enterprises are connected: PSG a.s., MORAVAN-AEROPLANES a.s. Teplárna (heating plant) Otrokovice a.s., České dráhy (Czech railways) a.s., and independent firms with their headoffices on the premises of our companies.

Sewage waters, the pollution of which exceeds permissible limits, are pre-treated in the local water treatment plants. Considerably contaminated waters are transported in cisterns to the specialized companies in the region for liquidation.

#### **Rainwaters**

Rainwater drainage carries away rainwaters from the roofs and hard surfaces. The company PSG, a.s. Otrokovice and the viaduct of the railways are connected to the collecting branch which conducts rainwaters away to the Morava river. Special attention is paid to cleanliness of hard surfaces, water quality protection as well as to precautionary measures preventing from release of hazardous substances.

### Soil and Ground Water Protection

Our central warehouses as well as well oil substance filling station were reconstructed to the technical level required by legislation. The filling area was roofed, insulated and connected with high-volume emergency sumps.

All storage tanks are located on supports, in insulated reinforced concrete aboveground or underground emergency sumps. This solution enables a visual check of the tanks and distributions, including their technical devices preventing from spills. In addition, the filling areas are provided with oil substances spill signalling, connected to the Fire Brigade exchange office with non-stop operation. Distribution pipelines for technological oils and petrol are placed in the technological ducts, reconstructed in 1994 - 1996, which enable to check the distributions visually for tightness and eliminate causes of possible leakage.

All single-jacket reservoirs, containers and drums for hazardous substances (oil substances, liquid hazardous wastes, ...) are placed in trapping tanks or isolated areas with emergency sumps. The central warehouse with single-jacket tanks was reconstructed in 1996. Further extension of the central warehouse according to the valid requirements for water protection was carried out in 2003. The storaging conditions are improved continuously. A part of oil substances and waste oils is collected and transported in two-jacket containers.

The fire brigade unit has been trained and is prepared to carry out professional action in case of breakdowns or traffic accidents with release of contaminants. For these actions the fire brigade has a technical vehicle that is equipped with special technical devices.

To facilitate the actions during an emergency case, there is a colour marking of sewerage covers in the whole company, in order to be able to differentiate the sewerage of rainwaters and sewage waters. In case of release of hazardous substances, an effective action at the repumping stations and at rainwater outflows to the rivers Morava and Dřevnice is possible. On the sewerages it is also possible to carry out in case of emergency a temporary shutting down by means of sewerage stops, or if should be, by stopping the repump stations.

Attention is also paid to the briefings and trainings which familiarize with the working regulations, operating guidelines and emergency plans.





### **Flood control**

The Barum Continental company , after the devastating floods in 1997, worked actively in the preparation of flood preventive measures. Many constructions and technical devices for flood prevention were built up, which had been designed for the protection of large area and are included in the general conception of flood prevention in Otrokovice. Efficiency of the built-up devices was confirmed especially during the spring thaw at the turn of March and April 2006.

Special attention is paid to the organizational measures and preparation of the employees for their tasks in the flood protection.





#### Waste Management Control

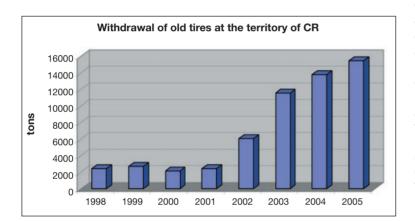
The companies Barum Continental spol. s r.o. and Continental výroba pneumatik fulfilled the legal obligation for drawing up the waste management plan by the producer according to the waste management plan of the region. In case of the company Continental HT Tyres, s.r.o, fulfilment of this obligation is expected in the next years.

Both above mentioned companies have their own waste management plans since the year 2005. The targets resulting from these plans are included in the main environmental targets of the companies.

Waste produced in all the Otrokovice companies of the Continental Corporation is continuously recorded, sorted and stored in the specified and marked collecting containers. The objective of the sorting is not only to ensure fulfilment of legislative requirements but especially to allow to utilize produced waste in an optimum way. For disposal of unutilizable dangerous waste, thermal liquidation is preferred.

For temporary intermediate storage of risk waste, a secured and roofed storehouse can be used for dangerous waste. This storehouse is operated by the company Marius Pedersen for the companies of the Continental Corporation in the location Otrokovice.

Among the most important types of waste from the production are tyres of inferior quality which are made available for material and energetic utilization.



Within the fulfilment of legal obligation of withdrawal of tyres, we organize from the year 2002 free of charge withdrawal of wornout tyres, in cooperation with the company Marius Pedersen, throughout the territory of the Czech Republic.

Already before the above mentioned date, the Barum Continental company organized non-profit withdrawal of these tyres. Our system of the tyres withdrawal with efficiency of about 65 % belongs to the best in the Czech Republic.



#### **Legal regulations**

All the applicable legislative regulations for the EMS are given in the Laws Register, which is an integral part of the "Handbook Environment Safety Health". Versions of new regulations are obtained at least from two independent sources. The regulations in force applying to our companies are kept in the special departments of the EMS division and are made available to all employees of the companies on request.

Requirements for fulfilment of legal standards are incorporated continuously by the specialists of the EMS division into the respective internal regulations.

## **Realization of Environmental Policy**



In May 2005, the environmental policy from the year 2003 was updated. The reason for updating was the preparation of the company for the certification of the system of labour safety in compliance with OHSAS 18001. The environmental policy has become common policy for the areas of the environment, labour safety and hygiene and fire protection.

The employees of the companies were familiarized with the new text of the environmental policy through company information boards, and with the possibility of expressing their comments.

The environmental policy is newly realized through the mediation of the new system ESH that includes the environmental management system.

It uses the corresponding documents which include the specified targets and programs of the companies, which contribute to the fulfilment of the commitment of permament improvement.

The system is verified in internal and external audits, according to the approved plan.

Accomplishment of the environmental policy as well as the policy itself are reviewed by the top management every year. In case of essential development and organizational changes, the environmental policy may be restipulated.

## **Communication**

Internal communication is realized through articles in the company newspaper, by interviews and training the staff, information boards and radio broadcasting. Feedback for using the employeesī suggestions and comments is ensured through



the designated post box, electronic mail, in personal talks or phone conversations with the technicians of the EMS division.

External communication is ensured by providing information in the field of EMS, by talk and conference activities, cooperation with schools, as well as by organizing working meetings with representatives of the state administration and surrounding companies, where trade unions and interest groups are informed.

Within the framework of the external communication and strengthening the awareness in the field of the environment, we organized an art and literary competition with the topic "Barum and the environment" for the pupils of the Basic School, Mánes-Street in Otrokovice.

## Environmental targets and programs Fulfilment of the most important environmental targets laid down by the top management of the companies for the period 2003-2005

1	Maintain consumption of electrical energy at the level of	year	2003	2004	2005
	2002 (converted to 1 ton of products)	target	0.96	0.96	0.96
	2002: 0.96 MWh/t of tyres	actual	0.88	0.88	1.00
	ear 2005, the set target value was not achieved for the reason of cha I for energy. With regard to the planned technological changes, we ex				Ŭ,
2	By the year 2005, to reduce heat (steam) consumption by	year	2003	2004	2005
	3% versus 2002, per ton of products	target	5.35	5.35	5.35
	2002: 5.52 GJ/t of tyres	actual	5.20	5.07	5.19
The tar	get was fulfilled.				
3	By the year 2005, to reduce compressed air consumption	year	2003	2004	2005
	by 3% vs. 2002 per ton of products	target	0.79	0.79	0.79
	2002: 0.82 m <sup>3</sup> × 1000/t of tyres	actual	0.74	0.74	0.87
	ear 2005, the set target value was not achieved for the reason of inst room of rubber compounds. This is partially caused by the assortm			h-tech tyre product	tion and in the new
4	By 2005 to increase water consumption by 5% vs. 2002	year	2003	2004	2005
	per ton of products	target	2.83	2.83	2.83
	2002: 2.98 m <sup>3</sup> /t of tyres	actual	2.96	2.53	2.43
The tar	get was fulfilled.				
5	Reconstruct the sewerage network	Actual status			
		In the period 2003–2005, reconstruction of the sewerage network was dor Due to the range of the sewerage network, the reconstruction will be ca ried out also in the next years. <b>The target is fulfilled.</b>			
6	Build up a secured car park next to the testing area	Actual status			
		The car park for 156 vehicles was built up in 2005. The target was fulfilled.			
7	By 2005, reduce the production of technological waste by	year	2003	2004	2005
	2 % per ton of products versus 2002	target	29.354	29.354	29.354
	2002: 29.953 kgs of rubber waste per ton of tyres	actual	25.927	27.843	29.663
-	ear 2005, the set target value was not achieved for the reason of the oduction and in the new mixing room of rubber compounds, which				ry in the high-tech
8	Reduce fugitive emission of volatile organical substances	year	2005		
	maximum 25 % of the total consumed VOC				25 %
	2002: 29,953 kg pryžových odpadů/t pneumatik				19.33 %
The tar	get was fulfilled.				

9	Improve the security of the companies	Actual status			
		For better security of the plant premises, building up of a unified monito			
			FS and EWS was pro		election procedur
			realization will be car	rried out in 2006.	
		The target is fu			
10	Ensure the corresponding security of the construction of		Actual	status	
	the new mixing room and temporary warehouses outside the premises of the plant	The new mixing	room is secured wit	h the EFS and the s	prinkler extinguis
			ring the construction		
			ovided. By this, possil use of oil substances		
					iyet was tuttineu
11	Implement the project of safety switching-off on all the calenders.		Actual	status	
			tching-off (emergend		
			duction hall except fo ementation on two o		
		restructurization of the production and will be carried out before the end of 2006. One calender will be replaced by the extruder.			
Due to t	l he achieved stage of the project, the set target may be considered a	l s fulfilled.			
12	Propose and realize an efficient system for carrying away		Actual	status	
	the curing fumes from the passenger tyre-moulding room.	During the realization , under-ceiling shields were installed , and erection			
		of new air-conditioning for intake of fresh air and exhaust of curing fume			
		started. This measure is tested and in case of positive result, it will be exten			
		ded in the plant. The target is continuously fulfilled.			
Due to t	 he achieved stage of the project, the set target may be considered a	s fulfilled.			
13	Not exceed the accident rate (AccR) "6"	year	2003	2004	2005
		target	6	5	4
	AccR = number of accidents*10 <sup>6</sup> /actually worked hours	actual	2.99	4.58	2.93
The tar	get was fulfilled.				
14	Not exceed the percentage of sickness rate more than 5 $\%$	year	2003	2004	2005
		target	5.00	5.00	5.00
	AccR = number of accidents*10% actually worked hours	actual	5.94	4.70	4.96
Despite					

# The most significant environmental targets approved by the top management of the plant for the period 2006–2008

	Goal	Method	Responsibility	Term
1.	To keep the specific consumption of water per ton of production on the 2005 level	<ul> <li>Increase in labour productivity</li> <li>Organisational measures</li> </ul>	Production and service managers	2008
2.	Due to implementing new techno- logical processes it is not possible to exceed an increase in specific consumption of electric power and heat by more than by 15 % per ton of production against 2005	<ul> <li>To minimize operational waste</li> <li>Increase in productivity</li> <li>Preventive maintenance</li> </ul>	Production and service managers	2008
3.	To ensure continuous inspection, cleaning and reconstruction of company sewerage system	<ul><li>Monitoring</li><li>Cleaning</li><li>Reconstruction</li></ul>	Plant Engineering Manager (TI)	2008
4.	To improve dealing with dangerous substance harmful to water	<ul> <li>Extension of security area for storage tanks</li> <li>Reconstruction of hard handling area in front of the warehouse where are stored combustible matters</li> <li>Reconstruction of the floor in the central warehouse of combustible matters</li> </ul>	Plant Engineering Manager (TI)	2008
5.	To replace suspicious carcinogenic substances (polyaromatic oils - plasticizers) by noncarcinogenic	<ul> <li>Continuous replacement of dangerous raw materials</li> </ul>	Product Industrialization Manager	Continuously by 2008
6.	To improve emergency preparati- ons in case of outstanding situati- ons	<ul> <li>Modernization and extention of fire brigade monitoring system</li> <li>Installation of permanent extingu- ishers in ventilation in mixing shop</li> </ul>	ESH Division Manager, Plant Engineering Manager	2008

#### Note:

For the above mentioned period, in all 42 ESH targets were approved by the top management of the company.

## **Environment Management**

Impacts of our activities upon the environment are checked and evaluated on the regular basis. We keep records of all important data regarding the influence of the companies on the environment.

In scheduled intervals we measure occurence and concentration of contaminants in the life environment and in working milieu. This concerns especially the monitoring of quality of water, air and soil, check of noise level at the working machines as well in the surroundings of the companies area.

Monitoring and measurements are done not only by our staff, but as well by specialized authorised companies in order to ensure objectivity.

## Environment Inspection

External audits and inspections, performed up to now, confirmed that the Czech legal regulations in force are adhered to in the companies of the Continental Corporation in Otrokovice. The audits and inspections also proved full functionability of the implemented environmental management system

The audits and the inspection of the environmental protection, fire prevention, labour safety and hygiene, as well as the implemented environmental management system and the results of specified audit activities at the workplace are the basis for an efficient control and fulfilment of our environmental policy, targets and programs.



## Environmental Management System

In 1997, the company Barum Continental Otrokovice introduced and successfully certified the environmental management system in accordance with the Council of the European Community Guideline No. 1836/93 and ISO 14 001 standard. By this, Barum Continental became the first independent company - outside the EC countries - which won a certificate on meeting the EMAS requirements. At the same time, it became the first company within the Continental Group which



obtained certificates in accordance with both standards that relate to the environmental management system.

The environmental management system which comprises the spheres of environment, occupational safety and fire protection is ensured and controlled methodically by the EMS division. The basis of the system lies in unambiguously defined responsibilities for the specified areas.

The environmental management system of the companies Barum Continental, Continental výroba pneumatik and Continental HT Tyres is supported effectively by the top management as well as by the corporation management through the mediation of the coordinator of the passenger tires group of Continental AG. This ensures continuous exchange of information and experience between the individual production units of the Corporation.

In 2003, the EMS system was certified and validated for the first time also for the company Continental výroba pneumatik (Continental Tire Production) according to the standard ISO 14 001 and Regulations of the European Parliament and Council No. 761/2001.

In 2006, the company Continental HT Tyres was certified in accordance with the above mentioned standards.

All the said companies implemented and certified the "Management system of occupational safety and health protection at work" in compliance with the international guidelines OHSAS 18 001 (Occupational Health and Safety Assessment Series).





## Handbook of Environmental Management System

The "Handbook" has been made in compliance with requirements of legal regulations of the Czech Republic and international standards of the EU 1836/93 and ISO 14001.

It includes all the necessary instructions for implementation of the common system ESH, comprising the environmental management system and management system of occupational safety and health in our companies.

The Handbook describes structure and responsibilities within the framework of the common system ESH. It serves as a control document to the top management, and is the basis for elaboration of the respective documentation.

The new Handbook ESH was published in electronic version, which allowed its availability and accessibility for all our employees who are connected to the company Intranet.



## Environmental Check-ups in the Company

The effectiveness of our environmental management system and compliance with legal regulations of the Czech Republic are checked regularly by internal and external audits, state administration inspections, inspections by AFM Global and Allianz insurance company and by quality audits in accordance with ISO /TS 16949.

At the internal audits, the system is checked according to the check questions prepared in advance.

The weightiness of detected shortcomings (non-conformities) is expressed in point score and described in a record on non-conformity together with a suggestion of precautionary measures, deadlines and responsibilities. The point value converted into percentage makes it possible to compare levels of individual operations.

Results of internal and external audits are discussed at the meetings of the company management.

The hitherto internal and external audits, state administration inspections and inspections of the insurance company have proved observance of the legal regulations of the CR as well as functionability of the systems in our companies.

## Materials, Emissions, Targets

## Use of Materials – Raw Materials

Next to basic raw materials, such as natural and synthetic rubber, carbon black, technological oils, rubber chemicals and reinforcing materials, ancillary materials are used, such as lubricating oils, greases, solvents, cleaning agents, fuels for vehicles and mechanisms, water treatment additives and other materials required for the production, operation, work of machines and equipment. With regard to chemical properties of the used raw materials, many initial raw materials are classified among hazardous chemical substances and preparations. For the above reason, a strict regime is to apply to the handling of the above substances.

#### Energy

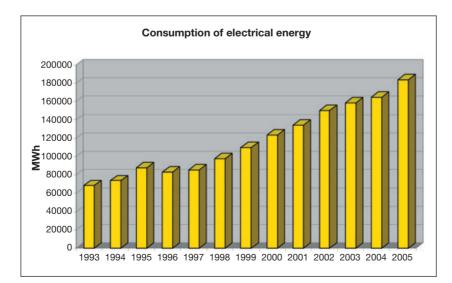
The production companies of the Continental Corporation in Otrokovice use for their activities mostly electrical and thermal energies. Within the framework of the production we permanently make every effort to reduce specific consumption of energies.

In spite of our efforts and a very positive trend in reduction of energies in the previous years, there was a negative change of the given trend in specific consumption of electrical energy in the year 2005. The reason consists especially in the changes of production structure and the relevant technology, demanding more energy.

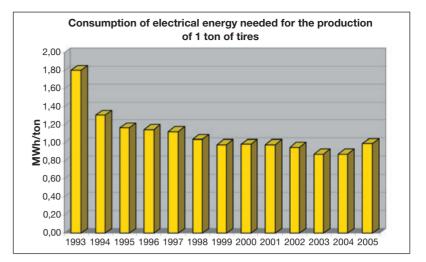
One of the changes is, in particular, the start of rubber compounds mixing in the new mixing room. On the one hand we finished partial purchase of compounds from our suppliers, but on the other hand we consumed electrical energy for their mixing.

Taking into account the prepared technological changes, we anticipate increase in specific consumptions of all energies until the end of the year 2008. In spite of the outlined negative trend, we are seeking for internal reserves so as to reduce it, particularly by change of work organization, by increase of productivity, and especially by maximum saving the resources on all levels of the companies.

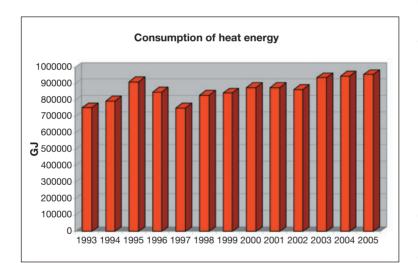
If we compare specific consumption of electrical current in the past period, it is obvious its decrease until the year 2004 versus the year 2002, i.e. from 0.96 MWh per ton of products to 0.88 MWh, which represents decrease by 8.3 %. As already mentioned, in 2005 there was an interannual increase in specific consumption of electric energy by 0.12 MWh for the reason of the start of rubber com-



pound mixing in the new mixing room and consumption of energy for the compounds which had been purchased in the past years. This represents increase in specific consumption by about 4 % versus the year 2002.



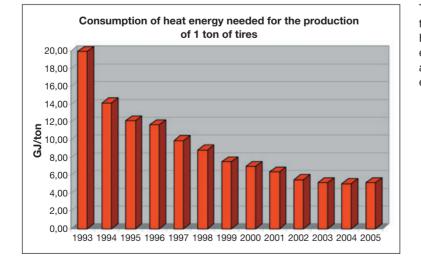
Another reason for increase of specific consumptions consists in a wide assortment of the production connected with frequent changes. Besides, the specific consumption is applied to one ton of produced tyres, which does not currently relate fully to the whole production of ours. The basis for the calculation of specific consumption does not include the produced (repaired) curing moulds, diaphragms, semi-finished products, auxiliary materials and rubber compounds, which are determined for direct sale. In order to maintain the continuity of the reporting



and comparison of the past period, we did not include the above facts into the calculation of the specific consumptions, even if they negatively distort our environmental profile in 2005.

Specific consumption of heat (steam) was 5.19 GJ per ton of products in 2005. Vulcanizers rank among the major consumers. Compared to the year 2002 we reached heat savings of 0.33 GJ per ton of products, which means a drop by 5.98 %.

The companies Barum Continental, Continental výroba pneumatik and Continental HT Tyres do not produce any of the above energies. All energies and energetic media are purchased from external suppliers, except for pressure air.



### Water / Sewage Water

Since 2003, a number of measures for reduction of water consumption was gradually implemented, which resulted in remarkable reduction of consumption of drinking water and slight increase in consumption of service water. In spite of increase of production, we have recorded absolute decrease in consumption of drinking and service water as a whole, and by this, also a remarkable decrease of total specific consumptions of these waters. Compared to the year 2002, the total specific consumptions of waters has decreased by 18.5 %.

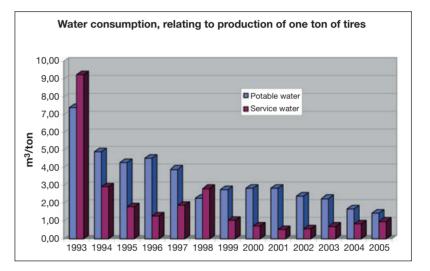
In the next years, no greater changes in water management are expected. Attention will be paid to reduction of water losses and timely detection of faults.

#### **Potable water**

In 2005, specific consumption of potable water was 1.45 m3/t of tyres, which represents drop 39.6 % vs. 2002. Remarkable decrease was achieved by the implementation of savings measures, whereby drinking water was partly replaced by service water.

#### Service watter

In 2005, specific consumption of service water was achieved 0.98 m3/t of tyres, which means increase by 71.9 % vs. 2002. This increase is the consequence of the replacement for drinking water.

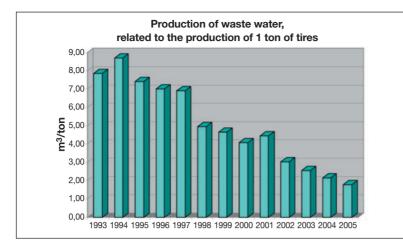




#### Waste water

Savings in consumption of drinking and service water had impact on decrease in quantity of waste water.Besides, quantity of waste water depends on production of unutilizable condensate, groundwaters and rainwaters.

In 2005, specific production of waste water was achieved 1.77 m3/t of products. In comparison with the year 2002, quantity of carried-away waste waters per ton of tyres has decreased by 41.6 % in the year 2005.



Decrease in quantity of waste water brought about changes in balance quantity of pollution carried away to the waste water treatment plant, and also partial increase in concentrations of pollution of waste waters.

We expect that the measures implemented in the field of water consumption as well as the realized inspections and repairs of the sewerage network will have a positive impact on quantity of discharged waste waters.

#### **Emissions**

One of the main pollutants released into the atmosphere are emissions of volatile organic substances, especially technical benzine. To the larger extent, these are the so called fugitive emissions, i.e.emissions released into the atmosphere through skylights, windows, doors, etc.

Emissions of volatile organic matters from the production lines are trapped on the activated carbon in the recuperation station of benzine vapours and subsequently returned back to the production or carried away through the air duct, about one kilometre long, to the local heating plant for thermal disposal. The air supplied with the content of organic solvents is used here as primary air for the incinerating boilers which serve for the heat production.

Compared to the year 2002, emissions of organic volatiles were decreased in 2005 by 383 tons for the reason of the putting into full operation of the air duct to the local heating plant in 2003.

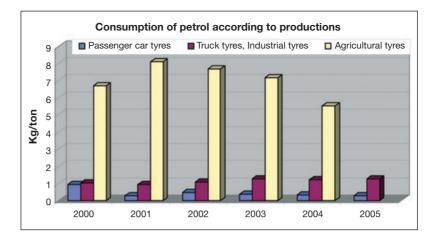


Consumption of technical petrol per 1 ton of tires

Dust emissions are quite negligible due to the used separating technologies and their very good technical condition.

With regard to the character of the processed materials, technical benzine cannot be fully eliminated in the production. Even so, we are trying to reduce to the minimum its use and subsequent emissions into the atmosphere.

A remarkable interannual decrease in specific consumption of technical benzine in the year 2005 was caused , in particular, by the sale of the production of agro tyres to the company MITAS a.s. (in October 2004).



#### **Noise emissions**

Important sources of noise in the working environment are measured and the results are evaluated with the purpose of limitation of these emissions.

The noise map of outdoor areas of the premisess of the companies is updated every year. The results of measurements of noise load in the surroundings of the plant showed that the dominant source of noise for the surrounding building-up area is the traffic noise.



### Storage, Transport, Packaging

Raw materials and ancillary agents are stored in suitable store rooms.

Procurement and dispatch from the companies Barum Continental and Continental výroba pneumatik (Continental Tires Production) are perfomed by the contracting partners. Road and railways are used for transport. Due to the unsufficient transport infrastructure of the town and region, this is a problem from the point of view of influence on the environment.

In coopertion with our suppliers we endeavour to reduce waste from packagings / containers, especially those in which raw materials were imported, by transition to the returnable containers with repeated use. Gradually we replace the classic small-volume containers for bigger one not only because of minimization of waste but also for the reason of better use of the loading surface of the means of transport, aiming at limitation of negative effects of transport in the region.



## **Residual Substances** / **Wastes**

All production companies of the Continental Corporation in Otrokovice have a uniform system of waste management which is recording all types of waste from our activities.

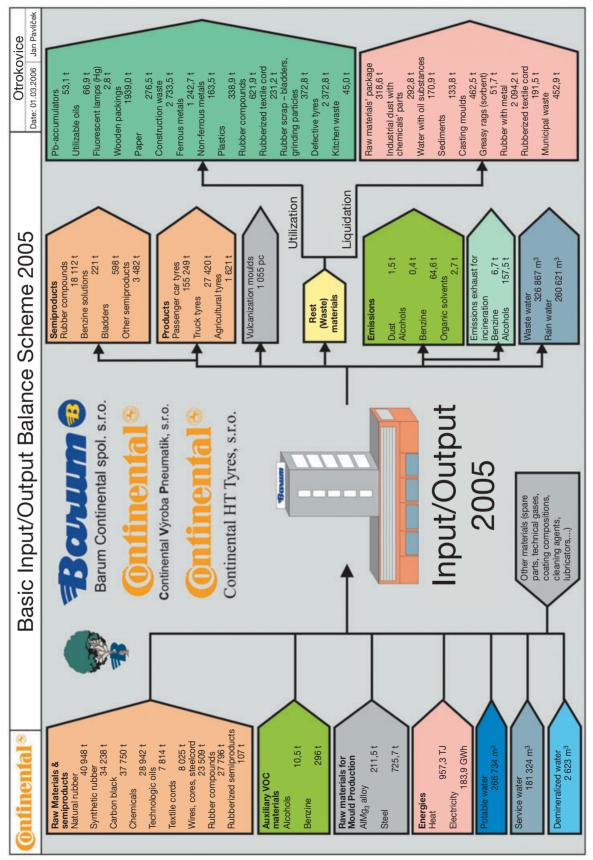
At the present time , we produce 66 types of waste, thereof one half is classified as hazardous wastes. Special attention is focused on these wastes.

#### Important groups of produced waste

Production of the most important types of waste in the years 2002–2005					
Waste	category	2002	2003	2004	2005
Sweepings	Ν	177	158	217	293
Containers from raw materials	Ν	207	219	248	270
Greasy rags	Ν	52	59	59	52
Rubberized textile cord	0	158	322	469	423
Rubberized steel cord	0	1.759	1.956	2.139	2.094
Tyres	0	2.467	2.211	2.368	2.373
Casting cores	0	379	530	559	463
Communal waste	0	505	516	595	453

A permanent priority of the company in the sphere of waste disposal lies in their optimum recycling or another utilization instead of thermal liquidation or landfilling.

# Balance scheme of the basic inputs and outputs



#### Commentary on the balance scheme of the basic inputs and outputs

Due to the sale of the agricultural tires production, the production of them has been substantially reduced in the year 2005. We donit produce these tires since 2006.

In the group of the produced and sold semiproducts and auxiliary materials can be seen the interannual production increase of the auxiliary materials based on the technical benzine. This increase has been caused by higher requirements of the new production owner of the agricultural tires based on the production increase. Due to the technological change of these tires manufacturing we expect a production decrease of the materials based on the technical benzine.

There has been an important change in the area of the remaining materials (wastes), where we have been succesfull to find a customer for the for us nonutilisable rubberized textile cord during the year 2005. Thanks to this a substancial amount of this material will be reused, this waste has been previously disposed on the municipal waste's landfill.

#### The environmental management system, including the environmental policy, tar-Statement of gets, programs, environmental inspections and its realization Validity in the companies Barum Continental spol.s r.o. Otrokovice Continental výroba pneumatik, s.r.o. Continental HT Tyres, s.r.o complies with requirements of the Council of the European Community Guideline No. 751/2001. The data and information given in this Statement of the Environment provide an adequate and real picture of influence of all activities on the plant premisses upon the environment. Otrokovice, Köln (Cologne), July 19, 2006 Erich Grünes Environmental Verifier, TÜV CERT Lead Auditor Health and Safety Professional By the accreditation reference number **Expert** D-1001/2002, D-V-0017, as an independent environmental verifer has been appointed: Mr Erich Grünes Company address: **TÜV Rheinland Group** Am Grauen Stein D-51105 Köln

**Deadline for the Next Statement**  The next statement of the environment will be elaborated and validated in a brief form in July 2007 and 2008. This abridged version together with the updated targets and measured values will be issued every year.

The next consolidated environmental statement will be issued in July 2009, to be validated again by an environmental verifier.







Continental Výroba Pneumatik, s.r.o.



