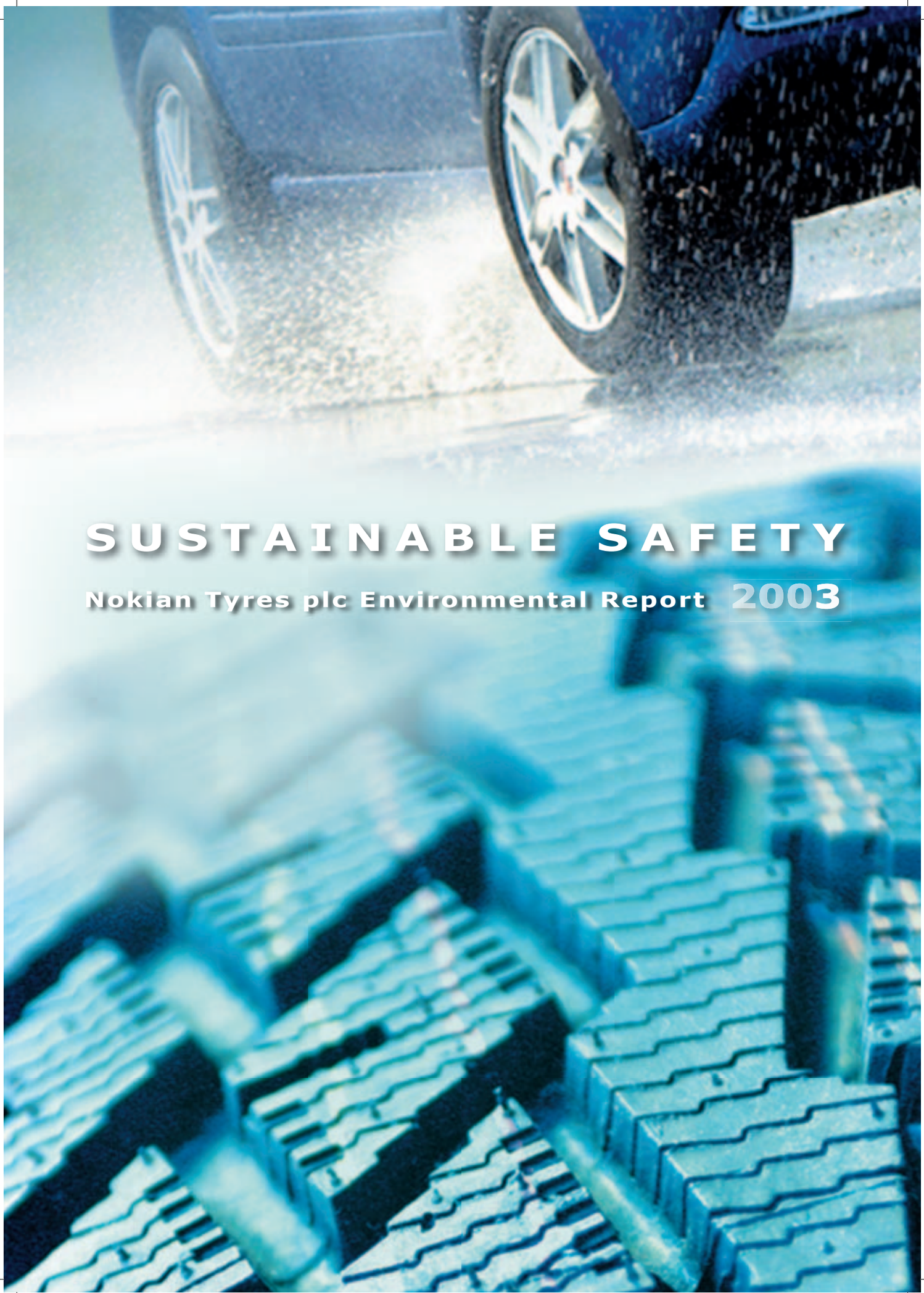


SUSTAINABLE SAFETY

Nokian Tyres plc Environmental Report 2003

C O N T E N T S

PREFACE

A responsible operating policy requires Nokian Tyres as a company to take good care of its personnel and of its social and stakeholder relations. This Nokian Tyres plc Environmental Report 2003 is intended for the general public, including local inhabitants in our places of business, the authorities and other parties interested in our activities as a responsible corporate citizen. This report assesses the environmental impacts of tyres over their life cycle, and describes the company's efforts to improve its environmental and safety agenda.

The key focus in this fourth separate EMAS report is on environmental issues, which are extensively linked to social issues. Social responsibility covers financial, social and environmental responsibilities. Each of these is an essential element from the company's operational perspective. The company's long-term development is seriously compromised if it lacks public approval in any of the areas mentioned. A strong financial position allows us to invest more in environmental and social responsibility, and the results achieved in those areas will in turn strengthen our financial performance. As stated in our goals, we act in a socially acceptable manner within the framework of all the regulations and recommendations that govern our sector of industry.

Nokian Tyres has traditionally prepared separate reports on its environmental, human resources and financial affairs. We publish a more extensive report referred to in the EMAS regulation at least every three years. The previous report was published in 2001. Today, we report developments in our environmental, safety and human resources affairs on our corporate website at www.nokian-

tyres.com. Furthermore, environmental, safety and human resources issues are also incorporated into our Annual Report. It is our objective to expand and harmonise our reporting practices in the Corporate Responsibility (CR) area by the end of 2005.

Nokia, May 2004,
Pia Tirronen
Environmental and Safety Manager

PRESIDENT'S STATEMENT

The operations of Nokian Tyres are characterised by an active entrepreneurial spirit. This spirit permeates all levels of our everyday operations, and it is the driving force behind our determined efforts to continuously promote and strengthen our operations in a number of ways. We bring a large number of new, innovative products to the market and dramatically increase our production volumes. Our dynamic growth efforts also include expansion into Russia and other East European countries. For as many as 12 consecutive years, we have been the most profitable company in our line of business. Even though we place major emphasis on strong financial performance and intense growth, the well being of our natural environment, its population and our personnel is of key importance to us.
As representatives of a company that recognises its social responsibility, we want to make sure that carrying out our core mission does not involve harming nature and people; instead, we strive to promote their well being.
We strive to adhere to the principles of good corporate citizenship in all of our activities and in all countries in which we operate. This means that we have adopted a wider perspective on environmental and safety issues and consistently take them into account in all of our activities. Corporate responsibility means using safe, environmentally friendly products and efficient, top-of-the-line production processes.
Appreciation of the environment and safety are natural parts of the company's product development philosophy focusing on sustainable safety.
We are the first tyre manufacturer in the world to have produced an environmentally sound summer tyre, the

Nokian NRHi, which is manufactured without using any harmful oils. In the future, we aim to manufacture all tyres using only low-aromatic oils instead of those classified as harmful.
We wanted to include in our key corporate values our objectives regarding the efficiency of our key processes and business network and our endeavour to ensure that they are the best in the business. This means that we uphold the principles of good citizenship. It also means that we do more than the permit terms and conditions and the environmental legislation require of us. We also make every attempt to anticipate our stakeholder groups' expectations and changes in legislation.
Nokian Tyres' management is responsible for the safety and environmental report and has approved all facts presented in this report.

Kim Gran
President

Nokian Tyres Group

Nokian Tyres is the largest tyre manufacturer in the Nordic countries and one of the most profitable companies in its industry worldwide. The company develops and manufactures summer and winter tyres for cars and bicycles, and tyres for a range of heavy machinery. It is also the biggest retreading materials manufacturer and tyre treading provider in the Nordic countries. In addition, it runs the Vianor tyre chain, which is the largest and most extensive of its kind in the Nordic countries. The chain comprises 170 of its own retail outlets across Finland, Sweden, Norway, Estonia and Latvia.

Nokian Tyres operates primarily in the tyre replacement markets. The company's key success factors include the continually upgraded product range and innovations that deliver genuine added value to the customer. The company's R&D, administration and marketing as well as the bulk of production operations are housed in the Nokia facility in Finland. Bicycle tyres are manufactured at the Lieksa plant. In addition, the company has contract manufacturing in the USA, Indonesia, Russia, Slovakia, Hungary and Poland. Sales companies are located in Sweden, Norway, Germany, Switzerland, Russia and the USA.

The focus strategy adopted at Nokian Tyres has enabled the company to outperform average annual growth in the tyre industry. Despite the powerful growth, it has also been able to retain and strengthen its position among the highest profit-making tyre companies in the world.

In 2003, Nokian Tyres Group booked net sales of EUR 528.7 million and employed 2,650 personnel at the year-end, 1,340 of whom worked at the plant in Nokia, Finland.

Nokian Tyres plc was founded in 1988 and it was first listed on the Helsinki Stock Exchange in 1995. The company's roots go back all the way to 1898, when Suomen Gummitehdas Oy, or the Finnish rubber factory, was established. Bicycle tyre production began in 1925 and passenger car tyre production in 1932. The company's flagship product, the Nokian Hakkapeliitta tyre, was launched in 1936.

The operations of Nokian Tyres and its personnel are best described bythe so-called "Hakkapeliitta" spirit, which embraces the following basic elements:

Entrepreneurship
= The will to win
We are thirsty for profit, we react quickly and with courage. We set ambitious objectives for ourselves, and perform our work with persistence and perseverance. We are dynamic and punctual, and we always make customer satisfaction our first priority.

Inventiveness
= The will to survive
We have the ability to survive and excel, even in the most challenging circumstances. Our competence is based on creativity and inquisitiveness, and the nerve to question the status quo. We are driven by a will to learn, develop and create something new.

Team spirit = The will to fight
We work in an atmosphere of genuine joy and action. We work as a team, relying on each other and supporting each other, offering constructive feedback when needed. We embrace difference, and we also encourage our team members to individually pursue winning performances.

Nokian Tyres values are

CUSTOMER SATISFACTION	PERSONNEL SATISFACTION	SHAREHOLDER SATISFACTION	THE BEST PROCESSES IN THE BUSINESS
We have the industry's highest customer satisfaction rate in the Nordic countries, the Baltic States and Russia, and the highest satisfaction rate in our key product groups globally. We are genuinely customer-driven: all our activities are geared to support the customer service personnel.	**Nokian Tyres is a respected and attractive workplace. Our personnel are highly skilled and motivated. Our activities are characterised by our desire to continuously develop our personal skills and the company.**	**We are the most profitable tyre manufacturer and tyre distributor in the industry. Our consistently good performance translates into good share price development and dividend policy.**	**Our key processes and our business network are very efficient and represent the cutting edge in the industry. We adhere to the principles of good citizenship and we anticipate the changes in our stakeholder groups' expectations and in legislation.**

Environmental and safety management

A safety manager is in charge of the environmental and safety measures at the Nokia plant. The manager reports to the Personnel and Safety Director, who is the Board member in charge of safety affairs. The Group's President and the Management Team have the ultimate responsibility for resourcing and objective setting in the environmental and safety affairs.
Property, personnel and environmental safety work is co-ordinated by a safety department. Its organisational structure is presented below. This organisation ensures that the production personnel identify and follow the rules, regulations and permit terms and conditions. The safety organisation also acts as an expert, provides personnel training and notifies stakeholder groups of current issues.

Each department has an appointed environmental affairs advisor and an occupational safety representative. They attend to these duties in addition to their regular responsibilities. In addition, each Nokian Tyres employee is responsible for promoting environmental and safety matters in their own work and for solving any problems.

Joni Hakala, Safety Engineer (left), Pasi Anias, Occupational Safety Engineer; Elina Ekola, Deputy Environmental Engineer; Paavo Juusela, Fire Safety Manager; and Pia Tirronen, Environmental and Safety Manager. In addition, the environmental and safety organisation includes Sirkka Hagman, Personnel and Safety Director; Sirkka Leppänen, Environmental Engineer; Reijo Forsman and Jarmo Lepistö, Occupational Safety Representatives; and Esko Huhta, Project Engineer.

PRESIDENT, MANAGEMENT TEAM

PERSONNEL AND SAFETY DIRECTOR

ENVIRONMENTAL AND SAFETY MANAGER

PERSONNEL	ENVIRONMENT	PROPERTY
Occupational Safety Engineer	Environmental Engineer	Safety Engineer
Occupational Safety Delegates	15 departmental environmental advisors	Fire Safety Manager
Occupational Safety Representatives		
Tampereen Työterveys ry occupational health association		Securitas Oy security company

OCCUPATIONAL HEALTH AND SAFETY
- Risk management
- Safety of machinery and equipment
- Occupational health
- Activities designed to maintain working capacity
- Order and tidiness
- Protective equipment
- Training and education

ENVIRONMENTAL PROTECTION
- Management Systems
- Permits, relations with authorities and officials
- Relations with neighbours
- Supervision of chemicals
- Occupational hygiene
- Waste management
- Training and communication

PROPERTY PROTECTION
- Industrial security
- Access control
- Fire safety
- Extinguishing systems
- Alarm systems

Management system

Nokian Tyres' objective is to control the entire life cycle and the environmental impacts of its products, and to ensure systematic and comprehensive coverage of safety perspectives. An extensive system encompassing environmental, safety and quality issues serves as an efficient tool for this purpose.

One of the elements in Nokian Tyres' strategy is sustainable safety, which refers to safe products and a safe company alike. Nokian Tyres became the first tyre plant in the world to have an environmental system that received a certificate for compliance with the British BS 7750 standard on 12 June 1995. The company's Nokia plant in Finland was registered into the European Union's EMAS system on 8 September 1997. The update of the environmental system to ISO 14001 standard compliance was approved on 11 June 1998. Nokian Tyres also observes the Charter of Sustainable Development published by the International Chamber of Commerce. The management system was complemented in the course of 2000 to cover the safety management system referred to in regulation 59/99 (industrial handling and storage of hazardous chemicals, SEVESO II).

Nokian Tyres' safety policy covers all environmental, health and safety issues. The safety policy reflects the importance of environmental and safety affairs for the company, and the objectives set for them.

The objectives of safety activities are defined in the safety strategy, which is approved for a five-year period at a time. Practical safety measures are defined in the environmental programme and occupational safety action programme. These are prepared for 1-3 years at a time. The environmental programme sets forth concrete objectives with a detailed schedule, the means to meet them, and the persons responsible. The selected objectives must be relevant in terms of our environmental performance and the level of occupational safety. Everyone in the company is in charge of safety issues, and they are taken into consideration in all strategic planning.

Nokian Tyres safety policy:

Uncompromising respect for and awareness of environmental and safety issues is an integral part of Nokian Tyres' successful operations. As a company and as individuals, we assume responsibility for the safety, health and mental and physical well being of our environment, working community, co-operation partners and customers. Our operations are customer-oriented and profitable. Our activities and attitudes reflect respect for different individuals and opinions. We take occupational and environmental safety into account in all aspects of our operations. We strive for unparalleled safety, continued improvement, and sustainable development. Operational development comprises the full life cycle of our products, and we strive for zero tolerance in terms of faults in all areas of safety.

PRACTICAL MEASURES:

- Safety issues are jointly handled by our personnel, occupational health services, occupational safety committee, authorities and experts.
- Guiding, training and encouraging employees to constantly account for safety and environmental issues in their work.
- Making sure that our contract partners apply these principles.
- Applying the legislation, regulations and instructions relevant for our operations, setting function-specific goals and monitoring their implementation.
- Performing risk analyses, internal reviews and audits on a regular basis and monitoring the implementation of set goals and legislative regulations.
- Prevention of harmful environmental and safety impacts by using state-of-the-art technology and methods.
- Developing products that are safer and more environmentally friendly.
- Analysing the environmental, safety and health effects of projects in advance.
- Regular and open communication on the development of safety and environmental issues and open, confidential relations with all stakeholders.

Nokian Tyres plc's environmental and safety communications policy

Reporting channels:
- A section on environmental and safety issues is included in the Annual Report
- A separate environmental and safety review that meets the criteria set for an EMAS report.
- Annual changes in the environ ment and safety fields and current affairs posted on the corporate website.

Marketing channels:
- Product brochures and advertisements
- Customer and personnel magazines

Other forms of environmental and safety communication:
- Articles published in the personnel magazine and on the Internet
- Information provided on the in-house TV
- Other brochures and publications, regular campaigns and competi tions, newspaper announcements
- Health and safety trade fairs

Audits

Regular internal reviews or audits are a major component of our safety activities. The annual review programme is based on the environmental and safety impacts that are crucial for the company's operations. The objective of the reviews is to establish whether the subject of the review complies with legislation, operating principles, and the safety policy and programmes, and ways of improving safety in the reviewed area.

A management review of the areas covered by the operational system is held twice a year with quality, environmental and safety issues addressed separately. Monthly reports on the development of environmental and safety issues are submitted to the company management. Senior management discusses the reports on safety issues and makes decisions regarding development measures. An external auditor performs one audit a year to assess conformity to standards. Several official bodies supervise the compliance with laws and regulations.

Authorities and permits

The environmental and safety operations of Nokian Tyres are subject to supervision by several authorities, including the Pirkanmaa Regional Environment Centre, the Safety Technology Authority TUKES, various officials of the town of Nokia, and Tampere Regional Emergency Services. The body responsible for occupational safety issues is the Occupational Health and Safety Inspectorate of Häme.

The Pirkanmaa Regional Environment Centre has awarded Nokian Tyres an environmental permit. In addition to the chemical permits issued by the Safety Technology Authority, the Nokia plant also has a permit from the Water Rights Court to pump cooling water from the Nokianvirta River.

Nokian Tyres meets the obligations involved in the permit, which the company considers as a minimum. The company stays abreast of the developments in environmental and safety legislation in Finland and the European Union alike, and anticipates regulations under preparation. Nokian Tyres has never been sued in environmental protection-related matters, nor has the company had to pay any damages. In the rubber industry, the Best Available Technology (BAT) levels for odours and for the use of solvents have not been defined.

Risk management

A key objective in Nokian Tyres' safety work is to ensure uninterrupted production using risk assessment and risk management methods. In various areas of safety (environmental, personnel and property protection) the safety department acts as the risk management expert and training provider and supports the line organisation. The risk management methods used include process and safety planning, technical equipment, instructions and training.

Nokian Tyres updates its environmental risk report if required due to changes in circumstances. According to assessments, the most significant environmental risk is a fire in the sulphur storage. The likelihood of a serious chemical leakage is very small. To ensure the appropriate condition of storages and equipment, officially approved regulations and standards have been followed and inspections have been conducted. Hazardous waste is stored in a suitable storage facility and delivered to Ekokem Oy, an officially approved hazardous waste treatment plant in Riihimäki.

Any nonconformity such as accidents, fires and environmental damage is reported in order to minimise accidents and their consequences. There are detailed instructions for the handling of chemicals, and personnel handling chemicals undergo regular training. All forklift drivers are re-

Strengths	Weaknesses:
Relations to Finnish officials and authorities, internal audits Knowledge of the Finnish legislation Recognising and understanding risks Planning processes that take environmental and safety issues into account	Attitudes: Reactive attitude to safety Aging personnel Ergonomics and the physical demands of the work
Opportunities	**Threats**
The ability to anticipate stakeholder groups' expectations and changes in legislation Management commitment and support, "responsible corporate citizenship" Co-operation with contractual partners	Big fire Changes in official procedures and practices Revisions in EU legislation

Key safety work-related factors at Nokian Tyres as evaluated using the SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis.

quired to have a forklift permit. The plant is under 24-hour surveillance and this is primarily carried out by an external security company.

At Nokian Tyres, non-dusting chemicals are used to prevent chemical dust explosions. Nevertheless, precautions have been taken by preparing instructions based on occupational safety legislation and the Government statute on the prevention of risk to employees caused by potentially explosive atmospheres. The latter is based on the European Union's ATEX directive. Facilities with a risk of potential explosion have been classified and the risks they present have been assessed.

Chemicals control

The company's Safety Manager and Environmental Engineer are currently responsible for chemicals control. When necessary, other experts such as occupational safety personnel are consulted.

A total of 600 different chemicals are used at the plant. They have been entered into a database of user safety bulletins, which is available to all personnel. Furthermore, instructions on chemicals handling are provided in the activity manual as well as in procedure and work instructions.

We are striving to reduce the use of harmful chemicals as less harmful products with the same characteristics become available. The company's plant in Nokia is involved in extensive handling of chemicals that are hazardous to the environment and to health as defined in the relevant statute (59/1999). This means that the company is required to obtain a permit from the Safety Technology Authority. The purpose of obtaining the permit and complying with the practices and procedures involved is to use the best possible technology in terms of safety.

The purpose of chemicals control is

- To reduce the chemical-induced risks to health and the environment and other harmful effects in accordance with legislation.
- To prevent the acquisition of chemicals or products with unknown hazardous characteristics and with no established safe handling methods.
- To make sure that the information pertaining to the chemicals, such as the introduction permits and prohibitions, user safety bulletins and packaging labels are recorded.
- To make sure that regulations regarding chemicals are observed, followed and communicated.

Lifecycle of tyres

Lifecycle refers to the different stages a product undergoes from manufacture to use to removal from service, in other words from raw material to waste. The lifecycle of a tyre begins from a caouthuc tree in e.g. Indonesia or Thailand. The lifecycle spans the manufacture of raw materials and products, storage, and transportation in the different stages. The actual lifecycle of a tyre ends for example with the incineration of a crushed tyre.

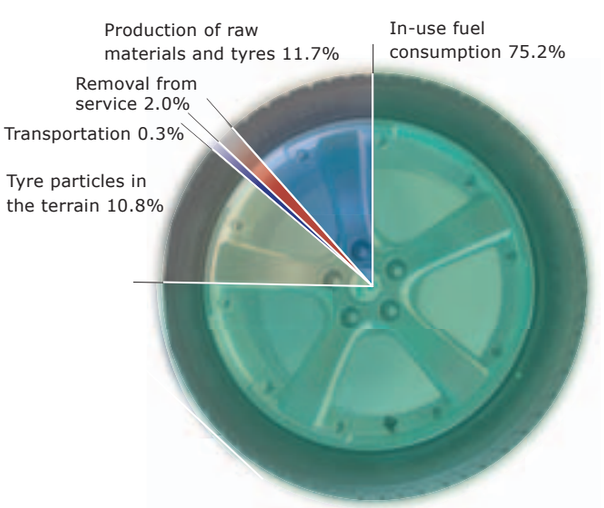
Nokian Tyres' environmental protection policy stems from lifecycle thinking. This means that the company acknowledges its responsibility for the environmental impacts of its products and activities over their entire lifecycle. The lifecycle of a tyre can be roughly divided into four parts:

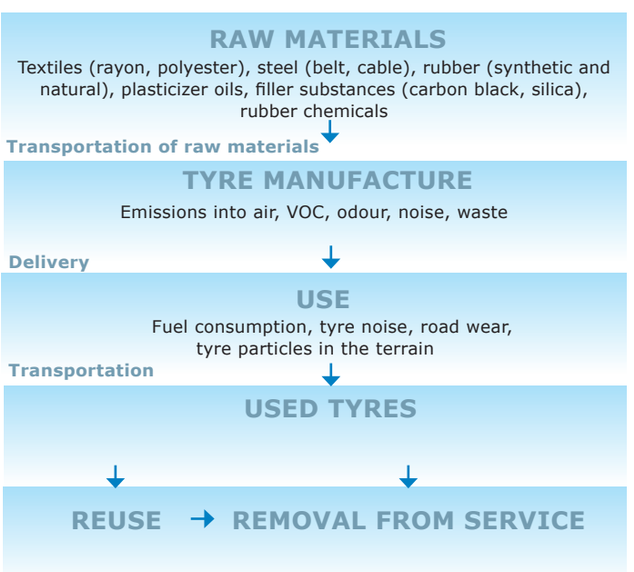
1. Procurement and manufacture of production inputs such as raw materials and energy.
2. Tyre manufacture
3. Use of tyre
4. Post-use period

Other lifecycle elements include transportation of raw materials, products and waste between the different stages.

Emissions in the manufacturing stage mostly originate in the production of raw materials rather than the manufacture of the tyres themselves. The use of tyres accounts for the most significant environmental impacts of tyres over their lifecycle. The most important in-use impact is fuel consumption. Noise is another major factor, but its impacts have not been defined in detail. Tyre particles have a major effect during use. Tyre particles are the small pieces that come off the tyre during use and remain in the terrain. Removal from service causes fairly few impacts. The environmental effects of transportation are mainly associated with the distribution and collection during the different stages of a tyre's lifecycle.

The distribution of the environmental impacts of a tyre during its lifecycle



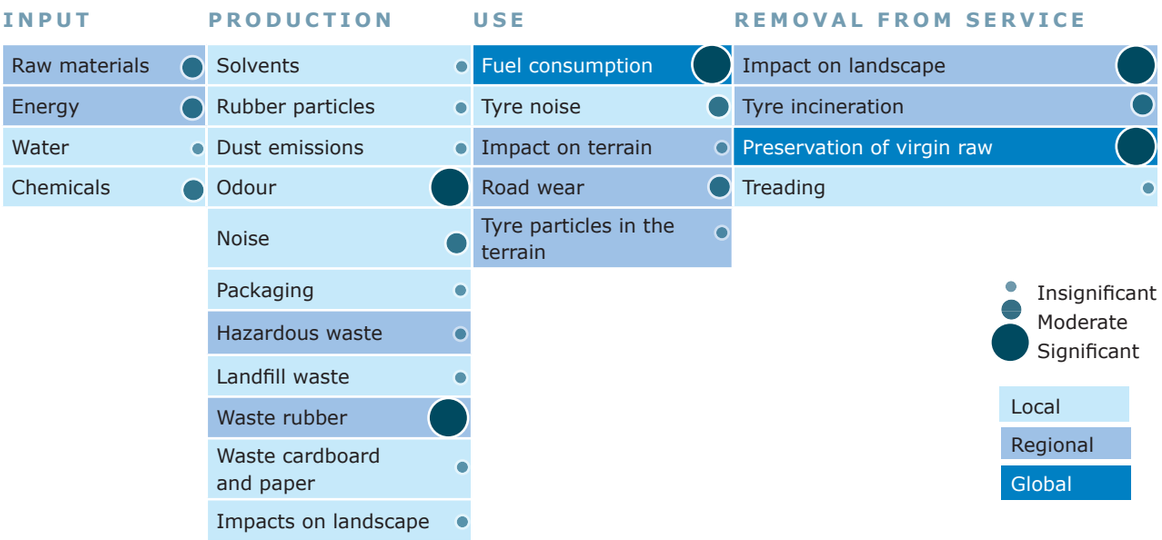


Key environmental considerations

The most critical environmental effects in a tyre's lifecycle are generated during production and use. Solvent emissions into the air, waste and unpleasant odours in some locations represent the most significant burden on the environment caused by Nokian Tyres' production activities. The most important in-use stress factors are tyre noise and rolling resistance, which have a direct impact on the vehicle's fuel consumption. After use, the tyres can be either retreaded or recycled as rubber granulate. As a result, the post-use environmental load caused by tyres is fairly small.

Noise is considered one of the most significant environmental stress factors in Finland. The major source of environmental noise is traffic. Besides the air current and the engine, the tyres account for a large part of the vehicle noise. Tyre noise varies depending on the weather, driving speed, and – most importantly – the road surface. Tyre characteristics are another major factor: tread pattern, structure and materials, mainly rubber compounds. Nokian Tyres' R&D department regularly monitors the noise level of the tyres and develops various product innovations designed to reduce noise.

The lifecycle of Nokian Tyres' products and the significance of environmental impacts



Tyre manufacturing process

The tyre manufacturing process includes six main stages: raw material procurement and receiving, compound mixing, component manufacture, assembly, curing and inspection.

At the Nokia plant, raw materials are first processed into rubber compounds. Raw materials are fed into a mixing machine in accordance with specific recipes. The recipes depend on the desired characteristics of the rubber compound. During mechanical mixing, the temperature of the mixing mill may rise to as high as 180 degrees. Some of the rubber chemicals are weighed manually owing to the small quantities or the large number of chemicals needed for a compound. The main raw materials are natural rubber, synthetic rubber, carbon black and oil.

Generally, 10-30 components are required to produce one tyre, including cable, steel belt and fabric belt. The components are rubber coated using detailed mixtures.

The tyres begin to take shape at the tyre-building machine, in which the assembler puts the components in place. New machines are automatic, so the assembler only has to supervise the sequences and check the seams. The body side of the machine runs the inner and sidewalls as well as a sufficient amount of reinforcing material, while the belt side takes the steel belts and the surface rubber. The automated machine places the cables, turns the sidewalls and rolls the tread package on. The resulting product is a green tyre. Before curing, the inner wall of the green tyre is painted to prevent the curing pad from sticking on the tyre.

At this point, the green tyres are soft. To make them hard and flexible, they are vulcanized, in other words cured at the right temperature and pressure. The vulcanising agents in the rubber compound cause the tyre to harden. Tyres are vulcanised in the mould of the curing press, giving the tyre its final shape and tread pattern. The curing temperature of a passenger car tyre is approximately 170 degrees, curing pressure 15 bars and curing time some 10-15 minutes depending on the size of the tyre. The high steam pressure conducted into the curing pad inside the curing press presses the elastic green tyre against the tread pattern and side texts inside the moulds, giving the tyre its final appearance. For larger tyres such as forestry tyres, the curing time is much longer: up to five and a half hours.

After curing, the tyres are inspected visually. All approved tyres are tested for quality, strength variation and radial and directional difference in a test machine before labelling and packaging.

The company also produces materials for the retreading of used tyres. In terms of environmental impacts, the only significant difference between the manufacture of retreading materials and the manufacture of tyres is that more solvents are used in the former.

Raw materials ▸ Mixing ▸ Components ▸ Assembly ▸ Curing ▸ Inspection

Research and development

The Development Manager is responsible for ensuring environmentally sound R&D policies and for implementing the sustainable safety strategy.

The in-use environmental effects of tyres depend largely on their weight and rolling resistance. Nokian Tyres' passenger car tyre product development strategy relies on sustainable safety. The objective is to reduce the tyre-induced fuel consumption and noise, as well as the road and tyre wear. Another objective is to enhance safety in the demanding Nordic conditions, where roads may be covered with ice or water, and where driving conditions may change quickly and unexpectedly.

According to some estimates, tyres account for one-tenth of the vehicle's fuel consumption. Tyres, particularly winter tyres, wear the road and vice versa. When the same tyres are exposed to highly varying conditions, the gripping characteristics need to be designed for the worst conditions, which adds to road wear in better driving conditions. Poorer grip would increase the need for anti-icing salt and sand, both of which constitute serious environmental hazards: salting compromises the purity of groundwater while sand gives off dust in the spring, especially in cities.

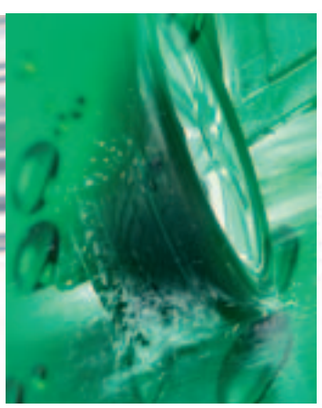
The most important characteristics of a summer tyre have to do with safety. Strong tread pattern ensures good grip on different surfaces and offers maximum protection against aquaplaning. From the environmental perspective, key features include wear resistance, low rolling resistance, and environmentally friendly raw materials.

Nokian Tyres is the first tyre manufacturer in the world to introduce a high-speed summer tyre made completely without high aromatic oils classified as harmful substances. By developing this new summer tyre, Nokian NRHi, Nokian Tyres has paved the way for cleaner, technically flawless products.

Furthermore, all of the company's winter tyres for Nordic passenger cars and vans are made using these so-called non-labelled oils that feature less than 3% of PAH compounds. The solutions and innovations reached in the development of the Nokian NRHi are going to be applied to high-speed summer tyres as soon as possible. In the future, the company intends to manufacture all of its tyres using only low-aromatic oils in the production process.

The new winter tyre introduced in autumn 2003, Nokian Hakkapeliitta 4, is also an environmentally friendly product, because its tread compound contains only low-aromatic oils. It also contains Finnish canola oil, which improves the tyre's winter performance and tear resistance.

The Nokian Hakkapeliitta 4 features a square stud that is highly durable and sticks to the tyre better than the conventional round stud. Thanks to the stud design and new tread structure, the driver can control the car better than before in extreme situations where grip is put to the ultimate test. The wide distribution of studs increases grip and lowers tyre noise. This new kind of studding solution wears the road surface less than traditional studding. The stud innovation is called the Nokian Eco Stud System 4. A patent application for the invention is pending.



Three elements of an environmentally friendly tyre: wear resistance brings more safe miles, low rolling resistance reduces fuel consumption, and the right choice of raw materials minimises the burden on environment. It is very challenging to combine these objectives in one tyre.

Nokian Tyres' environmental and safety solutions

1999

DSI, Driving Safety Indicator

The Driving Safety Indicator on the centre rib of the tyre indicates groove depth. The numbers stamped on the tread show the remaining groove depth in millimetres. The numbers fade one at the time as the tyre wears down.

2002

Haka siping

Thanks to the Haka siping, new cellular grip edges that improve grip in snow and on ice are formed as the tyre wears down. The Haka -siping retains the stiffness of the surface pattern despite the heavy siping, which means that handling characteristics, in particular driving stability, are excellent. (Nokian WR)

2003

Canola oil in the tread surface compound

The tread surface compound of Nokian Hakkapeliitta 4 tyre contains canola oil, which is an environmentally friendly natural product.

It increases the tear resistance of the rubber and the tyre's grip in winter conditions.

Square stud (Nokian Eco Stud System 4)

This new stud design improves the safety of winter driving. The hard-metal pin and lower flange of the new stud are square-shaped. The studs are placed in a diamond-like formation along the direction of traffic, which significantly improves grip on ice in all directions.

HA oil-free high-performance summer tyre

Only purified low-aromatic oil is used in the manufacture of the Nokian NRHi tyres.

This is the world's first H speed category summer tyre that is completely free of HA oils.

Heavy tyres

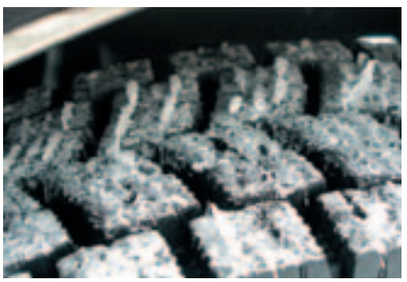
Nokian heavy tyres product range has expanded considerably. The most important properties of a heavy tyre from the environmental perspective are wear resistance in tyres used in slow vehicles, and rolling resistance in tyres that require quick transport. In addition, when used for off-road driving, low contact pressure spares the vegetation. Agricultural tyres must be able to maintain their grip in soft, muddy terrain. The open centre tread design in the Nokian ELS Radial tyre cleans easily and maintains grip, and doesn't bring mud on the road to other road users' annoyance. Thanks to its radial belt construction, transport is quicker since the rolling resistance of the tyre is as much as 25 per cent less than in a corresponding diagonal tyre. The significance of rolling resistance in relation to fuel consumption becomes more pronounced, particularly in long transitions on paved roads. Depending on the load, fuel savings may reach 20 per cent. The low profile enables a smaller contact pressure. As the load increases, the tyre flattens and causes less burden on the terrain. This tyre can also be used for special purposes, such as golf courses.

The Forest King T product range was developed for tractor-based forestry machines. The steel-fortified and diagonal construction of the tyres provide a considerably longer life in professional use. With the larger contact area of the Forest King F tyre and the improved tread pattern, the tyre causes less burden on the terrain.

The MPT AGILE tyre was developed in co-operation with the Armed Forces. Equipped with a safety filler, this tyre can be used in all-terrain vehicles. The radial construction makes this tyre suited for both off-road and highway driving. The tread pattern and compound have improved the product's wear resistance significantly from its predecessor, Nokian MPT.

Retreading materials production

Nokian Tyres' retreading materials production engineers have developed a new, stronger Cap Base layer construction, which provides excellent winter grip and good wear resistance. The characteristics of the layer construction are most apparent when the treaded tyre is introduced in the autumn. The Cap Base tread offers the best grip in the winter, and the properties of the slightly worn tread



are at their best in the summer. This construction is used in the Nokian Noktop 31 and 41.

The environmentally friendly rubber compounds used in the Noktop products were specially developed for the Nordic conditions and contain no harmful high-aromatic oils. All new Noktop products carry a Driving Safety Indicator (DSI), which allows easy monitoring of the tread pattern groove depth.

Bicycle tyres

The most important in-use environmental and safety feature of Nokian bicycle tyres is its overall wear resistance. This means that the tyres have no weak or unreliable spots. After use, bicycle tyres can be recycled just like car tyres. Environmentally friendly, low-aromatic oils are used in bicycle tyre manufacturing, too. In the future, canola oil will be used to make almost all bicycle tyres.

A tubeless construction has been introduced in bicycle tyres to help reduce the amount of waste rubber. Silica is used in the manufacture of summer tyre treads to improve wet grip and weather resistance, and to achieve low rolling resistance. Other safety solutions include reflector bands on the sides of the tyres and studded tyres. The new cone-shaped stud retains its sharpness longer and provides better grip on ice. The DSI device used in passenger cars is also used in bicycles.

NOKIAN TYRES PERFORMS TESTS IN EXTREME CONDITIONS

Nokian Tyres is the world's northernmost tyre manufacturer that wants to provide safer, more economic, more comfortable and environmentally safe driving in all seasons.

The effects of Nokian Tyres' operations on the environment

INPUT

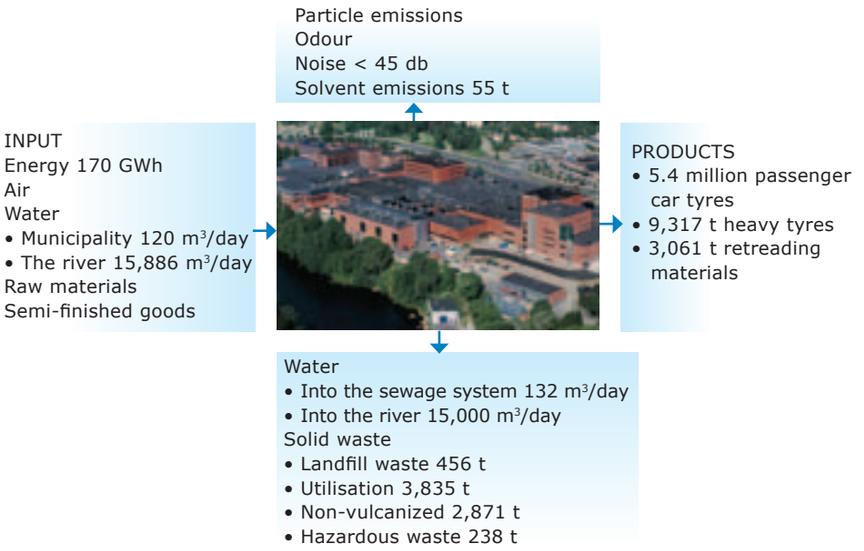
Raw materials

Four-fifths of a tyre's weight consists of rubber compound. Roughly half of the rubber we use is natural rubber. It comes from caoutchuc trees grown in the tropics, for example Malaysia and Indonesia. Synthetic, oil-based rubbers are also used. The environmental effects of natural rubber procurement are most likely smaller than the manufacture of synthetic rubber, as the caouthuc trees are not cut; only the rubber latex is recovered.

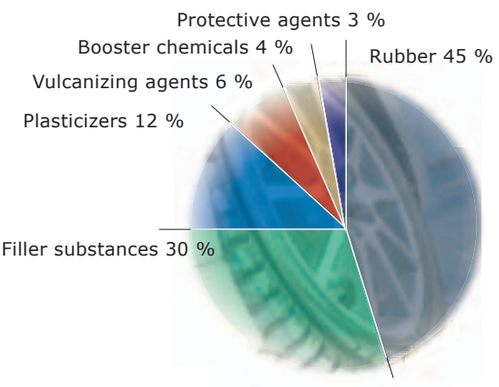
The environmental impacts of the manufacture of synthetic rubber are best controlled in Western Europe, where Nokian Tyres purchases some of its rubber raw material.

Some 25-35 per cent of the rubber compound is filler substance such as carbon black. The oil used as a plasticizer may account for as much as one-fifth of the compound. All Nordic winter tyres for passenger cars and vans are produced using so-called non-labelled oils that contain less than 3% PAH compounds. In the future, Nokian Tyres intends to manufacture all of its tyres using only low--aromatic oils in the production process.

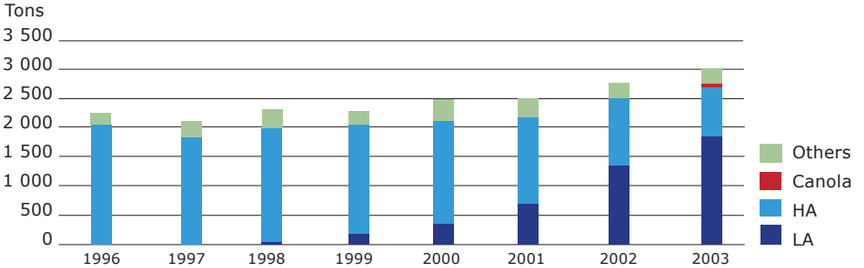
A small amount of various chemicals is added to the rubber compound. For example, sulphur is used as a vulcanizing agent. Other chemicals include vulcanization accelerators, activators and retardants, protective agents and various booster chemicals used for purposes such as to improve the rubber component adhesion. These chemicals usually account for about a tenth of the weight of the rubber compound.



Rubber compound raw material composition



DEVELOPMENT IN THE USE OF OILS



Reinforcing materials such as steel wire and fabric cord or net are required. The cord is made with both rayon and polyester. The impregnation of the cord was discontinued completely during 2001.

Since 2000, a significant amount of HA oils have been replaced with considerably less harmful LA oils.

Energy

Nokian Tyres uses steam, industrial water and electricity. Energy is purchased entirely from subcontractors. The company's production machinery runs on electricity. Electricity is purchased from Fortum. The district heating, steam and hot industrial water used for heating and for production purposes is purchased from Nokian Lämpövoima Oy, which uses natural gas as a raw material. When all energy forms are combined, Nokian Tyres' total energy consumption in 2003 was 170,889 MWh. In proportion to production, the energy consumption decreased irrespective of the growth in production volumes and plant extension.

Nokian Tyres uses the energy released in the process for facility heating. The new mixing mills and other new machinery are equipped with energy-saving electrical engines.

Water

The company uses a relatively large amount of cooling water, primarily in the mixing line. The water is pumped from the Nokianvirta River through the company's own waterworks and treated with sodium hypochlorite to keep the piping system clean. The treated river water is also supplied to the nearby Nokian Footwear Ltd in small quantities. The cooling water runs in a closed system and does not come in contact with production chemicals, and therefore is not contaminated. The water is returned to the river. The nearest place in the water system for taking in drinking water below the plant is located in Vammala, 30 kilometres from the plant. In other words, the company's activities do not pose any threats to its drinking water. One of the company's key environmental objectives is not to let any harmful effluents into the Nokianvirta River.

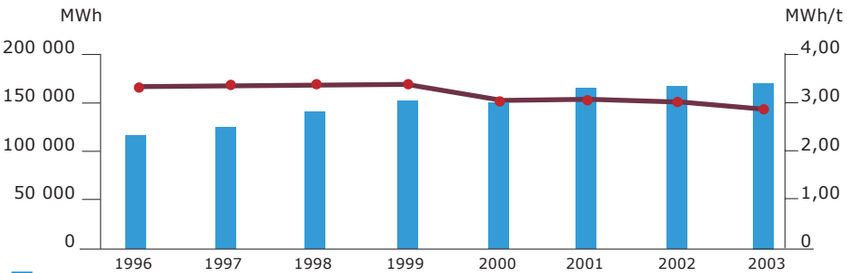
Nokian Tyres used roughly 5.2 million cubic metres of cooling water in 2003 compared with 41,002 cubic metres of household water. A small amount of this was used for production purposes, but the majority was used in sanitary facilities, common rooms, kitchen, and for cleaning. Household wastewater from cleaning, sanitary facilities and the kitchen are conducted into the municipal sewage system and to a wastewater processing plant. There are no other effluents from the plant.

EMISSIONS

VOC or volatile organic compounds

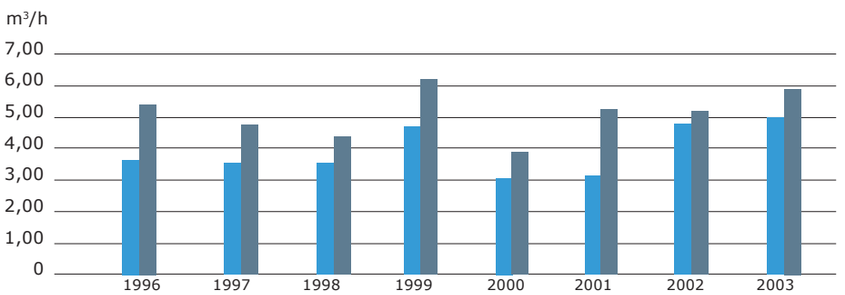
Solvents or volatile organic compounds – VOC for short – constitute the most significant emissions into the air. The use of solvents in e.g. the manufacture of treading materials produces these compounds. Some 70 per cent of all volatile organic compound emissions in Finland come from the exhaust fumes of cars. Nokian Tyres was able to anticipate the EU's VOC directive and invested in solvent emission purification equipment in 1997, before the law took effect in Finland. Between 40 and 50 per cent of the solvent emissions can be recovered. However, some of the emissions are generated in different parts of the production line and cannot therefore be fully recovered. On the tread lines, the use of adhesives was discontinued entirely in 2001. This has reduced the use of rubber adhesives in the production of passenger car tyres and, as a result, the dispersed VOC emissions by half.

ENERGY



	1996	1997	1998	1999	2000	2001	2002	2003
MWh	116 642	124 002	139 757	151 880	149 555	167 221	167 252	170 889
MWh/t	3,28	3,35	3,42	3,37	3,04	3,06	3,01	2,83

WATER AND EFFLUENT FLOWS



	1996	1997	1998	1999	2000	2001	2002	2003
Water	3,61	3,53	3,52	4,66	3,05	3,07	4,79	4,98
Effluent	5,39	4,74	4,37	6,41	3,88	5,21	5,15	5,85

Nokian Tyres' objective is to reduce the amount of solvent emissions to less than 1.0 kilogram per product ton. In 2003, this objective was met. The final objective is to reduce solvent emissions to 25 per cent of annual use by 2007.

On the heavy tyres side, efforts are made to replace petrol-based HA paints with water-based paints by the end of 2004. Tests have been carried out on a few replacement paints in the production line in co-operation with the product representatives. We will continue to perform tests and experiments on replacement substances.

Noise

Nokian Tyres makes continued efforts to prevent noise. The company's Environmental Permit requires that the noise level of remain below 55 decibels in the daytime. Night-time limits are 50 decibels in old areas and 45 decibels in new areas. These figures are LAeq decibels, which refers to the average noise level a human ear can detect. The noise mainly disturbs the immediate vicinity of the production plant and the neighbouring inhabitants. Nokian Tyres' objective is to keep the noise level below the standard values.

Noise reports indicate that the zone featuring 50 dB standard values for night-time noise in old areas does not stretch to the residential areas. The zone featuring 45 dB standard values for night-time noise in new areas stretches to a few houses in the east and southeast. Heavy traffic in the factory area is so scarce that it does not affect the overall noise. Preventive measures and noise dampening devices helped eliminate noise from the Compound Mixing Department extension. The environmental noise report will be updated again in connection with the application for the 2004 Environmental Permit.

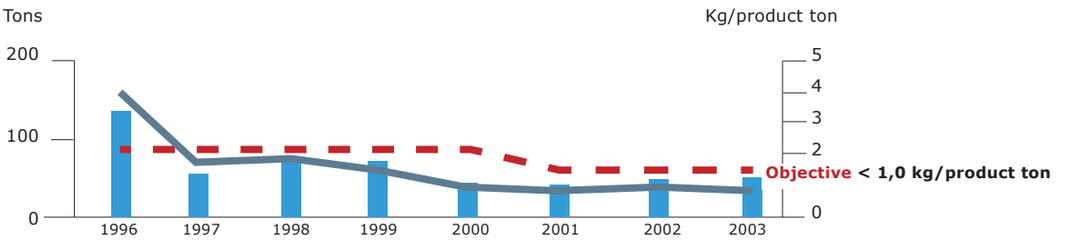
Odour

According to an odour survey conducted by Nokian Tyres, the majority of odours come from various hydrocarbons. The impregnation process, which accounted for the odours, was discontinued entirely during 2001. Instead, pre-impregnated polyester cords were used in production.

Some of the odours come from the tyre curing process. The quantity of odours is in direct relationship to the quantity of cured rubber. At the moment, a feasible system for recovering and processing curing fumes is not available. Odours are also generated in the mastication process where natural rubber is softened. Droplet separators are used to reduce odours from mastication.

Nokian Tyres makes every effort to ensure that the odours do not represent an unreasonable burden to the local population. In 2003, we received no complaints regarding odours. In the rubber industry, Best Available Technology, or BAT, levels (odours, use of solvents) have not been defined.

VOC (Volatile Organic Compounds) Solvent emissions



	1996	1997	1998	1999	2000	2001	2002	2003
Tons	143	63,57	76,2	72,64	49,2	44,59	53,78	55,2
Kg/product ton	4,0	1,7	1,9	1,6	1,0	0,8	1,0	0,9

In 2002, we conducted a joint survey with the Technical Research Centre of Finland (VTT) on the occurrence of odours and odour disturbance in the vicinity of Nokian Tyres plc's tyre plant. The survey was carried out in co-operation with the local population. The purpose of the survey was to establish the frequency of the odour occurrence and any resulting disturbance. In the surveyed area, the frequency of odours emitted from the tyre plant was 1 per cent of the total time. There were virtually no other odours in the surveyed area. Approximately 80 per cent of the odour emissions were clearly of a disturbing nature. An average of 10 per cent of the population within the surveyed area considered the odour from the tyre plant to be clearly disturbing. The survey or sensory perception cannot indicate how much of the odours come from the Nokian Footwear factory, which is located in the same building.

Dust

Dust emissions originate in the processing of powder chemicals in the Compound Mixing Department. The dust that passes through the filter system mainly causes an aesthetic inconvenience and presents no harm to the environment or health. The dust filters have been replaced and best available technologies have been used at the Compound Mixing Department's extension. The mixing equipment also features effective ventilation and dust collection devices. The company's objective is to ensure that the dust emissions do not cause any inconvenience to the neighbours.

Dust emissions are monitored using particle density indicators. In addition, external experts carry out regular density measurements. The measured densities have been below permitted values.

The chemical composition of dust is impossible to define, and therefore the raw material composition data and feed quantities are used to evaluate the dust composition. The average particle size in the dust in exhaust air is less than 3mm. At their best, the water cleaners operate at a separating ratio of well above 99 per cent. In the measurements carried out in 2003, dust emissions represented only a third of those in 2001.

Waste

We sort re-usable waste at the point of origin. These include clear waste oil, waste rubber, scrap tyres, cardboard, paper, wooden packaging pallets, waste plastic, and scrap iron and steel. The remaining non-sorted waste we deliver to the Pirkanmaan Jätehuolto Oy waste management company. Biodegradable material is delivered to composts.

From 1996 to 2003, the amount of material delivered for reuse has increased by half. In 2003, some 7.5 kg/product ton of landfill waste was generated. The transportation of non-vulcanised waste rubber raised the quantity of landfill waste to 3,327 tons. Nokian Tyres' environmental programme features a number of objectives on waste quantities, such as < 15 kg/product ton for landfill waste and 1.79 kg/product ton for hazardous waste.

Waste rubber

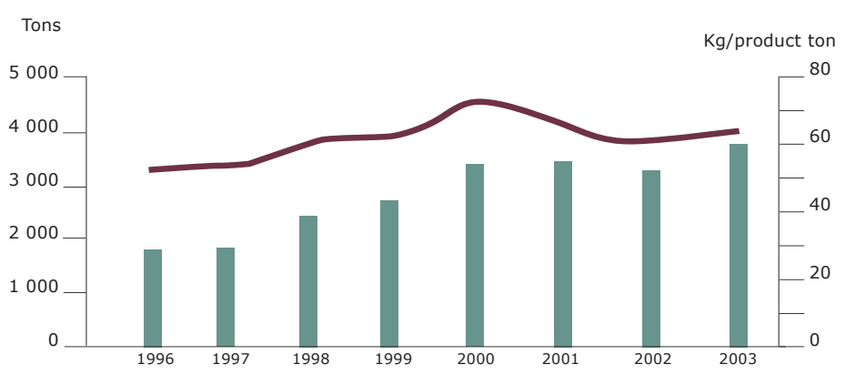
The waste rubber generated in production, primarily before vulcanizing, can be divided into two main groups: scrap rubber and non-vulcanized waste rubber.

Most of the scrap rubber can be reused as a raw material for compounds. The remainder can be used as material for rubber products with less stringent quality requirements, such as bumpers. The company delivers this type of waste rubber for reuse. Non-vulcanized waste rubber is transported to a landfill site, but we are working to find ways of reusing this waste as well. A total of 2,871 tons of non-vulcanized waste rubber was transported to the municipal landfill site.

The production units currently run several projects aimed at reducing the amount of waste. For instance, the amount of nylon belt waste decreased significantly: from 45 g/tyre at the beginning of the year to 10 g/tyre at the end of the year.

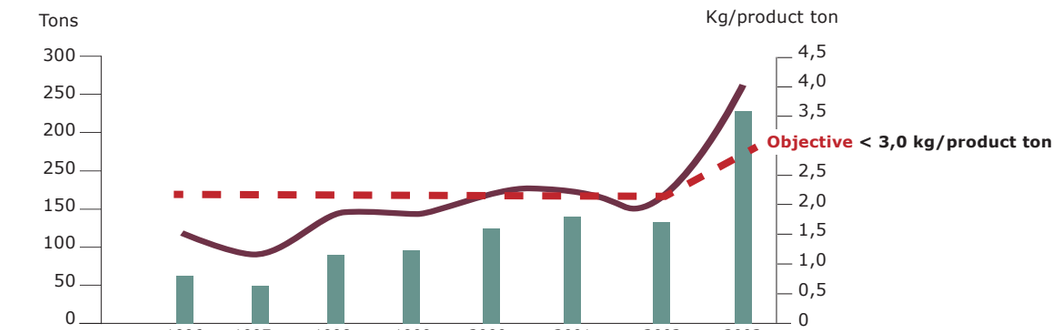
Many Finnish rubber industry com-

MATERIAL DELIVERED FOR FURTHER UTILISATION



	1996	1997	1998	1999	2000	2001	2002	2003
Tons	1778	1898	2407	2732	3458	3481	3341	3835
Kg/product ton	50,1	51,3	59,0	60,6	70,3	63,8	60,0	63,6

HAZARDOUS WASTE

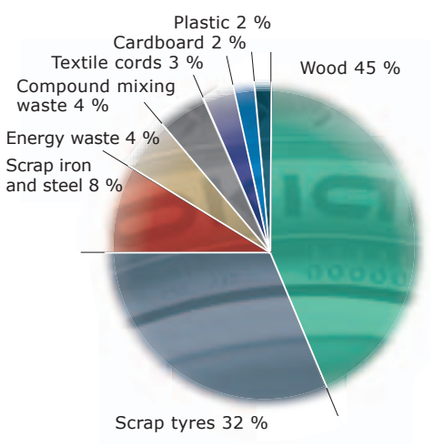


	1996	1997	1998	1999	2000	2001	2002	2003
Tons	51,8	42,1	74,9	81,2	108,0	119,2	114,3	238,4
Kg/product ton	1,46	1,14	1,84	1,80	2,20	2,19	2,05	3,95

panies are interested in the possibilities of using non-vulcanized waste rubber as a material. Lack of information currently restricts the utilisation of materials in terms of textile and steel-reinforced waste rubber components. Studies show that the remaining non-vulcanized waste rubber that cannot be utilised as a material would be worth using for energy at cement mills, but an applicable crushing technology is not available.

If the non-vulcanized waste rubber could be used for energy production, no waste should end up in landfill sites. Development work is under way in Finland on a number of other utilisation methods such as pyrolysis, devulcanization and tyre incineration.

In 2003, 3,843 tons of material was delivered for further utilisation.



Hazardous waste

Hazardous waste is delivered to a hazardous waste treatment facility. Some of the waste can be reused; for instance, the clear waste oils can be used as saw chain oil.

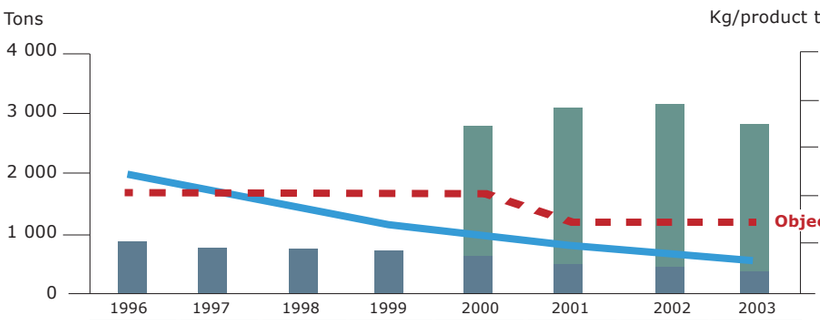
In 2003, the amount of hazardous waste was 3.95 kg/product ton. We were not able to meet the set objective of 1.79 kg/product ton. The main factor attributing to the rise in the quantity of hazardous waste in 2003 was a fault in the pneumatic carbon black transfer system, which turned approximately 50 tons of carbon black into hazardous waste. In addition, owing to stricter provisions of the waste management laws, items that previously qualified for landfill waste were now considered hazardous waste. Production departments launched projects to reduce the amount of waste chemicals and paints. The targeted quantity for hazardous waste at the end of 2004 is 3.0 kg per product ton.

Tyre recycling

Approximately 2.5 million tyres, or 30,000 tons, are discarded in Finland every year. The energy content for this quantity of tyres equals roughly 20,000 tons of oil. Rubber is a non-biodegradable material and a burning tyre poses a major environmental risk. Tyre fires are difficult to put out, especially if whole tyres are stored, allowing air to enter the pile of tyres. In Finland, as in most other European countries, it is prohibited by law to dump tyres into public landfill sites. (Government Decision no. 1246/1995 on the recovery and disposal of discarded tyres.)

In 1996, a number of players in

LANDFILL WASTE



				2702,9	3015,1	3191,0	2871,0	Non-vulcanized scrap rubber
900,0	755,4	731,7	707,3	641,8	548,2	475,0	455,5	Non-sorted waste
25,34	20,42	17,93	15,68	13,06	10,05	8,54	7,55	Non-sorted waste kg/product ton

the tyre industry, including Nokian Tyres, established a financially sound and cost-efficient tyre recycling company called Suomen Rengaskierrätys Oy. It is a non-profit company that handles the collection and utilisation of discarded tyres nation-wide. The recycling of used tyres is financed from the recycling fees collected from buyers of new tyres. This way, the real users of tyres are the ones paying the bill instead of all citizens through methods such as taxation. A responsible seller of new tyres remits the recycling fee to the tyre producer (manufacturer/importer) who transfers the entire sum to Suomen Rengaskierrätys Oy to cover the costs of recycling and operations.

If the tyre casing intact, a passenger car tyre can be retreaded once, and bus and truck tyres usually 2-4 times.

In terms of material utilisation, the most significant reuse potential is in the earth construction business. Approximately 80 per cent of reused tyres are crushed and granulated for earth construction purposes. Tyre granulate is elastic and flexible, and features virtually no deformation. Furthermore, it provides good thermal insulation and water penetration, making it easy to work into the designed shape. Tyre granulate is used for repairing settling in roads and to make noise barriers. In noise barriers, whole tyres can also be used. In the surface structure of closed landfill sites, rubber granulate can also be used in the drainage layer from which rain water runs into the sealing layer and on to the trenches. In addition, granulate is used as a filler material in inspection and gas wells. Studies show that no harmful substances dissolve from the tyre granulate into the seepage water. On the contrary, the granulate binds harmful substances from the seepage water and prevents their dispersal outside the landfill site. The suitability of tyre products for land improvement purposes is con-

Tyres are excellent material for noise barriers, ground frost insulation, and for new and closed landfill site constructions. The best frames will continue to be retreaded and reused as car tyres.

PRICE LIST AS OF 1 JANUARY 2004 (Recycling fees include 22% value-added tax)

Moped and motorcycle tyres		EUR 1,85/each
Passenger car tyres		EUR 1,85/each
Van and delivery truck tyres	<17,5”:	EUR 1,85/each
Truck tyres	> 17,5”:	EUR 8,30/each
Industrial tyres and tractor front tyres	< 20,0”:	EUR 2,45/each
Agricultural tyres	< 24”:	EUR 4,20/each
Agricultural tyres	> 24”:	EUR 8,30/each
Industrial machinery and forestry tyres	< 300 kg:	EUR 12,60/each
Industrial machinery and forestry tyres	> 300 kg:	EUR 61,10/each

tinuously being studied. Heavy tyres have been used as blasting mats, and the rubber powder made from tyres has successfully been tested as a binding material in asphalt.Tyres are excellent material for noise barriers, ground frost insulation, and for new and closed landfill site constructions. The best frames will continue to be retreaded and reused as car tyres.

OCCUPATIONAL SAFETY

The purpose of occupational safety activities is to promote the health and safety of personnel and thereby to support the objectives of Nokian Tyres. Occupational safety measures also help reduce interruptions and the costs involved in accidents, sick days and premature retirement, thereby indirectly helping to improve the company's profitability.

The number and frequency of accidents have decreased in accordance with the set objectives. Key methods included creating a pro-safety environment, taking safety perspectives into account in decision-making, new employee induction, improvements in risk management procedures, and improved machine safety. Other contributing factors included the slower investment schedule and a smaller number of newly recruited personnel.

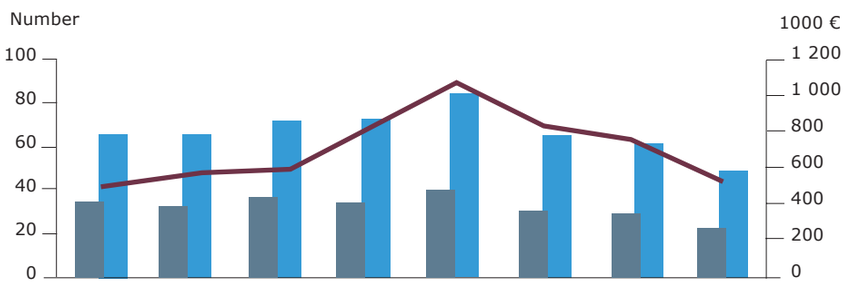
Attitudes towards safety and the general safety culture were promoted in the context of the joint Safety 24h project of the Chemical Industry Federation, the Finnish Chemical Association, the Rubber Manufacturers' Association of Finland and other partner organisations. Studies showed that employees have a very positive attitude towards safety, but there are still problems with the practical implementation. This project won the Good Practice Award of the European Agency for Safety and Health at Work in 2003.

Increased ergonomic-based accidents and sick days have been a hot topic in the field of occupational safety. This problem can be partly attributed to the increased tyre weight, but also to the higher average age of personnel. This problem has created a need to automate several heavy and difficult phases such as transfers and lifts. The changes have mainly involved improvements in ergonomics and equipment purchases, but they also include larger investment schemes such as conveyor systems.

Joint measures have been taken with the occupational health unit to develop operating models for working capacity assessment and maintenance as well as sick day supervision. Development efforts continue, particularly in terms of the operating models geared towards supporting mental well being. Otherwise the occupational health unit has acted in accordance with its three-year plan. In training matters, occupational safety has participated in the more general health education, rehabilitation and first-aid training as well as in chemical training where issues such as the health effects of chemicals were discussed.

With the revamped production facilities and increased production volumes, special emphasis has been placed on smooth traffic by organising forklift training courses, information campaigns, traffic plans, and conveyor systems. However, improving traffic continues to be the key priority area where new technology will be further utilised.

ACCIDENTS



	1996	1997	1998	1999	2000	2001	2002	2003
Accidents resulting in absence of more than 3 days/million working hours	34,6	32,3	36,2	34	40,2	30,6	29,5	23,3
Accidents resulting in absence of more than 3 days	66	65	71	71	84	66	62	49
Total costs in EUR 1,000	492,5	578,9	586,9	813,4	1050	814,7	747,1	529,3

ENVIRONMENTAL AND SAFETY OBJECTIVES

AREA

MANAGEMENT	Schedule	Realised	No
Socially responsible management across the Group	2005		
The environment, quality and safety auditor training	2003		●
Environmental and safety perspectives taken into account in R&D and in extension and investment projects.	Continuous		
Safety training for subcontractors	2002	●	
Further development of environmental cost accounting	2004		
Safety training for personnel.	Continuous		
Open communication towards stakeholder groups, annual reports, special reports, the Wheelings/Inner Circle bulletin, and Tyre TV for personnel	Continuous	●	
ENVIRONMENTAL IMPACTS			
New Environmental Permit application process	2004		
Development of environmentally friendly materials	Continuous	●	
Anticipating and meeting the permit criteria	Continuous	●	
Reducing solvent emissions to 25% of annual use by 2007	Continuous	●	
Reducing the amount of landfill waste from previous year	Continuous	●	
Reducing the amount of non-vulcanized waste rubber	2003	●	
Reducing the amount of hazardous waste	2004		
Increasing the reuse of waste	2003	●	
Measurement of the noise generated by the plant	2004		
No harmful emissions (into the water or air)	2003	●	
HEALTH AND SAFETY			
In-house rescue plan	2002		●
Repair of the fencing	2004		
Requests for bids for security services	2003	●	
Fire alarm investment	2004		
Annual objective accidents/working hours – 5 per cent/year	Continuous	●	
Työturvallisuuden kehittämishanke (riskikartoitukset, koulutukset). Hanke aloitettiin yhdessä VTT:n ja Työterveyslaitoksen kanssa v. 2000	Jatkuvaa	X	
Turvallisuusasennekartoitus ja koko tehtaan kemikaaliriskien arvioinnin käynnistäminen	2003	X	

Action
Deeper understanding of social responsibilities in management and integrated reporting.
Incorporating training into the Tampere Business Campus, possibly together with other companies in the Tampere Region.
Arranging a training package every three years, with the next one in 2005.
Further development of indicators, the suitability of target cost accounting to environmental cost accounting.
Induction for new employees, current information including training on chemicals, extinguishing methods, forklift/Rocla equipment and first aid.
A special report at least every 3 years and targeted communication on relevant issues.
Implementation of studies, measurements etc.
The use of non-toxic HA oils in passenger car tyres, bicycle tyres and retreading materials.
Meeting permit criteria on time and the anticipation of the EU's VOC, REACH and other directives.
Reducing the use of solvents and purification of emissions in accordance with the EU's VOC directive, and implementation of reduction plans.
Objective met in terms of non-sorted waste.
The utilisation of waste rubber studied in a joint project with the National Technology Agency of Finland TEKES, which will continue in 2004. Projects aiming at reducing the amount of various waste components under way in production departments.
Reducing the amount of hazardous waste through various production projects to 3 kilograms per product ton during the course of 2004.
Materials to be utilised include scrap tyres, cardboard, paper and metal.
Noise study to be updated in spring 2004.
Completed in 2003. Practical training will continue.
In co-operation with the property unit.
Improved cost efficiency grounds for fire alarm investment.
To be completed in 2004.
As the activities expand, new machinery has been introduced and a large number of new employees have been recruited.
Jatkokehitys ja soveltaminen yhdessä tuotanto-osastojen kanssa
Riskikartoitukset jatkuvat. Safety 24 h- hanke toteutettiin 2002-2003

ISSUES TO BE REPORTED

No accidents with significant impacts on the environment or safety occurred in 2003.

Oil was detected in the Nokianvirta River on a few occasions. Following these incidents, the equipment was checked but the oil did not originate from Nokian Tyres. The incidents were reported to the local environmental authorities.

There were three disturbances at the incinerator, resulting in a total of 128 hours of overflow. The disturbances and overflows were reported to the municipal authorities and to the Pirkanmaa Regional Environment Centre.

A fault in the pneumatic carbon black transfer system turned approximately 50 tons of carbon black into hazardous waste.

In 2003, there were four initial fires. However, there were no major fires thanks to our good first-response extinguishing capacity.

THE FUTURE

As our corporate activities become more international and the administrative practices more transparent, the overall management of environmental and safety matters and meeting the expectations of our stakeholder groups present an increasingly big challenge.

Moreover, a large part of operative activities focus on the management and supervision of the Group and its contractual partners' environmental and safety procedures as well as project safety. Our key objectives will continue to include meeting the official obligations and safeguarding the company's uninterrupted operations. For Nokian Tyres, permits represent the minimum terms and conditions to be observed. We will actively monitor the developments in environmental and safety legislation in Finland and in the EU. Our objective is to meet the official demands and to meet other obligations by anticipating the regulations under preparation.

Our Environmental Permit will be renewed in the course of 2004. Research and development on the potential utilisation of non-vulcanised waste rubber will continue with the Tampere University of Technology. The EU's new chemical legislation REACH will replace the current chemical legislation almost in its entirety, and is expected to come into force in 2006. Preparation for this change will set new challenges and reporting obligations for us. Maintenance and development of chemicals control will continue to be one of our key responsibility areas.

The occupational safety organisation has prepared an accident reduction scheme for 2004-2005. Occupational safety training and information bulletins will be arranged. We will continue to perform in-house occupational safety inspections and to implement risk analyses. Practices associated with induction and work supervision will be developed and improved.

The most important fire safety measures are the fire alarm system and the rescue plan. On the access control and security side, fencing will be improved and efficiency will be upgraded. We will strive to minimise transportation by selecting the most suitable package and container sizes. Following the completion of the new logistics centre, we have seen improved transportation efficiency. Regular personnel training sessions and communication on environmental, fire and occupational safety will continue.

Verified on
19 May 2004
Riina Pohjolainen Lead Auditor
DNV Certification Oy

TERMINOLOGY

Audit
A systematic and documented action plan designed to obtain and assess information regarding the quality or environmental management systems of an organisation or its part. The purpose of an audit is to obtain information that will help assess whether the company's operations meet the requirements of quality or environmental systems and other commitments.

BAT (Best Available Technology)
The principle of using the best technology available for a given purpose.

Lifecycle
The lifecycle of a product begins from the procurement of raw materials and other production inputs and ends with removal from service. In the lifecycle assessment, a product's overall environmental impacts are considered when selecting raw materials, production processes, services and recycling methods.

EMAS
Regulation (EC) No. 761/2001 of the European Parliament and the Council of 19 March 2001 allowing voluntary participation by organisations in a Community eco-management and audit scheme (EMAS). A company can prove the EMAS conformity of its environmental system by obtaining an EMAS verification, or certificate.

HA (High-Aromatic)
High-aromatic oil.

ICC
ICC's (International Chamber of Commerce) Business Charter for Sustainable Development presents 16 principles of environmental management to help promote sustainable development in business life.

Impregnation
Impregnating the textile cord used as reinforcement in tyres with a resin solution. The purpose of impregnation is to ensure cord adhesion to the rubber.

ISO 14001
An environmental system standard of the International Organization for Standardization. A company can prove that its environmental systems is ISO 14001 standard compliant by obtaining a certificate.

Sustainable development
A principle stating that the prerequisites of life for future generations may not be undermined. According to the United Nations' conference on environment and development in Rio de Janeiro in 1992, sustainable development features an ecological, social and economic component.

Chemicals control
A system for supervising the use of chemicals. The purpose of the system is to prevent any adverse effects of chemical use on the environment and health, and to ensure that chemicals are used in accordance with laws and regulations.

Recycling
The utilisation of discarded material as a raw material for new products. According to regulations, retreading of new tyres should be the primary use of recycled tyres and incineration the secondary use.

LA (Low-Aromatic Oil)
Low-aromatic oil.

LCA, Lifecycle Assessment
A systematic description prepared in accordance with the ISO 14040 standard on the environmental impacts of a product during its entire lifecycle.

Mastication
Softening of natural rubber for processing before the rubber compound is produced.

PAH compounds
Polyaromatic hydrocarbon compounds found in fuels and formed in the incomplete combustion of organic material; some of the PAH compounds are carcinogenic.

Retreading
Extending a tyre's service life by retreading the tyre.

PYKE

Pirkanmaa Regional Environment Centre (Pirkanmaan ympäristökeskus).

PYR

The Environmental Register of Packaging PYR Ltd.

Certification

A report prepared by an independent body on the conformity to requirements of a specific operation.

SEVESO II

Major accident prevention focuses on preventing major accidents caused by dangerous substances and on restricting their consequences to people and the environment. The SEVESO II Directive was enforced with a Government statute on the industrial processing and storage of dangerous chemicals (59/1999). Players in the industrial sector must adopt safety management systems that include a detailed risk assessment regarding potential accidents. Risk assessment plays a crucial role in preventing major accidents.

Working investment project procedure

A model that depicts project flow. Its purpose is to ensure that the needs of all stakeholder groups are taken into consideration from the planning stage onwards.

The Safety Technology Authority TUKES

The authority controlling industrial processing and storage of chemicals.

Working capacity activities

The objective of these activities is to uphold the personnel's physical, mental and social well being throughout their working life. The activities incorporate individuals, the work environment, working communities and skills and competences.

Water cleaner

A degasifying device that uses liquid to absorb solid and/or gaseous impurities and to separate these from process gases. The cleaner places the impurities contained in the gas and the water conducted into the separator in contact, causing the water to break into small droplets that combine with the dust particles contained in the gas. The resulting water-dust droplets are separated in a droplet separator.

VOC (Volatile Organic Compound)

Volatile organic compounds produced in the processing of solvents. These may react with nitrogen oxides in the sun and form harmful ozone in the lower atmosphere.

Vulcanizing

A rubber product curing process.

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