# 2013 Environmental Report

## Keeping a keen eye on the environment!

Consolidated 2013 Environmental Report
Locations: Linz, Steyrling


**Katharina Eckmayr,** Environmental Department

voestalpine
ONE STEP AHEAD.

# Consolidated
# 2013 Environmental Report

Active environmental protection is an integral part of our corporate philosophy. For us, this means the management of a continual improvement process and compliance with environmental provisions. Find out more about our environmental activities, new objectives, environmental figures and current environmental issues.

The consolidated 2013 Environmental Report, which was prepared in accordance with the EMAS III regulation, contains information on the Linz and Steyrling locations of voestalpine Stahl GmbH, voestalpine Grobblech GmbH, Logistik Service GmbH, voestalpine Standortservice GmbH, Cargo Service GmbH, voestalpine Anarbeitung GmbH and voestalpine Europlatinen GmbH.

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# 2013 Environmental Report Steel Division

## Foreword by the Chairman of the Management Board

When it comes to environmental protection, we are committed to professionally and consistently meeting our moral, social and legal obligations. We have a responsibility toward future generations to pass on an environment that is at least as intact and livable as the one we have inherited. This is a goal worth working for on a daily basis. We have a contemporary understanding of the environment and follow a clear-cut course, because consistency and continuity are the foundation of sustained success, both from an economic and ecological perspective.

Today, the voestalpine Group occupies a dominant position in the industry. In Europe, voestalpine is the number one in profitability, the benchmark with regard to environmental parameters such as emissions and resource efficiency, and a quality leader in highly-demanding product segments. By consistently implementing our strategy of value-added growth, we substantially differentiate ourselves from the competition in an industry that still tends to merely concentrate on volumes. In other words, the voestalpine Group demonstrates that economic success and high sustainability standards are not contradictory, but instead mutually dependent. Long-term thinking and actions, in combination with a high level of responsibility across company borders pay off.

However, the perception of the industry as a whole is only slowly beginning to change. As a result of the great versatility of its material, the steel industry has a very promising future, but is wrongly not perceived as a green industry.



In fact, steel is one of the most environmentally friendly materials, be it in terms of production, possible applications or service life. Steel in itself is a powerful environmental argument.

On top of that, companies like voestalpine make substantial and ongoing investments in environmental protection. Our projects range from seemingly simple measures to realizing highly complex systems, such as the installation of a $DeNO_x$ system in the sinter plant, which is completely unique in Europe, the construction of a new energy-optimized converter gas gasometer, measures to increase efficiency in logistics and the conversion to electric lifting vehicles. Sometimes the simplest ideas are the best and bear the greatest potentials for environmental improvement.

Taking pleasure in challenges shapes our company's understanding of the environment. We are aware of the fact that the ambitious low carbon goal in Europe can only be achieved – at least to some extent – with new technological solutions. For this reason, voestalpine relies on the best available technologies and active in-house research to develop lower carbon steelmaking processes and further optimized energy recovery systems, and to increase efficiency, which leads to reduced emissions. And last but not least, we commit ourselves – much like the European steel industry in general – to future-oriented and innovation-driven climate and energy policies based on targets that are technically and economically feasible. Doing so is not always easy and so far only moderately successful. However, this is the only way to develop permanent and feasible solutions to our future problems.

The objective must be to meet the long-term ecological targets of the European Union, while complying with the intention of the European Commission to increase the industrial contribution to the European economy to 20% already by 2020.

Our efforts are accompanied by open, honest and transparent communication within the company and with the outside world. Each individual employee can actively contribute to environmental protection, provided that he/she has the full acceptance of the social environment.

Our consolidated 2013 Environmental Report is not intended to merely provide facts and figures, but should rather give a complete overview of our diverse and comprehensive environmental activities. We appreciate your interest in this publication, and hope that you will enjoy reading it and get the information you are looking for.

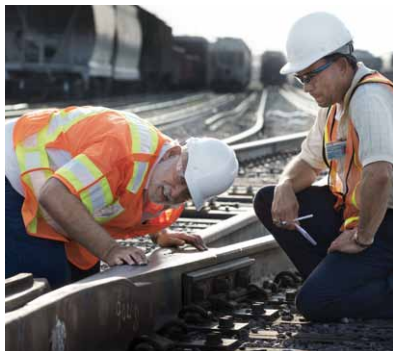
**Dr. Wolfgang Eder**
Chairman of the Management Board

# At voestalpine –
# we are taking the future into our own hands

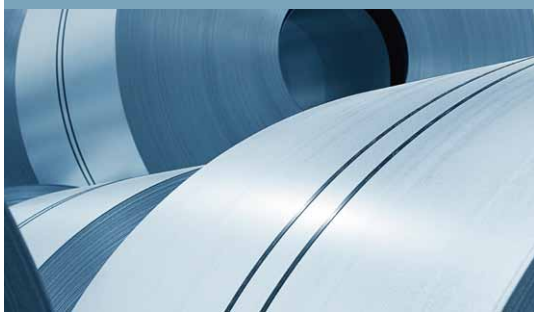
voestalpine is a successful international group with a wide variety of specialized and flexible companies that produce, process and further develop high-quality steel products. The voestalpine Group is a steel-based technology and capital goods group that operates worldwide. voestalpine is represented by some 500 Group companies and locations in more than 50 countries on five continents. It has been listed on the Vienna Stock Exchange since 1995.

With its highest-quality products, the Group is one of the leading suppliers to the European automotive and household-appliance industries, and oil and gas industries worldwide. voestalpine is also the world market leader in switch technology and special rails, tool steel, and special sections. In the 2012/13 business year, the voestalpine Group generated revenue of 11.5 billion euros and an operating result (EBITDA) of 1.45 billion euros. The Group employs roughly 46,400 staff members worldwide.

| Overview of Key Figures | | |
|---|---|---|
| in millions of euros | 2011/12 BY | 2012/13 BY |
| Revenue | 12,058.2 | 11,524.4 |
| Earnings before interest, taxes, depreciation and amortization (EBITDA) | 1,301.9 | 1,441.8 |
| EBITDA Margin | 10.8% | 12.5% |
| Earnings before interest and taxes (EBIT) | 704.2 | 853.6 |
| EBIT Margin | 5.8% | 7.4% |
| Profit per share (in euros) | 1.98 | 2.61 |
| Employees at the end of the business year | 46,473 | 46.351 |



## Steel Division



### voestalpine Stahl GmbH

voestalpine Grobblech GmbH
voestalpine Giesserei Linz GmbH
voestalpine Anarbeitung GmbH
voestalpine Stahl Service Center GmbH
voestalpine Eurostahl GmbH
Logistik Service GmbH

## Special Steel Division

### voestalpine Edelstahl GmbH

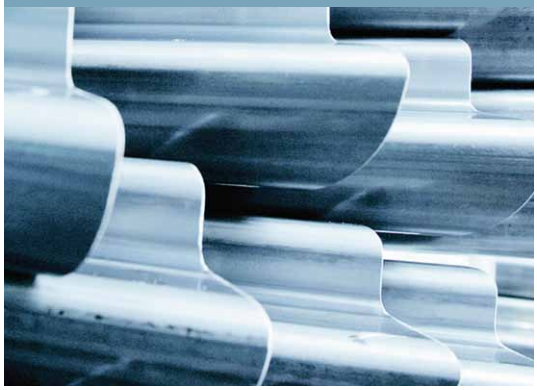
Böhler Edelstahl GmbH & Co. KG
Buderus Edelstahl GmbH
Villares Metals S.A.
BÖHLER-UDDEHOLM Deutschland GmbH
Uddeholms AB
ASSAB Pacific Pte. Ltd
Eschmann Stahl GmbH & Co. KG
BÖHLER Bleche GmbH & Co. KG
Böhler-Uddeholm Italia S.p.A.
BÖHLER Schmiedetechnik GmbH & Co KG
Buderus Edelstahl Schmiedetechnik GmbH
Böhler-Ybbstal PROFIL GmbH

## Metal Engineering Division

### voestalpine Metal Engineering GmbH & Co KG

voestalpine Schienen GmbH
TSTG Schienen Technik GmbH & Co KG
voestalpine Rail Center Duisburg GmbH
voestalpine VAE
voestalpine Railpro B.V. (70%)
voestalpine Klöckner Bahntechnik GmbH
voestalpine Tubulars GmbH & Co KG (50%)
voestalpine Stahl Donawitz GmbH
voestalpine Austria Draht GmbH
Böhler Welding Holding GmbH

## Metal Forming Division



### voestalpine Metal Forming GmbH

voestalpine Krems GmbH
voestalpine Straßensicherheit GmbH
voestalpine Krems Finaltechnik GmbH
Nedcon Groep N.V.
Sadef N.V.
Metsec plc
Roll Forming Corporation
voestalpine Präzisionsprofil GmbH
voestalpine Profilform s.r.o.
ZAO voestalpine Arkada Profil
Société Profilafroid
Société Automatique de Profilage (SAP)
Meincol Distribuidora de Aços S.A.
BÖHLER-UDDEHOLM Precision Strip GmbH
voestalpine Polynorm B.V.
voestalpine Europlatinen GmbH
voestalpine Rotec GmbH
voestalpine Stamptec GmbH

The companies listed on this page are major equity holdings of the corporate voestalpine Group.
Groups of companies are represented by their respective parent company.

# Company locations, products, markets and processes

## voestalpine Stahl GmbH

voestalpine Stahl GmbH is the main divisional company in the Steel Division, the largest of the four voestalpine divisions and is the international steel center of competence in the voestalpine Group. In the 2012/13 business year, the Steel Division had 10,676 employees and achieved sales of 3,921.7 million euros.

voestalpine Stahl GmbH is one of the leading steel producers of Europe. We have been delivering to and consulting customers in the automotive, construction, mechanical engineering, household-appliance, tube, section and energy industries for decades.

voestalpine Stahl GmbH operates a fully integrated metallurgical plant that combines all the process steps at a single location: coking plant, sinter plant, blast furnace, steelmaking plant, hot-rolling and cold-rolling mill, galvanizing and organic coating line. Products include high-quality hot-rolled, cold-rolled, electrogalvanized, hot-dip galvanized and organic-coated steel strips which form the foundation for a wide variety of further processing steps.

Excellent roadway and railway connections as well as a company-owned river port on the Danube river directly at the Linz location also have an extremely positive effect on the logistics processes.

## Steyrling location

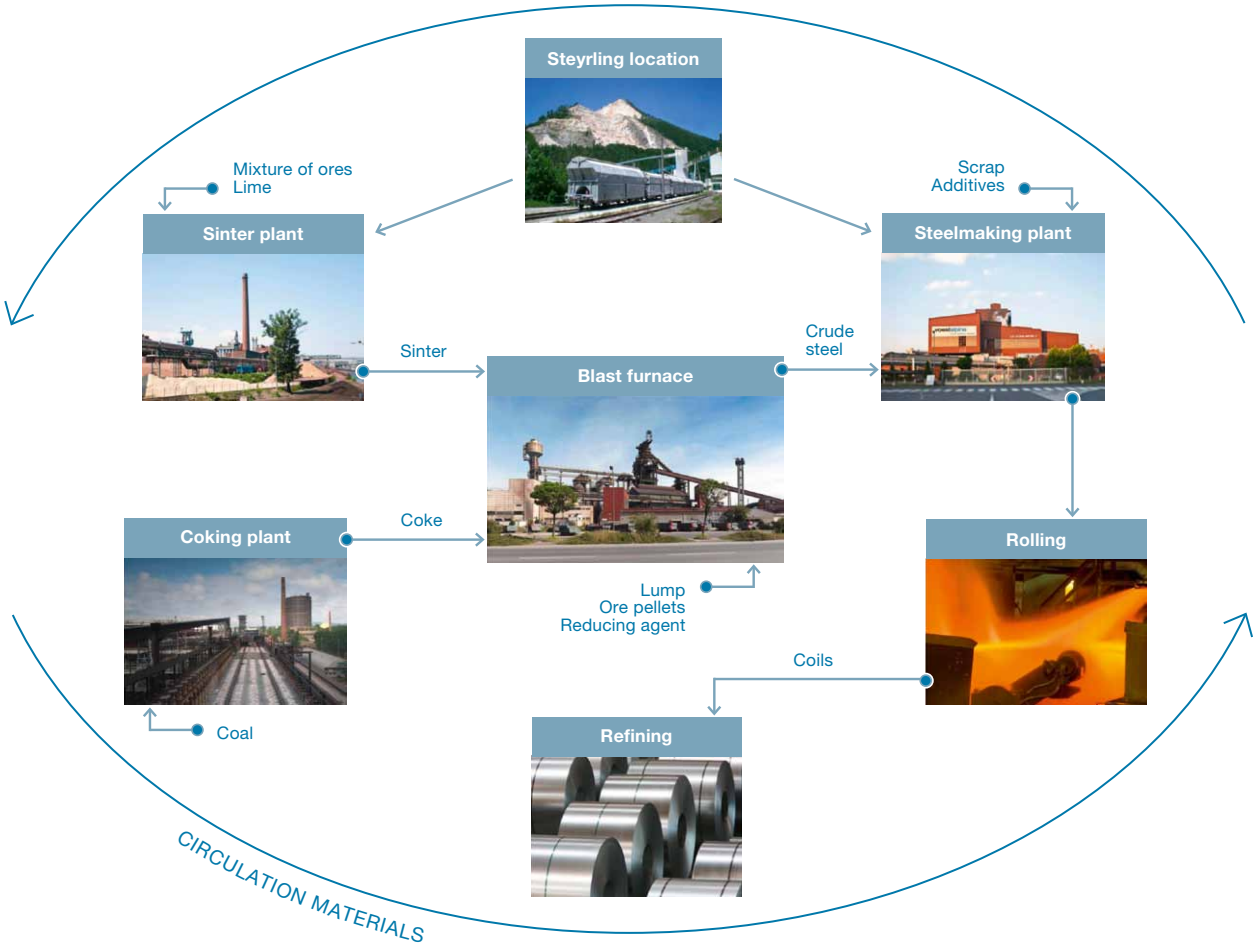
Hot metal contains silicon, sulfur and phosphorus. For the removal of these impurities, steel mills require burnt lime, which is produced in Steyrling, Upper Austria. Here, limestone is mined from the walls of an open pit by blasting at intervals of twenty meters in height.

Roughly 60% of the rock is further processed into burnt lime in shaft furnaces. In addition, limestone chips, armorstones, fine lime and lime hydrate are sold on the market.

Several 100,000 tons of lime per year are transported to the Linz location in special trains. Because of its chemical composition, burnt lime must be transported in closed railcars to the melting vessels in Linz, Donawitz and Kapfenberg within 24 hours. The lime and gravel plant is conveniently located (70 km from Linz at the Pyhrnpass federal highway, B 138) between the main customers, which substantially reduces the burden on the environment.

Only the most modern equipment is used for the mining of limestone, and in terms of emission reduction the lime plant in Steyrling is exemplary. Currently, a shaft conveyor system is being implemented, which will help reduce diffuse dust emission by approx. 300 t $PM_{10}$/year.

# Overview of the production process




### Coking plant

Mixtures of special coals with low sulfur content are superheated in the hermetically sealed coking chambers of the coking plant to temperatures above 1,260 °C. The carbon content of the pit coal is increased by coking, and coke is produced. Coke is used to support the smelting of iron from ore (reduction process in the blast furnace). The by-products of the coking process, such as coke-oven gas, crude benzene, sulfuric acid and tar, find applications at voestalpine and in other industrial sectors.

### Steyrling location

Lime-containing rock at the Steyrling site is mined from the walls of an open pit by means of conventional blasting. After the stone is crushed into smaller pieces in crushing units, the pieces are sorted into different grain sizes. Large grain sizes are further processed into burnt lime in double-shaft furnaces, while small grain sizes are used in the sinter plant.

### Sinter plant

The main objective of the sinter plant is the processing of fine ore. A number of different kinds of ore fines are homogenized with recycled metallurgical materials and additions, and charged with burning fuel in mixing beds. The grains of ore melt at a temperature of roughly 1,300 °C on the sinter belt, and the entire mixture becomes a porous sinter cake. After it is cooled, the sinter cake is broken into lumps of finished sinter and transported on conveyor belts directly to the blast furnace.

Large investments have been made in recent years to reduce the emissions during sintering. For example, at the beginning of the 1990s, a highly efficient wet-type cleaning unit (AIRFINE) was installed to clean sinter offgases. In 2007, the system was converted to a dry-filter system (MEROS). This, among others, reduced dust emissions by a factor of more than ten. The new $DeNO_x$ unit for the denitrification of sinter plant offgases makes a substantial contribution to environmental protection and the emissions situation in Linz (see Section $DeNO_x$ plant).

### Blast furnace

Coke and iron-bearing materials are charged at the top of the blast furnace (furnace throat). The mixture wanders from top to bottom through the shaft, while the gas phase moves in the opposite direction.

Hot air at a temperature of 1,200 °C is blown into the shaft and oxygen reacts with the carbon of the coke to create a smelting reduction process. Iron is separated from the stone leaving behind hot metal and slag. At regular intervals, the hot metal is tapped from the tap hole and poured into torpedo ladles that transport it to the steelmaking plant for further processing.

### Steelmaking plant

In the steelmaking plant the liquid hot metal from the blast furnace is converted into high-quality steel by means of the LD process. The converter is first filled with scrap and then with the liquid hot metal. The steel bath is top-blown with oxygen by means of a water-cooled lance to remove carbon and undesired trace elements. The steel is refined to achieve the desired composition in secondary metallurgical facilities.

### Continuous casters

The continuous casters are integrated into the steelmaking plant. After the liquid steel is poured into the tundish, it flows into a mold with a defined cross-section, and the water-cooling process commences immediately. The strand solidifies more and more as it travels through the casting bow. At the end of the casting bow, the torch-cutting machine cuts the strand to the defined slab dimension.

### Hot-rolling mill

The slabs are heated to a temperature of approx. 1,200 °C in pusher-type furnaces and a walking beam furnace. First, the layer of scale is removed in the descaling box, before the slab is rolled in the hot rolling mill. The flat-rolled slab is wound into coils while it is still in hot condition.

### Cold-rolling mill

In the cold-rolling mill the width of the steel strip is further reduced in two process steps, pickling and rolling. After the steel strips are pickled, they are rolled to a thickness accuracy of up to one hundredth of a millimeter. In this process, the material remains extremely compression-resistant and is characterized by high tensile strength.

### Refining

Various refining steps improve the surface quality. The strip can be coated by means of hot-dip galvanizing, electrogalvanizing or organic strip coating.

*Hot-dip galvanizing*

Cold-rolled, non-annealed strip is first cleaned in a continuous process in the hot-dip galvanizing lines and is then annealed and immersed in a liquid zinc bath to coat it on both sides. This zinc coating protects the cold strip from corrosion and is often gauged to a thickness in a range of thousandths of a millimeter. Surface treatment and passivation are the final processes in the hot-dip galvanizing line. Preheating and annealing furnaces are equipped with Low-$NO_x$ burners in order to minimize emissions.

*Electrogalvanizing Line*

By employing high currents from an electrolyte solution, the zinc layer is achieved by means of a different technology as that used in hot-dip galvanizing. This electrolytic galvanizing method achieves very low coating thickness values on both sides. After the strip has passed quality assurance tests, it can be packaged and delivered to the customer or further processed in an organic coating line.

*Organic coating*
Steel strip coating with high-tech organic materials provide a comprehensive spectrum of products that are characterized by permanent corrosion protection, unchanged strip thickness and high levels of formability. The coating layers are applied in the strip coating lines by means of pick-up rolls that apply the paint from the paint troughs. The strip coating layers can be applied in various colors and coating layer thicknesses.

**Materials Center**
The materials center is the competence center for the treatment and sale of metallurgical by-products, such as iron oxide and iron sulfate. Recyclable materials treated in the materials center can be re-used in the production processes. This makes a significant contribution to the conservation of resources.

**Power plant/electric power supply**
Process gases from the blast furnace, coking plant and converters serve as sources of energy for various heat treatment furnaces in the steel works and as fuel gases for electrical power generation in the integrated steel mill. The power plant supplies facilities on the works premises with steam, utility, cooling and feed water. The energy requirements at the Linz site are met autonomously for the most part, thus securing economical and ecological recycling of the process gases and heat energy.

# voestalpine Giesserei Linz GmbH

The parent company, voestalpine Giesserei Linz GmbH, is a fully owned subsidiary of voestalpine Stahl GmbH that employs roughly 450 people at the Linz location. It operates companies in Austria (Linz and Traisen) and China (Yinchuan and Shanghai). The company produces steel castings, ductile cast iron and non-ferrous metal castings and supplies customers worldwide.

The steel casting foundry is a world leader in the manufacture of high-quality castings ranging between 10 and 200 tons in unit weight. The castings find their applications predominantly in the energy sector and in mechanical engineering. They are delivered in both rough and machined condition. The non-ferrous-metal foundry delivers high-quality and maintenance-free sliding components (made of brass, copper, aluminum) and self-lubricating compact sliding elements for the automotive industry.

# voestalpine Anarbeitung GmbH

voestalpine Anarbeitung GmbH is a fully owned subsidiary of voestalpine Stahl GmbH and is headquartered in Linz. It is the center of competence in the field of preprocessed hot-rolled products. Roughly 300 employees manufacture steel products exactly tailored to individual customer requirements. The high-quality products are divided into the three areas of shear cuts, cut shapes and parts and components. These products are augmented by services such as straightening, sand blasting, and robot welding.

One of the main focuses of the company is on high-strength and ultra-high-strength hot-rolled strip and the new alphas forming technology (parts and components). All products are manufactured in the most modern plant systems in centers of competence, such as the shape-cutting and sheet-cutting facilities. The company supplies customers from the following industries: automotive, preprocessing and distribution, construction and mechanical engineering, energy, tubes and sections.

# Logistik Service GmbH

Logistik Service GmbH (LogServ) was established in 2001 as a subsidiary of voestalpine Stahl GmbH. The company is a full-service provider to the industrial logistics industry and offers innovative and individual logistics solutions that are tailored to the special needs and processes of the clients. The customers of LogServ are primarily from the metal production and processing, construction and processing industries, mechanical engineering and plant building and the automotive and automotive supply industries.

In the railway sector, the company provides services for works and connecting railroads, private railway traffic companies and private freight car rental companies. LogServ has a full range of services which includes the following:

- Contract logistics
- Customs services
- Forwarding logistics
- Automobile repair shop/gas station
- Fleet management
- Workshop for heavy and special vehicles
- Rolling stock workshop
- Railway infrastructure
- In-house logistics
- Private rail transport
- LogServ Railway Academy

# Cargo Service GmbH

Cargo Service GmbH was established in 2001 as a fully owned subsidiary of Logistik Service GmbH. The private rail transport company provides sophisticated overall strategies for rail freight transports.

As an established rail transport company in the European railway network, Cargo Service GmbH focuses on sustainable transport cost savings and improved transport quality. The company also provides railway transports and services for external customers with freight transport needs. Furthermore, it develops new process-optimized international transport strategies as part of a comprehensive network.

Cargo Service GmbH offers a comprehensive range of services in the planning and execution of rail freight transports, such as electric traction services, provision of human resources (locomotive operators, rail traffic personnel, etc.), railcar technician services, management and operation of secondary and feeder lines.


CargoServ
1216 931-6

# voestalpine Standortservice GmbH

voestalpine Standortservice GmbH is a fully owned subsidiary of voestalpine Stahl GmbH and has been an infrastructure service provider for the Steel Division and third-party companies at the Linz site since 2011. Its services range from facility management, realty and traffic management, works security, vocational health, postal service center to commercial processes and systems.

**Works Fire Department**
The Works Fire Department is responsible for fire protection at the Linz site. In addition to firefighting and other types of active hazard response (technical rescue), the Works Fire Department is the competent partner for preventive fire protection. An important task of the Works Fire Department is the frequent inspection of fire protection equipment. A great deal of emphasis is placed on highly qualified employees who regularly receive training.

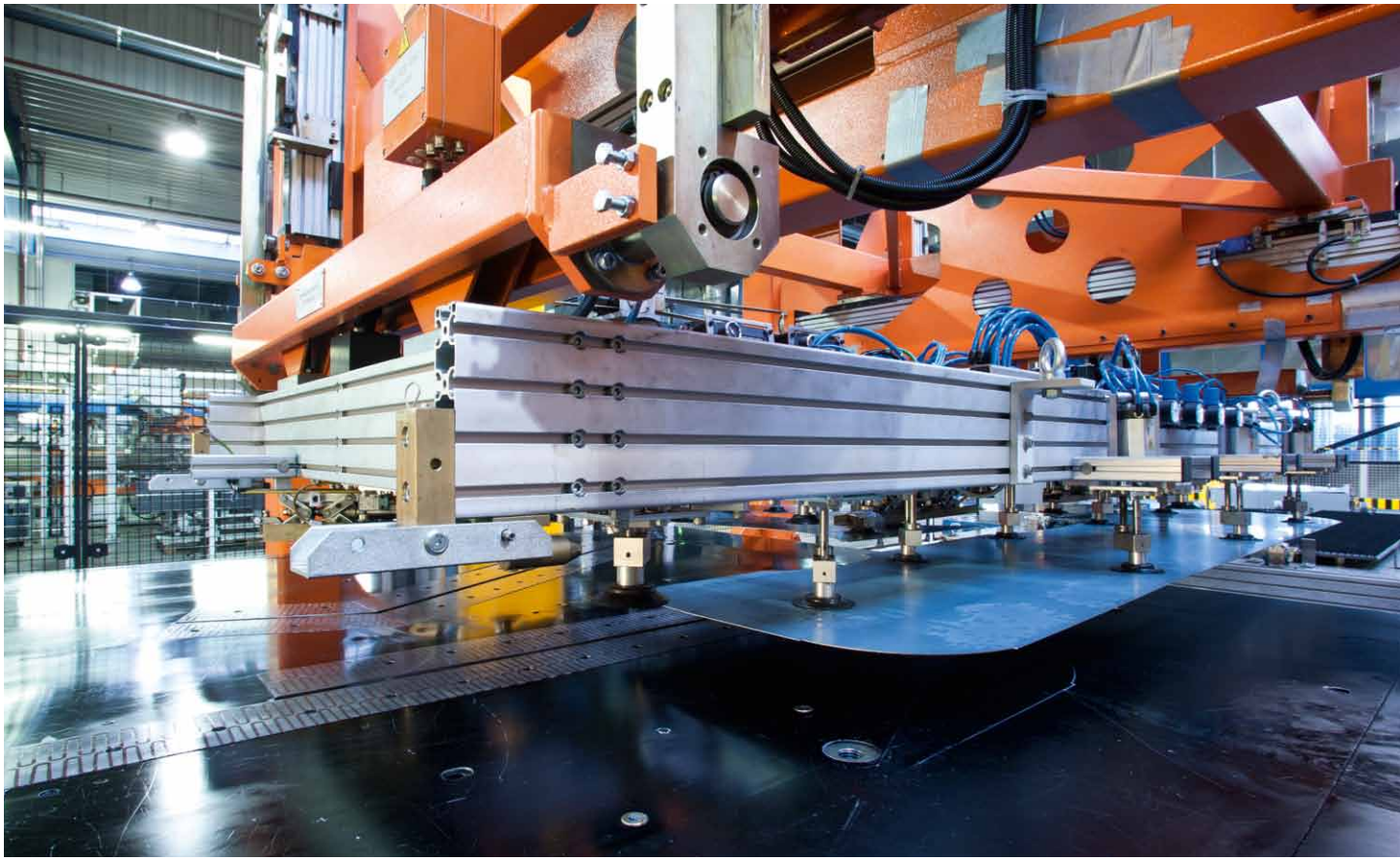

**Works Security**
The range of services of the Works Security includes security consulting, planning and connection of alarm systems, development of safety strategies and day-to-day tasks of a modern security services provider. Optimized state-of-the-art security service is guaranteed by highly qualified personnel, personal dedication, continuous education and training of our employees as well as by effective co-operation with internal and external emergency services.

# voestalpine Europlatinen GmbH

Laser-welded blanks allow creative solutions for more security and less weight in the automobile. voestalpine Europlatinen GmbH is a fully owned subsidiary of the Metal Forming Division and has been providing innovative components in large-scale serial production to renowned automobile manufacturers since 1997.

The services of voestalpine Europlatinen GmbH include development, optimization and quality-controlled production of laser-welded blanks with linear, semi-linear and non-linear weld seams and stamped parts for applications in the automotive industry.

The main product of voestalpine Europlatinen GmbH is the laser welded blank which is produced through joining two or more sheets of differing thicknesses, material strengths or with different coatings. Blanks are important preliminary products for pressed parts used in car bodies. This range of tailor-made products, referred to in the international market as tailor-welded blanks, makes significant contributions with respect to improved cost efficiency, weight reduction, environmental stability and functional optimization in the field of automotive body parts.



# The environmental policies of voestalpine Europlatinen GmbH

voestalpine Europlatinen GmbH is dedicated to the principles of the Business Charter for Sustainable Development as set forth by the International Chamber of Commerce (ICC) and to the environmental guidelines of the voestalpine Group.

voestalpine Europlatinen GmbH has adopted the following company policies and objectives in its efforts to continually improve operations and to protect the environment in its production facilities. We use the best available and the most economically feasible technologies to reduce environmental impact. It goes without saying that the company is pleased to comply with every applicable legal environmental regulation.

- We deem environmental protection to be an important responsibility of company management.
- We operate an environmental management system for the implementation of our concrete environmental activities.
- The structure of our environmental management system complies with the specifications of ISO 14001 and EMAS.
- We promote knowledge and a keen sense of responsibility in our staff members and cooperation with each other at all levels.
- We use raw materials and energy as sparingly as possible.
- We avoid and reduce environmental impact as far as possible in our production processes and activities.
- We have an open and matter-of-fact dialog with our customers, governmental officials, neighbors and the interested public.
- Material and thermal recycling activities are given the highest priority.
- In our product development activities we reduce the environmental impact of our production phase (by saving weight, reducing fuel consumption and improving material usage).

The Management Board of voestalpine Europlatinen GmbH is expressly committed to the stated principles.

# voestalpine Grobblech GmbH

voestalpine Grobblech GmbH is a fully owned subsidiary of voestalpine Stahl GmbH and has its headquarters in Linz, Austria. The company is renowned for providing products and solutions that find their applications in high-quality and demanding market niches.

voestalpine Grobblech GmbH is a supplier to the worldwide energy sector and provides customers with thermomechanically rolled structural steels for offshore platforms, sour-gas-resistant linepipe plates and high-strength deep-ocean plates for pipeline construction. As the largest European producer of roll-bonded clad plates and heads, the company offers shell plates and heads for advanced pressure vessels from a single source. Furthermore, voestalpine Grobblech GmbH provides innovative solutions in the areas of steel structures and bridge building, and is a first-class supplier of high-strength and wear-resistant steels for crane, vehicle and mining applications.

The products of voestalpine Grobblech GmbH find their applications in the most extreme conditions. Exceptional strength, toughness, resistance to wear and long product service life are the focus of our product mix.

# Climate protection measures

## When it comes to climate protection, we keep an eye on the details

Steel plays a key role in attaining the ambitious climate objectives. For technical and economic reasons, in many places steel cannot be replaced by alternative materials. It is practically indispensable in power plant or wind-energy structures. Most of the potential reductions are achievable exclusively through the application of steel, as opposed to any other working material. A productive steelmaking industry that supplies the required innovative steel products represents a significant contribution to successful climate policies and environmental protection. Nevertheless, voestalpine continually strives to ascertain and take advantage of energy efficiency potentials and to keep up with technological developments, in order to achieve the corresponding $CO_2$ reduction effect. We focus on the following priorities:

- Strict monitoring of emissions for a sustainable production process
- Active research on environmental technologies to develop lower carbon steelmaking processes
- Developments to improve energy recovery and efficiency with the corresponding $CO_2$ reduction effects
- We use the best available technologies. Since we are an interface to natural resources we are right at the beginning of any value-added chain.
- We commit ourselves to ensuring that the material-producing industry is a key element of the EU strategy, because the effects of value-added chains, recyclability, by-products and life cycles must be taken into account.
- We object to interventions in the Emission Trading System that increase the burden on the material-producing industry, as this adds pressure on an already difficult economic situation in Europe.

Instead, we advocate a future-oriented and innovation-driven climate policy based on technically and economically feasible targets.

# Environmental challenges of Roadmap 2050 – the vision of the European Commission

Being an economic leader, in addition to our efforts regarding environmental protection, we also face political challenges when we make important decisions for the future.

The main goals of the Roadmap 2050 project are to radically reduce the consumption of resources, reduce $CO_2$ emissions and switch to renewable energies. Although these are reasonable demands, they can become major obstacles to economic growth in the future.

## Energy Roadmap 2050 – the vision of the European Commission

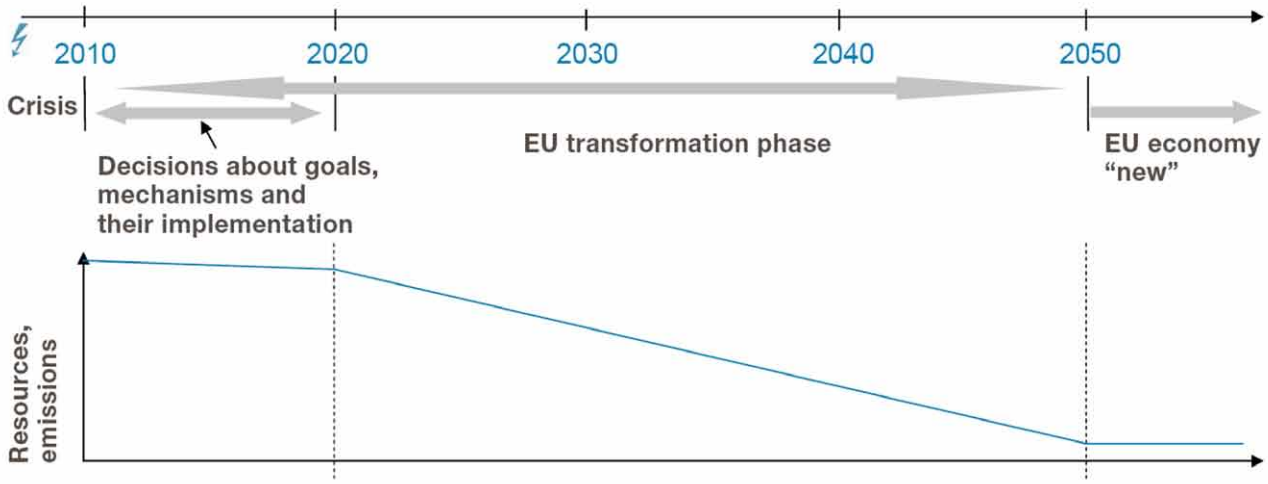



Figure: Vision of the European Commission for a largely decarbonized economy in Europe by 2050.

# Life Cycle Assessment (Ecobalance)
## The holistic view is what really matters

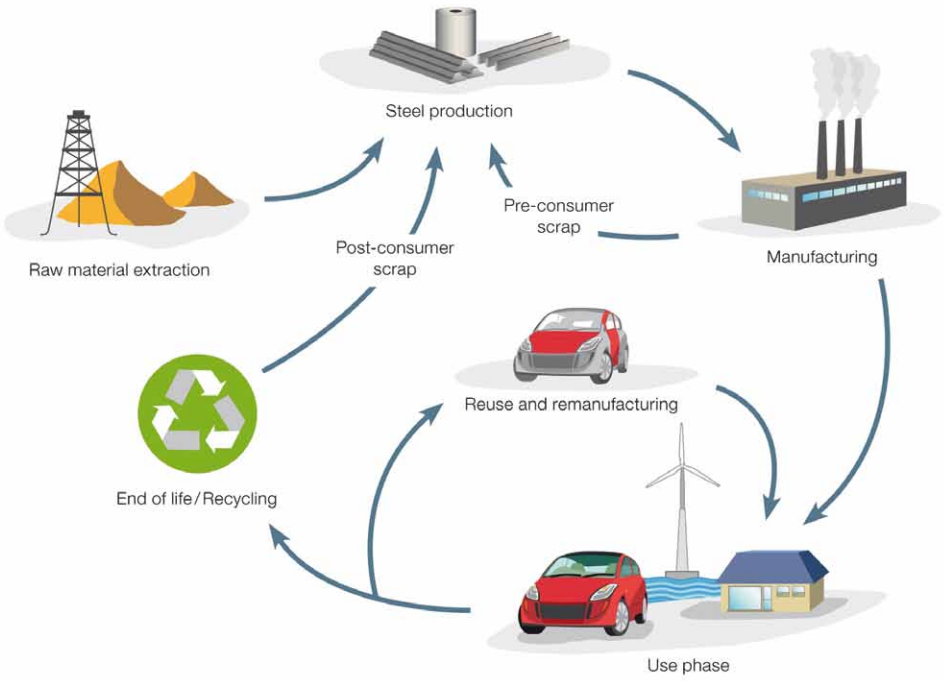
Life Cycle Assessment is the systematic analysis of a product from cradle to grave. It includes all environmental effects during the production, utilization and disposal of a product, as well as upstream and downstream processes (e.g. raw materials and operating supplies). We systematically analyze the environmental effects of our products over their whole life cycle, while taking into account social, economic and technical aspects. Life Cycle Assessment is an important tool for a target-oriented development and improvement of products and processes. It helps us to optimize material flows during production processes and conserve raw materials.

## Necessity of LCA in the steel industry

- Life Cycle Assessment is an important tool for a target-oriented development and improvement of products and processes across the entire value-added chain.
- LCA is used to optimize material flows, thus conserving raw materials and promoting recycling.

Representatives of voestalpine are actively involved in international work groups and advocacy groups, such as EUROFER and the World Steel Association.

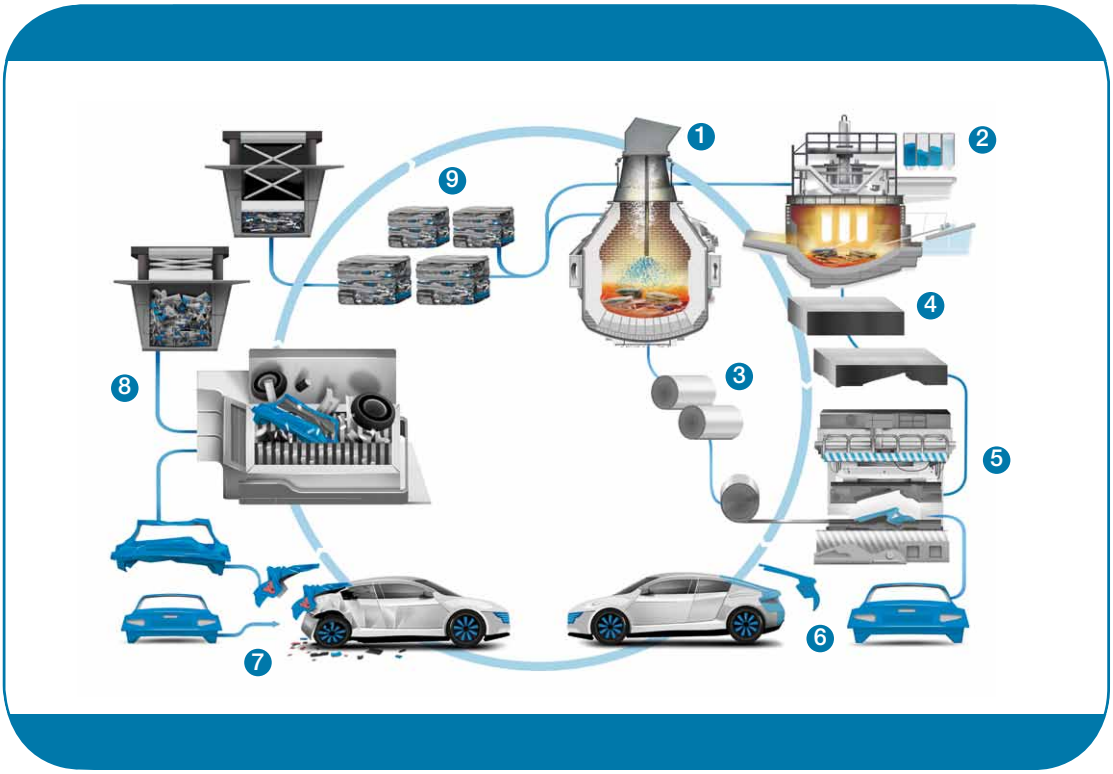
### The life cycle of steel




Source: worldsteel

# Steel is part of the solution. The life cycle of steel

Steel is almost 100% recyclable and can be found in every area of our lives. It makes our lives more comfortable, more environmentally compatible, more mobile and safer. With dedication to detail, we optimize the utilization of precious resources in the production of steel. Our innovative strength helps us to create modern energy and mobility strategies which are the basis for improving the climate situation.




1 **Steelmaking plant: steel.** Roughly 250 kg of scrap are used in the production of one ton of crude steel.

2 **Steelmaking plant: special steel.** One tapping in the steel mill contains 60 tons of tool steel.

3 **Coils**

4 **Special steel block: tool steel.** 1,500 different tools are required to manufacture a new car model.

5 **Press shop.** About 30 kg of flat steel are required to produce one tailgate.

6 **Tailgate.** One tailgate consists of ten different pressed parts.

7 **Spare part: tailgate.** We produce components for the latest car models and spare parts for the next 10 to 15 years.

8 **Recycling/crushing: tool steel.** Depending on the product, these machines are equipped with 50 to 100 special steel knives.

9 **Scrap cube**

# Environmental management
# at the location Linz

## Efficient, central, goal-oriented:

## The new environmental management after optimization approximately two years ago.

An important part of environmental management is the environmental audit which the Steel Division must carry out annually according to the EMAS validation and ISO 14001 certification. This audit was made more uniform and therefore more efficient.  Activities were bundled to eliminate redundancies.

Companies on site also benefit from the newly designed environmental management system, particularly from the representation of core indicators and environmental risks up to the environmental program.

Sophisticated emission and material flow monitoring lays the foundation for a detailed knowledge of the environmental impact of our production processes. This creates the prerequisites for identifying and taking advantage of optimization potentials in order to increase energy and resource efficiency. Fields of action can be identified more easily and target-oriented changes can be initiated by concentrating on the most important environmental figures. Among other things, monitoring is the basis for identifying and defining ecologically sound and economically beneficial environmental measures. Following an observation period, changes are identified and communicated, before getting to the bottom of the cause and initiating measures to prevent negative effects in a timely manner.

Emissions of the production plants were substantially reduced by implementing numerous measures in the areas of air pollution control, water supply and treatment, energy management and waste management. On the one hand, efforts are made to avoid emissions through process optimizations. On the other hand, the remaining emissions are reduced by means of state-of-the-art end-of-pipe systems.

**Environmental management concerns every single employee.**

Now employees are more actively and purposefully involved in environmental activities and are more effectively informed about them (e.g. new methods of the environmental audit, continuous improvement process). This results in a better sensitization of employees with respect to environmental issues.

# Company environmental program
# 2013 Environmental Program

The following table contains the most essential environmental measures in the different companies that contribute to an improvement of the environmental performance. In addition to the environmental program, the individual companies develop and implement a number of other environmental measures.

| Company | Objective | Measure | Figure | Date | Status |
|---|---|---|---|---|---|
| voestalpine Stahl GmbH | Coke oven plant premises: Funnel-and-gate (F&G): Prevention of subterranean contaminants in connection with internal utilization of ground water VVE: Reduction of BTEX content in future excavated material | Remediation of brownfield coking plant 076 in Linz, stage 1: Securing saturated soil zone by means of a funnel-and-gate (F&G) system and vacuum vapor extraction (VVE) of BTEX-contaminated soil air from the saturated soil zone | Reduction of PAHs in the ground water and BTEX in the soil air | F&G: 31 December 2013<br>VVE: 31 December 2022 | Being implemented |
| Steyrling location | Production of crude lime: Reduced diffuse dust emissions | Installation of new treatment plant (change to shaft conveyor) | Reduction of diffuse dust emissions by approx. 300 tons PM10/year | 31 December 2014 | Being implemented |
| voestalpine Giesserei Linz GmbH | TFS4/Finishing line: Extension of the dedusting plant for the ArcAir workplaces | Purchase of a new filter system with enclosures and suction hoods for all existing workplaces | Reduction of diffuse dust emissions by approx. 20 tons/year | 30 August 2014<br>Implementation of investment project only possible during summer shutdown; failed to comply with the time schedule for 2013 | Being implemented |
| voestalpine Cargo Service GmbH | Reduced electric consumption | Pilot project: Introduction of environmentally compatible railway transports | Savings roughly 250 MWh/year, or 2.5% | 31 March 2014<br>Postponement<br>Delay of training program | Being implemented |
| voestalpine Logistik Service GmbH | Reduction of $CO_2$ emissions in the transport of steel products | Utilization of combined transports<br>Steel transports switched from truck to rail | Rail shipments increased by roughly 10% | 31 March 2014<br>Postponed by reason of current market situation. | Being implemented |
| voestalpine Stahl GmbH | Technical utilities / blast furnace: Reduction of flare stack losses | Enhancement of electrostatic precipitators and adaption of top gas pressurization to the increased maximum allowable pressure for optimized utilization of top gas in the plant network | Savings of roughly 14,000 MWh/year | 31 March 2014 | New measure |
| voestalpine Stahl GmbH | Blast furnaces (8 m): Reduction of diffuse dust emissions at coke belt conveyors | Wetting of coke with wetting agent (approx. 1% dust-binding agent, 99% water) | Avoidance of diffuse emission, reduction of diffuse emissions by 85% | 31 October 2013 | New measure |
| voestalpine Grobblech GmbH | Optimization of read-out during wastewater sampling | Installation of recording device on sampling device for automatic documentation of volume-proportionate wastewater sampling | Consistent documentation of sampling | 30 April 2013 | New measure |
| voestalpine Standortservice GmbH | Works Fire Department: Standard procedure for disposal of extinguishing powder | Stipulation of rules for the disposal of extinguishing powder (specification document) and training of employees | Optimized disposal of extinguishing powder | 30 November 2013 | New measure |

| Company | Objective | Measure | Figure | Date | Status |
|---|---|---|---|---|---|
| voestalpine Anarbeitung GmbH | Utility measurement slitting line (heating system): Optimization of steam and oxygen consumption | Installation of a flow meter (recorder) in the oxygen line for optimized recording of actual consumptions to reduce excessive steam consumptions and losses | Reduction of mixed steam by 825 tons/year and oxygen by 66,000 $m^3$/year | 30 April 2013 | New measure |
| voestalpine Logistik Service GmbH | Saving of diesel fuel in internal works railway | Purchase of two new diesel locomotives with start/stop technology | Reduction of diesel consumption by approx. 15% (= 2 L/h), which amounts to 16,000 L per locomotive and year | 31 March 2014 | New measure |
| voestalpine Europlatinen GmbH | Exchange of laser in welding machines and optimization of energy efficiency | Replacement of existing shared 6 kW $CO_2$ laser by 6 kW diode-pumped solid-state laser. | Reduction of energy consumption by approx. 580 MWh/year and reduction of $CO_2$ emissions by approx. 200 tons/year | 30 August 2013 | New measure |

Since 2013, voestalpine Anarbeitung GmbH has also been included in the environmental program.

# Implemented environmental activities

Excerpt from environmental activities implemented during the 2012 calendar year at the Linz site.

| Company | Objective | Measure | Figure | Date |
|---|---|---|---|---|
| voestalpine Grobblech GmbH | TG1: 4.2 m quarto Reduction of $NO_x$ emissions in pusher-type furnace 1 | Optimization of process controls for special procedures in pusher-type furnace 1 | Reduction of $NO_x$ emissions to 500 mg/$Nm^3$ max. | 31 December 2012 |
| voestalpine Stahl GmbH | Sinter plant: Reduction of $NO_x$ emissions | Installation of $DeNO_x$ plant | Potential $NO_x$ savings of approx. 400 tons/year | 31 December 2012 |
| voestalpine Stahl GmbH | Sinter plant: Reduction of hazardous wastes from the MEROS plant | Change of adsorption agent from lime hydrate to sodium hydrogen carbonate | Reduction of hazardous waste, approximately 2,000 tons (accurate determination of reduced amount not possible until one-year operation of the $DeNo_x$ plant because the $SO_2$ limit value cannot be determined until then and the amount of sodium hydrogen carbonate is dependent on this). | 31 July 2012 |
| voestalpine Standortservice GmbH | Reduced volume of road salt | Installation of pre-wetted salt treatment facility | Savings: Road salt approx. 200 tons/year | 31 December 2012 |
| voestalpine Europlatinen GmbH | Air compressor: Optimization of energy efficiency | Implementation of new air compressor and new controls for the older compressors | Savings: Reduced electric consumption by 30 MWh/year | 30 April 2012 |

# Remediation of brownfield O76 coking plant site in Linz

**In the next at least ten years, the brownfield O76 coking plant site in Linz will be secured and cleaned up. As a result of the extensive destruction during World War II the ground of the site was heavily contaminated. This was also proven by comprehensive soil investigations. Remediation of the brownfield coking plant site in Linz, with a total surface area of 351,000 square meters, officially commenced in October 2012. The total costs for the project amount to roughly 154 million euros.**

The coking plant was erected in 1942. Following the extensive destruction during World War II, it was rebuilt and put into operation. As a result of the destruction, the underground of the brownfield site is heavily contaminated. This leads to a substantial contaminant input into the ground water. A contaminant plume with a length of several hundred meters has formed in the ground water.

From 2003 to 2008, the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management and the Upper Austrian Provincial Governor set up additional investigations at the presumably contaminated coking plant site in Linz. Based on this, the Federal Environmental Agency performed a risk assessment for the presumably contaminated site.

The area was defined as a contaminated site of the highest priority (1). Accordingly, the remediation project will be supported by a subsidy of up to 95 percent. The evaluation of suitable remediation procedures carried out in 2009, suggests the following measures for securing and cleaning up the brownfield O76 coking plant site in Linz.

- Funnel-and-gate system for securing the ground water stream
- Partial clearance of the unsaturated soil zone, soil washing and refill
- Soil vapor extraction in the unsaturated soil zone
- Phase separation in the saturated soil zone

Remediation is divided into different phases and, because of the large size of the site, it will take at least ten years.  It is especially important for voestalpine that all contaminated areas are completely secured and cleaned up, without affecting ongoing plant operations at the Linz site. After remediation, the coking plant area should be usable again for operational purposes, and the cleaned ground water should be available for use again. The voestalpine Group will contribute around seven million euros to the remediation of the brownfield site.

# Production figures
## and energy

The production figures listed below show the relevant environmental parameters for the companies included in this Environmental Report.

| Linz location | | | |
|---|---|---|---|
| **Production output** | **Unit** | **2011 CY** | **2012 CY** |
| Crude steel (CS) | million tons | 5.24 | 5.33 |

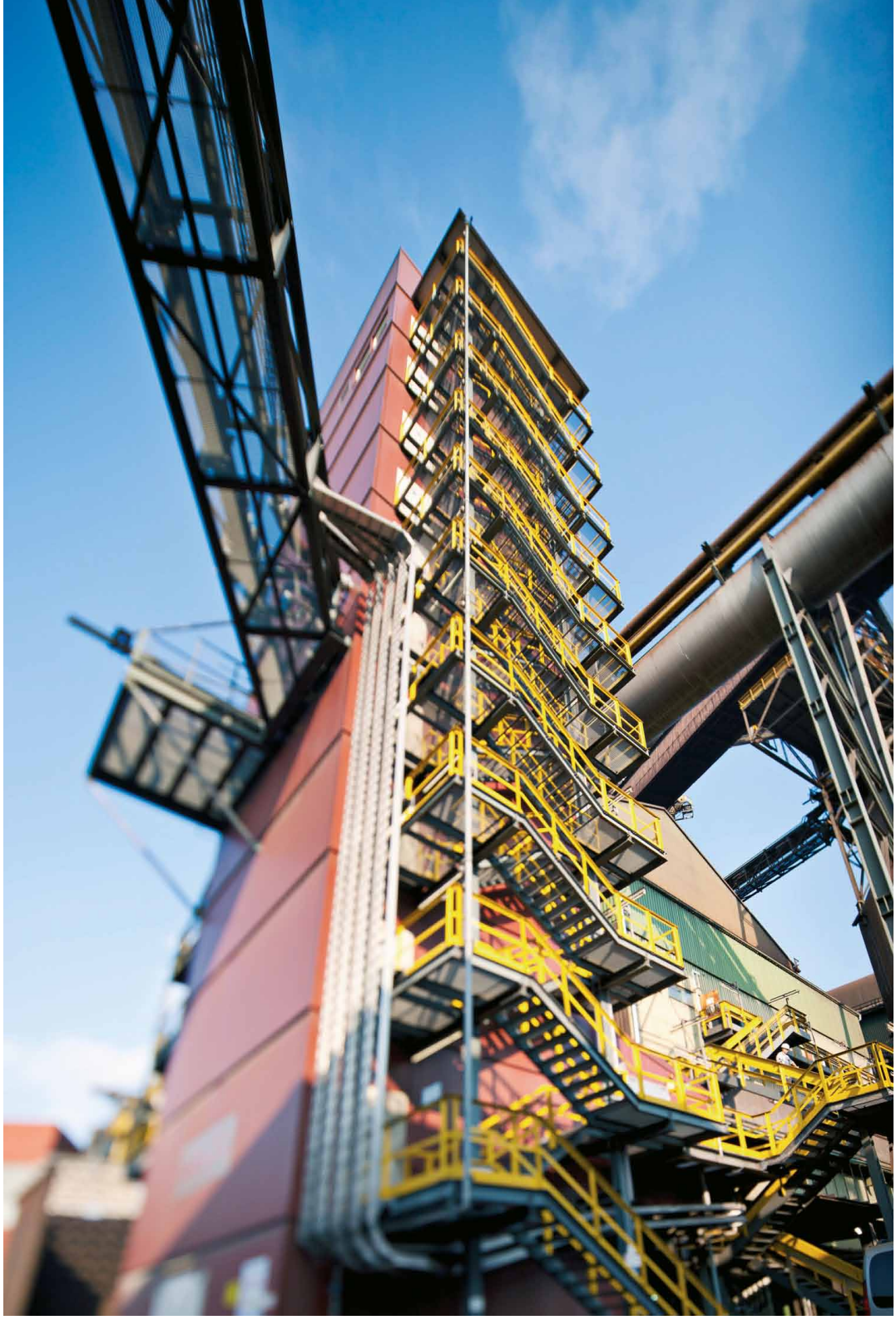
| Products | Unit | 2011 CY | 2012 CY |
|---|---|---|---|
| Hot-rolled strip (unslit) | million tons | 1.0 | 1.1 |
| Cold-rolled strip and electrical steel | million tons | 0.9 | 0.9 |
| Galvanized strip | million tons | 1.8 | 1.8 |
| Organic-coated steel strip | million tons | 0.3 | 0.3 |
| Heavy plates | million tons | 0.7 | 0.6 |
| Blast furnace and LD slag | million tons | 1.5 | 1.8 |
| Cast parts | t | 7,479 | 7,309 |
| Laser-welded blanks | t | 120,638 | 90,595 |
| Cut shapes and shear-cut steels | t | 51,608 | 57,057 |

| Energy | Unit | 2011 CY | 2012 CY |
|---|---|---|---|
| Natural gas | TWh | 4.4 | 4.4 |
| Heavy oil [1] | million tons | 0.13 | 0.11 |
| Electric power (outside source) | TWh | 0.37 | 0.49 |

| Steyrling location | | | |
|---|---|---|---|
| **Products** | **Unit** | **2011 CY** | **2012 CY** |
| Burnt lime (BL) | million tons | 0.35 | 0.31 |
| Armorstones | million tons | 0.016 | 0.013 |
| Fines (unburnt) | million tons | 0.49 | 0.46 |

| Energy | Unit | 2011 CY | 2012 CY |
|---|---|---|---|
| Natural gas | GWh | 332 | 301 |
| Electric power | GWh | 14 | 14 |

[1] Used as reduction agent in blast furnace



Primary resources are saved by using plastics (such as pre-treated shredder residues, commercial, industrial, packaging and household waste) in the blast furnace process.

# Core indicators

The core indicators refer to total crude steel production in tons and to the production volume of burnt lime in tons.

| Linz location | Absolute volume | | | Specific volume | | |
|---|---|---|---|---|---|---|
| **Production volume** | **Unit** | **2011 CY** | **2012 CY** | **Unit** | **2011 CY** | **2012 CY** |
| Crude steel (CS) | million tons | 5.24 | 5.33 | | | |

| Energy efficiency | Unit | 2011 CY | 2012 CY | Unit | 2011 CY | 2012 CY |
|---|---|---|---|---|---|---|
| Total energy consumption | TWh | 26.3 | 26.1 | MWh/tCS | 5.0 | 4.9 |
| Portion of renewable energy [1] | TWh | 0.16 | 0.29 | MWh/tCS | 0.03 | 0.05 |

| Material efficiency | Unit | 2011 CY | 2012 CY | Unit | 2011 CY | 2012 CY |
|---|---|---|---|---|---|---|
| Ore | million tons | 7.2 | 7.2 | t/tCS | 1.4 | 1.4 |
| Scrap [2] | million tons | 1.4 | 1.4 | t/tCS | 0.3 | 0.3 |
| Burnt lime | million tons | 0.3 | 0.3 | t/tCS | 0.1 | 0.1 |
| Limestone fines | million tons | 0.5 | 0.5 | t/tCS | 0.1 | 0.1 |
| Coal | million tons | 1.8 | 1.8 | t/tCS | 0.3 | 0.3 |
| Purchased coke | million tons | 0.5 | 0.5 | t/tCS | 0.1 | 0.1 |

| Water | Unit | 2011 CY | 2012 CY | Unit | 2011 CY | 2012 CY |
|---|---|---|---|---|---|---|
| Danube water | millions of m³ | 592.9 | 581.3 | | | |
| Ground water | millions of m³ | 28.0 | 27.4 | | | |
| Potable water | millions of m³ | 0.1 | 0.1 | | | |
| Total | millions of m³ | 621.0 | 608.8 | m³/tCS | 118.5 | 114.3 |

| Emissions | Unit | 2011 CY | 2012 CY | Unit | 2011 CY | 2012 CY |
|---|---|---|---|---|---|---|
| Dust (diffuse and contained) | t | 245 | 234 | kg/tCS | 0.05 | 0.04 |
| $PM_{10}$ | t | 202 | 193 | kg/tCS | 0.04 | 0.04 |
| $NO_x$ as $NO_2$ | t | 3,188 | 3,122 | kg/tCS | 0.61 | 0.59 |
| $SO_2$ | t | 3,979 | 4,112 | kg/tCS | 0.76 | 0.77 |
| CO | t | 60,362 | 61,520 | kg/tCS | 11.52 | 11.55 |
| $CO_2$ [3] | million tons | 8.47 | 8.45 | t/tCS | 1.63 | 1.59 |

| Waste | Unit | 2011 CY | 2012 CY | Unit | 2011 CY | 2012 CY |
|---|---|---|---|---|---|---|
| Non-hazardous externally treated waste | t | 137,167 | 159,795 | kg/tCS | 26.2 | 30.0 |
| thereof waste materials similar to municipal waste | t | 1,256 | 1,381 | kg/tCS | 0.2 | 0.3 |
| thereof collected municipal waste | t | 504 | 513 | kg/tCS | 0.1 | 0.1 |
| Hazardous waste treated off site | t | 106,396 | 117,465 | kg/tCS | 20.3 | 22.1 |
| Waste landfilled on site | t | 59,340 | 45,817 | kg/tCS | 11.3 | 8.6 |
| Material recycling in the production of crude steel | t | 595,468 | 509,226 | kg/tCS | 113.6 | 95.6 |
| Recovery of off-site materials in the production of crude steel | t | 101,190 | 74,288 | kg/tCS | 19.3 | 13.9 |

| Biological diversity | | | | | | |
|---|---|---|---|---|---|---|
| Total surface area at site [4] | m² | 4,964,000 | | | | |

[1] Assessment of the proportion of renewable energies with respect to electricity labeling from purchased third-party electricity. For the 2012 calendar year, the following percentages were recorded: water power (51.85%), solid biomass (3.67%), liquid biomass (0.02%), biogas (1.03%), wind energy (4.39%), photovoltaic power (0.19%), waste containing a high percentage of biogenic materials (1.13%), landfill gas (0.04%) and sewage gas (0.03%).

[2] Scrap volume (total)

[3] From Emission Certificate Act (ECA) monitoring

[4] Core biological diversity indicator refers to the surface of the works premises at the Linz location as registered in the land registry in December 2012. Other greenhouse gases such as methane and chlorofluorocarbons (CFC) are emitted only in small amounts (roughly 60 tons of methane and 90 kg of CFC).

| Steyrling location | Absolute volume | | | Specific volume | | |
|---|---|---|---|---|---|---|
| **Production volume** | **Unit** | **2011 CY** | **2012 CY** | **Unit** | **2011 CY** | **2012 CY** |
| Burnt lime (BL) | million tons | 0.35 | 0.31 | | | |

| **Energy efficiency** | **Unit** | **2011 CY** | **2012 CY** | **Unit** | **2011 CY** | **2012 CY** |
|---|---|---|---|---|---|---|
| Total energy consumption | TWh | 0.35 | 0.34 | MWh/tBL | 1.00 | 1.07 |
| Portion of renewable energies [1] | TWh | 0.006 | 0.009 | MWh/tBL | 0.02 | 0.03 |

| **Material efficiency** | **Unit** | **2011 CY** | **2012 CY** | **Unit** | **2011 CY** | **2012 CY** |
|---|---|---|---|---|---|---|
| Lime for burnt lime production | million tons | 0.6 | | t/tBL | 1.8 | 0.6 |

| **Emissions** | **Unit** | **2011 CY** | **2012 CY** | **Unit** | **2011 CY** | **2012 CY** |
|---|---|---|---|---|---|---|
| Dust [2] | t | 1.1 | 1.4 | kg/tBL | 0.003 | 0.004 |
| Dust (calculated diffuse emissions) | t | 1,200 | 1200 | kg/tBL | 3.41 | 3.81 |
| $NO_x$ as $NO_2$ [2] | t | 17 | 20 | kg/tBL | 0.05 | 0.06 |
| $CO_2$ [3] | million tons | 0.336 | 0.303 | t/tBL | 0.96 | 0.96 |

| **Waste** | **Unit** | **2011 CY** | **2012 CY** | **Unit** | **2011 CY** | **2012 CY** |
|---|---|---|---|---|---|---|
| Non-hazardous waste treated off site | t | 82.1 | 66.9 | kg/tBL | 0.23 | 0.21 |
| Hazardous waste treated off site | t | 5.3 | 6.3 | kg/tBL | 0.02 | 0.02 |
| Material re-utilization in the production of crude steel [4] | t | 6.5 | 6.0 | kg/tBL | 0.02 | 0.02 |

| **Biological diversity** | | | | | | |
|---|---|---|---|---|---|---|
| Total surface area at site [5] | $m^2$ | 1,303,000 | | | | |

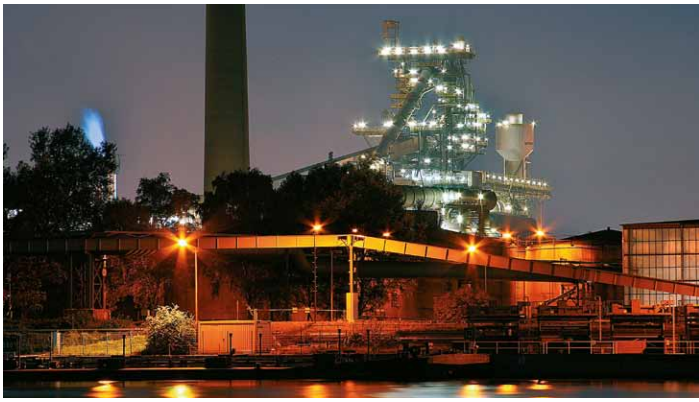
[1] Assessment of the proportion of renewable energies with respect to electricity labeling from purchased third-party electricity. For the 2012 calendar year, the following percentages were recorded: hydropower (51.85%), solid biomass (3.67%), liquid biomass (0.02%), biogas (1.03%), wind energy (4.39%), photovoltaic power (0.19%), waste containing a high percentage of biogenic materials (1.13%), landfill gas (0.04%) and sewage gas (0.03%).

[2] Emissions from lime furnaces

[3] From Emission Certificate Act (ECA) monitoring

[4] Materials recycling at the Linz site

[5] Core biological diversity indicator refers to the surface of the works premises at the Steyrling location as registered in the land registry in December 2012.



# Clean air

voestalpine strives to avoid or diminish air pollutants during production processes, in order to keep environmental effects at a minimum. The application of the best available technologies in this respect is the highest priority.

| Business unit | Plant system | Mean half-hour value ($mg/m_n^3$) | Measured mean annual value ($mg/m_n^3$) | |
|---|---|---|---|---|
| | | $NO_x$ as $NO_2$ limit value | 2011 CY | 2012 CY |
| Power plant | Block 06 | 100 | 79 | 82 |
| | Block 03 | 100 | 51 | 50 |
| | Block 04 | 100 | 44 | 44 |
| | Block 05 | 100 | 43 | 45 |
| | Block 07 | 100 | 56 | 43 |
| | Gas and steam turbine | 33 | 22 | 24 |
| Blast furnace blower station | Central blower station 2, boiler 1 | 100 | 5 | 5 |
| | Central blower station 2, boiler 2 | 100 | Out of operation | 11 |
| Hot-rolling mill | Pusher-type furnace 06 | 430 | 172 | 165 |
| | Pusher-type furnace 07 | 430 | 194 | 198 |
| | Walking-beam furnace 1 | [1] | 126 | 149 |
| Sinter plant | Sinter belt 5 | 350 | 244 | 221 [2] |
| Cold-rolling mill | Hot-dip galvanizing line III | 250 | 128 | 128 |
| | Hot-dip galvanizing line IV | 250 | 117 | 115 |
| | Hot-dip galvanizing line V | 250 | 105 | 107 |
| Heavy plates | Pusher-type furnace 1 | 500 | 332 | 348 |
| | Pusher-type furnace 2 | [1] | – | 318 [3] |

| | | $SO_2$ limit value | 2011 CY | 2012 CY |
|---|---|---|---|---|
| Power plant | Block 06 | 200 | 115 | 80 |
| | Block 03 | 200 | 123 | 112 |
| | Block 04 | 200 | 132 | 121 |
| | Block 05 | 200 | 130 | 123 |
| | Block 07 | 200 | 119 | 118 |
| | Gas and steam turbine | 67 | 41 | 43 |
| Blast furnace | Casting bay dedusting (blast furnace A) | 350 | – | 99 [4] |
| LD steelmaking plant | Secondary dedusting 1 | 101.5 [5] | 49 | 44 |
| Hot-rolling mill | Pusher-type furnace 06 | 200 | 63 | 64 |
| | Pusher-type furnace 07 | 200 | 62 | 59 |
| Coking plant | Sulfuric acid and gas cleaning system | 1,000 [6] | 432 | 431 |
| Sinter plant | Sinter belt 5 | 350 | 278 | 328 |
| Heavy plates | Pusher-type furnace 1 | 200 | 130 | 130 |

| | | CO limit value | 2011 CY | 2012 CY |
|---|---|---|---|---|
| Power plant | Block 03 | 100 | 4 | 2 |
| | Block 04 | 80 | 5 | 5 |
| | Block 05 | 80 | 8 | 7 |
| | Block 07 | 80 | 7 | 2 |
| | Gas and steam turbine | 33 | 4 | 2 |
| Blast furnace | Central blower station 2, boiler 1 | 80 | 0.2 | 0.2 |
| | Central blower station 2, boiler 2 | 80 | Out of operation | 0.1 |
| Strip coating line | Strip coating line 1 | 100 | 4 | 5 |
| | Strip coating line 2 | 100 | 6 | 8 |

The emission concentrations listed in the table refer to the respective statutory (e.g. Emission Protection Law on boiler plant systems, Directive for Iron and Steel Production) or officially determined oxygen content.

| Business unit | Plant system | Mean half-hour value (mg/$m_n^3$) | Measured mean annual value (mg/$m_n^3$) | |
|---|---|---|---|---|
| | | Limit value total C | 2011 CY | 2012 CY |
| Strip coating line | Strip coating line 1 | 30 | 3 | 3 |
| | Strip coating line 2 | 30 | 4 | 4 |
| | | H2S limit value [7] | 2011 CY | 2012 CY |
| Coking plant | Sulfuric acid and gas cleaning system | 500 | 308 | 300 |
| | | HF limit value | 2011 CY | 2012 CY |
| Sinter plant | Sinter belt 5 | 3 | 1.5 | 1.3 |
| | | Dust limit value | 2011 CY | 2012 CY |
| Blast furnace | Casting bay dedusting (blast furnace A) | 20 | 5 | 8 |
| | Casting bay dedusting system (blast furnaces 5 and 6) | 10 | 1 | 1 |
| Sinter plant | Sinter belt 5 | 10 | 2 | 2 |
| | Sinter plant dedusting | 24 | 10 | 12 |
| LD steelmaking plant | Secondary dedusting 1 | 20 | 6 | 2 |
| | Secondary dedusting 2.1 | 10 | 3 | 3 |
| | Secondary dedusting 2.2 | 10 | 0.7 | 0.3 |

All emission sources are continuously monitored. The data are referenced each individual calendar year.

[1] The limit value is defined in the course of the acceptance test.

[2] Commissioning of $DeNO_x$ system at sinter belt 5 (December 2012)

[3] Pusher-type furnace 2 was put into operation in June 2012.

[4] Emission data for $SO_2$ at the casting bay dedusting of BF A has been continually measured since October 2012.

[5] $SO_2$ limit values in kg/h

[6] There is also a fraction limit value of 150 kg $SO_2$/day under normal operating conditions.

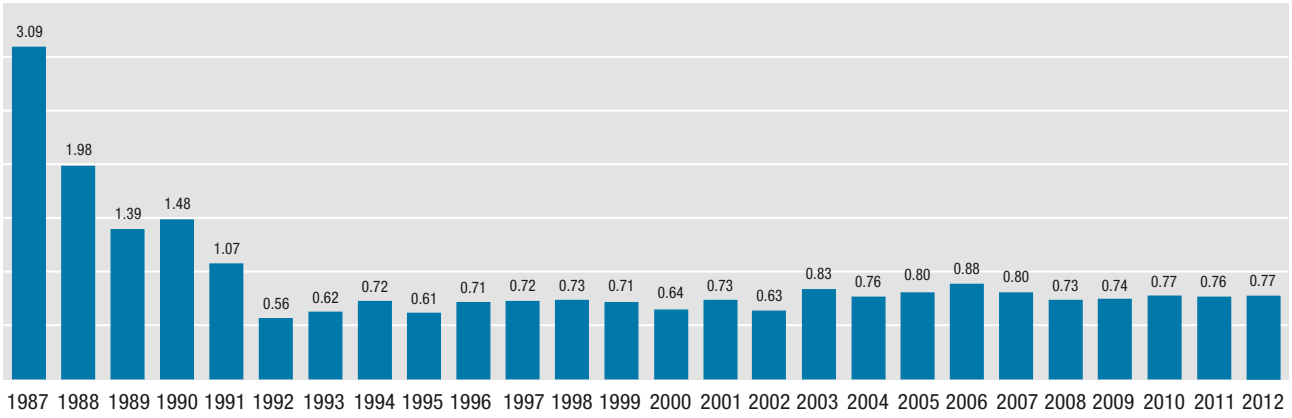
[7] $H_2S$ is contained in the coke-oven gas that is energetically utilized in other process steps. Emissions only occur as $SO_2$.

At the Linz location, two thirds of the main emissions of the integrated steel mill are continuously measured. The measurements are transmitted online to the environmental authority, where they are compared with limit values. All other emissions are determined and analyzed by accredited measuring institutes in measuring intervals defined by the authorities.

## Specific air-borne emissions

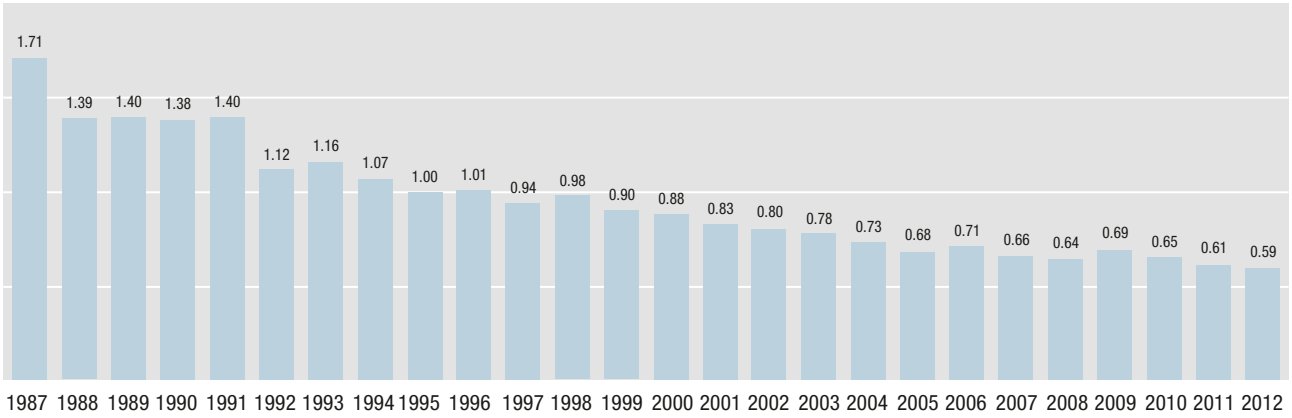
Specific volumes per year in kg/t CS

$SO_2$



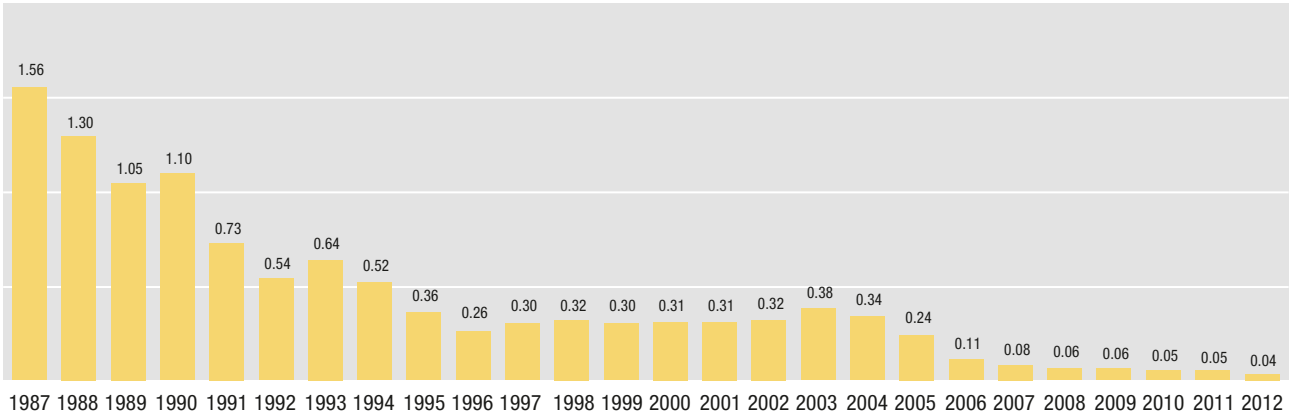

Specific volumes per year in kg/t CS

$NO_x$ as $NO_2$




Specific volumes per year in kg/t CS

dust




Emissions during lime production at the Steyrling site are low and comply with the limit values. Many times the figures fall well under the prescribed values. Diffuse emissions in mining are relevant and will be greatly reduced by the planned modernizations in mining. Activities involving large amounts of dust, such as blasting, take weather conditions into account.

# $DeNO_x$ plant—a technological system that is unique in Europe and used to reduce sinter plant emissions

**Building the very first industrial DeNOx plant was no easy task. The trial operation of the small-scale pilot plant took no less than two years. First measurement results from the cleanest sinter plant in Europe prove that the investment has paid off.**

Nitrous oxides ($NO_x$) are gaseous nitrogen compounds. They occur in combustion processes in motor vehicles, power plants, industrial operations and microbiological decomposition processes in the soil. Open fires (gas ranges, candles, etc.) and smoking are also sources of $NO_x$.

Since the 1980s, substantial investments have been made and the $NO_x$ emissions have been continuously reduced. At the beginning of December 2012, the new DeNOx plant was inaugurated with the purpose of reducing the emissions during sintering (such as nitrous oxides-$NO_x$).

The new $DeNO_x$ plant takes advantage of a technology that previously was only used in power plants and refuse incineration plants. After trial operation in a pilot plant, voestalpine decided to use the technology in the sinter plant and succeeded. Thanks to the brand-new system, the annual volume of $NO_x$ emissions is reduced by more than 10% of the $NO_x$ limit value for the Linz location. This is a significant contribution to ensuring environmentally compatible emission levels at the Linz location in the long term.

## How the $DeNO_x$ plant works

The sinter gas from the MEROS plant flows in an initial step through a heat exchanger and is then heated by a gas burner to a temperature of 280 °C. Ammonia is then injected before the gas flows through a catalytic converter. Here, the nitrous oxides ($NO_x$) are reduced to nitrogen and water. This method is called selective catalytic reduction (SCR).


**The sinter offgas cleaning process is comprised of four steps**

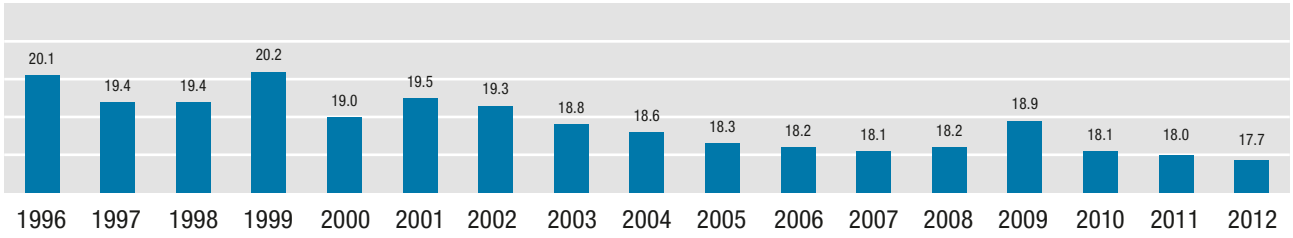
1. Selective offgas return (returns 30% of the offgas to the process)
2. Preliminary dust extraction in the electrostatic precipitator
3. MEROS plant (filters fine dust, acid gas components such as $SO_2$, HCl, HF and heavy metals)
4. $DeNO_x$ plant (last step of the offgas cleaning process)

# Energy
## A topic that gives us power

Energy efficiency is a continuous challenge in the steel industry to which voestalpine responds with complex programs and new technologies for efficient energy management, and process innovations.

Constant energy monitoring is the basis for the continuous improvement of overall energy efficiency and plant optimizations. One of the main focuses is on increasing the energetic utilization of process gases in thermal processes and the exploitation of waste-heat potentials.

## Net energy consumption




Specific net energy consumption per year in GJ per ton of crude steel produced *)

| Energy source | 2011 CY | | | | 2012 CY | | | |
|---|---|---|---|---|---|---|---|---|
| | Unit | Volume | Unit | Calorific value | Unit | Volume | Unit | Calorific value |
| Natural gas | $m_n^3$ | 388,019,728 | MWh | 3,921,584 | $m_n^3$ | 390,490,331 | MWh | 3,943,577 |
| Coke gas | $m_n^3$ | 589,698,808 | MWh | 2,957,893 | $m_n^3$ | 592,200,666 | MWh | 2,971,290 |
| Blast-furnace gas | $m_n^3$ | 6,509,333,919 | MWh | 6,735,594 | $m_n^3$ | 6,517,157.839 | MWh | 6,485,516 |
| Converter gas | $m_n^3$ | 428,739,028 | MWh | 800.462 | $m_n^3$ | 470,833,018 | MWh | 884,725 |

*) Calculation based on upper caloric value of net electricity

Calculation based on lower calorific value

# Construction of
# new converter gas gasometer

Optimization of the recycling of top gas accumulated during the LD process is an essential factor for the conservation of resources and the efficiency of an integrated steel mill. The old, high-maintenance telescope gasometer was replaced by a new 65-meter-high gasometer that is reliable in operation.

First, the roof was assembled and then the disk was inserted. Next, the structure (disk and roof) was gradually lifted by means of an air blower and the wall elements were inserted.

The disk that keeps the gas under pressure has a weight of 286.5 tons. It is lubricated with oil to float almost frictionlessly on a cushion of converter gas, and compensate the sometimes extreme variations in volume. By the way, the disk-type gasometer was developed roughly 100 years ago by the utility vehicle manufacturer MAN.

With the new converter gas gasometer it is possible to recycle 82.3 $m^3$/t CS. In addition, the control for parallel operation of the two converter gas compressors was optimized. Almost the entire converter gas volume can now be recycled, which saves 66,000 MWh/year (corresponds to a reduction of $CO_2$ emissions by 13,000 tons/year).

As a result of these two measures and the construction of the new power plant block 07, the co-products are utilized even more efficiently and flare stack losses are further reduced.

# Water supply and treatment systems

Water is used for cooling and steam generation in the production of hot metal and steel, which makes it one of the most important auxiliary utilities in these processes.

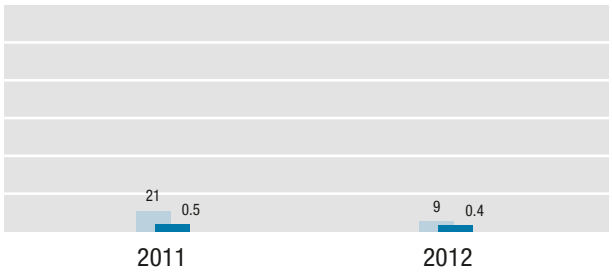
voestalpine pays particular attention to the conservation of water resources, while taking local conditions into account. Recirculation systems, modern production plants and processes allow for multiple use of process water and help to reduce the consumption of process water. Depending on the elements contained in the waste water, it is either piped to the regional wastewater treatment plant of Linz AG or channeled into the Danube or the Traun river.

## Trends in discharged waste water volumes

In the 2012 calendar year, a waste water volume of 114 $m^3$/t CS was discharged. The reduction of absolute and specific volumes is within the variation range of the previous calendar years.

## Waste water load

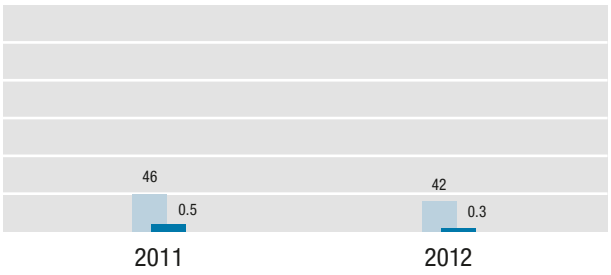
Specific discharge into Danube




COD in g/t crude steel *)

Total heavy metals (Pb + Zn + Cr + Ni) in g/t crude steel *)

Specific discharge into the clarifying plant




Phenol in g/t crude steel

Total heavy metals (Pb + Zn + Cr + Ni) in g/t crude steel

*) minus initial load from Danube

# Waste management

In the 2012 calendar year, approximately 61.2% of the recycled and waste materials at the Linz location were returned to the production processes. Hazardous and non-hazardous wastes that cannot be recycled in company operations are either re-utilized off site (18% during the 2012 CY), dumped at the in-house site (5.5% during the 2012 CY) or processed in external treatment facilities (15.3% during the 2012 CY). In total, the re-utilization rate of recyclable and waste materials is at 79.2%.

The following figures show the re-utilization quotas of recyclable and waste materials (recycling of scrap not included) at the Linz site.

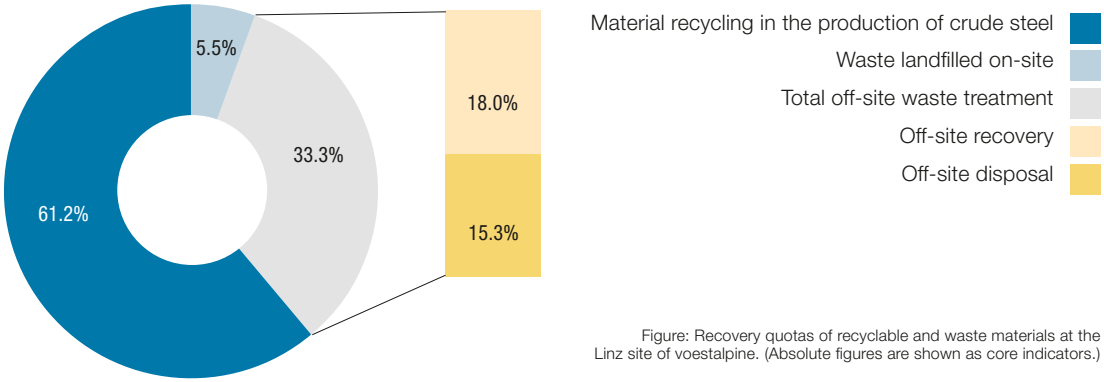
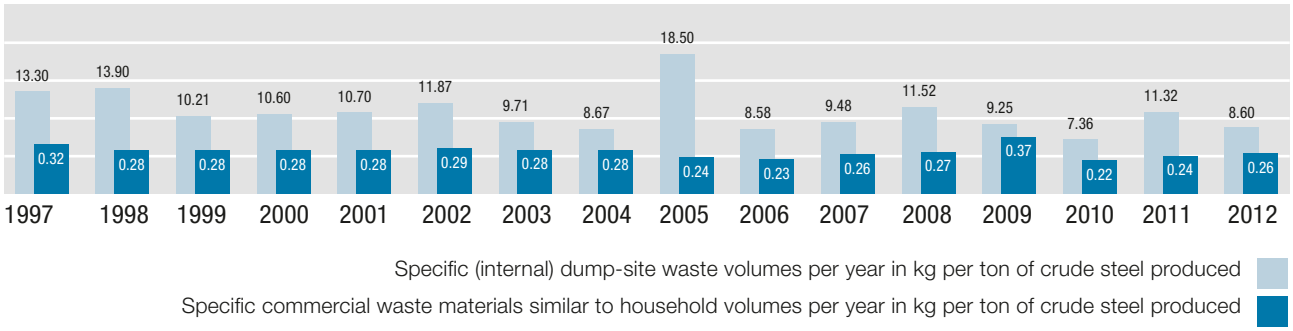



Figure: Recovery quotas of recyclable and waste materials at the Linz site of voestalpine. (Absolute figures are shown as core indicators.)

As a result of the continual improvement of material efficiency and optimization of re-utilization methods, resources can be saved and residual and waste materials can be reduced in the long term. voestalpine makes every effort to re-utilize residual and waste materials from external production processes in the production of hot metal and steel in the integrated steel mill. Examples of this are scrap, plastic pellets, end-of-life oils and greases.

## Internally dumped refuse and commercial materials similar to household waste



# Transport

Products are dispatched and raw materials procured primarily through Logistik Service GmbH and Cargo Service GmbH by rail, ship and truck. voestalpine Rohstoffbeschaffungs GmbH coordinates and handles the transport of raw materials.

The determination of diffuse emissions is difficult to impossible because of the large number of transport routes in use by the various means of transport (railway, ship, truck) with a wide variety of engine and vehicle technologies. For this reason, no direct emission assessment is made for the transport of raw materials and for the delivery of products to voestalpine at the Linz location. Only indirect but significant evaluation criteria are determined. Special emphasis is placed on transporting materials by rail instead of truck, as this is more environmentally compatible.

## Transport of raw materials

The proportions of raw materials transported by the different means of transport in the 2012 calendar year are similar to the previous year. 55.6% of the raw materials are transported by rail and 44.4% by ship.

**Means of transport for raw materials**

| | Unit | 2011 CY | 2012 CY |
|---|---|---|---|
| Transport of raw materials [1] | [1000 tkm] | 7,000,000 | 7,200,000 |
| Transport by rail | [%] | 59.0 | 55.6 |
| Transport by ship [2] | [%] | 41.0 | 44.4 |
| Transport by truck | [%] | [3] | [3] |

[1] Raw material deliveries in ton kilometers of ore, coal, scrap, lime, coke and coke breeze
[2] Raw material transport by inland waterway
[3] Raw material transport by truck < 0.1%

# Product dispatch

The following table shows the percentages of products dispatched by rail, ship and truck:

| | Unit | 2011 CY | 2012 CY |
|---|---|---|---|
| Products dispatched [1)] | [t/a] | 4,500,000 | 4,500,000 |
| Transport by rail | [%] | 69.7 | 69.6 |
| Transport by ship | [%] | 8.4 | 8.5 |
| Transport by truck | [%] | 21.9 | 22.0 |

[1)] Products delivered from the Linz site by Logistik Service GmbH and Cargo Service GmbH (deliveries by Cargo Service GmbH are exclusively by rail)

# Corporate principles

## Striking the right balance between productivity, quality, safety and the environment is our key to remaining *one step ahead.*

The Steel Division strives toward leadership in quality, technology and profit in the European steelmaking industry and has taken the challenge to combine growth and competitiveness with ecological and social responsibility. The integrated management system for quality, safety, the environment and risk makes a valuable contribution to the achievement of these objectives, which is why the management board has adopted the following principles:

**Customer orientation**
Our customers, not us, define what quality is, and that is what we deliver. We orient our processes to customer needs and thus lay the foundation for sustained customer satisfaction.

**Innovation and continuous improvement**
We are not satisfied with a performance that is anything less than excellent. Innovation and continual improvement are the prerequisites to the success and added value of our company. Each employee has the task and the challenge to continually make improvements.

**Employee development**
Competent and motivated employees are the most important force in our company. This is why we require the appropriate knowledge and a keen sense of responsibility from our staff members and cooperation with each other at all levels. We create a modern and attractive place to work, a place where each of our employees can flourish.

**Objectives and figures (measurable success)**
Initial concrete objectives and effective communication of the same make implementation of our strategy possible. Figures show us whether we are on course or need to take corrective measures.

**Risk management**
The recognition of opportunities and risks that can either promote or endanger the growth of corporate value is an important management task and thus an integral part of our activities on a corporate level.



### Safety and health

The company and the employees are mutually responsible for safety and health. This is why we create safe places to work for all our employees, promote self-responsibility and help employees conscientiously adopt safe and healthy practices both at work and in their leisure time.

### Prevention

Accidents at work, health hazards, adverse effects to the environment, quality issues and damage to production systems are avoided through preventive measures. Errors that occur in spite of our every effort are seen as an opportunity to learn. For this reason they are documented, analyzed and corrected.

### Suppliers

We foster partnerships based on mutual trust and understanding with our suppliers in order to ensure the highest levels of performance for our customers.

### Environmental protection

Thrift in our consumption of natural resources and various forms of energy and the minimization of harmful influences to the environment is important from an ecological perspective and saves costs as well. We are well aware of our social responsibility and are thus well prepared to set economically feasible standards in the field of environmental technology.

### Company and partnerships

The entire corporate group is responsible for our ultimate success. Open communications and longterm partnerships with every interest group are the basis for solutions based on sustainability. The consideration of all concerns from our customers and partners and compliance with legal regulations are an integral part of our strategy.

# Your safety
# is our priority

## Information to the public on safety measures and correct behavior in the event of industrial accidents pursuant to Section 13 of the Industrial Accident Act.

At the Linz production site, voestalpine Stahl GmbH operates plant systems that are subject to the Industrial Accident Act and provides the following information on safety measures and correct behavior in the event of industrial accidents. Not every plant system failure is an industrial accident. An industrial accident is defined as an event in which certain dangerous substances are released that pose a danger to humans or to the environment. The precautions to be taken to prevent and limit industrial accidents are set forth in the Industrial Accident Act. Because of the comprehensive safety measures that have been taken for many years in production, the probability of you as a neighbor being affected by an industrial accident is very low. An industrial accident can only occur in the event that all the precautionary technical and organizational measures simultaneously fail. In the unlikely event that an industrial accident occurs in spite of all the safety measures that have been implemented, the following information advises you of steps to take.

There are four relevant plant areas in the integrated metallurgical facility that could have an effect beyond the works premises in the unlikely event of an industrial accident:

- Coke oven batteries, including coking gas recovery, conveyor system and gasometer
- Tar extraction and crude benzene plant, including storage tank
- Blast furnaces, including furnace gas cleaning, conveyor system and gasometer
- Converter operations, including converter gas cleaning, conveyor system and gasometer

An air separation unit that operates according to the Linde low-pressure technology is another safety-relevant system on the works premises in Linz. It is operated by Linde Gas GmbH. The possible effects of this plant system are taken into account in this information. The substances contained in the systems of voestalpine Stahl GmbH and Linde Gas GmbH are subject to the provisions set forth in Section 8a of the Trade and Industrial Code dated 1994.

The authorities have been notified pursuant to Section 84c, Para. 2 of the Trade and Industrial Code dated 1994. Respective safety reports have been submitted to the authorities.

The following safety aspects are taken into account in the safety report submitted:

- Processes and reactions occur in closed systems
- Dangerous substances are replaced where possible and remaining amounts are reduced to the specifically required volumes
- The avoidance of waste takes a high priority in the planning and operation of plants

- Safety systems generally consist of multiple stages
- The plants are operated, maintained and tested by qualified and regularly re-trained personnel

The plants are regularly tested in accordance with legal regulations by in-house and external experts (such as TÜV). Stringent safety regulations are assessed by the authorities for all designated plant systems. As a result of these regulations and precautions taken by the operators, there has never been an accident at the works that would have posed any hazard to the population. In spite of the high safety standards, the risk of accidents can never be completely eliminated. Even though the probability of an accident with effects beyond the works premises is very low, voestalpine Stahl GmbH nevertheless takes this opportunity to inform the public in a precautionary manner of possible effects and measures to take in the event of an accident.

# Information on possibly hazardous plant systems and production activities

**Coke oven batteries, including coking gas recovery, conveyor system and gasometer.**
The coke required in the blast furnace is produced in the coking plant. For this purpose, finely ground coal is heated in coking ovens that are arranged in batteries each containing a total of 40 ovens. The coal is heated for approximately 18 hours to a temperature of roughly 1,250°C. The coal is converted into coke, which means that it is baked until it has released all its gaseous constituents. These gaseous constituents make up the coke gas that is cleaned to a high degree in the coking plant and is then used as a fuel gas in the power plant and other furnace systems throughout the steel works. A gasometer and a network of gas lines store the gas until it is used. The system of course is closed. Coke gas contains approximately 7% carbon monoxide and is, as are all flammable gases, combustible with certain amounts of air.

**Tar extraction and crude benzene plant, including storage tank**
Crude tar and crude benzene occur as co-products during the high-grade cleaning of the coke gas. Crude benzene is cleaned out of the coke gas by means of wash oil in two scrubbers. It is then removed by means of distillation from the circulating wash oil and stored intermediately in a 2000 $m^3$ tank before it is delivered to purchasers. The crude benzene storage tank is suctioned out. The filling process is by means of a gas displacement device to ensure that no emissions can be released. Crude benzene contains up to 85% benzene. The fumes are, as with all other flammable liquids, combustible when mixed with certain amounts of air.

The crude tar condenses with condensation from the crude coke gas and is separated in tar separators from the condensate. Crude tar is pumped through the intermediate tar containers into the crude tar tanks. The individual parts of the tar separator units are equipped with a liquid-tight bucket system to prevent any emission to the environment. The crude tar and crude benzene are contained in tank railcars until they are used in the closed systems of production lines.

### Blast furnaces, including furnace gas cleaning, conveyor system and gasometer

Blast-furnace gas is a by-product and co-product that occurs during the production of hot metal in the blast furnace. The technical term is top gas. This top gas is cleaned to a high degree, removing all the dusts, and is used as a fuel gas in the blast furnace itself, the power plant, in the coking plant and other furnace systems throughout the steel works. A gasometer and a network of gas lines store the gas until it is used. The entire network is a closed system. Top gas contains approximately 25% carbon monoxide and is, as are all flammable gases, combustible with certain amounts of air.

### Converter operations, including converter gas cleaning, conveyor system and gasometer

Steel chemically differs from iron primarily in its lower carbon content. The carbon contained in the crude iron produced in the blast furnace is removed from the steel melt by means of the oxygen top-blowing process during steelmaking in the LD steel plant. This process yields the so-called converter gas that is subjected to a high-grade cleaning process in electric filters and then added in a controlled manner to the top gas in order to increase its calorific value. A gasometer and a network of gas lines store the gas until it is used. The system of course is closed. Converter gas contains approximately 60% carbon monoxide and is, as are all flammable gases, combustible with certain amounts of air.

### Air separation unit

Air is divided in air separation units belonging to Linde Gas GmbH by means of rectification into nitrogen, oxygen and argon constituents. The generated gases are either piped in gaseous form to consumers in the works of voestalpine Stahl GmbH or to the Chemiepark or they are liquefied, stored at super-cooled temperatures and filled into tank cars. In addition to the air as a raw material and different energies, hydrogen is also required in argon fine cleaning system of the air separation unit. This hydrogen is supplied by Chemiepark and stored additionally in a pressurized tank.

### Hydrogen production facility

Natural gas is converted through chemical reactions into hydrogen in the steam reformers (STR A and B) of Linde Gas GmbH. The gaseous hydrogen is supplied to voestalpine Stahl GmbH and Chemiepark in Linz. External customer supply is provided on trailer units.

### Unloading of fuel oil and distribution into piping and storage tanks

Heavy fuel oil is delivered in tankers via the river port to voestalpine Stahl GmbH and is there pumped directly through a closed-pipe system into the storage tanks. From the storage tanks, the heavy oil is pumped as it is required through piping to the blast furnaces, where it is utilized as an ore reduction agent in minimizing required volumes of coke. Light fuel oil is delivered in tank trucks and pumped into the storage tanks at the power station of voestalpine Stahl GmbH. The light fuel oil is pumped through piping from the storage tank to block 7 of the power plant of voestalpine Stahl GmbH. The light fuel oil is used in the event that other fuels, such as the usually used metallurgical gases and natural gas, are temporarily not available. In order to ensure that the light fuel oil is ready for use, it is continuously circulated in piping between the storage tank and the power station in order to maintain the required temperature and pressure.

# Information on the types of dangers and their possible consequences

A high standard of safety is guaranteed by continuous monitoring by plant personnel, regular tests and the safety precautions described above. Should an industrial accident occur, however, in spite of all the technical and organizational preparation made to prevent such an incident, the emission of poisonous substances still poses a possible danger in addition to explosion and fire. In such an instance, affects to human health and the natural environment outside the works premises, especially caused by gas or fumes that may be carried over distances, cannot be excluded.

The following substances when emitted into the atmosphere pose a potential danger beyond the premises of the steel works.

### Carbon monoxide

Carbon monoxide is contained in

- Coke-oven gas (approx. 7 volume percent CO)
- Blast-furnace gas (approx. 25 volume percent CO)
- Converter gas (approx. 60 volume percent CO)

The listed process gases are easily combustible and are poisonous because of their CO content. When emitted to the atmosphere, these gases are diluted with atmospheric air to differing degrees that lead to various symptoms depending on the respective concentrations. These symptoms may include headache, dizziness, sickness, sleepiness, asphyxiation, unconsciousness and respiratory paralysis.

Patients must be exposed to fresh air, must rest comfortably and tight clothing must be loosened. In the event of apnea, resuscitation is required to introduce oxygen to the brain. Call a doctor. Keep patients warm. In the event of threatening unconsciousness, place the patient on his or her side and transport in stable position.

### Benzene

Patients must be exposed to fresh air, must rest comfortably and tight clothing must be loosened. Resuscitate immediately in the event of apnea. Remove contaminated clothing immediately. Rinse contaminated skin sufficiently with water. Rinse contaminated eyes adequately with water for ten to fifteen minutes. Call a doctor. Keep patients warm. In the event of threatening unconsciousness, place the patient on his or her side and transport in stable position.

### Atmospheric gases and hydrogen

Because of their volumes and properties (both not poisonous) and distances to other substances, the hazardous substances (oxygen, nitrogen, argon and hydrogen) contained in the air separation and hydrogen production units are not potentially hazardous outside the premises of voestalpine Stahl GmbH.

### Measures

The measures taken to eliminate accidents and limit the consequences of an accident are regulated in the emergency plan of voestalpine Stahl GmbH. This plan is regularly updated in collaboration with the building conservation and regulation authorities and the fire department of Linz pursuant to the pertinent official regulations of the provincial capital of Linz. The measures to be taken in the event of an incident are obligatory.

The safety report of voestalpine Stahl GmbH was submitted on 28 September 2007 to the municipal offices of the city of Linz and is an integral part of the tests carried out by the responsible authorities that also serve to meet requirements and adaptations pursuant to Section 8a of the Trade and Industrial Code dated 1994. With respect to the air separation unit, a safety report has also been submitted by Linde Gas GmbH.

### External emergency plan

Detailed information on the alarms and measures outside the works premises can be found in the external emergency plan issued by the fire department. Required measures in the event of Danger Level IV are contained in the internal emergency plan.

**Notification procedures** (excerpt from the emergency plan of voestalpine Stahl GmbH)
The following measures have been determined in accordance with the emergency plan of voestalpine Stahl GmbH:

- Works fire department responds to the scene with all fire trucks and breathing apparatus vehicle
- Fire department of the City of Linz responds to the scene
- Establishment of a command center on site managed by City of Linz fire department
- Measures taken to eliminate dangers such as cordoning off area by gas search troop, evacuation of the cordoned off area, radio announcements, etc.

### Warning

The public is warned by means of sirens in the event of an extraordinary incident. Industrial accidents on the premises of voestalpine Stahl GmbH and steps to be taken by the public are announced on public radio and television stations.

This procedure and the type of announcements made to the public are determined in detail by the municipal authorities of the provincial capital city of Linz and are binding.

### Note

Please do not call emergency telephone numbers without any important reason. This will ensure that the lines remain open for actual emergencies.

**Contact numbers for inquiries and further information**

Works Fire Department: T. +43/50304/15-8445
Environmental Department: T. +43/50304/15-2999
Occupational Safety Department: T. +43/50304/15-6190
Linde Gas GmbH: T. +43/50/4273-1616

# Radiation, noise and odor

## Radiation

All raw materials at the site are inspected thoroughly for radiation by highly sensitive devices before they are delivered to production facilities. Radioactive tests are conducted on all heats of the intermediate hot-metal product to exclude any risk.

## Noise

In the course of the environmental impact assessment (L6), the works premises were divided into 16 contingency sections.  Higher noise loads of individual surface areas can be balanced by surface areas that do not reach permissible noise levels. The defined upper limits of noise pollution are in the interest of both our neighbors as well as those who work at voestalpine.

From the perspective of neighborhood protection, limitation of noise emissions is important with respect to on-site expansion. The limit was defined in the interest of immission neutrality, which ensures that neighbors are not subjected to any additional perceivable noise pollution.

## Odor

As a result of previous measures to avoid/reduce air emissions, the immissions have by now reached a level that there are no offensive odors.

## Vibration

Lime-containing rock at the Steyrling site is mined from the walls of an open pit by means of conventional blasting. This can cause ground vibration. Shooting and blasting activities are announced to neighboring parties ahead of time.

# Glossary
## Short explanations

**DeNO$_x$:**
Offgas denitrification system for the prevention of nitrous oxides as offgas, such as in power plants.

**EMAS Regulation:**
Regulation (EC) No 1221/2009 of the European Parliament and Council of 25 November 2009 establishing a program for the voluntary participation of organizations in a community system dedicated to environmental management and company environmental impact assessment (EMAS = Eco Management and Audit Scheme).

**LD Process:**
Linz-Donawitz process – Top-blowing of hot metal with technical-grade oxygen.

**MEROS:**
Maximized Emission Reduction of Sintering – offgas cleaning system of the sinter plant.

**IMS policies:**
Guidelines and overall objectives set forth by executive management for the areas of quality, safety and environmental issues at the production site.

**Environmental audit:**
Systematic, documented, regular and objective evaluation of environmental performance.

**Environmental management system:**
Part of a company-wide management system that includes organizational structures, planning activities, responsibilities, methods, processes, procedures and resources for the development, implementation, fulfillment, evaluation and maintenance of environmental policies.

**Environmental program:**
Description of the measures required to achieve environmental objectives and individual environmental goals or planned measures (responsibilities, means and deadlines).

**Environmental impact assessment:**
Systematic test of direct and indirect effects of a project on the environment in the planning stages. The assessment reliably describes, evaluates and documents these effects.

# Deadlines, about us
## Perfect service

**A target-group-oriented transfer of information at regular intervals and an open internal and external dialog are of prime importance to us. The next consolidated Environmental Report will be submitted for review in October 2016 and published thereafter. In addition, an updated version is created, externally reviewed and published on an annual basis.**

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LRQA Business Assurance

**ERKLÄRUNG DES UMWELTGUTACHTERS**
**ZU DEN BEGUTACHTUNGS- UND VALIDIERUNGSTÄTIGKEITEN**

Lloyd's Register, Niederlassung Wien mit EMAS Umweltgutachter Registrierungsnummer AT-V-0022 und akkreditiert für den Bereich

**Integriertes Hüttenwerk der voestalpine Stahl GmbH und unten angeführte Gesellschaften am Standort Linz sowie Abbau und Herstellung von Kalk am Standort Steyrling**
**(einzelne Geltungsbereiche siehe Anhang)**
NACE Code: siehe Anhang

bestätigt, begutachtet zu haben, dass

**voestalpine Stahl GmbH, voestalpine Giesserei Linz GmbH, voestalpine Cargo Service GmbH, Logistik Service GmbH, voestalpine Grobblech GmbH, voestalpine Europlatinen GmbH, voestalpine Standortservice GmbH, voestalpine Anarbeitung GmbH**
**Linz, Steyrling, Österreich**

mit der Registrierungsnummer AT-000216
alle Anforderungen der Verordnung (EG) Nr. 1221/2009 des Europäischen Parlaments und des Rates vom 25. November 2009 über die freiwillige Teilnahme von Organisationen an einem Gemeinschaftssystem für Umweltmanagement und Umweltbetriebsprüfung (EMAS) erfüllt.

Mit der Unterzeichnung der Erklärung wird bestätigt, dass

- die Begutachtung und Validierung in voller Übereinstimmung mit den Anforderungen der Verordnung (EG) Nr. 1221/2009 durchgeführt wurden,
- das Ergebnis der Begutachtung und Validierung bestätigt, dass keine Belege für die Nichteinhaltung der geltenden Umweltvorschriften vorliegen,
- die Daten und Angaben der Umwelterklärung 2011 der Organisation ein verlässliches, glaubhaftes und wahrheitsgetreues Bild sämtlicher Tätigkeiten der Organisation innerhalb des in der Umwelterklärung angegebenen Bereichs geben.

Diese Erklärung kann nicht mit einer EMAS-Registrierung gleichgesetzt werden. Die EMAS-Registrierung kann nur durch eine zuständige Stelle gemäß der Verordnung (EG) Nr. 1221/2009 erfolgen. Diese Erklärung darf nicht als eigenständige Grundlage für die Unterrichtung der Öffentlichkeit verwendet werden.

LRQA Reg.-Nr.: VNA0005063/D

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| Datum der Systemverifizierung: | 20. Oktober 2011 |
| Ablauf der Systemverifizierung: | 19. Oktober 2014 |
| Datum der Validierung: | 28. November 2013 |
| Ablauf der Validierung: | 19. Oktober 2014 |

DI Johann Kitzweger, Lead Verifier
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on behalf of Lloyd's Register Quality Assurance Ltd
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Akkreditierungsnummer: AT-V-0022

Dieses Dokument unterliegt der umseitigen Bestimmung
71 Fenchurch Street, London EC3M 4BS United Kingdom. Registration number 1879370

Die Gültigkeitserklärung gilt zusammen mit der Validierung als Nachweis über die Verifizierung und Validierung. Sie werden bei der Beantragung auf Eintrag bei der zuständigen Stelle nach Artikel 3 der Verordnung benötigt. Der Text dieser Erklärung muss vollständig in der Umwelterklärung der Firma abgedruckt werden.

EMAS
Geprüftes Umweltmanagement
REG.NO. AT- 000216

The Linz and Steyrling locations have established independent environmental management systems. The public is informed of the environmental measures taken at these locations in compliance with the community systems for environmental management and environmental impact assessment.

**Registry number: AT-000216**


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