2012 Environmental Report

Update of the consolidated
2010 Environmental Report

Measures. Developments. Results.
Locations: Linz, Steyrling

voestalpine
ONE STEP AHEAD.

CONTENT

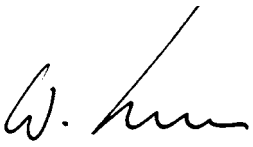
2012 Environmental Report Steel Division

Foreword by the Chairman of the Management Board

For decades, sustainable production processes, responsible conservation of resources and the implementation of state-of-the-art technologies have been integral parts of our corporate philosophy and business operations. They also form the foundation for our claim to long-term quality leadership in products and services. These are not simply buzzwords to us. We take full responsibility for our actions and work passionately on our green future.

Additionally, throughout its entire lifecycle from production to recycling, steel is characterized by the highest potential in all related raw materials with respect to conservation of resources and ecological benefits. It is the basis for future-oriented energy and mobility strategies that are only possible with the help of steel. In the mid 1980s we began our long journey in the direction of large-scale conservation of the environment. This is a journey that will never end because we take our environmental obligations very seriously. One thing, however, that we must never forget is the phenomenon that every technical optimization by nature has its mathematical, chemical and physical limitations somewhere along the way. We have drawn substantial attention to the fact that conscious negation of these limitations by way of legislation and regulation will beneficial no one but will have substantial negative effects on long-term investment decisions and will thus negatively impact industrial and economic development, which is the fundamental basis for jobs, social peace and prosperity in Europe. Today‘s worldwide challenges can only be met with globally standardized and binding regulations for the economy, with stipulations that apply globally and are based on equality and fairness in competition. Steel as a material is certainly not a part of the problem but is an integral constituent of future-oriented solutions.

Regardless of, or perhaps even because of, the difficult setting, we must consistently drive forward economically sensible and technologically prudent optimizations at our company in the areas of environment and resources. We feel a pronounced and unrestricted obligation to leave behind a sustainable and more livable world for future generations to come. This amended Environmental Report has been created in compliance with the EMAS III regulation and represents a significant part of our environmental management activities. It is intended to foster constructive dialog and to serve as a means of orientation and provides objective and updated information with regard to environmental projects. At the same time, we take this opportunity to provide you with a list of our long-term objectives and to show you how comprehensively we are making an effort to create an ecologically sound and healthy environment at the largest corporate site in the voestalpine Group.



Wolfgang Eder
Chairman of the Management Board

Environmental programs of the companies
2012 Environmental Program

The following table contains the ten most essential environmental measures that contribute substantially to an improvement of the environmental situation at voestalpine. Numerous activities have been planned and implemented in addition to these measures.

Company	Objective	Measure	Figure	Date	Status
voestalpine Stahl GmbH	Sinter plant: Reduction of NO_x emissions	Installation of DeNOx plant	NO_x savings approx. 400 tons/year	31 December 2012	Being implemented
voestalpine Stahl GmbH	Coking plant: Funnel and Gate (F&G): Prevention of the expantion 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: Establishment of an F&G to clean up the effluent ground water and a vacuum vapor extraction (VVE) system to reduce the 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 VVE: 31 December 2022	Being implemented
voestalpine Stahl GmbH	Sinter plant: Reduction of hazardous wastes in the Meros plant	Change of adsorption agent from lime hydrate to sodium hydrogen carbonate	Reduction of hazardous waste, approximately 2000 tons (precise amount of reduced amount not possible until one-year operation of the DeNox plant because the SO_2 limit value cannot be determined until then and the amount of sodium hydrogen carbonate is dependent on this.)	30 November 2011 New deadline 31 December 2014 Postponement for optimization of offgas cleaning line in connection with the new DeNox system	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, PM_{10}/year	31 December 2014	Being implemented
voestalpine Logistik Service GmbH	Reduction of CO_2 emissions in the transport of steel products	Utilization of combined transports Steel transports switched from truck to rail	Rail shipments increased by roughly 10%	31 December 2012 Postponed by reason of current market situation.	Being implemented
voestalpine Grobblech GmbH	TG1: 4.2 m four-high stand: 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/Nm³ max.	31 December 2012	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 approximately 20 tons/year	31 September 2012	New measure
voestalpine Europlatinen GmbH	Air compressor: Optimization of energy efficiency	Implementation of new air compressor and new controls for the older compressors	Reduced electric consumption by 30 MWh/year	30 April 2012	New measure
voestalpine Cargo Service GmbH	Reduced electric consumption	Pilot project: Introduction of environmentally compatible railway transports	Savings of roughly 250 MWh/year	31 March 2013	New measure
voestalpine Standortservice GmbH	Reduced volume of road salt	Installation of pre-wetted salt treatment facility	Savings: Winter salt approx. 200 tons/year	31 December 2012	New measure

As of 2012, voestalpine Cargo Service GmbH and voestalpine Standortservice GmbH are both represented along with the other companies in the Environmental program.

Excerpt from implemented environmental activities during the 2011 calendar year at the Linz site:

Company	Objective	Measure	Figure	Date
voestalpine Giesserei Linz GmbH	Molding, casting and modeling operations: Reduction of waste chromite stand	Installation of a second separation stage in recycling of waste chromite stand, further reduction of separated waste sand	5–10% savings in purchase of new sand based on purchase of new sand in 2006/07 BY	31 May 2011
voestalpine Europlatinen GmbH	Mechanical equipment: infrastructure Optimization of energy efficiency	Reduction of electricity consumption with focus on optimized stand-by consumption through consolidation of production times and comprehensive group of measures to reduce stand-by consumption in production free periods	Reduction of electric consumption by 20%	31 June 2011
voestalpine Grobblech GmbH	Reduced feed volume in longitudinal clarifiers, increased circulation volume	Further use of the thermal waste water for rapid cooling; use of additional circulation pumps for roller table rinsing	Reduction of feed volume by 920,000 m³/day	15 February 2012
voestalpine Stahl GmbH	Coking plant: Reduction of coke gas flare losses	Optimization of coke gas recovery for utilization in the integrated metallurgical plant through automated opening of the riser pipe cover	Reduction of CO_2 emissions by roughly 4,500 t/year	31 March 2012
voestalpine Stahl GmbH	Strip coating lines 1 and 2: Reduction of hydrocarbon fractions	Installation of an activated-carbon filter system in addition to the existing waste water cleaning plant	Hydrocarbon fractions reduced by 10%	31 December 2011

Production figures
and energy

The following production figures show the relevant environmental parameters for the companies included in this Environmental Report:

Linz location			
Production volume	**Unit**	**2010 CY**	**2011 CY**
Crude steel (CS)	million tons	5.19	5.24

Products	**Unit**	**2010 CY**	**2011 CY**
Hot-rolled strip (non-slit)	million tons	1.1	1.0
Cold-rolled strip and electrical steel	million tons	0.9	0.9
Galvanized strip	million tons	1.7	1.8
Organic-coated steel strip	million tons	0.3	0.3
Heavy plates	million tons	0.6	0.7
Blast furnace and LD slag	million tons	1.3	1.5
Cast parts	tons	7,030	7,479
Laser-welded blanks	tons	114,278	120,638

Energy	**Unit**	**2010 CY**	**2011 CY**
Natural gas	TWh	3.2	4.4
Heavy oil [1)]	million tons	0.20	0.13
Electric power (outside source)	TWh	0.34	0.37

Steyrling location			
Products	**Unit**	**2010 CY**	**2011 CY**
Burned lime (BL)	million tons	0.35	0.35
Water components	million tons	0.017	0.016
Fines (non-burned)	million tons	0.51	0.49

Energy	**Unit**	**2010 CY**	**2011 CY**
Natural gas	GWh	334	332
Electric power	GWh	14	14

[1)] Used as reduction agent in blast furnace

Core indicators

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

Linz location		absolute volume			specific volume	
Production volume	**Unit**	**2010 CY**	**2011 CY**	**Unit**	**2010 CY**	**2011 CY**
Crude steel (CS)	million tons	5.19	5.24			
Energy efficiency	**Unit**	**2010 CY**	**2011 CY**	**Unit**	**2010 CY**	**2011 CY**
Total energy consumption	TWh	25.5	26.3	MWh/tCS	5.0	5.0
Portion of renewable energy [1]	TWh	0.17	0.16	MWh/tCS	0.03	0.03
Material efficiency	**Unit**	**2010 CY**	**2011 CY**	**Unit**	**2010 CY**	**2011 CY**
Ore	million tons	7.1	7.2	t/tCS	1.4	1.4
Scrap [2]	million tons	1.4	1.4	t/tCS	0.3	0.3
Burned 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	1.9	1.8	t/tCS	0.4	0.3
Coke Purchase	million tons	0.5	0.5	t/tCS	0.1	0.1
Water	**Unit**	**2010 CY**	**2011 CY**	**Unit**	**2010 CY**	**2011 CY**
Danube water	millions of m³	602.8	592.9			
Ground water	millions of m³	28.2	28.0			
Potable water	millions of m³	0.1	0.1			
Total	millions of m³	631.1	621.0	m³/tCS	121.5	118.5
Emissionen	**Unit**	**2010 CY**	**2011 CY**	**Unit**	**2010 CY**	**2011 CY**
Dust (diffuse and contained)	t	239	245	kg/tCS	0.05	0.05
PM_{10}	t	196	202	kg/tCS	0.04	0.04
NO_x as NO_2	t	3,391	3,188	kg/tCS	0.65	0.61
SO_2	t	3,985	3,979	kg/tCS	0.77	0.76
CO	t	56,622	60,362	kg/tCS	10.90	11.52
CO_2 [3]	million tons	8.64	8.47	t/tCS	1.66	1.63
Waste	**Unit**	**2010 CY**	**2011 CY**	**Unit**	**2010 CY**	**2011 CY**
Non-hazardous externally treated waste	t	75,040	137,167	kg/tCS	14.5	26.2 [5]
Commercial waste materials similar to municipal solid waste	t	1,140	1,256	kg/tCS	0.2	0.2
separate collected municipal solid waste	t	478	504	kg/tCS	0.1	0.1
Hazardous externally treated waste	t	99,486	106,396	kg/tCS	19.2	20.3
internally landfilled waste	t	38,219	59,340	kg/tCS	7.4	11.3
Material recycling in the production of crude steel	t	435,578	595,468	kg/tCS	83.9	113.6
Material recycling of off-site materials in the production of crude steel	t	79,294	101,190	kg/tCS	15.3	19.3
Biological diversity						
Total surface area at site [4]	m²	4,964,000				

[1] Increased proportion of renewable energies with respect to electricity labeling from purchased third-party electricity. This reflects the following for the 2011 calendar year: hydropower (33%), solid biomass (4.74%), liquid biomass (0.07%), biogas (0.99%), wind energy (3.757%), photovoltaic power (0.07%), landfill gas (0.05%) 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 April 2011.

[5] Increase due to project-specific construction and demolition materials

Other greenhouse gases such as methane and fluorochlorohydrocarbons (FCHC) are emitted in only small amounts (roughly 60 tons of methane and 90 kg of FCHC).

Steyrling location	Absolute volume			Specific volume		
Production volume	**Unit**	**2010 CY**	**2011 CY**	**Unit**	**2010 CY**	**2011 CY**
Burned lime (BL)	million tons	0.35	0.35			
Energy efficiency	**Unit**	**2010 CY**	**2011 CY**	**Unit**	**2010 CY**	**2011 CY**
Total energy consumption	TWh	0.35	0.35	MWh/tBL	1.0	1.0
Portion of renewable energy [1]	TWh	0.007	0.006	MWh/tBL	0.02	0.02
Material efficiency	**Unit**	**2010 CY**	**2011 CY**	**Unit**	**2010 CY**	**2011 CY**
Lime for burned lime production	million tons	0.6	0.6	t/tBL	1.8	1.8
Emissions	**Unit**	**2010 CY**	**2011 CY**	**Unit**	**2010 CY**	**2011 CY**
Dust [2]	t	1.8	1.1	kg/tBL	0.005	0.003
Dust (calculated diffuse emissions)	t	1,200	1,200	kg/tBL	3.39	3.41
NO_x as NO_2 [2]	t	18	17	kg/tBL	0.05	0.05
CO_2 [3]	million tons	0.334	0.336	t/tBL	0.96	0.96
Waste	**Unit**	**2010 CY**	**2011 CY**	**Unit**	**2010 CY**	**2011 CY**
Non-hazardous externally treated waste	t	17	82.1	kg/tBL	0.05	0.23 [6]
Hazardous externally treated waste	t	16.0	5.3	kg/tBL	0.05	0.02
Material recycling in the production of crude steel [4]	t	0.0	6.5	kg/tBL	0.00	0.02
Biologische Vielfalt						
Total surface area at site [5]	m^2	1,303,000				

[1] Increased proportion of renewable energies with respect to electricity labeling from purchased third-party electricity. This reflects the following for the 2011 calendar year: hydropower (33%), solid biomass (4.74%), liquid biomass (0.07%), biogas (0.99%), wind energy (3.757%), photovoltaic power (0.07%), landfill gas (0.05%) 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 June 2012.

[6] Increase due to project-specific scrap incurred during construction and demolition activities

Clean air
voestalpine in a glass house

As at no other integrated metallurgical facility worldwide*), emission data at the Linz site of voestalpine are monitored and measured at more than 26 emission sources and the measurements transmitted online to the local authorities in Linz. Compliance with limit values can be monitored by the authorities at any time. The intermittently monitored emission sources are determined by accredited measuring institutes in measuring intervals stipulated by the authorities.

Business unit	Plant	Mean half-hour value (mg/m_n^3)	Measured mean annual value (mg/m_n^3)	
		NO_x as NO_2 limit value	2010 CY	2011 CY
Power plant	Block 6	100	72	79
	Bus bar	150	71	64
	Block 3	100	29	51
	Block 4	100	40	44
	Block 5	100	45	43
	Block 7	100	58 [1]	56
	Gas and steam turbine	33	22	22
Blast furnace blower station	Central blower station 2, boiler 1	100	4	5
	Central blower station 2, boiler 2	100	Out of operation	Out of operation
Hot-rolling mill	Pusher-type furnace 6	430	162	172
	Pusher-type furnace 7	430	283	194
	Walking-beam furnace 1	[2]	120	126
Sinter plant	Sinter belt 5	350	241	244
Cold-rolling mill	Hot-dip galvanizing line III	250	122	128
	Hot-dip galvanizing line IV	250	122	117
	Hot-dip galvanizing line V	250	106 [1]	105
Heavy-plate	pusher-type furnace 1	500	335	332 [3]

		limit value SO_2	2010 CY	2011 CY
Power plant	Block 6	200	101	115
	Bus bar	200	97	90
	Block 3	200	106	123
	Block 4	200	112	132
	Block 5	200	118	130
	Block 7	200	113 [1]	119
	Gas and steam turbine	67	35	41
LD steelmaking plant	Secondary dedusting 1	101.5 [4]	53	49
Hot-rolling mill	Pusher-type furnace 6	200	84	63
	Pusher-type furnace 7	200	98	62
Coking plant	Sulfuric acid and gas cleaning system	1000 [5]	431	432
Sinter plant	Sinter belt 5	350	272	278

		limit value CO	2010 CY	2011 CY
Power plant	Block 3	100	2	4
	Block 4	80	5	5
	Block 5	80	8	8
	Block 7	80	9 [1]	7
	Gas and steam turbine	33	5	4
Blast furnace	Central blower station 2, boiler 1	80	0.2	0.2
	Central blower station 2, boiler 2	80	out of operation	out of operation
Strip coating line	Strip coating line 1	100	5	4
	Strip coating line 2	100	8	6

*) based on information provided by Worldsteel Association.
All emission sources are continuously monitored.
The data are referenced each individual calendar year.

[1] Hot-dip galvanizing line V and block 7 were put into operation during the 2010 calendar year.

[2] The limit value is defined in the course of the hot-rolling-mill acceptance test.

[3] Online emission data transfer from pusher-type furnace 1 to authorities was switched on in 2011 CY.

[4] SO_2 limit values in kg/h.

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

Business unit	Plant	Mean half-hour value (mg/m_n^3)	Measured mean annual value (mg/m_n^3)	
		Limit value total C	2010 CY	2011 CY
Strip coating line	Strip coating line 1	30	3	3
	Strip coating line 2	30	4	4

		H_2S limit value [6]	2010 CY	2011 CY
Coking plant		500	310	308

		HF limit value	2010 CY	2011 CY
Sinter plant	Sinter belt 5	3	<1	1.5

		Dust limit value	2010 CY	2011 CY
Blast furnace	Casting bay dedusting (blast furnace A)	20	9	5
	Casting bay dedusting system (blast furnaces 5 and 6)	10	1	1
Sinter plant	Sinter belt 5	10	1	2
	Sinter plant dedusting	24	11	10
LD steelmaking plant	Secondary dedusting 1	20	2	6
	Secondary dedusting 2.1	10	5	3
	Secondary dedusting 2.2	10	0.5	0.7

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

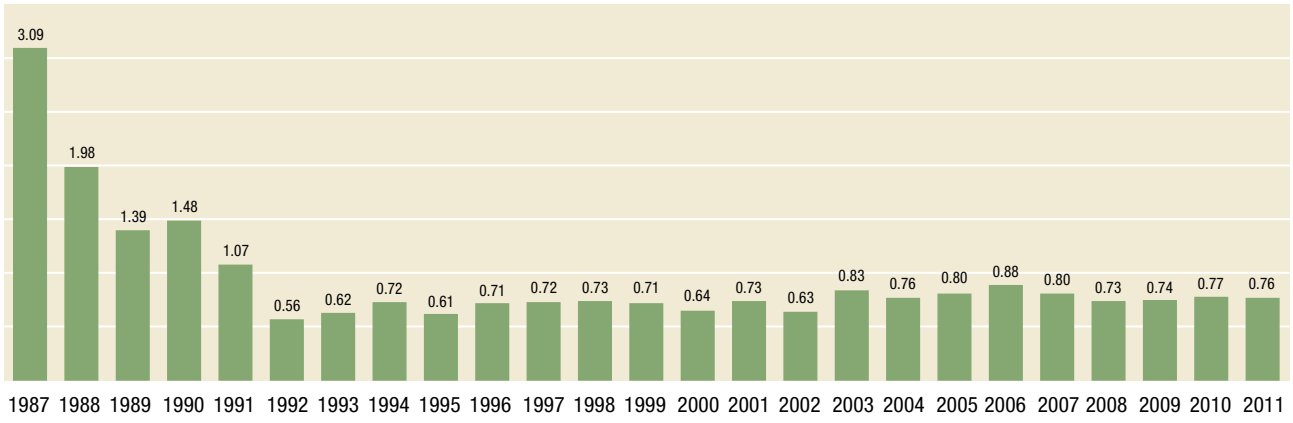
Linz is one of the cleanest industrial cities in Europe of today and is at the top of the list of 53 large cities in Europe with respect to air quality.*) voestalpine has contributed substantially to this development. Since the mid 1980s, dust emissions have been reduced by more than 95%, SO_2 emissions by more than 70% and NO_x emissions by more than 30%.

*) Source: Air Quality Data in 2010; Comparison of Cities and Regions in Europe published by the Municipality of Linz

Specific emissions Air

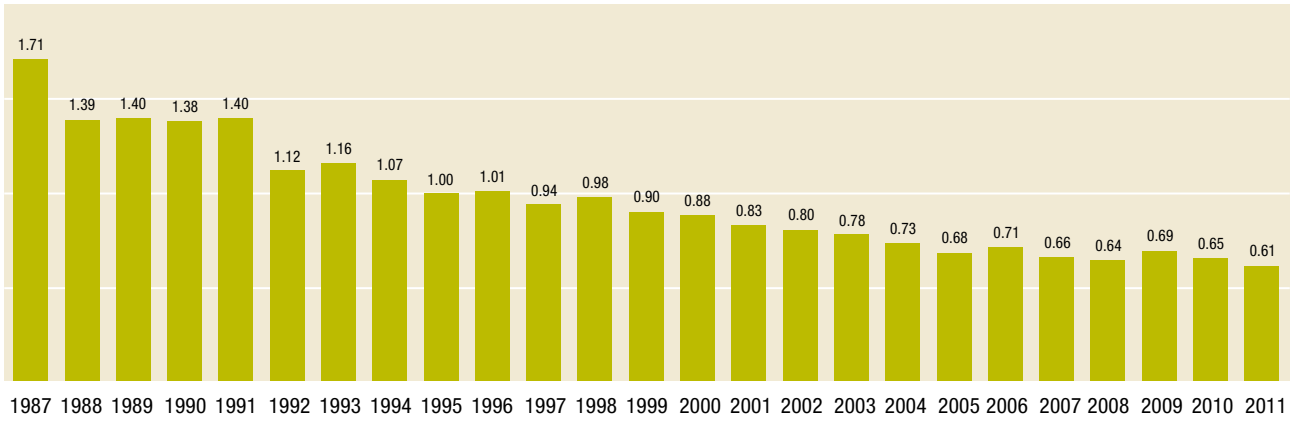
Specific volumes per year in kg/tCS

SO_2



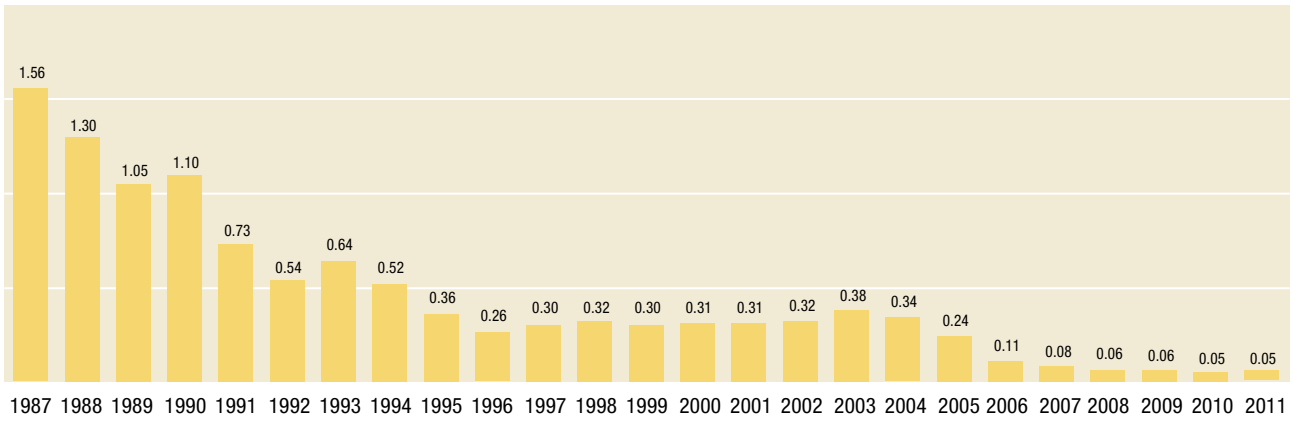
Specific volumes per year in kg/tCS

NO_x als NO_2



Specific volumes per year in kg/tCS

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.

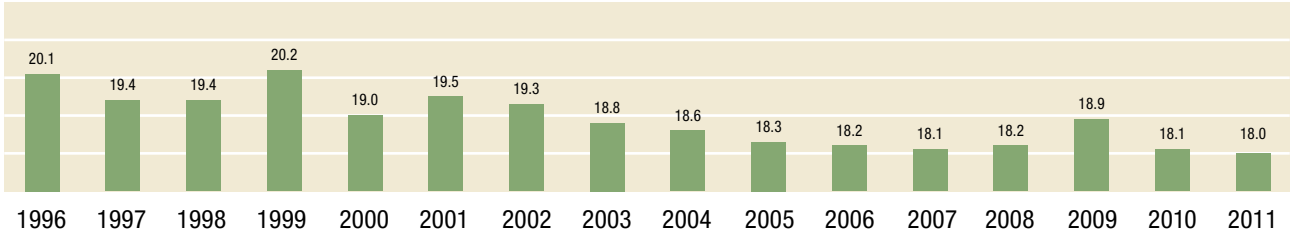
Energy

The improved economic situation improved our production utilization during the 2011 calendar year and led to better overall energy efficiency than in previous years in most production units.

Consistently implemented measures in the respective areas

- Systematic inspection of gas and thermal networks and resulting optimizations in plant configurations and energy-efficient production technologies
- Energy-efficiency-increasing measures in pumps, electric motors and heating optimization measures
- Reduction of energy consumption during downtimes and measures taken as part of the continuous improvement process.
- Modernization and further expansion of plants stabilized the low level of energy consumption.

Net energy consumption



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

Energy source	2010 CY				2011 CY			
	Unit	Volume	Unit	Calorific power	Unit	Volume	Unit	Calorific power
Natural gas	m_n^3	315,140,979	MWh	3,178,682	m_n^3	388,019,728	MWh	3,921,584
Coke-oven gas	m_n^3	609,081,755	MWh	2,992,116	m_n^3	589,698,808	MWh	2,957,893
Blast-furnace gas	m_n^3	6,421,556,730	MWh	6,608,514	m_n^3	6,509,333,919	MWh	6,735,594
Converter gas	m_n^3	432,830,826	MWh	822,699	m_n^3	428,739,028	MWh	800,462

Calculation based on lower calorific value

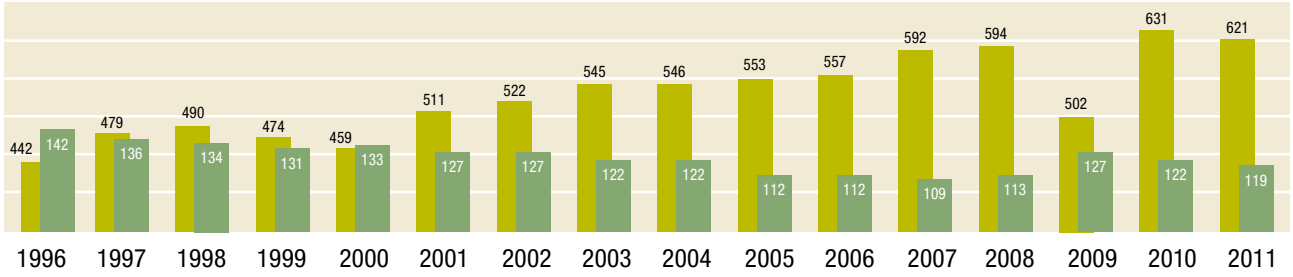
*) Calculation based on upper caloric value of net electricity

Water supply and treatment systems

Water is one of the most important (auxiliary) utilities throughout the entire production process. In order to conserve resources and minimize additional water consumption, processes water is recycled wherever possible and is cleaned before it is released back into the environment. Depending on the elements contained in the waste water, it is either piped to the regional waste-water treatment plant of Linz AG or channeled into either the Danube or the Traun river.

The methods and process technologies used by voestalpine to treat waste water comply in every case with the pertinent standards and guidelines with respect to limit values. Many times the figures fall well under the prescribed values. The required plant configuration for such compliance meets the most modern technical specifications.

Trends in discharged waste water volumes



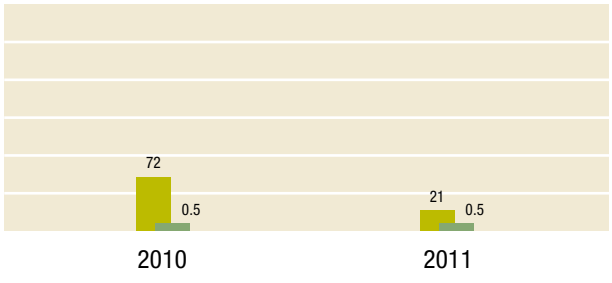
Discharged waste water volume per year in millions of m³

Specific discharged waste water volumes per year in m³ per ton of crude steel produced

The absolute and specific discharged waste water volumes were slightly reduced as compared to the previous year.

Waste water load

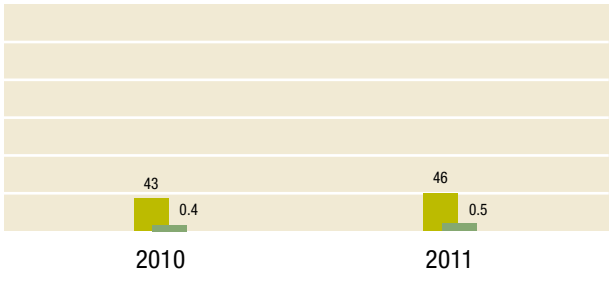
Specific freight in Danube



COD in g/t crude steel

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

Specific freight in clarifying plants



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

The processes in the integrated metallurgical facility utilize a great deal of residual and waste materials (e.g. filter dust from the dedusting systems) that can be recycled to a high degree both on site and off site in both the metallurgical production plant systems and downstream units. Attempts are made continually to optimize the processes and procedures in order to more efficiently utilize resources and to attain a higher degree of material recycling.

Iron-containing residuals are efficiently recycled, particularly in the sintering plant, which is equipped with an efficient downstream waste gas cleaning system. In addition, recycling materials occurring in both in-house processes and off-site waste are charged to the blast furnace to increase resource efficiency and to conserve natural raw materials.

Approximately 66.3% of the residual and waste materials at voestalpine were returned to the production processes during the 2011 calendar year. Some hazardous and non-hazardous wastes are accumulated, however, that cannot be utilized in company operations. These are dumped either on site (6.6% during the 2011 calendar year) or are processed off site (27.1% during the 2011 calendar year). The specific value of in-house-dumped waste in the 2011 calendar year returned to the level prior to the 2009 crisis.

In the 2011 calendar year, approximately 15.8% of the non-hazardous and hazardous wastes disposed of at off-site partners were re-utilized. The most voluminous waste material is dust generated in the dedusting systems during steel production. This dust weighed a total of 91,500 tons in the 2011 calendar year and is used in iron and zinc recycling processes. The degree of material recycling of residual and waste materials at the Linz site is 82.1%, which represents a substantial contribution to resource efficiency. In addition, the scrap produced in the works is used together with purchased scrap in the production of crude steel.

The following is a summary of the 2011 calendar year:

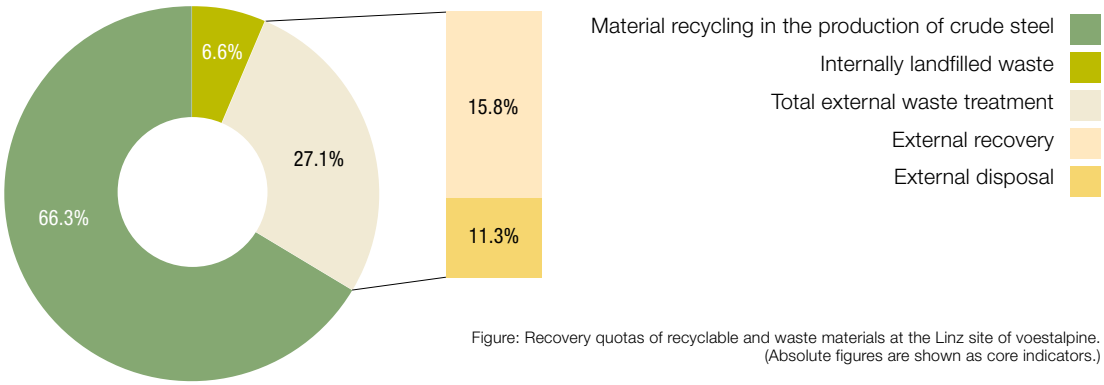
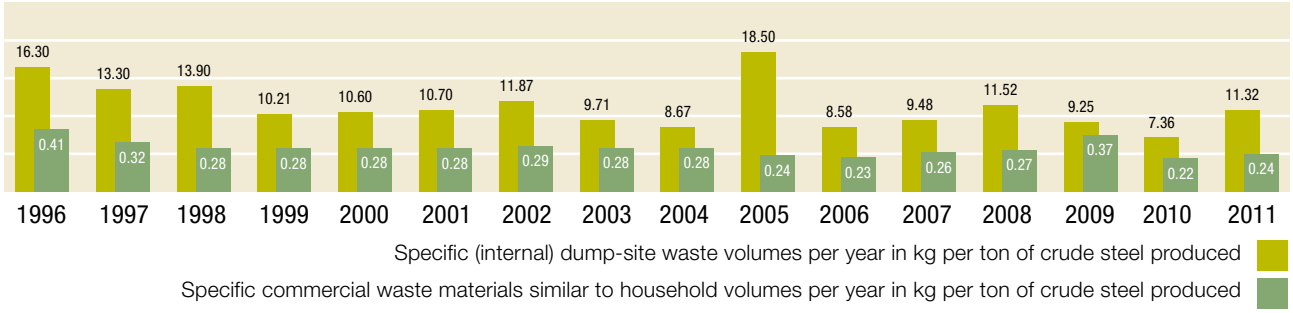


Figure: Recovery quotas of recyclable and waste materials at the Linz site of voestalpine. (Absolute figures are shown as core indicators.)

Internally dumped refuse and commercial materials similar to household waste



Transport

In addition to direct environmental effects at the Linz site that are thoroughly documented in this Environmental Report, transport is without a doubt the factor that contributes most to the indirect environmental impact. The definition of such 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. As documented in the literature, railway transport is the most environmentally sound with respect to emissions. This means of transport is followed by ship and then truck. Raw material transport is coordinated primarily by voestalpine Rohstoffbeschaffungs GmbH and is carried out by Logistik Service GmbH and die Cargo Service GmbH.

Transport of raw materials

The received raw material volumes in tons were multiplied by the number of kilometers transported and classified under the respective forms of transport.

The raw materials were distributed almost evenly in 2011, as in the 2010 calendar year, between ship and railway transports. There is a rising tendency in the direction of raw material transports by rail. This is primarily due to the drop in ore volumes in ocean freight from the Ukraine. The raw material volumes delivered by truck remain insignificantly small (< 0.1%).

Means of transport for raw materials			
	Unit	2010 CY	2011 CY
Raw material transport [1]	[1000 tkm]	7,600,000	7,000,000
Transport by rail	[%]	52.92	59.03
Transport by ship [2]	[%]	47.08	40.97
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

Products are dispatched from the voestalpine site in Linz primarily through Logistik Service GmbH and Cargo Service GmbH. Products manufactured by voestalpine are transported from Linz by rail, truck and ship to numerous customers worldwide.

Product transports have been increasingly moved to the railway over the past few years.

In the 2011 calendar year, the portion of dispatches to the railway system was increased by almost two thirds. This is in compliance with our perspective that rail transports are the most ecologically sound. In spite of high customer demands with respect to delivery deadlines, more customers received on-time railway or combined (truck-rail-truck) deliveries than ever before. Successful implementation of such measures and the accompanying stepwise transition from the truck to the railway are expected to reach the highest levels in the future.

Means of transport for product delivery			
	Unit	2010 CY	2011 CY
Product deliveries [1]	[t/a]	4,300,000	4,500,000
Transport by rail	[%]	68.1	69.7
Transport by ship	[%]	8.6	8.4
Transport by truck	[%]	23.3	21.9

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

Radiation, noise, odor and vibration

Radiation

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

Noise

In the course of the environmental impact assessment as part of the L6 Project, contingencies were made for noise emissions throughout the voestalpine works premises. 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

Many measures to prevent unpleasant odors have been successful in recent years. The most effective measures in this respect have been in the coking plant. Shutdown of the slag foaming plant was also an important measure, and the modernizations made in the coke oven batteries contributed greatly to the reduction of 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.

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, which is defined as an event in which certain hazardous 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 five relevant plant areas in the integrated metallurgical facility that could have an effect beyond the works premises in 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 gas cleaning, conveyor system and gasometer
- Converter operations, including converter gas cleaning, conveyor system and gasometer
- Unloading of fuel oil and distribution into piping and storage tanks

Steam reformers A and B and air separation units 8 through 10 are operated by Linde Gas GmbH according to the Linde low-pressure technology and are safety-relevant systems installed on the works premises in Linz. 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.
- Hazardous 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 since it has existed that would have posed any hazard to the population. In spite of the high safety standards, then 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 1250°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 m3 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 amount 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 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. This blast furnace 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. Blast furnace 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 blast furnace 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 (8 through 10) 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 (8) of the air separation unit. This hydrogen is supplied by the hydrogen production facility at voestalpine.

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. An update was sent to the authorities in April 2012. The report 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
- Measurements 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 are voestalpine Stahl GmbH and steps to take by the public are announced on public radio and television stations.

This procedure and the type of announcements made to the public are determined 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

Deadlines, about us
Perfect service

The next consolidated Environmental Report will be submitted for review in October 2013 and published thereafter. In addition, an updated version is created, externally reviewed and published on an annual basis.

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Environmental protection dialog:
The Environmental Report provides an opportunity for us to demonstrate our environmental activities and to engage in a dialog with our readers. We will be pleased to receive your feedback and respond to your comments on environmental issues.

Hannes Sigmund
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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
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.

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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.

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