

# ENVIRONMENTAL performance in 2014



UPM Steyrermühl



Through the renewing of the bio and forest industries, UPM is building a sustainable future across six business areas: UPM Biorefining, UPM Energy, UPM Raflatac, UPM Paper Asia, UPM Paper Europe and North America and UPM Plywood. Our products are made of renewable raw materials and are recyclable. We serve our customers worldwide. The group employs around 20,000 people and its annual sales are approximately € 10 billion. UPM shares are listed on NASDAQ OMX Helsinki.

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## UPM Steyrermühl

First established in 1868, the mill has developed into a determining factor for the industrialisation of the community of Laakirchen in Upper Austria. Two modern paper machines produce up to 500,000 tonnes per annum of high-quality printing papers.

Our three-stage biological treatment plant cleans both the mill's effluents and the municipal wastewater of the Laakirchen area. Combined heat and power plants make sure that primary energy is used effectively. Process residues are incinerated in the fluidized bed boiler operated by Entsorgungs- und Energieverwertungsgesellschaft (EEVG), a subsidiary of UPM Steyrermühl and SCA Laakirchen.

The sawmill is a 100 % subsidiary of UPM Steyrermühl and produces up to 400,000 m<sup>3</sup> of sawn timber. Sawmill residues are used as a raw material for papermaking. The Group's wood sourcing function supplies both the paper mill and the sawmill with wood from sustainably managed forests.

The Laakirchen pollution control association has set up a state-of-the-art landfill site which is operated according to the requirements of the new landfill regulation.



UPM Steyrermühl, Environmental Performance in 2014, is a supplement to the joint Environmental Statement of UPM's pulp and paper mills (available at [www.upm.com](http://www.upm.com)) and provides mill specific environmental performance data and trends for the year 2014. The annually updated supplement and the joint Environmental Statement together form the EMAS Statement. The next Environmental Statement and supplement will be published in 2016.

Production capacity	Up to 500,000 tonnes per annum
Workforce in 2014:	400 employees
Products	Standard and improved newsprint: UPM Eco UPM News
Mill area	Approx. 26 hectares, of which 50 % is built or sealed
Certification	EMAS – EU Eco-Management and Audit Scheme ISO 14001 – Environmental Management System Standard ISO 9001 – Quality Management System Standard OHSAS 18001 – Occupational Health and Safety System Standard PEFC™ Chain-of-Custody – Programme for the Endorsement of Forest Certification FSC® Chain-of-Custody – Forest Stewardship Council  <i>All certificates can be found from UPM's Certificate Finder (available at <a href="http://www.upm.com/responsibility">www.upm.com/responsibility</a>)</i>
Eco-labels	Austrian eco-label (UZ 02) for UPM News and UPM Eco "Blue Angel" eco-label (RAL-UZ 72) for UPM News, UPM Eco and Eco Basic European eco-label (EU flower) for UPM Eco



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# Environmental year in 2014

Environmental protection has a long tradition at Steyrmühl. When new production plants were built at the beginning of the 1980s, major investments were also made into environmental protection, especially in effluent treatment, energy supply and waste management. As far back as in 1994, Steyrmühl implemented a quality management system, which over the years has been developed into an integrated management system for quality, environment, fire prevention and occupational health and safety. Our active mill fire brigade forms the basis for effective risk and emergency management. Staffed by specially trained volunteers, it is able to provide effective response in case of an emergency together with the fire and rescue services from the surrounding communities. The wood sourcing organisation gained Chain-of-Custody and PEFC certification for sustainable forestry practices as far back as in 2001. Our products continuously meet the stringent requirements of European eco-logos. Most of our products have been FSC-certified since 2008.

## **Our environmental focus areas in 2014 can be summarised as follows (see page 6, Performance against targets):**

By successfully using ash as a soil stabiliser in earth works, we were able to maintain a high recovery rate, which reached 113 % due to the higher amount of ash temporarily deposited in landfill. Most of the ash is commercia-

lised under the brand name "Cinerit". In the fields of water management and energy use, we took a large number of measures that delivered savings.

## **We will further improve our performance through on-going evaluation of our processes and consistent action.**

Gaining product status for ash was prerequisite for permanently securing a high recovery rate. Maintaining the currently high level will be a big challenge for us, as there are currently no major projects planned, such as, for example, the extensive flood protection projects. In order to further reduce fresh water consumption and effluent generation, we will get

actively involved in the group-wide "Material Efficiency Programme". The focus of our objectives for the coming years will continue to be on energy and water saving measures and reducing fibre losses in all areas of production. For 2015 we are planning to expand our integrated management system to include an energy management system based on ISO 50001.



DI Matthias Scharre, General Manager

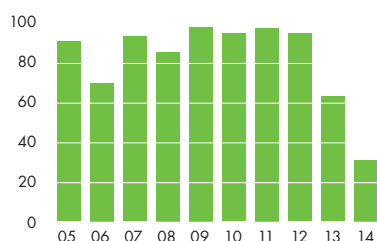
Christian Polzinger, Environmental Officer

# Production and raw materials

Production was down by 3,110 t in comparison with the previous year. Recovered paper consumption dropped by nearly 6,000 t.

## FOSSIL CARBON DIOXIDE, CO<sub>2</sub>

kg/t paper, development in %



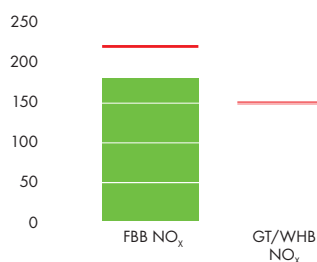
100% basis = year 2000

# Air

The gas turbine with downstream heat recovery boiler was not put into service during the whole year and the required power was purchased externally. As a result, natural gas consumption as well as site specific CO<sub>2</sub> and NO<sub>x</sub> emissions decreased significantly.

## AIRBORNE EMISSIONS FROM ENERGY GENERATION

mg/Nm<sup>3</sup>



## AIRBORNE EMISSIONS FROM ENERGY GENERATION

mg/Nm<sup>3</sup>



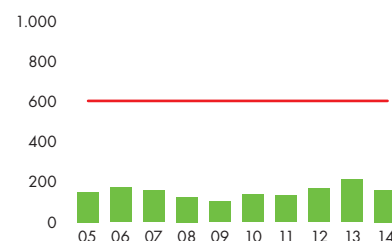
FBB = Fluidised bed boiler  
GT = Gas turbine  
WHB = Waste heat boiler

# Water

The total effluent volume decreased slightly in comparison with the previous year. The annual COD load of effluents discharged from the treatment plant decreased further from further 2.54 to 2.29 kg/t.

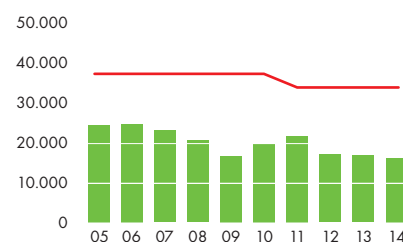
## BIOLOGICAL OXYGEN DEMAND, BOD<sub>5</sub>

kg/d



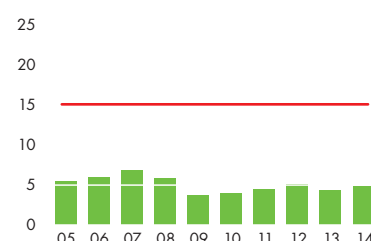
## EFFLUENT VOLUME

m<sup>3</sup>/d



## PHOSPHORUS, P

kg/d

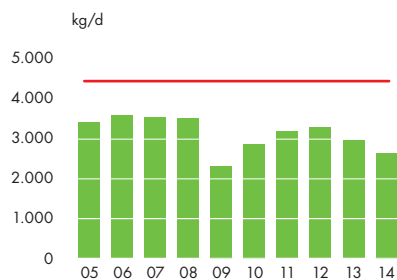


■ Annual average — Limit value

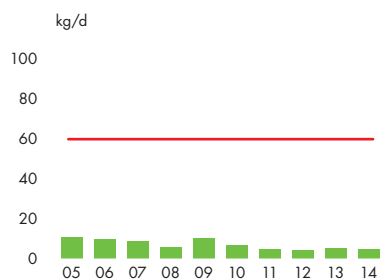
# Waste

There was a significant rise in the use of fluidised bed boiler ash. The recovery rate (including also material temporarily deposited in landfill) was 113 %.

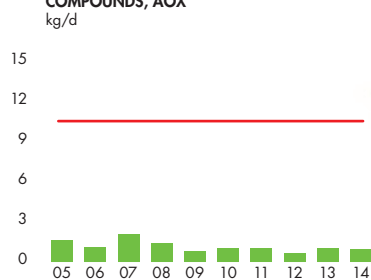
**CHEMICAL OXYGEN DEMAND, COD**



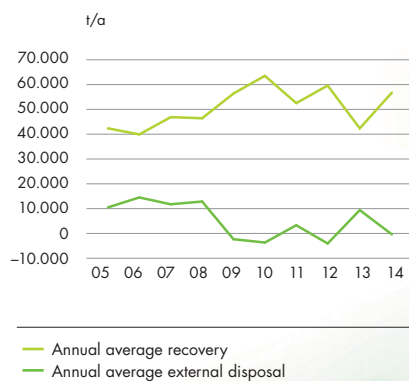
**NITROGEN (INORGANIC), N**



**ADSORBABLE ORGANIC HALOGEN COMPOUNDS, AOX**



**WASTE**





# Environmental parameters 2014

The figures related to production as well as raw material and energy consumption are published as aggregated figures on group level in the UPM Corporate Environmental Statement.

<b>Production capacity</b>	Paper	Up to 500,000 t
<b>Raw materials and additives</b>	Recovered paper Process chemicals Consumables	See joint Environmental Statement
<b>Energy</b>	Renewable and fossil fuels External power supply	52,1 % renewable fuels See joint Environmental Statement
<b>Airborne emissions</b>	Carbon dioxide, CO <sub>2</sub> (fossil) Nitrogen oxide, NO <sub>x</sub> Sulphur dioxide, SO <sub>2</sub> Dust Carbon monoxide, CO	79,249 t 198.8 t 0.82 t 2.6 t 12.9 t
<b>Mill water use</b>	Process and cooling water	7,155,865 m <sup>3</sup>
<b>Emissions to water</b>	Effluent volume COD BOD <sub>5</sub> Phosphorus Nitrogen (inorganic) AOX	6,516,324 m <sup>3</sup> 967 t 59 t 1.7 t 1.6 t 0.37 t
<b>Waste*</b>	Total waste volume of which: - ash + bed sand - Fibrous process residue to brick works - metal - other Waste recovery rate Hazardous waste	55,300 t 47,687 t 4,896 t 106 t 2,539 t 99.9 % 72.1 t
<b>Mill area</b>		26 ha

\* wet t



The operator moves the valve of steam turbine 2.

COD: chemical oxygen demand  
BOD<sub>5</sub>: biological oxygen demand  
AOX: adsorbable organic halogen compounds

# Performance against targets in 2014

TARGET	TARGET ACHIEVED?
<b>Waste</b> Maintain ash recovery rate at 100 %	Both the volumes of Cinerit and of moist ash from the landfill site increased. The ash recovery rate in 2014 was 113 % (2013: 86.4 %)
<b>Water</b> Reduce fresh water use in production to < 12 m³/t	The numerous measures taken reduced our fresh water use from 15.3 to 14.3 m³/t
<b>Occupational health and safety</b> Reduce number of workplace accidents. Target: "Zero accidents" in 2014, maximum 5 accidents (per 1 million working hours)	Result: 6.6 accidents. Target narrowly missed.
Reduce illness-related absences to < 3.5 %	Result: 3.68 % (3.84 % 2013), Target narrowly missed.
<b>Additives</b> Maintain fibre losses from deinking on current level	Fibre losses increased by 0.9 %. Target not achieved.
<b>Energy</b> Reduce power consumption for TMP by 0.5 %	Power consumption increased by 0.43 %. Target not achieved.

## Current targets

TARGETS	MEASURES/DEADLINE 12/2015	DEPARTMENT(S) RESPONSIBLE
<b>Waste</b> Maintain ash recovery rate at 100 %	Secure use of ash as a stabilizer in earth works (dam construction, road bedding)	Environment Energy
<b>Water</b> – Reduce fresh water use in production to < 12 m³/t – Installation of fish migration in the Traun river	Implement various projects (Material Efficiency Programme and organizational water management measures) Implement measures according to action plan	Production Technical department/ Environment
<b>Occupational health and safety</b> – Reduce number of workplace accidents. Target: "Zero accidents" in 2015, maximum 5 accidents (per 1 million working hours) – Reduce illness-related absences to < 3.5 %	Rigorously implement actions derived from audits, internal standards and group guidelines Implement measures according to action plan	All
<b>Water/Airborne emissions</b> Prevent Clean Run category 3 – 5 deviations	Implement measures according to action plan	Production
<b>Energy</b> Implement energy management system based on ISO 50001	Expand existing management system to include energy management and have it externally audited	Energy/ Management system



### Environmental verifier's declaration on verification and validation activities

Environmental verifier Dipl.-Ing. Peter Kroiß, Head of the EMAS environmental verification organisation TÜV AUSTRIA CERT GMBH, 1015 Vienna, Krugerstrasse 16 (accreditation number AT-V-0008) and accredited for NACE Code 17.1 "Manufacture of pulp, paper and paperboard", declares to have verified whether the site at Fabriksplatz 1, 4662 Steyrermühl, Austria, as indicated in the Environmental Statement 2014 of the organisation

UPM-Kymmene Austria GmbH, Fabriksplatz 1, 4662 Steyrermühl, Austria,

registration number FI-000058, meets all the requirements in Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community Eco-Management and Audit Scheme (EMAS).

By signing this declaration, I declare that:  
– the verification and validation has been carried out in full compliance with the requirements of the Regulation (EC) No 1221/2009,

– the outcome of the verification and validation confirms that there is no evidence of non-compliance with applicable legal requirements relating to the environment,  
– the data and information of the Environmental Statement 2012 of the site reflect a reliable, credible and correct image of the site's activities, within the scope mentioned in the Environmental Statement 2012.

This document is not equivalent to EMAS registration. EMAS can only be granted by a Competent Body under Regulation (EC) No 1221/2009. This document shall not be used as a stand-alone piece of public communication

Vienna, March 2015

Dipl. Ing. Peter Kroiß  
Managing Environmental Verifier

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