

ENVIRONMENTAL performance in 2015





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 19,600 people and its annual sales are approximately EUR 10 billion. UPM shares are listed on NASDAQ OMX Helsinki. UPM – The Biofore Company – www.upm.com

UPM Augsburg

UPM Augsburg is sited near the centre of Augsburg, a Southern German town at the confluence of the Lech and Wertach rivers.

The site was founded in 1849. With a workforce of approximately 450 people at the mill, UPM Augsburg produces up to 490,000 tonnes per annum of uncoated and coated supercalendered printing paper in reels for magazines, advertising supplements, publicity booklets, sales literature and mail order catalogues. The mill still has two paper machines, just like at the time it obtained its operating permit.

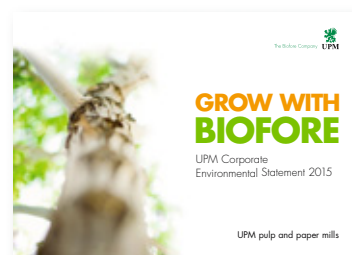
Groundwood pulp, recovered paper, chemical pulp and pigments are used as raw materials for paper production. The virgin fibre raw materials in use are exclusively from sustainable forestry.

The water required for the production process comes from deep wells on the mill site. The effluents are cleaned in Augsburg's municipal treatment plant.

The Augsburg site is also the headquarter of UPM Paper ENA and home to a part of UPM's head office (Augsburg Office).

The steam required for the papermaking process and a corresponding amount of power are generated in a combined heat and power plant operating on natural gas. The remainder of the mill's power needs is supplied via the national grid.

Production capacity	Up to 490,000 tonnes per annum
Personnel	Augsburg Mill approx. 450/Augsburg Office approx. 350 (full time employees including apprentices as at 31 December 2015)
Products	Magazine papers (SC and LWC): UPM Ultra UPM Matt UPM Cote UPM ReCat UPM Max UPM Base 1.1.
Certificates	ISO 14001 – Environmental Management System Standard ISO 9001 – Quality Management System Standard ISO 50001 – Energy 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® Augsburg Mill and Augsburg Office EMAS – EU Eco-Management and Audit Scheme <i>All certificates can be found from UPM's Certificate Finder (available at www.upm.com/responsibility).</i>
Environmental labels	EU Ecolabel for copying and graphic paper German Blue Angel (RAL-UZ 72) for UPM ReCat



UPM Augsburg Environmental Performance in 2015 is a supplement to the Corporate Environmental Statement of UPM's pulp and paper mills (available at www.upm.com) and provides mill-specific environmental performance data and trends for the year 2015. The annually updated mill supplements and the UPM Corporate Environmental Statement together form the joint EMAS Statement of UPM Corporation. The next Corporate Environmental Statement and also this supplement will be published in 2017.



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For PEFC products, visit www.pefc.org



Environmental year 2015

In papermaking, environmental care is an integral part of our day-to-day working lives. UPM Augsburg has been working with an integrated management system for quality, environment and occupational health and safety since 1997 and we have been reporting under EMAS (the EU's Eco-Management and Audit Scheme) since that year in order to systematically promote responsible environmental work and document it in a transparent and traceable manner.

In order to further improve its environmental performance, UPM is promoting its group-wide "Clean Run" campaign. All UPM mills are audited to assess the quality of their environmental work and determine any necessary action. In addition, all staff are informed about environmental issues relating to the mill.

In 2015 the German Blue Angel ecolabel (RAL-UZ 72) for UPM ReCat was reapplied for and granted. The Blue Angel ecolabel has been awarded since 1978 to products and services that are particularly beneficial to the environment.

Each year, we set ourselves detailed new quality, environmental and occupational health and safety targets. We especially welcome suggestions for improvement from the ranks of our employees. Their long-time experience thus contributes actively to the achievement of our targets and to the further development

of the management system. We actively work on regularly improving our environmental performance not just within the company, but also in our co-operation with customers, suppliers, authorities and the general public.

As a company of the Finnish UPM Corporation we are committed to conserving the environment, continually optimising our production processes in order to minimise the impact of our operations on

the environment and, very importantly, on the local community around our mill. Also in 2015 we undertook regular measurements of noise and airborne emissions from the mill and we are happy to report that our discharge levels were not just in compliance with, but usually well below the limit values.

All complaints were followed up immediately. In 2015 there were no substantiated complaints from neighbours.



Wolfgang Ohnesorg, General Manager

Eva Männer, Manager OHS and Environment



Air

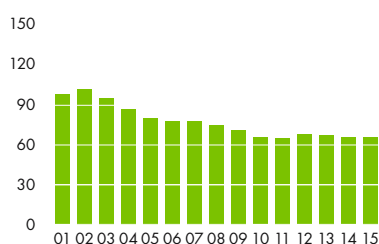
Energy generation is the main source of emissions from paper mills. Emissions can be reduced by the appropriate choice of fuels and combustion technology as well as flue gas purification.

In 2015 there were no deviations from permit limits. However, there was a fire of "clean run" category 3, but with no environmental impact.

UPM Augsburg has set itself the target of further reducing CO₂ emissions by efficient energy use.

FOSSIL CARBON DIOXIDE, CO₂

kg/t paper, development in %



EMISSIONS FROM THE CHP PLANT 2015

	Limit value (mg/Nm ³)	Mean value measured (mg/Nm ³)
CO	50	3
NO _x	150	84

Water

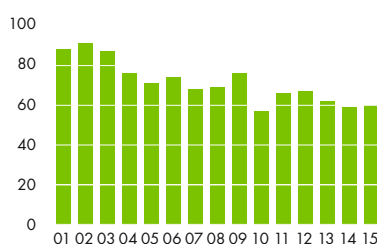
The water for the production process is drawn from deep wells on the mill premises. Virtually continuous water recycling within our systems reduces water use. Cooling water is taken from the Lech river.

Part of the process water evaporates as the paper sheet dries. We recover and reutilise as much as possible of the thermal energy contained in the exhaust air. The remainder is discharged into the air as water vapour. Mill effluents are discharged to the municipal treatment for purification.

In 2015 there was one minor short term deviation from the effluent permit limit (in Mill North, the permissible limit of 12,000 m³/day was slightly exceeded with 12,484 m³/day). Appropriate counter-measures were taken in agreement with the authorities.

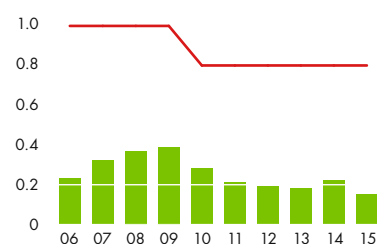
EFFLUENT VOLUME

m³/t paper, development in %



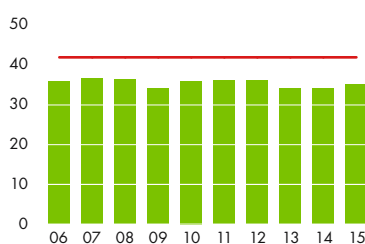
ADSORBABLE ORGANIC HALOGEN COMPOUNDS, AOX

mg/l



TEMPERATURE

°C



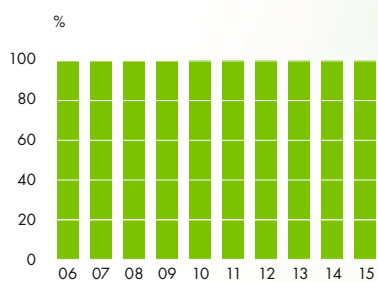
— Limit value

Waste

In line with the principle of closed-loop recycling, the majority of production residues is recycled. Hazardous wastes are forwarded to licensed waste disposal contractors and disposed of in compliance with the relevant statutory requirements.

UPM Augsburg strives to maintain the recovery rate of solid residue, which presently stands at 99.9%, on its current high level.

RECOVERY RATE





Environmental parameters 2015

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.

Production capacity	Paper	Up to 490,000 t
Raw materials and additives	Recovered paper Round wood Chemical pulp Pigments Process chemicals Operating supplies	See UPM Corporate Environmental Statement for more information
Energy	Fossil fuels Purchased power	See UPM Corporate Environmental Statement for more information
Emissions to air	Fossil carbon dioxide, CO ₂ Nitrogen oxide, NO _x Carbon monoxide, CO Sulphur dioxide, SO ₂	120,569 t 54.7 t 7.5 t 1.2 t
Water intake	Process water Cooling water	3,947,930 m ³ 23,965,766 m ³
Discharges to water	Effluent volume Chemical oxygen demand, COD Biological oxygen demand, BOD ₅ Phosphorous, P Nitrogen, N (inorganic) Adsorbable organic halogen compounds, AOX	3,068,932 m ³ 8,383 t 3,794 t 11.2 t 41.2 t 0.46 t
Waste*	Total waste volume of which: – Fibre residues – Deinking residues – Wood residues** – Other waste Hazardous waste Recovery rate	138,152 t 102,940 t 3,266 t 30,974 t 842 t 130 t 99.9%
Size of mill area		22 ha



*All figures incl. moisture

** Since September of 2013, wood residues have been classified as by-products under section 4 of the German Closed Cycle Management Act (Kreislaufwirtschaftsgesetz, KrWG).

Performance against targets in 2015

TARGETS	TARGET ACHIEVED?
Energy Reduce specific energy consumption by 8 kWh of thermal energy per tonne of paper with similar operating rate as in 2014. (Measures: optimise process water use on PM 3, etc.)	Specific energy consumption reduced by approx. 25 kWh of thermal energy per tonne of paper.
Waste a) Increase yield from DIP plant by 2% in absolute terms b) Reduce fibre losses from PM 2 by 350 t/a with similar operating rate as in 2014.	a) Yield from DIP plant increased by 2.2% b) Fibre losses reduced by 1 tonne/day from August 2015.
Chemical use Reduce use of antifoaming agent on PM 3 by 10% in absolute terms.	Use of antifoaming agent reduced by 25% in absolute terms.
Water Reduce specific effluent volume by 0.1 l/kg with similar operating rate as in 2014. (Optimise integrated water management)	Target not achieved
CleanRun No category 4 and 3 deviations.	Target not achieved, there were two category 3 deviations in 2015.

Current targets

TARGETS AND MEASURES	DEADLINE	DEPARTMENT RESPONSIBLE
Energy Reduce specific energy consumption by 10 kWh of thermal energy per tonne of DIP with similar operating rate as in 2015.	12/2016	Production
Waste Reduce fibre losses from mechanical pulp production by 3 t/day with similar operating rate as in 2015.	12/2016	Production
Chemical use Reduce chemical use for DIP production: a) sodium silicate by 25% in relative terms (kg/tonne of DIP) b) hydrogen peroxide by 50% in relative terms (kg/tonne of DIP)	12/2016	Production
Water Reduce specific effluent volume by 0.2 l/kg with similar operating rate as in 2015. (optimise integrated water management)	12/2016	Production
General Rebuild hydropower plant Joint project with Augsburg public utility company	12/2016	Engineering
CleanRun No category 4 and 3 deviations.	12/2016	Mill Management



Environmental verifier's declaration on verification and validation activities

Environmental verifier, Astrid Günther (DE-V-0357), acting for TÜV NORD CERT Umweltgutachter GmbH, licensed for the scope NACE Code 17.12 (papermaking), declares to have verified whether the site UPM GmbH, Augsburg mill, in 86153 Augsburg, Georg-Haindl-Strasse 4+5, Germany, as indicated in the Environmental Statement 2015 of the mentioned site (registration number FI-000058), meets all requirements of 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 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 2015 of UPM GmbH, Augsburg mill, reflect a reliable, credible and correct

image of all the activities of UPM GmbH, Augsburg mill, within the scope mentioned in the Environmental Statement 2015.

This document is not equivalent to EMAS registration. EMAS registration 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.

Augsburg, 4 May 2016

Astrid Günther
 Environmental verifier
 DE-V-0357
 TÜV NORD CERT Umweltgutachter GmbH

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