

ENVIRONMENTAL performance in 2015



UPM Nordland Papier



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 Nordland Papier

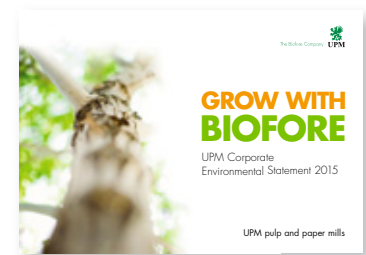
UPM Nordland Papier is located in the Emsland town of Dörpen/Lower Saxony. Founded in 1967, the paper mill ranks today among the biggest fine paper producers worldwide.

UPM Nordland Papier produces woodfree graphic writing and printing papers – so-called fine papers – on four paper machines and two coating machines. The mill makes paper from pulp. Calcium carbonate is used as a filler. Coated paper grades additionally contain kaolin as a pigment.

The wastewater generated from the production processes is cleaned in the mill's own effluent treatment plant before it is discharged into the Ems river. Fresh water is drawn from deep wells, paying attention to sustainable groundwater regeneration. All of the electricity required by the mill is purchased from the local power company. The steam required for paper drying is generated by combustion of natural gas in the mill's own combined heat and power plant.

Two UPM daughter companies operate on the mill premises. The nortrans Speditionsgesellschaft mbH provides freight transport services for the paper mill. NorService GmbH specialises in custom paper finishing. These two companies are not validated under EMAS.

Production capacity	Up to 1.4 million tonnes/annum																
Personnel	Approx. 1,400 (total headcount including apprentices, as at 31 December 2015)																
Products	<table border="0"> <tr> <td>Fine Papers:</td> <td>UPM Finesse</td> </tr> <tr> <td>UPM Fine</td> <td>UPM Digi</td> </tr> <tr> <td>UPM Preprint</td> <td>Yes</td> </tr> <tr> <td>Future</td> <td></td> </tr> <tr> <td>UPM Office</td> <td>UPM Mail</td> </tr> <tr> <td>UPM Label</td> <td>UPM PrePersonal</td> </tr> <tr> <td>UPM Unique</td> <td>UPM Office Recycled plus</td> </tr> <tr> <td></td> <td>UPM Office Recycled premium</td> </tr> </table>	Fine Papers:	UPM Finesse	UPM Fine	UPM Digi	UPM Preprint	Yes	Future		UPM Office	UPM Mail	UPM Label	UPM PrePersonal	UPM Unique	UPM Office Recycled plus		UPM Office Recycled premium
Fine Papers:	UPM Finesse																
UPM Fine	UPM Digi																
UPM Preprint	Yes																
Future																	
UPM Office	UPM Mail																
UPM Label	UPM PrePersonal																
UPM Unique	UPM Office Recycled plus																
	UPM Office Recycled premium																
Certificates	<p>EMAS – EU Eco-Management and Audit Scheme 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®</p> <p><i>All certificates can be found from UPM's Certificate Finder (available at www.upm.com/responsibility).</i></p>																
Environmental labels	<p>EU Ecolabel (EU Flower) for copying and graphic paper Blue Angel for UPM Office Recycled plus</p>																



UPM Nordland Papier 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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EU Ecolabel : FI/011/001



Environmental year 2015

Our most important environmental project, the expansion of our effluent treatment plant, which was carried out from 2012 until 2014 to implement many measures for optimisation, was completed in 2015. Not only does our plant now correspond to the current state-of-the art in effluent treatment, it also enables significantly improved wastewater cleansing. A significant reduction was seen in the COD and BOD₅ effluent loads, which now remain reliably stable on a low level.

As in previous years, another focus was on saving energy in the papermaking process. Here the greatest changes resulted from investments in an electrode boiler enabling us to participate in the balancing power market and a new vacuum pump system installed on PM 3. Both were commissioned in October of 2015 and are currently in the evaluation phase. Moreover, we carried out extensive refurbishments and optimisations of our heat recovery systems in preparation for reducing our specific thermal energy consumption in 2016.

Despite comprehensive studies to optimise energy use, several refurbishment projects to reduce energy demand and continuous monitoring and assessment of our energy consumption, the mill's specific energy consumption increased in 2015 in comparison with 2014. This was essentially due to the requirements of the product range requested by the market and the materials and operational requirements relating to it.

We continue to be committed to continuous improvement in everything we do. To this effect, we have set ourselves tar-

gets for 2015 and beyond, which will be detailed in this Environmental Statement. As part of the group-wide "Clean Run" project, which is aimed at further improving UPMs environmental performance, any environmental incidents at the Nordland Papier are being classified into the categories defined at Group level and dealt with accordingly.

In comparison with the previous year we made a large step towards the target we set ourselves, i.e. to prevent any category 3–5 incidents. There was only one category 3 incident at the beginning of the year in the field of effluent treatment. Apart from that there were no other incidents in 2015.

Comprehensive training was given to our workforce in 2014 to make them aware of how important it is to also report minor incidents without environmental impacts. By taking a more proactive approach than until now we aim to reach our target

of "preventing any incidents with environmental impacts". This strategy paid off in 2015. The number of reported incidents doubled in comparison with the previous year, and we were able to identify focus areas and initiate appropriate action.

UPM Nordland Papier's environment-friendly business practices are based on UPM Paper ENA's environmental policies. Environmental concerns have always been deeply ingrained in our way of thinking and doing business. Certification to ISO 14001 and validation to the EU's Eco-Management and Audit Scheme (EMAS) in 1998 just provided the formal framework for this approach. In the course of the last years, we have broadened our certifications to include PEFC, FSC and the EU's environmental labelling scheme ("EU flower"). The successful certification to ISO 50001 in 2012 strengthened our resolve to also in the future have our environmental performance third-party-audited.



Klaus Reimann,
General Manager



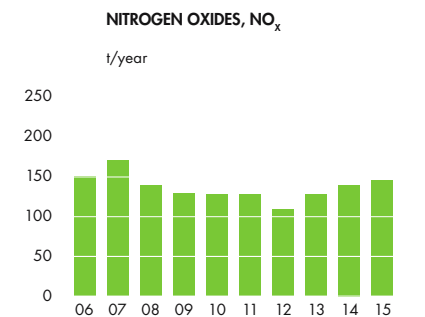
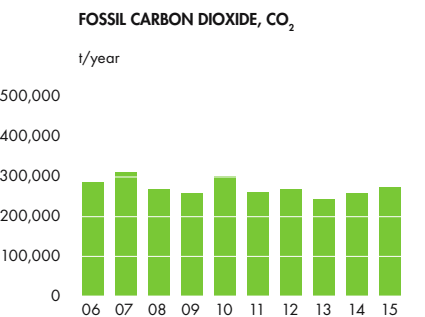
Barbara T. Köster,
Manager Environmental Affairs

Air

CO₂ emission levels are calculated in accordance with legal requirements and verified for emissions trading by an independent third party.

As required by the authorities, NO_x emissions from the boilers were measured by the TÜV every three years. Following the installation of new measuring systems, the NO_x value has since 2010 been transmitted to the factory inspectorate online.

As UPM Nordland Papier uses low-sulphur natural gas, it is not necessary to measure the concentration of sulphur in the exhaust air.



	Limit value (mg/m ³)	Mean values measured (mg/m ³)					
		Boiler 1	Boiler 3	Boiler 4	Boiler 5	Boiler 6	Boiler 7
CO	50	2.97	Out of service	6.03	2.15	1.24	2.18
NO _x	110	81		88	91	89	86

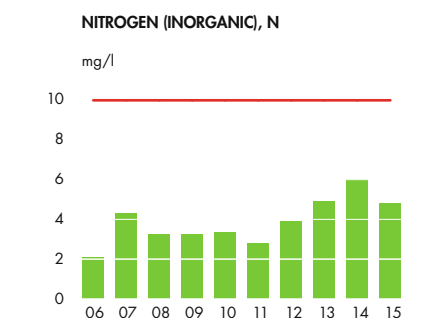
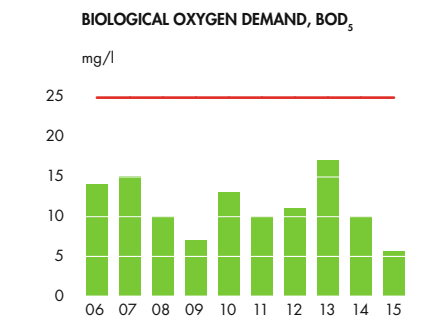
Water

In 2015 the effluent treatment plant ran stably. The MBBR reactors installed at the end of 2012 were continuously optimised and are also running stably.

The tables show that there has been a continuous decrease in both COD and BOD₅ since 2013. Moreover we were able to bring down the AOX value by targeted measures in production.

All values measured in the outflow of the treatment plant are well below the legal emissions limits.

Due to the values being much lower than the permit limits, we committed ourselves



— Limit value*

to the authorities to meeting much stricter limits for specified parameters.

There was one instance at the beginning of the year when the values measured by us slightly exceeded the legal COD and phosphorus emissions limits. The reason for this was a short-term undersupply of the bacteria with nitrogen, which we were able to bring under control quickly.

Effluent treatment at UPM Nordland Papier

The site carries out primary sedimentation, biological treatment and secondary sedimentation of its effluents. The biological treatment stage consists of two MBBR

reactors and aerobic activation tanks. The cleaned effluents are filtered before they are discharged into the river Ems.

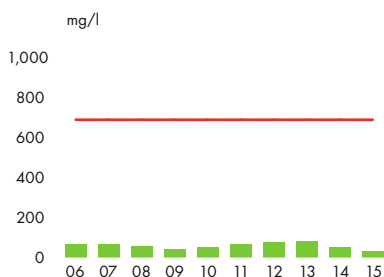
Waste

Fibre and paper sludge constitute the largest waste fraction at UPM Nordland Papier. Action is currently underway to reduce their volume.

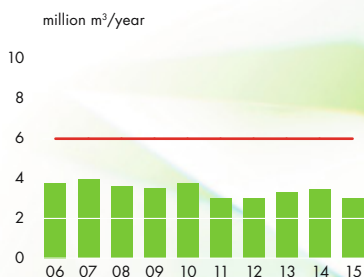
The waste recovery rate in 2015 exceeded 99%.

All wastes are forwarded to certified waste management companies for disposal and the generation of "hazardous" wastes is avoided wherever possible.

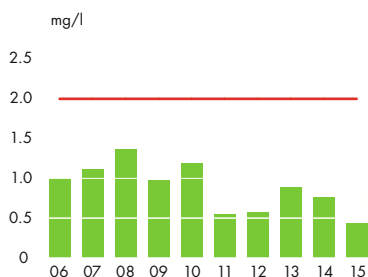
CHEMICAL OXYGEN DEMAND, COD



EFFLUENT VOLUME



PHOSPHOROUS, P



ADSORBABLE ORGANIC HALOGEN COMPOUNDS, AOX



* Minimum regulatory requirement according to appendix 28 to the wastewater ordinance



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 1,400,000 t
Raw materials and additives	Pulp Pigments Process chemicals Consumables	See UPM Corporate Environmental Statement for more information
Energy	Fossil fuels External power supply	See UPM Corporate Environmental Statement for more information
Emissions to air	Fossil carbon dioxide, CO ₂ Nitrogen oxides, NO _x	271,517 t 145.41 t
Water intake	Process and cooling water	5,186,657 m ³
Discharges to water	Effluent volume Chemical oxygen demand, COD Biological oxygen demand, BOD ₅ Phosphorous, P Nitrogen (inorganic), N Adsorbable organic halogen compounds, AOX	3,594,543 m ³ 126 t 20 t 1.6 t 17 t 0.8 t
Waste*	Total waste volume of which: – Fibre and paper sludge – Other waste (industrial waste) Recovery rate Hazardous waste	18,384.77 t 13,933.00 t 4,451.77 t 99.86% 95.48 t
Size of mill area		60 ha

* Incl. moisture



Performance against targets in 2015

TARGETS	TARGET ACHIEVED?	COMMENTS
Water		
- Develop a project for offsetting effluent charges	Yes	- First ideas are being studied.
- Continue work to further stabilize the effluent treatment plant's operation	Yes	- Effluent treatment plant running stably since February of 2015.
- Develop and implement concept for short downtimes/mill standstills	Yes	- Concept developed and implemented.
Energy consumption		
- Reduce specific gas consumption by 1.42% in comparison with 2014	No	- Specific gas increased by 1.59%.
- Reduce specific power consumption by 1.19% in comparison with 2014		- Specific power consumption increased by 2.14%. Increases mainly due to requirements of changed product range.
Waste		
Improve solids content of effluent treatment sludge	Yes	Project is under way to - improve dosage of flocculation agent - improve operation of disc thickener - study alternative solutions for drying effluent treatment sludge.
Environmental incidents		
- No incidents falling into the Clean Run categories 3, 4 or 5	No	- There was one category 3 incident.
- Step-up reporting of category 0, 1 and 2 incidents	Yes	- Number of reported incidents doubled in comparison with 2014.

Current targets

TARGETS AND MEASURES*	DEADLINE	DEPARTMENT RESPONSIBLE
Water		
- Plan new investment to improve effluent quality (Bypass model incl. offsetting of effluent charges)	31.12.2016	Production
- Stabilise specific emissions loads in outflow from treatment plant on 2015 levels		
Energy consumption		
- Reduce specific gas consumption by 2.6% in comparison with 2015	31.12.2016	Production, Converting, Technical department
- Reduce specific power consumption by 3.0% in comparison with 2015		
Environmental incidents		
- No incidents falling into the Clean Run categories 3, 4 or 5	31.12.2016	All
- All Clean-Run category 0, 1 and 2 incidents fully reported and addressed (rule of thumb: 5 per month)	31.12.2016	All/Environmental Management
Material efficiency		
Reduce rejects by 0,5 in comparison with 2015	31.12.2016	Production/Converting
Waste		
- Develop concept to reduce specific volume of fibre and paper sludge	31.12.2016	Production
- Develop concept for sludge drying		

* The measures taken to achieve the targets will be defined and followed up as part of the mill's Simple process.



Environmental verifier's declaration on verification and validation activities

Environmental verifier Dr. Detlef Nehm (DE-V-0223), acting for TÜV NORD CERT Umweltgutachter GmbH, licensed for the scope NACE Code 17.12 (papermaking), declares to have verified whether the site Nordland Papier GmbH, in 26892, Dörpen, Nordlandallee 1, Germany, as indicated in the Environmental Statement 2015 of the mentioned site (registration no. 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

Nordland Papier GmbH, reflect a reliable, credible and correct image of all the activities of Nordland Papier GmbH, 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.

Essen, 18.4.2016

Detlef Nehm
Environmental verifier
DE-V-0223
TÜV NORD CERT Umweltgutachter GmbH

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