UPM Jämsänkoski Mill

Environmental and societal responsibility 2024

UPM Jämsänkoski Mill

UPM Jämsänkoski Mill is located along the Jämsänjoki River in Central Finland. The mill's production already started in the 1880s and the mill has three paper machines. At the Jämsänkoski Mill, paper is manufactured by UPM Communication Papers, which produces graphic papers, and UPM Specialty Papers, which produces specialty papers.

The main raw material for magazine and newsprint papers is wood pulp made from spruce wood, and for specialty papers it is pulp from UPM's own mills, or purchased from the market. The mill also includes a debarking plant, a thermomechanical pulp (TMP) mill, a water supply plant, a biological wastewater treatment plant and a power plant.

The heat and a small part of the electricity needed for the process is produced in the company's own power plant, which uses near to 90% biomass-based fuels. In addition, heat is efficiently recovered from the TMP mill for use in the process. The water used by the mill comes from the Koskikeskinen lake.

UPM Jämsänkoski mill site Environmental and Societal Responsibility 2024 is a supplement to the Corporate Environmental and Societal Responsibility Statement of UPM's pulp and paper mills (available at www.upm.com) and provides mill-specific environmental and societal performance data and trends for the year 2024. The annually updated mill supplements and the UPM Corporate Environmental and Societal Responsibility Statement together form the joint EMAS Statement of UPM Corporation. The next Updated UPM Corporate Environmental Statement and also this supplement will be published in 2026.

UPM is a material solutions company, renewing products and entire value chains with an extensive portfolio of renewable fibres, advanced materials, decarbonization solutions, and communication papers. Our performance in sustainability has been recognized by third parties, including EcoVadis and the Dow Jones Sustainability Indices. We operate globally and employ approximately 15,800 people worldwide, with annual sales of approximately €10.3 billion. Our shares are listed on Nasdaq Helsinki Ltd.

UPM – we renew the everyday
Read more: upm.com

Production capacity	590,000 tonnes of paper
Personnel	467
Products	Magazine papers: UPM Cat, UPM Max, UPM Max S, UPM Smart, UPM Smart Plus Newsprint: UPM News, UPM Brite Labels and packaging papers: UPM Label papers, UPM Packaging Papers, UPM Release Papers, UPM Barrier Papers
Certificates	EMAS – EU Eco-Management and Audit Scheme ISO 14001 – Environmental Management System ETJ+ – Energy Management System ISO 9001 – Quality Management System ISO 22000 – Food Safety Management System ISO 45001 – Occupational Health and Safety Management System PEFC™ Chain of Custody – Programme for the Endorsement of Forest Certification FSC® Chain of Custody – Forest Stewardship Council® All certificates can be found from UPM's Certificate Finder (available at www.upm.com/responsibility)
Environmental labels	EU Ecolabel

FSC
www.fsc.org
FSC® C014719

The mark of responsible forestry

For more information about FSC certification visit www.fsc.org

PEFC
PEFC/02-31-80
Promoting Sustainable Forest Management
www.pefc.org

For more information about PEFC certification visit www.pefc.org

EU Ecolabel
www.ecolabel.eu
EU Ecolabel : FI/011/001

Review of the year 2024

Overall, 2024 can be described as challenging. Cost competitiveness posed challenges in all operations due to rising raw material and energy costs, especially wood and pulp. Specialty Papers was significantly affected by the low turnover rate and the challenging business environment in terms of predictability.

The Open Day event, which was arranged in August 2024 after a long pause, was a success and we received plenty of positive feedback about it. Nearly 2,000 people familiarized themselves with the operation of the mill on guided visits, some of them coming from far away. About 40 mill employees acted as guides during the event. UPM Fibre's stand and coffee service were arranged in the outdoor area. Alongside the coffee, there was an opportunity to take part in a paper roll weight guess, and the winner came very close to guessing the correct roll weight.

During 2024, lost-time accidents to UPM personnel were related to the use of tools and the opening of the sampler process drain. An investigation of the accident revealed that there was a manufacturing defect in the tool, which resulted in a sudden break of the shaft of the fairly new tool. When the sampler process drain was opened, hot water splashed onto the person's upper body. The sampling point has been changed and at the same time the connections of the drains have been examined more extensively to eliminate the risk of splashing.

Contractors had one lost-time accident. A person slipped and fell in the outdoor area, injuring his/her shoulder. Many tasks involve moving around in the mill premises and large outdoor areas. Observing the environment, taking weather conditions into consideration, selecting a suitable route and wearing footwear according to season are essential factors to avoid accidents related to walking.

UPM Safety Week was held in April, the local themes of which were safety moments in connection with morning meetings, training arranged for two contractor groups on how to deal with exceptional situations, including initial fire-extinguishing drills, training in the use of fall protection equipment for maintenance personnel and the possibility of testing of business bikes for leasing.

In addition to the UPM Safety Vision and updated safety principles published during UPM Safety Week, as well as the local vision "Safety is our privilege", teams held safety discussions. A strong commitment to ensuring safety together was evident in the responses when evaluating safety in the KEEP–IMPROVE–START–STOP parallel dual processes.

As part of UPM's decision concerning several mills, the commissioning of a second 50 MW electric boiler was completed in Jämsänkoski in early 2024. This project was significant not only for reducing fossil carbon dioxide emissions but also for enhancing the security of energy supply, as the availability of solid fuels was challenging at times.

A project to renew the wastewater treatment pre-clarifier system was approved in autumn 2024 to ensure the reliability of the mill's operation. Condition checks carried out on the current pre-clarifier system showed that the device is mechanically at the end of its life. The project planning was started immediately, and the actual construction work will begin in spring 2025, with the commissioning of the new device in autumn 2025. With the new pre-clarifier system location, a major environmental risk, i.e. wastewater ending up in river Jämsänjoki in the event of a fault situation, will be completely eliminated.

We were contacted about low water level in lake Koski-Keskinen at the indoor swimming pool's winter swimming site. The early part 2024 was exceptionally cold, and during severe frost, the level gauge froze and showed a false, too high reading.

In spring 2024, we were contacted by a resident about harm caused by dust when transporting uncovered ash loads to intermediate storage at Vierelä landfill site. According to instructions, ash loads must be covered.

The wastewater pipe leading to the pre-clarifier system for wastewater treatment broke in December 2024. The mill's production was already suspended and various process washes and container emptying had already been done. The emission discharged from the broken point was not production wastewater, but various sealing and rinsing water. Due to the pipe breakage, approximately 560 m^3 of water entered river Jämsänjoki through the yard area and the storm-water network. An incident report was submitted to the authorities. As a corrective measure, a study on the replacement of the wastewater line was started in 2025.

Pia Siirola-Kourunen, HSEQ Manager

Kari Isokääntä, General Manager

UPM Jämsänkoski Mill

Responsibility figures 2024

Waste

Amount of waste taken to landfill

0 kg

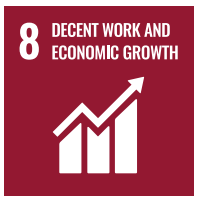
Waste is recovered as materials or for energy.

Certified fiber

83%

is the proportion of PEFC- and FSC-certified fiber used in paper production.

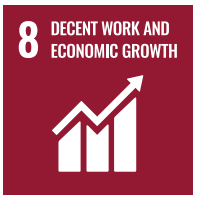
UPM's target is to use only certified fiber by 2030.



Safety

1,485

proactive safety observations, near-misses, safety walks and discussions recorded and processed in the system (UPM personnel and contractors).



Taxes

Mill's local tax impact approx.

EUR 7 million

Real estate tax EUR 0,23 million

Estimate of tax on salaries EUR 0,6 million.

Estimate of corporate income tax EUR 6,3 million based on the number of employees*

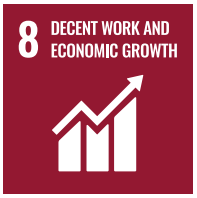
The tax impact of salaries, and therefore the overall tax impact, is significantly lower than in the previous years. This is due to the introduction of social and welfare regions. Welfare regions are financed by the state, which means that the municipal tax rates on wages are lower than in the past.

Energy

Biomass-based fuels account for

89%

of the fuel used by the power plant.



Community

Open Day event

nearly **2,000**

visitors familiarized themselves with the mill's operation.

Air

The air emissions of the Jämsänkoski power plant were below all the emission limit values of the environmental permit. In accordance with the UPM 2030 target, the reduction target for fossil carbon dioxide emissions from Jämsänkoski's own energy production is –65% compared to 2015. Excellent progress has been made towards this goal, as the power plant's fossil carbon dioxide emissions have decreased by –68% compared to 2015.

The goal has been achieved by further reducing the use of peat and oil and by heat production using emission-free electric boilers. One of the two 50 MW electric boilers was commissioned along with the other at the beginning of 2024. Electric boilers can replace not only oil but also solid fuels, which reduces all air emissions caused by combustion.

Electric boilers are part of the mill's heat production system, which ensures uninterrupted heat production in the event of disturbances in the main boiler and during maintenance shutdowns.

Nitrogen and sulfur dioxide emissions remained almost at the previous year's level. Both sulfur dioxide emissions and nitrogen oxide emissions have halved over the last ten years. Particulate emissions from energy production have still remained at a very low level.

The use of biomass-based fuel – forest bioenergy, bark and sludge – continued to increase compared to the previous year. Their share of all fuel was 89.2%. Peat accounted for 10.6% and oil for only 0.2%.

The Jämsänkoski Mill provides district heat to the district heating network in Jämsänkoski and Jämsä. The share of the heat provided is approximately 14% of the integrated mill site's heat production.

Approximately 90% of the electricity used by the mill is purchased from outside the mill by UPM Energy. The energy purchased by the mill has been emission-free in terms of carbon dioxide since the beginning of 2022.

Energy

Fossil CO_2 emissions were reduced by

68%

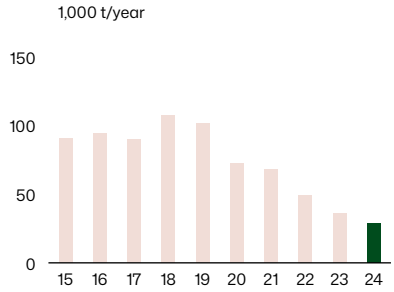
in own power plant energy production compared to 2015.

Supply chain

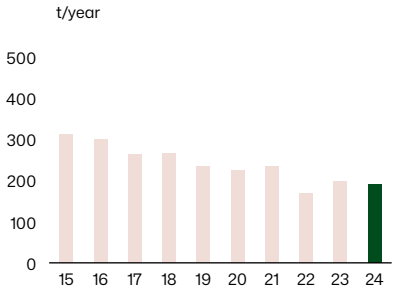
95%

of raw materials spend qualified against UPM Supplier and Third Party Code (wood not included).

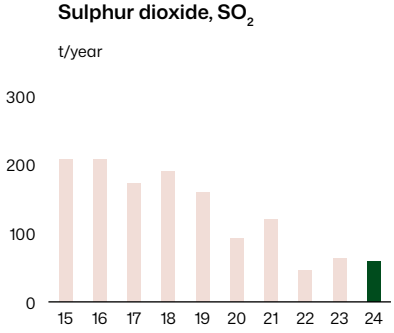
Carbon dioxide, fossil, CO_2, scope 1



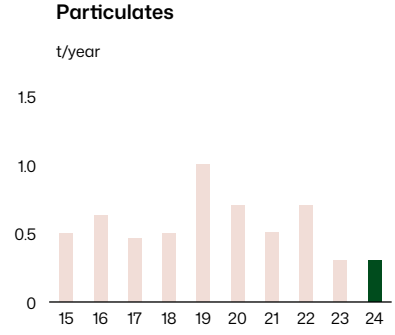
Nitrogen oxides, NO_x



Sulphur dioxide, SO_2



Particulates



Waste

All waste generated at the mill was sorted and delivered for reuse, either as material or through further processing. Fractions that the mill and other operators cannot use as materials were used as sources of energy. The total amount of waste generated at the Jämsänkoski mill remained at the previous year's level. As a new operating model, an experiment was launched in which some of the paper machine fabrics are delivered for material reuse.

The largest waste fraction was still the power mill's fly ash, the amount of which was slightly lower than in the previous year. With the commissioning of the second electric boiler, the decrease in the use of solid fuel has reduced the amount of fly ash over the last couple of years. The ash met the requirements of the Finnish Fertilizer Product Act to the extent that the ash is directed as a raw material for the fertilizer product. In addition to in-house control, the quality of the ash was supervised by the Finnish Food Authority. The power mill's fly ash and bottom ash have CE markings, according to which they meet the requirements assured by the manufacturer and are technically usable in earthworks.

In 2024, most of the fly ash was used as raw material in the manufacture of cement. The ash was also used in earthworks to replace natural rock material and improve load-bearing capacity and frost resistance. Small amounts of ash were directed to the composting plant to replace natural lime.

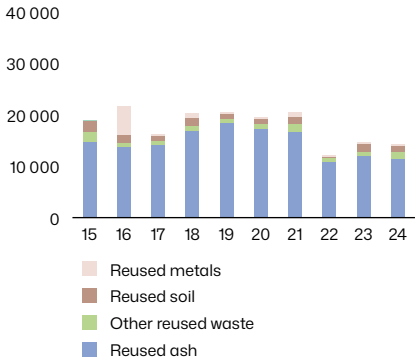
In addition to ash, the most significant waste fraction was the soil transported with energy and pulpwood, which was screened and directed for use in slope construction at Himos. The wood materials separated in the screening process were forwarded for use as fuel in our own power plant.

Plastics, papers and cardboard were delivered for reuse. Hazardous waste was sent to Fortum Oy in Riihimäki for processing by various methods. Wood waste, plastics, and paper and board waste unsuitable for recycling were used to produce recovered fuel or sent to facilities such as the Biovoima energy plant for burning.

Power plant ash has been temporarily stored at Vierelä landfill before being directed to reuse applications. No waste has been permanently dumped at the Vierelä landfill since 2016.

Process waste

Dry tonnes/year



Water

Purified wastewater from the Jämsänkoski Mill is discharged to river Jämsänjoki. Jämsänjoki is also impacted by the city's municipal treatment plant and scattered source pollution from forestry and agriculture. The water quality of Jämsänjoki and Tiirinselkä depends on the quality of water coming from the Kankarisvesi lake. The water contains humus and is quite nutrient dense.

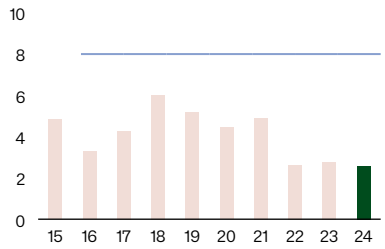
According to the 2023 joint monitoring results of Central Päijänne, Jämsänkoski Mill's effluents accounted for 5.0% of the phosphorus load and 1.5% of the nitrogen load in the monitored area. (Fig 1).

Nonpoint source pollution makes up a significant part of the load of Central Päijänne. The load coming from the Kankarisvesi lake, located above the Jämsänjoki River, accounted for on average 32% of the phosphorus load and 22% of the nitrogen load in the monitored area. In 2023, the phosphorus load coming from above the Jämsänjoki River and the leakage area of the Jämsänjoki River and Tiirin-Lehtiselkä accounted for 55% of the total load. The nitrogen load coming from the same areas made up 37% of the total load. Organic load is also included in the scattered source pollution.

The effluent load of the Jämsänkoski Mill complied with the emission limits established

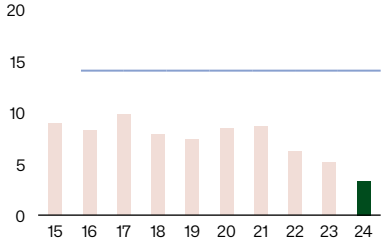
Chemical oxygen demand, COD

t/d



Phosphorus, P

kg/d



by the environmental permit. The Jämsänkoski Mill's environmental permit includes both monthly and annual effluent discharge limits for chemical oxygen demand (COD), phosphorus, nitrogen and solids.

The phosphorus and nitrogen loads of the wastewater from the Jämsänkoski Mill decreased. Organic and solids loading were at the previous year's level. 38% of the nitrogen nutrients and 70% of the phosphorus nutrients used in wastewater treatment were recycled nutrients. In October 2024, a test run of nitrogen-rich recycled nutrient was started with the aim of a 100% share during 2025. Wastewater treatment performance was very stable throughout the year. In order to ensure the trouble-free operation of the biological wastewater treatment plant, the membranes of the fine bubble aerators in aeration basin 2 were replaced in summer 2024.

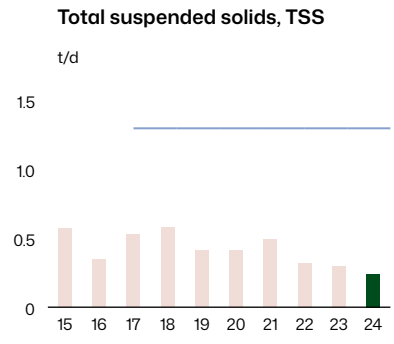
Throughout the year, there were 50 environmental observations and deviations that were dealt with in the daily operations of the mills, in accordance with the UPM operating model.

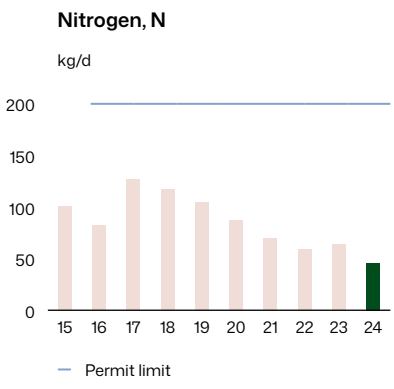
A water saving project was commissioned at paper machine 6 in summer 2024 to reduce the use of process water. The experiences gained so far are very promising and the optimization of the project towards the final goal will continue during 2025. The amount of process water used per one tonne of paper produced slightly decreased from the previous year, thanks to the aforementioned project.

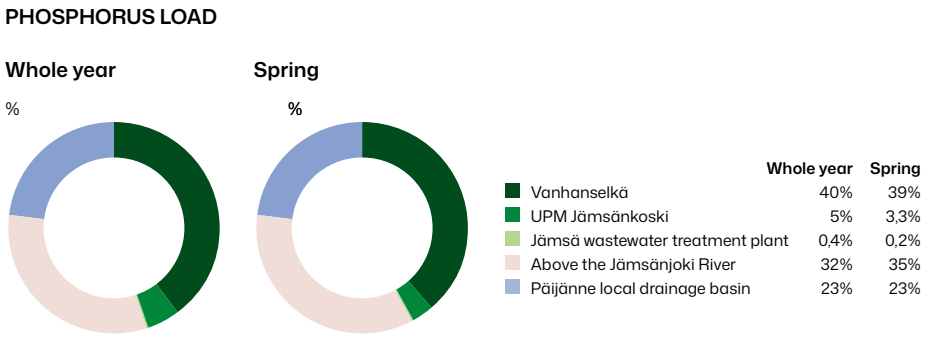
The amount of process water used per one tonne of paper produced was at the level required by the best available technology (BAT ref 2014).

The renewal of the water station's chemicals unloading station to improve environmental and personal safety began in autumn 2024. As a result, the management of potential chemical leaks, in particular, will improve significantly in the event of a disturbance. The unloading station will be implemented at the new site in spring 2025.

Environmental impacts in terms of water resources and fisheries are monitored by an accredited external laboratory. The monitoring is carried out in accordance with the program approved by the Centre for Economic Development, Transport and the Environment, in co-operation with the water company of Jämsä.







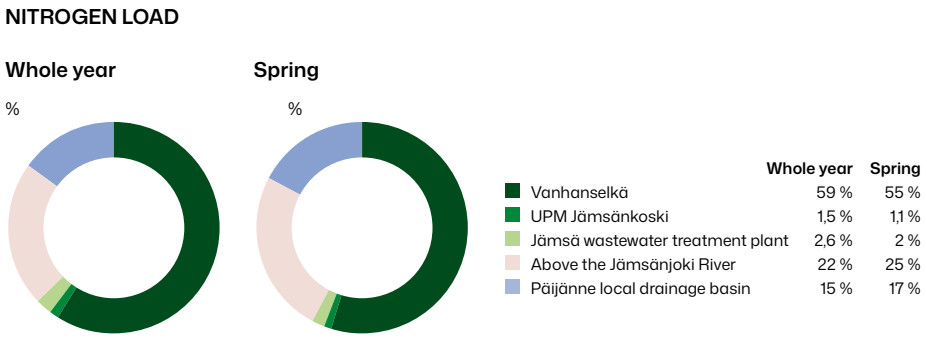


Fig. 1.
Joint Monitoring Program for Central Päijänne, distribution of Tiirin-Lehtiselkä's phosphorus and nitrogen load in 2023.

Organizational structure and management of exceptional situations (rescue organization)

The joint functions of the Jämsänkoski Mill provide expert support in occupational and mill safety, environmental protection, quality, maintenance service and energy. The group's general functions also operate in our unit: financial management, sourcing, information management, and human resources management.

The activities of the mill safety organization cover expert tasks regarding occupational safety, security operations, firefighting and rescue operations, and the control of hazardous substances. Drills related to exceptional situations are an important part of preventive safety work.

Jämsänkoski Mill's management, function organization and the safety organization are responsible for the prevention of exceptional situations and the operational management of crises and exceptional situations. The general manager heads the management of exceptional situations, supported by mill experts who provide specific expertise. In the event of a major exceptional situation, these experts form the mill's crisis management team, which is responsible for the operational management of the situation. Firefighting and rescue operations are always led by the rescue authorities.

Guidelines and rescue and firefighting plans have been prepared for exceptional situations. A major exceptional situation is an unforeseen chain of events that proceeds rapidly and has a significant impact on operations. Exceptional situations include serious accidents and hazardous situations (large fires, explosions and chemical and traffic accidents on the mill site), environmental damages, serious work-related injuries, cybersecurity threats and information attacks.

Societal responsibility

Zero-emission driving in commuting and in the mill area

Along with this, the first all-electric car was added to the mill's occupational health and safety organization. The mill's service provider has also acquired an electric car.

For the first time, employees from the mill participated in the Kilometrikisa competition, where a small but energetic group of employees cycled approximately 27,500 kilometers during their leisure time and commuting.

Product safety and sustainability

Customer enquiries regarding our products mainly related to product safety, the origin of wood raw materials, forest certification, carbon footprint, recyclability and management systems. Customers of both label and packaging paper, as well as those of magazines and newspapers, are particularly interested in the origin of wood raw materials and forest certification. Notably, issues related to the EU Deforestation Regulation have increased this interest.

The carbon footprint indicates the carbon dioxide emissions of manufacturing and the raw materials used in the products. The carbon footprint of Jämsänkoski's products is low when the share of biomass-based fuels in its own energy production is high and the purchased electricity from the market is carbon dioxide emission-free. The carbon footprint calculation is available on request from the responsibility teams of UPM's paper business operations.

Product safety is especially important in the case of label and packaging papers used by the food industry. Our papers are safe to use throughout their product lifecycles, and papers with food contact certificates can be used in direct contact with dry and non-fatty foods. Specific types of paper are also suitable for use with moist and fatty foods. Our papers are also recyclable (PTS RH 021/97 Cat II, some also certified according to CEPI/4evergreen recyclability scorecard V2 and WMU SBS-E Recyclability Certificate) and compostability certificates have been obtained for our products selected for testing (industrial compostability EN13432:2000 and home compostability NFT51-800:2015).

Cooperation and product development projects will expand the range of recyclable fiber-based products as alternatives to non-renewable materials.

Jämsänkoski is continuously developing the properties of barrier papers, particularly to meet more demanding end uses, such as packaging frozen foods.

External evaluations develop operations

UPM Finland's paper mills have a common Multisite certificate and their external auditor is Kiwa Sertifiointi Oy. The certificate includes the Quality Management System IS0 9001, the Environmental Management System ISO14001, the Occupational Health and Safety Management System ISO 45001 and the Energy Efficiency Management System ETJ+. In addition, the Food Safety Management System ISO 22000 applies to specialty papers. The wood Chains-of-Custody are PEFC and FSC.

The mill had a very extensive five-day third-party supplier audit in early 2024. Several employees participated in personal interviews as part of the audit. According to the feedback received, our operations are excellent in all audited criteria.

The external audit for 2024 took place in October, during which four minor deviations were recorded. Corrective actions have been determined for all deviations. Additionally, experts from the Tervasaari mill audited Jämsänkoski's operations in autumn 2024, providing valuable advice on good development targets and practices in many areas.

Regarding food safety, internal audits have been held between the three mills in Tervasaari, Kymi and Jämsänkoski. Two mills will jointly carry out an audit of the target mill. Good ideas related to the development of operations have also been transferred from one mill to another during these audits.

Safety

During the year, the mill and the power plant had several maintenance or renovation projects that were demanding from an occupational safety perspective.

These projects involved challenging lifting, hot work, and work coordination, particularly during the rebuild of the power plant's crusher, the installation of another electric boiler, the rebuild of the heat recovery cells for the paper machine, and the rebuild of the beams in the initial part of the paper machine. The only accident at work involved a contractor who fell in a tight space, resulting in leg pain.

Utilizing the experience gained and UPM's good practices, the mill has further

developed personnel and fire safety at various sites. This includes improving fire compartments, increasing fire extinguishing systems, and specifying hot work safety practices. An external auditor, required by the insurance company, regularly evaluates the safety of machinery and equipment, as well as the level of fire protection. Additionally, fire inspections by the rescue authorities are carried out annually.

Mill personnel participated in initial fire extinguishing drills, occupational safety card training, hot work card training, training on the use of fall protection equipment, and providing work specific induction training. During the year, task-specific work specific induction documents have been extensively renewed and feedback about them has been requested from employees who provide induction. Summer employees and new apprentices attended an orientation day focused on safe working methods, awareness of work task hazards, and preparation for them. Operation-specific tailored chemical training arranged online received positive feedback, allowing employees to complete training sessions at their convenience and revisit them as needed.

Permanent personnel of the Emergency Department and local voluntary firefighters organized familiarization with mill risks and drills on various topics.

Annual chemical safety inspections were carried out in autumn 2024 and inspections of chemical storage and dosing systems were performed as planned.

In 2024, the number of occupational accidents resulting in lost time per million work hours (LTAF, Lost Time Accident Frequency) for UPM as a whole was 3.2. The total recordable injury frequency (TRIF) was 5.1. The TRIF includes LTA cases as well as cases of modified duties and accidents requiring medical treatment. In 2024, the accident frequency TRIF at Jämsänkoski Mill was 6.5. All of the above figures include UPM's employees and contractors.

UPM Fibres organized a "Moment to Safety" theme day at the mill's wood yard in September 2024.

Discussions focused on wood yard practices, quality, and sampling concerning timber transports. The event also provided an excellent opportunity to review hand signals related to lifting and unloading. Reflective gloves were provided alongside coffee for the drivers. The drivers expressed satisfaction with the mill's practices and offered suggestions for improving lane markings in the yard, addressing winter maintenance challenges, and enhancing the work induction process for summer workers to ensure smooth unloading of wood trucks. Other topics taken up by the drivers during the day included taking safety into account throughout the transport chain from the forest to the mill. Well made wood stacks along forest roads speed up loading and reduce the need to rearrange the logs more safely on the truck.

Health and wellbeing at work

UPM offers comprehensive occupational health services in Finland. Among these services is the Terveyssovellus health app, which operates 24/7. The Mielen Huoli service (Mental Concern Service) provides support for potentially stressful life situations.

Health checks are an integral part of monitoring work capacity. These checks include both age-related assessments and statutory checks for work that poses a special risk of illness. Age-related checks are conducted for individuals aged 30, 40, or 45 years, and every three years thereafter.

New employees always undergo a pre-employment check, which includes mandatory drug testing for everyone. Additionally, a proactive investigation of the musculoskeletal system's functioning has been launched for specific age groups or individuals working in particular tasks, in cooperation with occupational healthcare services.

Workplace surveys were carried out together with occupational healthcare services in three locations.

UPM supports employees' sports and cultural hobbies as well as their well-being with the help of the ePassi benefit. The places of using ePassi have been increased according to the employees' wishes. In addition, it is possible for the personnel to apply for annually arranged fitness courses.

Planning for the future

UPM Jämsänkoski was involved in the Rekry training experiment carried out locally with a vocational school. The aim was to improve the students' ability to enter the UPM apprenticeship program. The identified challenge is that people seeking employment in the industry come from very different backgrounds and are not necessarily familiar with working in a mill environment. Participants in the Rekry experiment provided positive feedback, feeling that the training prepared them well for tasks in industrial operations.

Tax impact

The tax revenue generated by UPM's operations has a significant social impact. We pay corporate income taxes in the countries where we create added value and generate profits resulting from that. Due to our corporate and operational structure, we mainly report and pay corporate income taxes in the countries of production and in the countries where innovations are being developed. In addition to the taxes we pay on income, our various production inputs and outputs are also subject to taxation. Taxes are paid in accordance with the local tax decrees and regulations.

In 2024, UPM (Group) paid a total of EUR 176 million in corporate taxes and property taxes.

The mills' operations also benefit local communities in many ways. The property taxes paid and the municipal share of corporate income taxes support the local economy. In addition, the taxes and social security contributions that UPM employees pay on their wages have a significant local impact. Furthermore, the purchasing power of UPM employees and subcontractors maintains and enhances the vitality of local communities.

Share and Care Program

The Share and Care Program comprises three forms of support: sponsorships, donations and employee volunteering. The support can be a monetary contribution, products, materials or concrete work in projects agreed on locally. As in previous years, the Jämsänkoski Mill financially supported local activities through the activities of culture and sports clubs.

Environmental parameters

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 and Societal Responsibility Statement.

		2022	2023	2024
Production capacity	Paper	625,000 t	605,000 t	590,000 t
Raw materials	Wood Recovered paper Pulp Fillers and coating pigments Process chemicals	See UPM Corporate Environmental and Societal Responsibility Statement for more information		
Energy	Biomass-based fuels Fossil fuels	79% 21%	87% 13%	89% 11%
Emissions to air	Particles Sulfur dioxide, SO_2 Nitrogen oxides, NO_2 Carbon dioxide, CO_2 (on-site fossil emissions, scope 1) Carbon dioxide, CO_2 (fossil emissions from purchased energy, scope 2)	0.7 t 46 t 169 t 48,796 t 0 t	0.3 t 63 t 196 t 36,116 t 0 t	0.3 t 59 t 191 t 28,520 t 0 t
Water intake	Process and cooling water	7,368,435 m^3	8,757,004 m^3	8,617,995 m^3
Discharges to water	Cooling water Effluent discharge Chemical oxygen demand, COD Biological oxygen demand, BOD_7 Phosphorus, P Nitrogen, N	2,092,130 m^3 5,276,305 m^3 1,040 t 33 t 2.3 t 23 t	2,807,390 m^3 5,926,211 m^3 1,127 t 44 t 1.9 t 25 t	2,895,750 m^3 5,700,001 m^3 1,077 t 38 t 1.3 t 18 t
Waste[1)]	Taken to landfill for disposal Reused waste – ash – soil – metal waste – other To interim storage	0 t 10,830 t 386 t 233 t 676 t 0 t	0 t 11,940 t 1,515 t 353 t 795 t 0 t	0 t 11,462 t 1,303 t 332 t 1,231 t 0 t
Hazardous waste		14 t	12 t	16 t
Land use	– Total use of land – Total sealed area – Total nature-oriented area on site – Total nature-oriented area off-site	79 ha 63 ha 16 ha 6 ha	79 ha 63 ha 16 ha 6 ha	79 ha 63 ha 16 ha 6 ha

1) Dry weight

Performance against targets in 2024

Target	Achievement	Comments
0 environmental deviations in categories 3–5 at Jämsänkoski	No	The breakdown of a wastewater pipe in 12/2024 was a category 3 environmental deviation
Further improvement of the safety results of Jämsänkoski, TRI max 2 pcs a year	No	TRI cases totaled 6 during the year, including UPM (4 cases) personnel and contractors (2 cases)
Promotion of UPM group's environmental targets for 2030 – reduction of fossil CO_2 emissions from the power plant by –5% from 2023 – reducing process water use by –5% from 2023 – increasing the use of recycled nutrients	 Yes Yes Yes	 – Foss CO_2 emissions decreased by –21% by 2023 – Process water use decreased by –5.5% from 2023 – Testing of the new recycled nitrogen nutrient started at the biological treatment plant 10/2024

Targets for 2025

Target	Measures
0 environmental deviations in categories 3–5 at Jämsänkoski	Proactive measures and quick response to deviations. Replacement of the wastewater line that broke down in December 2024, as necessary, during 2025.
Further improvement of Jämsänkoski's safety results, business-specific targets	Based on safety team discussions in late 2024, the local safety vision with measures was updated. Reinforcing the "Safety is built together" principle in accordance with the UPM safety principle. Results according to business safety targets were achieved.
Promotion of UPM group's environmental targets for 2030 – reduction of fossil CO_2 emissions from the power plant by –5% from 2024 – reducing process water use by –5% from 2024 – further increasing the use of recycled nutrients from 2024	 – Full utilization of electric boilers in emission-free heat production. – Verification of the impact of the measures taken on the key figures. New potential measures assessed. – After testing the functionality of the recycled nitrogen nutrient, a further decision made on proceeding with the matter.
UPM Safety Good Practices (Good Practice and Copy with Pride)	Good practices have been presented or a safety-improving good practice in use at another mill has been adopted locally. The mill's target is 6 pcs.

EMAS
Verified environmental management
REG.NO. FI - 000058

Revalidation statement

As an accredited environmental verifier (FI-V-0001), Kiwa Sertifiointi Oy has examined the environmental management system and UPM Jämsänkoski Mill Environmental and Societal Responsibility 2024 statement as well as the information concerning UPM Jämsänkoski Mill in the UPM Corporate Environmental and Societal Responsibility Statement 2024.

On the basis of this examination, the environmental verifier has herewith confirmed on 2025-04-14 that the environmental management system, the Finnish UPM Jämsänkoski Mill Environmental and Societal Responsibility 2024 statement and the information concerning UPM Jämsänkoski Mill in the Finnish Updated UPM Corporate Environmental and Societal Responsibility Statement 2024 are in compliance with the requirements of the EMAS Regulation (EC) No 1221/2009.

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