

UPM Caledonian

ENVIRONMENTAL AND SOCIETAL RESPONSIBILITY 2022



UPM Caledonian

UPM's Caledonian mill is situated in Irvine on the West Coast of Scotland approx. 50 kilometres southwest of Glasgow. In production since April 1989 the Caledonian mill is capable of producing 235,000 tonnes of lightweight coated paper (LWC) for printing magazines, catalogues, brochures. The mill has a Biomass Combined Heat and Power (CHP) plant, a single paper machine line, a debarking plant, a pressurised groundwood (PGW) mechanical pulp mill and a primary effluent treatment plant. Effluent is then treated further in the neighbouring Municipal Waste Water Treatment Plant operated by a third party.

Environmental issues are an integral part of everyday operations. Targets are set as part of our annual business planning process with our key environmental aspects and impacts identified through our regulatory and business requirements to demonstrate continuous improvement. These are followed closely throughout the year. Our objective is to produce attractive and competitive paper with the lowest possible overall environmental impact. Through open communication we actively provide our customers, employees, environmental authorities, as well as our local community with information on environmental issues and knowledge of the mills operations.



UPM Caledonian Environmental and Societal Responsibility 2022 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 2022.

UPM delivers renewable and responsible solutions and innovates for a future beyond fossils across six business areas: UPM Fibres, UPM Energy, UPM Raflatac, UPM Specialty Papers, UPM Communication Papers and UPM Plywood. As the industry leader in responsibility, we are committed to the UN Business Ambition for 1.5°C and the science-based targets to mitigate climate change. We employ 17,200 people worldwide and our annual sales are approximately EUR 11.7 billion. Our shares are listed on Nasdaq Helsinki Ltd. UPM Biofore – Beyond fossils. www.upm.com

Production capacity	235,000 tonnes of paper
Personnel	285
Products	Coated Magazine Papers: UPM Cote H UPM Cote SB (Customer Specific) H UPM Ultra H UPM Ultra Silk H UPM Ultra Silk Plus H UPM Cote Blueshade H
Certificates	ISO 9001 – Quality Management System ISO 14001 – Environmental 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



For more information about FSC certification visit fsc.org



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



EU Ecolabel : FI/011/001

Review of year 2022

In accordance with Pollution Prevention and Control (Scotland) regulations 2012 Caledonian Paper has an integrated management system in effect covering environment, quality and occupational health and safety to ensure compliance with all permit conditions and applicable legislation.

This Report gives information on the Mill's performance and covers the most significant environmental impacts – emissions to Air and Water; Waste and Material consumption.

After a difficult two years with the Covid 19 pandemic, 2022 was a year to focus on getting operations back to pre-pandemic levels. Efficiency levels of the papermaking process were affected by additional downtime necessary as a consequence of various machinery failures. Cost challenges which have affected energy and raw materials of many supplies were also part of this. Environmental performance was very good with no category 3 deviations recorded in 2022.

The market for LWC in the UK was good with Caledonian Paper achieving approximately 60 % of sales to the UK.

As an integral part of the manufacturing process Caledonian operates a biomass fuelled combined heat and power plant (CHP) which supplies all of the sites current steam demand and meets a proportion of the electrical demand. The CHP plant is fuelled 100% by biomass from virgin and recycled sources with all fuels sourced locally. We continue to work closely with our biomass suppliers to ensure a consistent fuel quality with the added benefit of reducing the waste ashes from the combustion process.

There was no scheduled maintenance shut for the CHP boiler planned in 2022, however due to boiler tube leaks and other maintenance failures there were several periods of unscheduled downtime which contributed to the sites lower efficiency rates. A scheduled maintenance shut planned for March 2023 will see a major turbine overhaul, replacement of economizer 3 and replacement of boiler ducting that has corroded over the last few years.

Environmental Performance

UPM Caledonian operates within the boundaries of an Integrated Pollution Prevention and Control (PPC) Permit. The conditions of this permit are transposed from the European Industrial Emissions Directive with reference to the current Pulp and Paper BREF document. In 2022 there

was one instance reporting an incident to SEPA against emissions to air as a consequence of carbon monoxide levels reading above the ELV of 150mg/Nm³. There are two identical CEMS (continuous emissions monitoring systems) taking samples every minute from the flue gases to air. For this reported incident one of the CEMS measured slightly over the ELV and the other was under the ELV. The CEMS systems underwent a full calibration called QAL2s during 2022 and further calibration will be carried out after the March shutdown after the installation of new analysers to measure the release of particulates.

In 2022 a sitewide soil and groundwater survey was carried out with the installation of 15 new boreholes which is a requirement of our PPC permit. One of the boreholes indicated slightly higher levels of hydrocarbons in the soil which we suspect is as a consequence of drips from a nearby diesel storage tank. Further investigations and remediations will be carried out during 2023. Some additional testing may be required to examine the extent of this.

Reporting to SEPA is required on a quarterly basis for a variety of parameters including emissions to air, effluent and waste. On an annual basis we are required to report the mass of all emissions under the Pollutant release and Transfer Register. A

difference of 10% from one years results to the next year must be explained. In 2022 we have reported increases in Hydrogen Chloride and Oxides of Nitrogen which possibly are related to the poorer efficiency of the boiler, instrumentation issues or the increase in one of the recycled fuel streams. The particulate emissions significantly reduced in 2022 (-65%) primarily due to replacement and maintenance of the baghouse filters used to capture these emissions. We have seen some increases in metal concentrations in the effluent leaving site and will carry out some further testing in 2023. Note all effluent leaving site is further treated at the municipal effluent treatment plant located within 1 mile of Caledonian Paper.

Caledonian has been exploring suitable recovery options for the flyash waste produced from the boiler over the last few years. Two routes have been selected where the flyash undergoes some additional offsite treatment that allows for the waste to be used in the cement industry. This has ensured that none of the waste produced in 2022 went to landfill. The site continues to explore opportunities for new waste recovery routes.

Occupational Health and Safety

UPM strives for zero accidents across all sites and has a target for the Lost Time



Bryan McMurdo
General Manager



Sharon Gallagher
Environment & Compliance Manager

▶ Accident Frequency (LTAF) of 1.5 for Communication Papers. This is calculated as the number of lost time accidents per million hours worked for UPM employees only. For Caledonian the reported LTAF figure for 2022 was 7.7 which was a disappointing result. Another measure of safety performance is the Total Recordable Incident Frequency (TRIF). This has a wider definition and includes medical treatment cases and those working modified duties. The UPM Communication Papers target here is 6.0. Caledonian's TRIF performance was 15.4 which again was a disappointing result.

While 2022 accident performance was poor, at Caledonian, we strive to reduce and eliminate accidents and ill health through effective risk management and by looking for ways to continuously improve. We expect everyone to take responsibility for safety by their actions and through their attitude to help create and maintain a safe work environment. Our operations are based on three safety principles:
*Safety First,
 Safety Starts with Me
 We Can Prevent All Accidents*

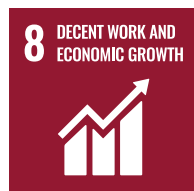
Compliance with site procedures and leading by good example helps develop and sustain our safety culture. We assess and mitigate health and safety risks in our operations and continuously develop safer ways of working. All employees are encouraged to raise safety observations when they identify potential safety issues. A target average of 3 safety observations per person was set and we managed to achieve 87% for this. Even more encouraging was the performance for the level of safety walks completed at 138%. The purpose of safety walks is to have a systematic process in place to follow the implementation of safety rules and guidelines, ensuring their compliance and to find and share good practices. They often require observing a task being carried out at close proximity and a follow up discussion with those involved.

Development and training for the Emergency Response Team had been frozen in the previous two years so it was useful to get back into training during 2022 for a number of scenarios. External training resources were used to deliver training on site which covered the wearing of Breathing Apparatus, Confined Space Rescue and At Height Rescue.

Absence performance for 2022 remained high at 4.0%. This was however a significant improvement on the previous year where COVID had a greater impact. New health and wellbeing services were made available in 2022 and the use of the onsite gym is an excellent facility for all employees to maintain good levels of fitness.

UPM Caledonian

Contribution to UN Sustainable Development Goals in 2022



Community

Through the Caledonian Employee Charity Fund, local charities have benefitted from

£186,000

as charitable donations from employees.

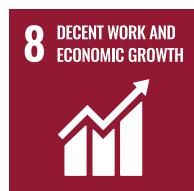


Water

3,433,839m³

in fresh water consumption

3.8% reduction in effluent COD tons
2021 vs 2022



Safety

760

safety observations and incidents reported by employees, visitors and contractors of which

35 included an environmental element

204

Safety walks in 2022



Qualified Spend

69%

of raw materials spend excluding wood qualified against UPM Supplier and Third Party Code.

UPM's target is to have 100% of raw material spend covered by UPM Supplier and Third Party Code by 2030. In 2022 96% of raw material spend was covered by UPM Supplier and Third-Party Code.



Air

65%

reduction in Total Particulate Matter emissions to air (2021 vs 2022)



Energy

62%

of all required electricity is generated onsite using renewable sources via the CHP biomass fueled boiler.

100%

of all steam is utilised onsite for the papermaking process.



Certified fibre

93%

of fibre used in paper production at Caledonian was FSC and /or PEFC certified. UPM's target is to have all fibre certified by 2030.

111,929 tons

of LWC sold under PEFC or FSC certification scheme in 2022

UPM is committed to sustainable forest management and credible certification systems, FSC and PEFC. Forest certificates guarantee that the wood raw material comes from the sustainably managed forests with legal logging operations.



Employment

Caledonian employed

285 People

Total persons at Caledonian Paper

Air

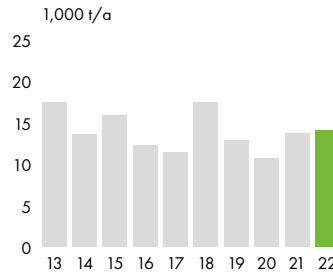


The CHP boiler had a 93% operating rate in 2022 with no planned maintenance shuts, however there were 11 individual periods of downtime with 7 of these as a consequence of tube leaks in the boiler that required welding. There was one instance of elevated carbon monoxide levels which occurred in January which was reported to the Scottish Environmental Protection Agency. This occurrence was for a one hour period with a measurement of 153.9mg/m³ which was only just above the emission limit value of 150mg/Nm³, however the site has two continuous emission monitoring systems (CEMS) that are run in tandem and only one showed the increased carbon monoxide value, the other CEMS was under the ELV.

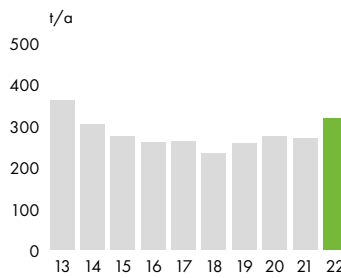
Total particulate emissions decreased in 2022 as a consequence of maintenance work carried out on the abatement equipment in the latter half of 2021. As part of the abatement for total particulates there are 4 bag house filters which capture the particulates and reduce the emissions to air. Several sections of the bag house filters were replaced making them more effective and resulted in a significant reduction in the particulate emissions in the second half of 2021 and into 2022. Sulphur dioxide emissions were also at their lowest level for the last 10 years with continuing optimisation of the dosing of the sulphur containing chemical used to minimise corrosion in the boiler.

There were increases to some emissions with both nitrogen oxides (NO_x) and hydrogen chlorides (HCl). The full reason for these increases are not yet known

Fossil carbon dioxide, CO₂

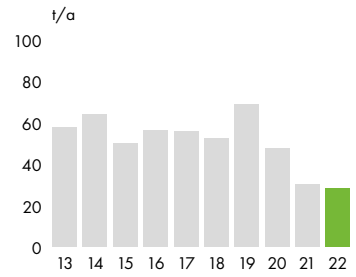


Nitrogen oxides, NO_x

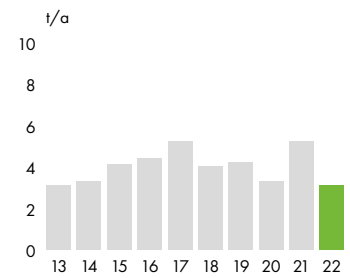


however some instrumentation issues measuring the flow could have had a contributing effect. Also the fuel mix contains a proportion of recycled fuel which has higher levels of chlorine containing chemicals, the recycled fuel content in the total fuel mix was at a higher percentage in 2022 in comparison to 2021. Compliance with environmental permit ELVs was maintained at all times.

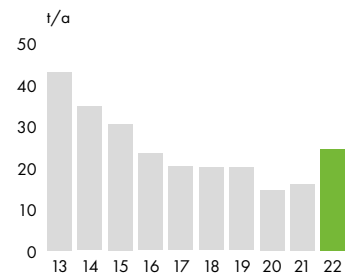
Sulphur dioxide, SO₂



Particulates



Chlorides, HCl



t/a refers to tonnes per annum

Waste



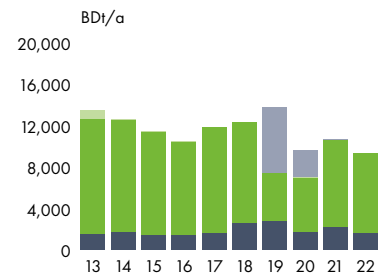
A full waste review was carried out in 2022 to ensure that all disposal options were effective. Caledonian utilises one contractor for the majority of the sites waste and two contractors for all flyash. All waste from site during 2022 was recycled, reused or provided energy from waste.

The location of the various waste collection areas across the mill was reviewed and there is no need to change any of these in the prevention of cross contamination.

Trials were carried out to investigate alternative uses for flyash at site with the proposal to produce a product that could be sold to the construction industry, this also involved a proportion of carbon capture from the CHP flue gases. Initial investigations looked promising however financial returns were insufficient so this option is currently not being progressed further.

Year on year we are achieving reduced volumes of waste leaving site.

Solid waste



- Ash (Landfill)
- Hazardous
- Ash (Recycled)
- Recycled/Recovered

All waste volumes based on dry tonnes

Water



All water used onsite is municipal mains potable water. The water used in the paper-making process undergoes several recycling routes before being discharged to the effluent system. Caledonian has a primary effluent treatment plant for solids removal which is then combusted in the CHP boiler with the excess water effluent being discharged to the municipal secondary effluent treatment plant for further processing. The agreement between Caledonian and the operator of the municipal secondary treatment plant has limits on several parameters with the treatment provider sampling and analysing the key parameters on a daily basis.

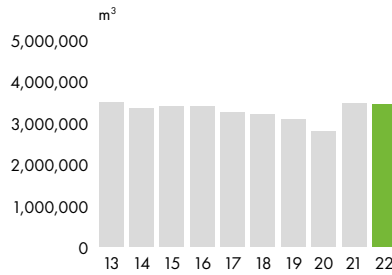
An overall efficiency audit was carried out by UPM at Caledonian in June 2022 which included a water audit of the process. A number of opportunities for reducing the mills water usage were identified and actions planned. A short description of each is listed below along with their estimated water reduction.

(1) The paper machine shower water used to switch from process water to warm fresh water for one hour once per day. Process software has been changed to stop this daily use of warm fresh water resulting in an estimated saving of 90m³ of water per day.

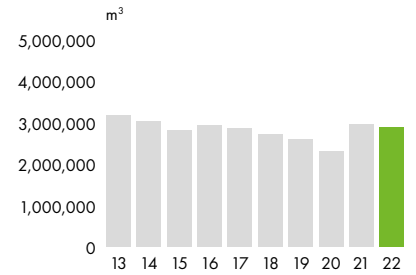
(2) It was identified that the PM has several effluent streams that could be filtered, and the process water reused, reducing the mill effluent TSS and cutting back fresh water usage. To assess the viability of these streams being recycled back into the mill process water system a sampling study was initiated. This is still ongoing but provides good data to enhance our decision-making process in choosing the effluent streams which will have the biggest impact on our effluent and water usage.

(3) Routine tank cleaning was reviewed and altered to give water savings of 60 m³ per day. The temperature control system for one of our tanks in the mechanical pulp section

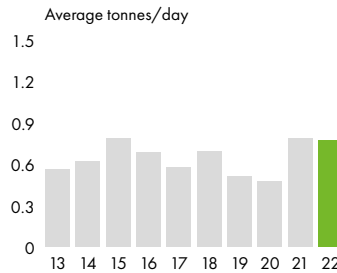
Freshwater Consumption



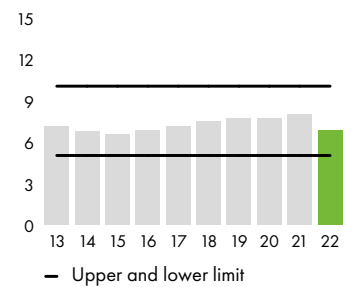
Effluent Volume



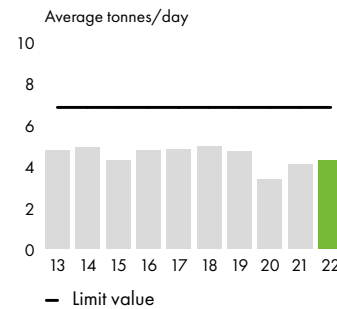
Total suspended solids, TSS



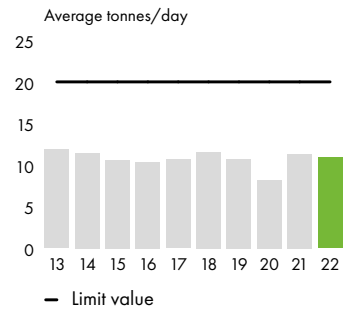
Effluent PH



Biological oxygen demand, BOD₅



Chemical oxygen demand, COD



of the mill has been automated reduced fresh cooling water usage by 225 m³/day).

(4) Level control for the same tank can use either process water (PM clear filtrate) or

fresh water depending on process conditions. The usage of fresh water has been minimised as far as possible resulting in a saving of 150 m³/day.

Energy Efficiency

Mechanical Pulp used in the LWC product manufactured at Caledonian is produced by the Pressure Groundwood (PGW) process. This process area is the single biggest electrical consumer in the Mill and saving electrical energy when producing PGW pulp is a clear focus area. In 2021 the installation of a new grinding surface for one of our four Pressure Groundwood (PGW) grinders was carried out. The goal of the installation was to reduce overall electrical consumption in the PGW plant and a review

of the project has delivered the targeted energy saving. Another of these stones will be installed in the latter half of 2023 which will contribute to further energy savings.

With the increase in renewable generation sources electricity pricing has become less predictable over recent years with greater volatility seen in the market price, there has been unprecedented increases in energy prices across the whole of Europe greatly impacting all energy intensive industries.

By using market signals and predictions the Mill has actively load shed electrical consumption during electricity peak price periods. Although electrical consumption overall has not changed from these actions, this has had the effect of contributing to reduce the overall grid peak load.

As part of the business plan for 2023 an energy efficiency group will be established within the mill to consider opportunities for energy savings.

Management of crises and exceptional situations

Caledonian has systems in place for emergency preparedness and response which includes both environmental and OHS incidents. Operational procedures have been established which take into account both normal and abnormal situations which may arise throughout the organisation and addresses the requirements to

control, minimise and prevent any negative impacts. These procedures are available to all personnel within the Quality First database.

We have an established emergency response team (ERT) on each shift who are multi skilled and trained to assess and con-

tain a variety of incidents. If the situation or incident can be managed by the team itself then they shall do so with retrospective contact being made with the relevant authorities and agencies. Further details of the ERT responsibilities are detailed on pages 8 and 9.

Societal responsibility

Biofore Share and Care Programme

UPM is involved in many causes and community projects supporting sustainable development and the prosperity and welfare of the communities in which we are active. Our work on this arena is clearly connected to our Biofore Strategy and responsibility targets. It is coordinated under the umbrella of our **Biofore Share and Care programme**.

The Biofore Share and Care programme comprises three forms of support: **sponsorships, donations and employee volunteering**. The support can be a monetary contribution, products, materials or employee volunteering. Local sponsorship is target-oriented and long-term involvement in the community where UPM operates.

Our focus is on activities and programmes that are relevant to our business, support innovation and sustainability, or promote local vitality and wellbeing. The four focus areas of UPM's Biofore Share and Care programme are: Reading & learning, engaging with communities, responsible water use and boosting bio-innovations.

Local Communities

Over the last year Caledonian Paper employees have contributed to several local communities. One of these was a program called 'Wear, Share, Care' where we collected unwanted clothes, shoes, bags etc that could be sent for recycling with the primary aim of helping disadvantaged children. These clothes would have ended up in landfill sites along with the 1.2million tonnes that typically end up in UK landfill sites.

Engaging with Society – Caledonian Charity Fund

Well-functioning stakeholder dialogue is a key component for success for UPM. We are committed to developing the vitality of the communities close to our operations

through active co-operation and open dialogue with various stakeholders as well as, for example, through sponsorships and employee volunteering.

We impact local communities and societies in many ways. Understanding the impact that we have is an essential component of our business success. In many locations, we are a significant employer, taxpayer and partner to local entrepreneurs, making positive contributions to the local economy. We apply several precautionary measures to mitigate and remedy potential negative environmental and social impacts on our surrounding communities.

The Caledonian Paper Charity Fund was established in 1995 with the ultimate aim of providing charitable donations to local groups to enhance the quality of life. Employees contribute a donation from their salary on a monthly basis with UPM Caledonian matching these contributions.

Throughout the year contributors to the scheme can nominate appropriate causes to be considered for a donation. Very often the suggested nominations are charities that have supported the family and friends of employees at a very difficult time. Annually all the nominations are considered and the committee will agree which charities will receive a donation from the fund.

In 2022 the following charities were selected sharing a fund of £6,000

- CHAP (local charity providing welfare, money and housing advice)
- Ayrshire Deaf Club
- Local foodbanks
- Greig Steven Memorial (respite support for families living with cancer)
- Give a Dog a Bone (companionship for elderly)
- Ayrshire Parkinson's Support Group

Graduate trainee programme

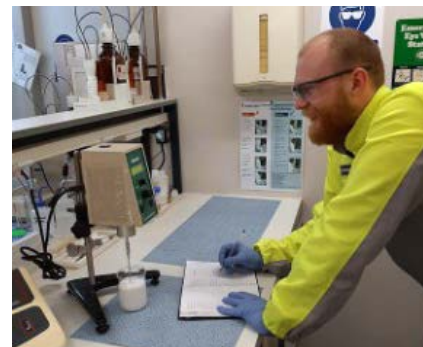
Over the last few years Caledonian has benefited from UPMs graduate trainee programme. Stuart Dickson, our most recent graduate started working at the mill in Sept 2022. Here is some information on this programme from Stuart :

I am a recent Chemical Engineering graduate and have been employed as a graduate Process Engineer here in the mill, through UPMs' graduate programme.

This is a programme designed to prioritise self-development and learning in all production areas within the mill. Typically, this consists of a number of projects throughout the year.

So far, I have focused on waste reduction (effluent), water/energy management and some basic troubleshooting.

The effluent reduction project begun as part of a mill initiative to reduce fibre losses. My part in this project has included developing mass balances of the effluent system using online plant data combined with physical sampling/measuring. I have found this to be an excellent way to learn about waste treatment and the kinds of environment quality markers used in production facilities.



Stuart Dickson



Since water is used heavily in all areas of the mill, water management is a key area with the production staff constantly looking for areas to improve/reduce their usage. Understanding the water flows and streams around the mill has helped build up my knowledge of the overall process, making it easier to identify critical areas for improvement.

With rising electricity and gas prices this past year, careful management of our energy usage has been crucial. I have contributed to an energy forecasting programme, led by a previous graduate from the programme. Understanding which areas of the mill are heavy energy users has allowed me to understand better all the production decisions that are made to reduce our energy usage or to make sure that we are using energy when it is cheapest. In terms of gas usage, it has been good to see some of the ideas that have been generated to switch from gas to steam or electrical heating. Reducing cost and our CO₂ footprint.

The graduate programme is led by HR and brings together a group of diverse international graduates. We have met twice so far, once in the head office in Helsinki and recently in Wroclaw. These sessions are designed to help with networking and to ensure everyone has an appreciation of all the business areas and their roles within UPM.



Kirk McInnes

Caledonian has recently reached out to local universities to offer students the chance of completing part of their thesis at the mill which will have benefits to both the student and the mill. Kirk McInnes a Masters student has recently taken on this secondment. Here is what Kirk has to say :

I am currently studying towards a Masters of Chemical Engineering at the University of Strathclyde. For fulfilment of my final semester, I am required to complete a research project which can be completed either in the university, in an industrial placement, or in a university abroad. For my project I chose to take the industrial route, with my placement at UPM now underway! I started in January 2023 and will be onsite fulltime until the end of April.

For my research project, I have been tasked with investigating various effluent streams throughout the Caledonian Paper Mill, with the hope of establishing where the biggest contributors of solid losses and water wastage are. I will be recording a list of stream characteristics such as: pH, conductivity, turbidity, chemical oxygen demand, biological oxygen demand, solids content, and ash content. With the evaluation of such stream characteristics, I hope to be able to build a comprehensive picture of the chemistry of these streams, in addition to evaluating their potential for reuse in the process.

I hope that this time at the Caledonian Paper Mill will allow me to improve my professional skills, in addition to granting me valuable information on the workings of a chemical engineering site.

Safety

Our goal in UPM is to be the industry leader in health and safety. Our clear objective is zero fatal and serious accidents. Safety is fully embedded in our daily activities and is not considered less or secondary than any other interest. We strive to reduce and eliminate accidents under our control through continuous improvement and effective risk management.



Confined space training carried out in 2022

Our employees, as well as business partners and their employees, are required to adopt safe work practices and to comply with the rules and standards we have established.

Before accessing UPM production site, contractors get UPM safety training, which presents and demonstrates the basic safety requirements. This is complemented with a job specific safety induction and a permit to work.

Emergency Response Team (ERT)

Caledonian has an ERT team for each shift consisting of 7 persons each. The main purpose of this team is to safely and efficiently respond to incidents, to stabilise any causality or plant abnormality until suitable professional help arrives (if required). This team undergo extensive training including first aid; fire fighting; chemical incidents; rescue plans and being familiar the site layout.

On an annual basis 6 training scenarios are identified to allow the team to refresh their skills in mock incidents. Some of the first aid scenarios will cover the treatment of heart attacks; crush injuries; eye injuries and administering CPR. Area familiarisation is important to ensure the team know where hazardous/flammable chemicals are stored and where fire fighting equipment is located.

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.

		2020	2021	2022
Production capacity	Paper LWC	250,000t	245,000t	235,000t
Raw materials (BDT)	Pulp Pigments Process Chemicals	See UPM Corporate Environmental and Societal Responsibility Statement for more information		
Energy	Biogenic Fuels Fossil Fuels Electricity	See UPM Corporate Environmental and Societal Responsibility Statement for more information		
Emission to air	Sulphur Dioxide, SO _x	47t	30t	28t
	Nitrous Oxides, NO _x	273t	269t	318t
	Carbon dioxide, CO ₂ (on-site fossil emissions, scope 1)	10,559t	13,695t	14,031t
	Carbon dioxide, CO ₂ (fossil emissions from purchased energy, scope 2)	22,100t	24,707t	24,425t
	Particulates	3t	5t	3t
Water intake	Fresh Water	2,773,748m ³	3,485,800m ³	3,433,839m ³
Discharges to water	Chemical Oxygen Demand (COD)	3,009t	4,133t	3,974t
	Total Suspended Solids	172t	286t	280t
	Biological Oxygen Demand (BOD ₅)	1,220t	1,482t	1,556t
	Effluent Volume	2,290,046m ³	2,947,726m ³	2,871,688m ³
Side Products		–	–	–
Non-hazardous waste¹⁾	Waste to recycling, energy recovery and or composting (See below for breakdown)	6,995t	10,496t	9,246t
	– Boiler Ash	5,223t	8,371t	7,624t
	– Bark & Other Wood Residues	1,159t	971t	1,005t
	– Domestic	242t	356t	169t
	– Waste Paper		161t	160t
	– Other	174t	456t	139t
	– Metals	178t	181t	149t
	Waste to Landfill (Flyash)	2,596t	169t	0t
Hazardous Waste	Hazardous Waste	37t	10t	0t
Recovery Rate²⁾		73%	98%	100%
Land use	Total use of land	33ha	33ha	33ha
	Total sealed area on site	10ha	10ha	10ha
	Total nature-oriented area on site	23ha	23ha	23ha

¹⁾ All wastes are dry weight

²⁾ Recovery rate is based on total waste



Performance against targets in 2022

TARGET	ACHIEVEMENT	COMMENTS
1 Clean Run Deviations Zero Cat 3 deviations against existing legislative requirements, including PPC permit and Water consent levels.	Yes	No Category 3 deviations reported in 2022.
2 Carry out a sitewide groundwater and soil analysis plan with key testing and reporting of key parameters in accordance with PPC permit.	Yes	Suite of testing carried out in 2022, report submitted to SEPA in January 2023. Minor issues require further discussion.
3 Update roadmap to reach 2030 sustainability targets. Look at short and long term proposals to achieve 2030 targets. The area of water use will be a key focus in 2022.	Partial	Performance against targets monitored. Further studies will be required on the technology required to close any gaps in achieving the 2030 targets.
4 Investigate opportunities for site carbon reduction	Partial	This is ongoing and will be considered over the coming years. Some opportunities are being considered.
5 Ensure efficiency targets are included in area plans including MWh/t, m ³ /t, compressed air and heat recovery and COD. A target of 12m ³ /t LWC for effluent volume is set for 2022.	Partial	Good progress has been made as a result of the energy efficiency audit in Sept 2022 refer to page 7 of this report with details of the water savings achieved. This will be an ongoing area of focus.

Environmental, Societal and key OHS targets 2023

Key Areas of Focus for 'Fit for 55'

'Fit for 55' is an EU legal obligation to reduce CO₂ emissions by 55% by 2030 from baseline of 2005

TARGET
1 Ensure compliance against PPC permit with zero category 3 or above deviations.
2 Update roadmap to reach 2030 sustainability targets. Look at with and without investment proposals to achieve 2030 targets.
3 Key efficiency targets are improved or maintained and included in area plans including effluent volume <11.5m ³ /Te, COD <2.2kg/Te, site emissions and COD.
4 Energy efficiency roadmap to be created (electricity and gas; water and effluent; compressed air; investment strategy)
5 Key safety accountability targets <ul style="list-style-type: none"> • Safety walks : 6 per identified person • Near Miss/Observation : 1 per quarter per employee • Are safety meetings : 5 per annum per area



Validation statement

As an accredited environmental verifier, Inspecta Sertifointi Oy has examined the evidence of procedures and processes of the environmental management system and UPM Caledonian Environmental and Societal Responsibility 2022 statement.

On the basis of this examination, the environmental verifier has herewith confirmed on 2023-04-14 that the UPM Caledonian Environmental and Societal Responsibility 2022 statement is in compliance with UPM's internal reporting guidelines, and there is no evidence of non-compliance with applicable legal requirements relating to the environment.



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