

PERFORMANCE REVIEW FOR SOFIDEL UK BAGLAN 2021

As required by permit condition 4.2.2, a report must be submitted on the performance in 2021. This will take into account energy, water, waste and performance parameters.

ENERGY AND WATER

Sofidel UK Baglan is committed to reducing the amount of energy used on site from both an environmental and financial perspective. Targets are set yearly by the parent company. The consumption is closely monitored to ensure that these targets are met. To calculate the energy used per tonne of paper produced, the production used is based on the BREF definition – ‘saleable production after the tissue machine before any rewinding processes and excluding any core’.

Electricity

Year	kwh/tonne
2020	720
2021	729

The electricity consumed per tonne of paper produced increased by 1.25%.

Gas

Year	Sm ³ /tonne
2020	168
2021	166

The gas consumption decreased by 1.2%.

Raw water used

Year	m ³ /tonne
2020	4.98
2021	4.55

The overall water consumption decreased by 8.6%. 16.5% of the total water used is from rainwater harvesting, compared to 22.9% contribution from rainwater in 2020. As of May 2021 mains water is used in the process rather than canal water.

Effluent water discharged

Year	m ³ /tonne
2020	2.45
2021	2.19

The effluent discharged decreased by 10.6%. The discharge is below the yearly average of 3.5-20 m³/t currently described in the BREF document.

PERFORMANCE PARAMETERS EMISSIONS

The average values for these parameters can be seen below along with the average range listed in the BAT.

PARAMETER	SOFIDEL UK BAGLAN AVERAGE VALUES 2020	SOFIDEL UK BAGLAN AVERAGE VALUES 2021	BAT YEARLY AVERAGE kg/T
COD	0.3761 Kg/t	0.3567 Kg/t	0.15-1.5 Kg/t
Suspended Solids	0.0832 Kg/t	0.0634 Kg/t	0.02-0.35 Kg/t
Total Nitrogen	0.0235 Kg/t	0.0184 Kg/t	0.01-0.15 Kg/t
Total Phosphorous	0.0071 Kg/t	0.007 Kg/t	0.003-0.012 Kg/t
Adsorbable organically bound halides (AOX)	0.0005 Kg/t	0.0003 Kg/t	0.05 Kg/t
BOD	0.0148 Kg/t	0.0178 Kg/t	N/A
CO ₂	0.3342 t/t	0.3259 t/t	N/A
NO _x	0.0002 t/t	0.0002 t/t	N/A

There has been a slight decrease in the 2021 water parameters average values for the majority of the parameters. The values are still within the recommended yearly averages for the listed parameters and are compliant with the recommended BAT-AELs. The data has been calculated using the BREF definition for production.

The amount of CO₂ emitted in 2021 was 20,750 tonnes. There was a decrease of 6% in the actual emissions compared to 2020. The amount of NO_x emission rate over the last two years has remained the same.

PRIORITY HAZARDOUS SUBSTANCE SCREEN

The annual monitoring was undertaken for Priority Hazardous Substances. All results came back as below the reporting limit of the laboratory used. We are still in a position where we have a limited number of labs available for the testing due to Covid. All test methods were performed by accredited laboratories.

Emission Point	Substance / Parameter	Emission Limit Value	Result
W1	Tributyl Tin	No limit set	<0.02 ug/l
W1	Anthracene	No limit set	<0.01 ug/l
W1	alpha-Endosulphan	No limit set	<0.004 ug/l
W1	beta-Endosulphan	No limit set	<0.004 ug/l
W1	Brominated diphenyl ether	No limit set	<0.002 ug/l
W1	C10-C13 Chloroalkanes	No limit set	<1 ug/l
W1	Hexachlorobenzene	No limit set	<0.003 ug/l
W1	Hexachlorobutadiene	No limit set	<0.001 ug/l
W1	Hexachloro-cyclohexane	No limit set	<0.003 ug/l
W1	Nonylphenol	No limit set	<0.05 ug/l
W1	Pentachlorobenzene	No limit set	<0.00025 ug/l
W1	Polycyclic aromatic Hydrocarbons (PAHs)	No limit set	0.044 ug/l

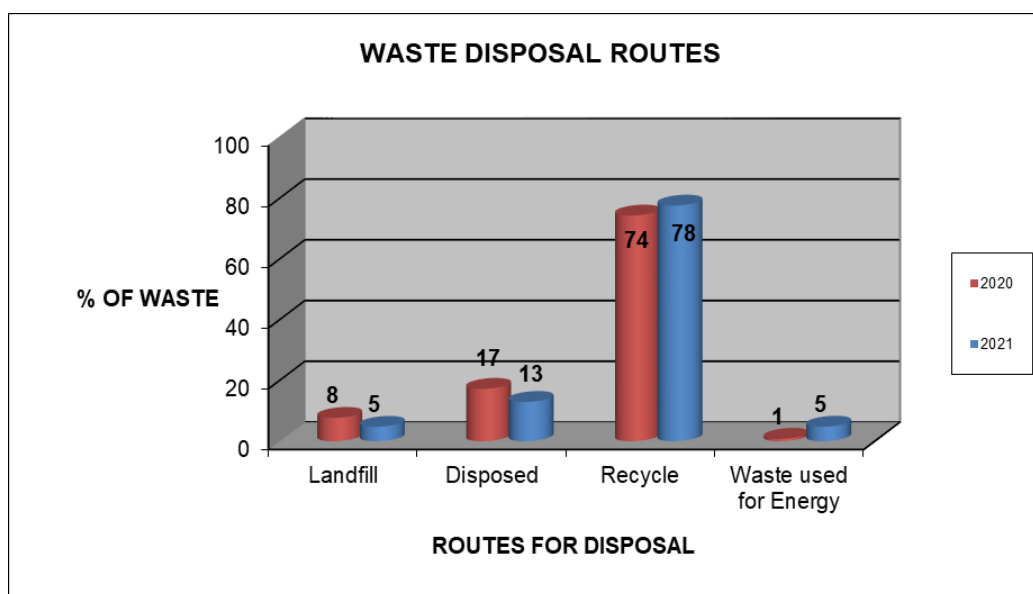
PERMIT BREACHES

Two Schedule 5 submissions were made in response to BOD breaches. The first on 10/08/2021 due to a failure of courier to deliver sample to lab – in response courier collections are now arranged by site rather than the lab.

The second breach was reported on 24/12/2021 due to a BOD result being over the limit. Due to the delay in the reporting of the high result by the laboratory, we have now changed to a 5-day turnaround time for analysis with the lab in order to identify issues quicker.

WASTE

Sofidel UK Baglan is committed to reducing the amount of waste that goes to landfill and monitors the waste on site closely. Below can be seen the waste figures for the amount of waste produced in both 2020 and 2021 and a comparison of these figures.



The waste removed from site has been split down into four disposal routes- landfill, recycled, waste to energy and disposed. The landfill waste is composed of hazardous waste which has been removed from site and cannot be recycled, and also general waste. The percentage of waste to landfill has decreased in 2021 as a change was made to a new waste contractor, who divert the general waste for recycling and waste to energy. This should further decrease in 2022.

The recycled waste consists of cardboard, poly, wood, metal, empty IBCs, sludge and hazardous waste which could be recycled. The waste to energy is a portion of general waste which was sent to energy recovery facility, and ink washings. The disposed waste is the ink and glue washings which are processed at a water treatment site and then discharged to surface water.

Overall, the amount of waste produced on site has increased by 1.7% compared with 2021. An environmental objective was set in 2021 for the reduction of plastic packaging on finished products. This is currently an ongoing product.

Sofidel UK Baglan is committed to reducing the amount of waste sent to landfill as well as the amount of waste generated on site. We apply the waste hierarchy to all waste streams on site and in 2022 will focus on maintaining recycling and further reducing waste production on site.

ISO 14001 AUDITS

There were no non-conformities raised during the ISO 14001 audits that took place in 2021.

ISO 50001 AUDITS

There were no non-conformities raised during the ISO 50001 audit that took place in 2021.

PROJECTS

In 2021, a number of projects were scheduled but unfortunately not all could be completed. Outstanding projects from 2021 will be carried forward to 2022.

- Installation of variable speed drives in the paper mill-**SOME HAVE BEEN INSTALLED IN 2021. TO BE CONTINUED IN 2022.**
- Installation of additional energy meters-**CARRIED FORWARD TO 2022**
- Installation of new drives in converting- **CARRIED FORWARD TO 2022**
- Recertification of ISO 14001 certificate- **COMPLETE**
- Upgrade on boiler to improve efficiency -**CARRIED FORWARD TO 2022**

In 2022, along with the projects carried forward from 2021, there are additional projects taking place. These include:

- ViscoNip/Redry project on the paper machine. We have been able to undertake this project due to funding we received as part of the Industrial Energy Transformation Fund (IETF).
- Improvements to rainwater harvesting system to capture more water for the process
- Permit variation submitted to NRW for generators to be used on site

CONCLUSION

During a difficult year in regard to the Covid pandemic, Sofidel UK Baglan has continued to perform energy efficiently and to remain focused on the amount of water consumed. New energy, gas and water targets have been set for Sofidel UK Baglan for 2022 and these are linked in with the objectives and targets which are part of our ISO14001 and ISO 50001 management system. The monitoring data shows that Sofidel UK Baglan emissions are well within the levels set within the BREF document.