Cyfoeth Naturiol Cymru
Natural Resources Wales

Natural Resources Wales permitting decisions

GLJ Recycling Limited, Lower Chapel Bridge Yard, Decision Document EPR/CB3393ZB

Contents

New bespoke permit

The application number/the permit/variation number is: PAN-008083

The applicant is: GLJ Recycling Limited

The Installation is located at: Lower Chapel Yard, Cwmcarn, Cross Keys, Newport, Gwent, NP11 7NL

We have decided to grant the permit for Lower Chapel Yard operated by GLJ Recycling Limited.

Permits DB3097TJ and LB3093HH have both been superseded by this permit. Permit DB3097TJ permitted both standard rules set SR2008 $N^{O}20$ and set SR2008 $N^{O}21$. Permit LB3093HH permitted both standard rules set SR2008 $N^{O}23$ and set SR2008 $N^{O}3$. The activities and constraints included in the 4 standard rules sets are retained in this new permit, with the activities of SR2008 $N^{O}21$ having been replaced with the now increased capacity.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided

Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Key issues of the decision

Receipt of application

Identifying confidential information

We have not identified information provided as part of the application that we consider to be confidential. The decision was taken in accordance with our guidance on commercial confidentiality.

Consultation

The consultation requirements were identified and implemented. The decision was taken in accordance with RGN 6 High Profile Sites, our Public Participation Statement and our Working Together Agreements.

A copy of the Application and all other documents relevant to our determination (see below) are available for the public to view. Anyone wishing to see these documents could arrange for copies to be made.

We sent copies of the Application to the following bodies, which includes those with whom we have “Working Together Agreements”:

- **Caerphilly Council**
- **Health and Safety Executive**
- **Public Health Wales**
- **South Wales Fire Service**

These are bodies whose expertise, democratic accountability and/or local knowledge make it appropriate for us to seek their views directly.

The consultation started on 4 May 2020 and ended on 3 June 2020.
An advert was also placed on our website.

Further details along with a summary of consultation comments and our response to the representations we received can be found in Annex 3. We have taken all relevant representations into consideration in reaching our determination.

Operator

We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with EPR RGN 1 Understanding the meaning of operator.

The facility

The decision on the facility was taken in accordance with RGN interpretation of installation.

The regulated facility is an installation which comprises the following activities listed in Part 2 of Schedule 1 to the Environmental Permitting Regulations and the following waste operations.

- S5.4 A1 (b) iv Disposal, recovery or a mix of disposal and recovery of non-hazardous waste (b) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving one or more of the following activities, and excluding activities covered by Council Directive 91/271/EEC (iv) treatment in shredders of metal waste, including waste electrical and electronic equipment and end-of-life vehicles and their components
- vehicle storage, depollution & dismantling (authorised treatment) facility
- household, commercial and industrial waste transfer station with treatment
- waste electrical and electronic equipment authorised treatment facility (ATF) excluding ozone-depleting substances

Legislation

NRW is satisfied that this decision is compatible with its general purpose of pursuing the sustainable management of natural resources in relation to Wales and applying the principles of sustainable management of natural resources.

All applicable European directives have been considered in the determination of the application.

The site

The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility.

A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.

Site condition report

The operator has provided a description of the condition of the site.

We consider this description is satisfactory. The decision was taken in accordance with our guidance on site condition reports – guidance and templates (H5).

Biodiversity, Heritage, Landscape and Nature Conservation

The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.

A full assessment of the application and its potential to affect the site has been carried out as part of the permitting process. We consider that the application will not affect the features of the site.

Environmental Risk Assessment

Emission limits

We have decided that emission limits should be set for the parameters listed in the permit.

The installation has proposed to use bag filters as listed in the Best Available Techniques and the permit has set the appropriate BAT AEL for dust emissions.

Water

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent pollution of ground and surface water. The surface of the yard is concrete, and the drainage is contained with rain water being collected and used on site. There is no emission point to ground or surface water.

Soil

The operator has provided a description of the condition of the site.

We consider this description is satisfactory. The decision was taken in accordance with our guidance on site condition reports – guidance and templates (H5).

Noise

The applicant supplied a detailed noise assessment as well as technical specifications for the proposed shredder to minimise noise. These have been reviewed in detail and the conclusion reached is that the proposed shredder will generate less noise than the shredder that it replaces. The applicant proposals include ongoing operational and management controls with regard to noise and the permit requires noise to be adequately controlled.

Fugitive emissions

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent or where that is not practicable to minimise fugitive emissions and to prevent pollution from fugitive emissions.

Monitoring

We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.

These monitoring requirements have been imposed in order to ensure that the point source emissions to air continue to meet the appropriate standards as detailed in the Best Available Techniques.

Reporting

We have specified reporting in the permit.
The reporting requires annual reports to provide the necessary confirmation of the monitoring results.

Operating techniques

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.

We accept the operator's proposals for BAT relating to the infrastructure and operations for the installation.
We consider that the emission limits included in the permit reflect the BAT for the installation.

The permit conditions

Waste types

We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility. This list does not include any wastes that were not already authorised under the 4 standard rules sets which this permit replaces.

Incorporating the application

We have specified that the applicant must operate the permit in accordance with descriptions in the application, including all additional information received as part of the determination process.

These descriptions are specified in the Operating Techniques table in the permit.

Operator Competence

Environment management system

There is no known reason to consider that the operator will not have the management systems to enable it to comply with the permit conditions. The decision was taken in accordance with RGN 5 on Operator Competence.

Technical competence

Technical competency is required for activities permitted.

The operator is a member of an agreed scheme.

Relevant convictions

Our Enforcement Database has been checked to ensure that all relevant convictions have been declared.

No relevant convictions were found.

The operator satisfies the criteria in RGN 5 on Operator Competence.

OPRA

The OPRA score at permit issue is 42.

ANNEX 1: Decision checklist regarding relevant BAT Conclusions

BAT Conclusions for the Waste Treatment Bref were published as Commission Implementing Decision EU 2018/1147 in the Official Journal of the EU on 17 August 2018. This checklist provides a record of decisions made in relation to each relevant BAT Conclusion applicable to the installation. This annex should be read in conjunction with the consolidated variation notice.

All BAT Conclusions arising are listed by number in order below;

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
OVERALL ENVIRONMENTAL PERFORMANCE			
1	**Environment Management System (EMS) – <u>ALL</u> of the following:**		
	I.	Management commitment	Site have described their EMS as being in line with BAT as well as meeting ISO14001
	II.	Environmental policy development including CI of performance	
	III.	Planning and implementing procedures & targets in conjunction with financial planning & investment	
	IV.	***Implementation of procedures***	
		(a) Structure & responsibility	
		(b) Recruitment, training, awareness & competence	
		(c) Communication	
		(d) Employee involvement	
		(e) Documentation	
		(f) Effective process control	
		(g) Maintenance programmes	
		(h) Emergency preparedness & response	
		(i) Safeguarding compliance with environmental legislation	

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
	V.	***Checking performance and taking corrective action***	
		(a) Monitoring & measurement	
		(b) Corrective and preventive action	
		(c) Maintenance of records	
		(d) Independent (where practicable) internal or external EMS auditing	
	VI.	Senior management review of EMS	
	VII.	Following development of cleaner technologies	
	VIII.	Whole life cycle considerations when designing a new plant i.e. impacts from eventual decommissioning and throughout its operating life	
	IX.	Regular sectoral bench marking	
	X.	Waste stream management (BAT 2)	Operator has stated that these are in place
	XI.	Inventory of waste water & waste gas streams (BAT 3)	See BAT 3
	XII.	Residues Management Plan – S6.5	Operator has stated that these are in place, see also BAT 24
	XIII.	Accident Management Plan – S6.5	Operator has stated that these are in place, see also BAT 21
	XIV.	Odour Management Plan (BAT 12)	This is in place
	XV.	Noise & Vibration Management Plan (BAT 17)	Operator has stated that these are in place
2	**Improving overall environmental performance – <u>ALL</u> of the following:**		
	a.	Set up and implement waste characterisation & pre-acceptance procedures	Operator has stated that these are in place
	b.	Set up and implement waste acceptance procedures	
	c.	Set up and implement a waste tracking system & inventory	

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
3	d.	Set up and implement an output quality management system	
	e.	Ensure waste segregation	
	f.	Ensure waste compatibility prior to mixing or blending	
	g.	Sort solid incoming waste – S6.4	
	Establish and maintain a waste water and waste gas inventory as part of the EMS - <u>ALL</u> of the following:		
	Information on characteristics of waste and waste treatment processes		
	(i)(a)	simplified process flow sheets showing emission sources	In place
	(i)(b)	Process-integrated and waste water/waste gas treatment descriptions including performance	In place
	Information on characteristics of waste water streams		
	(ii)(a)	*Mean and variability of:*	N/A- No waste water discharge
		Flow	
		pH	
		Temperature	
		Conductivity	
	(ii)(b)	*Mean concentration, load and variability of:*	
		Total suspended solids	
		COD/TOC	
		Nitrogen species	
		Phosphorous	
		Metals	
		Priority substances/micropollutants	

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
	(ii)(c)	Any other relevant compounds	
		Bioeliminability data (see BAT 52):	
		BOD	
		BOD to COD ratio	
		Zahn-Wellens test	
		Biological inhibition potential	
	Information on characteristics of waste gas streams		
	(iii)(a)	*Mean and variability of:*	The presence or absence of these will be established for monitoring purposes: Brominated flame retardant; Dioxin-like PCBs; Metalloids As, Cd, Co, Cr, Cu, Mn, Pb, Sb, Se, Ti and V; PCDD/F; TVOC.
		Flow	
		temperature	
	(iii)(b)	*Mean concentration, load and variability of relevant substances:*	
		Organic compounds	
		POPs e.g. PCBs	
		Any other relevant compounds	
	(iii)(c)	Flammability	N/A
		Lower and Higher Explosive Limits	
		Reactivity	

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
	(iii)(d)	*Presence of other substances that may affect the gas treatment system or plant safety:*	
		O2	N/A
		N2	N/A
		Water vapour	N/A
		Dust	Monitoring and dust filter
4	**Reducing environmental risk associated with waste storage – <u>ALL</u> of the following:**		
	a.	Optimised storage location	This is detailed in the fire management plan, with additional information in the EMS and the Environment Risk assessment and control measures.
	b.	Adequate storage capacity	
	c.	Safe storage operation	
	d.	Separate area for storage & handling of packaged hazardous waste	
5	**Set up and implement procedures to reduce the environmental risk associated with handling and transfer of waste - include following elements:**		
	Carried out by competent staff		Operator has stated that these are in place
	Duly documented, validated and verified		
	Spill prevention, detection and mitigation measures		
	Take precautions when mixing or blending wastes		
	Procedures are risk-based and consider likelihood of accidents, incidents and their environmental impact		
MONITORING			

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
6	**Relevant emissions to water: monitor key process parameters at key locations**		
	Key process parameters		
	Waste water flow		N/A – Operator has stated that there is no discharge of water
	pH		
	Temperature		
	Conductivity		
	BOD		
	Other process parameters		
	Key monitoring locations		
	Pre-treatment inlet and/or outlet		N/A – Operator has stated that there is no discharge of water
	Final treatment inlet		
	Discharge point (to the environment)		
	Other location		
7	Monitoring emissions to water (refer to table) Monitoring parameters depend on waste treatment process(es) involved		N/A – Operator has stated that there is no discharge of water
8	Monitoring emissions to air (refer to table) Monitoring parameters depend on waste treatment process(es) involved		Detailed in the environmental permit
9	**Monitoring diffuse emissions of organic compounds to air from processes involving solvents. Use one or a combination of the following:**		
	a	Measurement – S6.2 descriptions	Not applicable to installation activity
	b	Emissions factor calculation	
	c	Mass balance calculation	
10	**Periodically monitor odour emissions where nuisance is expected and/or has been substantiated (monitoring frequency is outlined in BAT 12)**		

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
	Use EN standards e.g. 13725 or 16841		Not Applicable – the operator has stated that there are no known odour issues with the site.
	Use equivalent methods e.g. ISO / national / international monitoring standards		
11	**Annual monitoring for:**		
	- **Water, energy and raw materials**		Operator has stated that these are in place
	- **Generation of residues and waste water**		Operator has stated that these are in place
EMISSIONS TO AIR			
12	**Set up, implement and review an Odour Management Plan (as part of the site EMS) where nuisance is expected and/or has been substantiated. Include ALL of the following:**		
	Protocol containing actions and timelines		Not Applicable – the operator has stated that there are no known odour issues with the site.
	Protocol for conducting odour monitoring (BAT 10)		
	Protocol for response to odour incidents/complaints		
	Odour prevention and reduction programme		
13	**Techniques to prevent, or where not practicable reduce odour emissions. Use one or a combination of the following:**		
	a.	Minimising residence times (open systems only)	Not Applicable – the operator has stated that there are no known odour issues with the site.
	b.	Use chemical treatment (N/A if desired output is hampered)	

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
	c.	Optimising aerobic treatment – see examples. Refer to BAT 36 for wastes other than water-based liquid waste.	
14	**Techniques to prevent, or where not practicable reduce diffuse emissions to air, in particular of dust, organic compounds and odour. Use one or a combination of the following:**		
	a.	Minimising potential diffuse emission sources – see examples	Operator has stated that these are in place
	b.	Select and use high-integrity equipment – see examples	
	c.	Corrosion prevention – see examples	
	d.	Containment, collection and treatment of diffuse emissions – see examples	Operator has stated that these are in place
	e.	Dampening (with water or fog)	
	f.	Maintenance – see examples	
	g.	Cleaning of waste treatment and storage areas – see examples	
	h.	Leak Detection And Repair (LDAR) programme for organics – S6.2	
15	**Use flaring only for safety reasons or non-routine operating conditions (OTNOC). Use <u>both</u> of the following:**		
	a.	Correct plant design – see examples	Not Applicable – the installation does not undertake flaring.
	b.	Plant management including gas system balancing and advanced process control	
16	**Reduce emissions to air when flaring is unavoidable. Use <u>both</u> of the following:**		
	a.	Correct design of flaring devices – see examples	Not Applicable – the installation does not undertake flaring.
	b.	Monitoring and recording as part of flare management – see examples	

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
NOISE AND VIBRATIONS			
17	**Set up, implement, and regularly review a Noise and Vibration Management Plan (as part of the EMS) where nuisance is expected and/or has been substantiated. Include <u>ALL</u> of the following:**		
	I.	Protocol with actions and timelines	Operator has stated that these are in place
	II.	Noise and vibration monitoring plan/protocol	
	III.	Noise & vibration complaint response plan/protocol	
	IV.	Noise and vibration reduction programme	
18	**Techniques to prevent, or where not practicable reduce noise and vibration emissions. Use one or a combination of the following:**		
	a.	Appropriate location of equipment and buildings	Operator has stated that these are in place
	b.	Operational measures – see examples	
	c.	Low-noise equipment – see examples	
	d.	Noise & vibration control equipment – see examples	
	e.	Noise attenuation – see examples	
EMISSIONS TO WATER			
19	**Optimise water consumption, reduce waste water generation and prevent or where not practicable reduce emissions to soil and water. Use one or a combination of the following:**		
	a.	Water management – see examples	Operator has stated that these are in place
	b.	Water recirculation	

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
	c.	Impermeable surface	
	d.	Reduce likelihood and impact of tank/vessel overflows and failures – see examples	
	e.	Roofing of waste storage and treatment areas	
	f.	Segregation of water streams (being mindful of existing plant constraints)	
	g.	Adequate drainage infrastructure	
	h.	Design and maintenance provisions to allow risk-based leak detection and repair. Minimise use of underground components.	
	i.	Appropriate buffer storage capacity (being mindful of existing plant constraints)	
20	**Treat waste water using a combination of:**		
	Preliminary, primary and general treatment		
	a.	Equalisation	Waste water treatment not needed as no discharge of waste water
	b.	Neutralisation	
	c.	Physical separation	
	Physico-chemical treatment		
	d.	Adsorption	
	e.	Distillation/rectification	
	f.	Precipitation	
	g.	Chemical oxidation	
	h.	Chemical reduction	

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
	i.	Evaporation	
	j.	Ion exchange	
	k.	Stripping	
	Biological treatment		
	l.	Activated sludge process	
	m.	Membrane bioreactor	
	Nitrogen removal		
	n.	Nitrification/denitrification (where biological treatment used)	
	Solids removal		
	o.	Coagulation and flocculation	
	p.	Sedimentation	
	q.	Filtration (sand, micro, ultra)	
	r.	Flotation	
	BAT-AELs for DIRECT discharges to a receiving waterbody (mg/l)		
	Table 6.1 and its supporting notes. Monitoring requirements are outlined in BAT 7		
	TOC	10.0-60 10-100 for water-based liquid waste	
	COD (TOC is preferred)	30-180 30-300 for water-based liquid waste	

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
	Suspended solids	5.0-60	
	HOI	0.5-10 applying to specific waste treatments	
	Total N	1-25 for biological treatment and waste oil re-refining 10-60 for water-based liquid waste	
	Total P	0.3-2 for biological treatment 1-3 for water-based liquid waste	
	Phenol	0.05-0.2 for waste oil re-refining and physio-chemical treatment of waste with CV 0.05-0.3 for water-based liquid waste	
	Free CN-	0.02-0.1 for water-based liquid waste	
	AOX	0.2-1 for water-based liquid waste	
	Metals & Metalloids – specific waste treatments as listed in Table 6.1		
	As	0.01-0.05	
	Cd	0.01-0.05	
	Cr	0.01-0.15	Waste water treatment not needed as no discharge of waste water
	Cu	0.05-0.5	
	Pb	0.05-0.1	
	Ni	0.05-0.5	
	Hg	0.5-5	

BATc number	Summary of BAT Conclusion requirement		Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
	Zn	0.1-1	
	Metals & Metalloids – treatment of water-based liquid waste		
	As	0.01-0.1	
	Cd	0.01-0.1	
	Cr	0.01-0.3	
	Hexavalent Cr [Cr(VI]	0.01-0.1	
	Cu	0.05-0.5	
	Pb	0.05-0.3	
	Ni	0.05-1	
	Hg	1.0-10	
	Zn	0.1-2	
	BAT-AELs for INDIRECT discharges to a receiving waterbody (mg/l)		
	Table 6.2 and its supporting notes. Monitoring requirements are outlined in BAT 7		
	HOI	0.5-10 applying to specific waste treatments	
	Free CN-	0.02-0.1 for water-based liquid waste	
	AOX	0.2-1 for water-based liquid waste	
	Metals & Metalloids – specific waste treatments as listed in Table 6.2		
	As	0.01-0.05	
	Cd	0.01-0.05	

BATc number	Summary of BAT Conclusion requirement		Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
	Cr	0.01-0.15	
	Cu	0.05-0.5	
	Pb	0.05-0.1	
	Ni	0.05-0.5	
	Hg	0.5-5	
	Zn	0.1-1	
	Metals & Metalloids – treatment of water-based liquid waste		
	As	0.01-0.1	
	Cd	0.01-0.1	
	Cr	0.01-0.3	
	Hexavalent Cr [Cr(VI]	0.01-0.1	
	Cu	0.05-0.5	
	Pb	0.05-0.3	
	Ni	0.05-1	
	Hg	1.0-10	
	Zn	0.1-2	
EMISSIONS FROM ACCIDENTS AND INCIDENTS			

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
21	**Techniques to prevent or limit the environmental consequences of accidents and incidents, as part of the Accident Management Plan. Use <u>ALL</u> of the following:**		
	a.	Protection measures – see examples	Operator has stated that these are in place
	b.	Management of incidental or accidental emissions	
	c.	Incident/accident registration and assessment system – see examples	
MATERIAL EFFICIENCY			
22	**Use materials efficiently by substituting materials with waste e.g. waste acids/alkalis for pH adjustment, fly ashes for binders**		Operator has stated that these are in place
ENERGY EFFICIENCY			
23	**Use energy efficiently by using <u>both</u> of the following techniques:**		
	a.	Energy efficiency plan	Operator has stated that these are in place and there are conditions in the permit
	b.	Energy balance record	No energy produced.
REUSE OF PACKAGING			
24	**Maximise the reuse of packaging as part of a Residues Management Plan (see BAT 1 XII.)**		Not applicable as packaging not used or imported to site.

BATc number	Summary of BAT Conclusion requirement		Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
MECHANICAL TREATMENT OF WASTE (GENERAL BAT)			
25	**Reduce emissions to air of dust, particulate-bound metals, PCDD/F and dioxin-like PCBs by applying BAT 14d <u>AND</u> using one or a combination of the following techniques:**		
	a.	Cyclone – see S6.1	N/A
	b.	Fabric filter – see S6.1	Fabric filter to be used.
	c.	Wet scrubbing – see S6.1	N/A
	d.	Water injection into the shredder	N/A
	BAT-AEL for channelled dust emissions to air from the mechanical treatment of waste (mg/Nm3) *Table 6.3 and its supporting note. Monitoring requirements are outlined in BAT 8*		
	Dust	2.0-5.0	Monitoring and emission limit set.
MECHANICAL TREATMENT OF METAL WASTE BY SHREDDING			
26	**Improve overall environmental performance and prevent emissions due to accidents and incidents. Use BAT 14g <u>AND ALL</u> of the following techniques:**		
	(a)	Detailed inspection procedure for baled waste before shredding	Operator has stated that these are in place
	(b)	Remove dangerous items from waste inputs and dispose of them in a safe manner	
	(c)	Treatment of containers accompanied by a declaration of cleanliness	
27	**Prevent deflagrations and reduce emissions from deflagrations. Use technique a. <u>AND ONE OR BOTH</u> of techniques b. and c.**		

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
	a.	Deflagration management plan with reduction programme, incident review and response protocol	Operator has stated that these are in place
	b.	Pressure relief dampers	
	c.	Pre-shredding (device)	
28	**Use energy efficiently by keeping the shredder feed stable**		Operator has stated that these are in place
MECHANICAL TREATMENT OF WEEE CONTAINING VFCS AND/OR VHCS			
29	**Techniques to prevent, or where not practicable reduce emissions of organic compounds to air. Apply BAT 14d <u>AND</u> BAT14h <u>AND</u> technique a. <u>AND ONE OR BOTH</u> of techniques b. and c.**		
	a.	Optimised removal and capture of refrigerants and oils	N/A
	b.	Cryogenic condensation	N/A
	c.	Adsorption	N/A
	BAT-AELs for channelled TVOC and CFC emissions to air from treatment of WEEE containing VFCs and/or VHCs (mg/Nm3) *Table 6.4. Monitoring requirements are outlined in BAT 8*		
	TVOC	3.0-15	N/A
	CFCs	0.5-10	N/A
30	**Prevent emissions due to explosions when treating WEEE containing VFCs and/or VHCs. Use <u>EITHER</u> of the following techniques:**		
	a.	Inert atmosphere e.g. N2	N/A
	b.	Forced ventilation	N/A
MECHANICAL TREATMENT OF WASTE WITH CALORIFIC VALUE			

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
31	**Reduce emissions to air of organic compounds by applying BAT 14d <u>AND</u> using one or a combination of the following techniques:**		
	a.	Adsorption – see S6.1	N/A
	b.	Biofilter – see S6.1	N/A
	c.	Thermal oxidation – see S6.1	N/A
	d.	Wet scrubbing – see S6.1	N/A
	BAT-AEL for channelled TVOC emissions to air from the mechanical treatment of waste with calorific value (mg/Nm3) *Table 6.5 and its supporting note. Monitoring requirements are outlined in BAT 8*		
	TVOC	10.0-30.0	N/A
MECHANICAL TREATMENT OF WEEE CONTAINING MERCURY			
32	**Reduce mercury emissions to air by collecting them at source, sending them to abatement and carrying out adequate monitoring. This includes <u>ALL</u> of the following:**		
	Equipment is enclosed, under negative pressure and connected to a LEV system		N/A
	Waste gas treated using dedusting techniques – see examples – followed by adsorption on activated carbon		N/A
	Monitoring of waste gas treatment efficiency		N/A
	Mercury levels measured at least weekly within treatment and storage areas		N/A
	BAT-AEL for channelled mercury (Hg) emissions to air from the mechanical treatment of WEEE containing mercury (µg/Nm3) *Table 6.6. Monitoring requirements are outlined in BAT 8*		
	Hg	2.0-7.0	N/A

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
BIOLOGICAL TREATMENT OF WASTE (GENERAL BAT)		
33	**Reduce odour emissions and improve overall environmental performance by selecting the waste input (to ensure its suitability for biological treatment). See also BAT 2**	N/A
34	**Reduce emissions to air of dust, organic compounds and odorous compounds (including H2S & NH3) by using one or a combination of the following techniques:**	
	a. Adsorption – see S6.1	N/A
	b. Biofilter – see S6.1	
	c. Fabric filter – see S6.1.	
	d. Thermal oxidation – see S6.1	
	e. Wet scrubbing – see S6.1	
	BAT-AEL for channelled NH3, odour, dust and TVOC emissions to air from the biological treatment of waste (mg/Nm3) (ou_E/m3) *Table 6.7 and its supporting notes. Monitoring requirements are outlined in BAT 8*	
	NH3: 0.3-20	N/A
	Odour: 200-1000	
	Dust: 2.0-5.0	
	TVOC: 5.0-40	
35	**Reduce the generation of waste water and reduce water usage by using <u>ALL</u> of the following:**	
	a. Segregation of water streams (see also BAT 19f)	N/A
	b. Water recirculation	
	c. Minimisation of the generation of leachate	

BATc number			Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
BIOLOGICAL TREATMENT OF WASTE: AEROBIC METHODS				
36	**Reduce emissions to air and improve overall environmental performance by monitoring and/or controlling key waste and process parameters. Include following elements:**			
	Waste input characteristics e.g. C to N ratio, particle size			N/A
	Temperature and moisture content within windrows (Moisture monitoring not needed for enclosed processes where H&S issues have been identified)			
	Aeration of the windrow			
	Windrow porosity, height and width			
37	**Reduce diffuse emissions to air of dust, odour and bioaerosols from open-air treatment steps. Use <u>ONE OR BOTH</u> of the following techniques:**			
	a.	Use of semi-permeable membrane covers		N/A
	b.	Adaptation of operations to the meteorological conditions		
BIOLOGICAL TREATMENT OF WASTE: ANAEROBIC METHODS				
38	**Reduce emissions to air and improve overall environmental performance by monitoring and/or controlling key waste and process parameters. Include following elements:**			
	Implement a manual and/or automatic monitoring system to:			
	Ensure a stable digester operation			N/A
	Minimise operational difficulties and associated odour emissions			N/A
	Provide sufficient early warning of system failures			

BATc number			Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
	Windrow porosity, height and width			
	Monitoring and/or control of key waste and process parameters – examples below:			
	pH and alkalinity of the digester feed			
	Digester operating temperature			
	Hydraulic and organic loading rates of the digester feed			
	Volatile fatty acids and NH3 concentrations within digester & digestate			
	Biogas quantity, composition (e.g. H2S) and pressure			
	Liquid and foam levels in the digester			
MECHANICAL BIOLOGICAL TREATMENT (MBT) OF WASTE				
39	**Reduce emissions to air. Generally applicable to new plants, existing plants may have layout constraints. Use <u>BOTH</u> of the following techniques:**			
	a.	Segregation of the waste gas streams (refer to inventory described in BAT 3)		N/A
	b.	Recirculation of waste gas. Waste gas treatment is described in BAT 34 and recirculation in BAT 35.		
PHYSICO-CHEMICAL TREATMENT OF SOLID AND/OR PASTY WASTE				
40	**Improve overall environmental performance by monitoring the waste input as part of the waste pre-acceptance and acceptance procedures. See also BAT 2.**			
	Monitoring the waste input			

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
	Content of organics, oxidising agents, metals, salts, odorous compounds		N/A
	H2 formation potential upon mixing of flue-gas treatment residues/ashes with water		
41	**Reduce emissions to air of dust, organic compounds and NH3 by applying BAT 14d <u>AND</u> using one or a combination of the following techniques:**		
	a.	Adsorption – see S6.1	N/A
	b.	Biofilter – see S6.1	
	c.	Fabric filter – see S6.1.	
	d.	Wet scrubbing – see S6.1	
	BAT-AEL for channelled NH3, odour, dust and TVOC emissions to air from the physico-chemical treatment of solid and/or pasty waste (mg/Nm3) *Table 6.8. Monitoring requirements are outlined in BAT 8*		
	Dust	2.0-5.0	
RE-REFINING OF WASTE OIL			
42	**Improve overall environmental performance by monitoring the waste input as part of the waste pre-acceptance and acceptance procedures. See also BAT 2.**		
	Monitoring the waste input		***N/A***
	Chlorinated compounds e.g. solvents or PCBs		
43	**Reduce quantity of waste sent for disposal by using <u>ONE OR BOTH</u> of the following techniques:**		
	a.	Material recovery e.g. organic residues in asphalt products	N/A

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
	b.	Energy recovery	
44	**Reduce emissions to air of organic compounds by applying BAT 14d <u>AND</u> using one or a combination of the following techniques:**		
	a.	Adsorption – see S6.1	N/A
	b.	Thermal oxidation – see S6.1	
	c.	Wet scrubbing – see S6.1	
	The BAT-AEL for TVOC emissions to air set in Section 4.5 (below) applies. *Monitoring requirements are outlined in BAT 8*		
PHYSICO-CHEMICAL TREATMENT OF WASTE WITH CALORIFIC VALUE			
45	**Reduce emissions to air of organic compounds by applying BAT 14d <u>AND</u> using one or a combination of the following techniques:**		
	a.	Adsorption – see S6.1	N/A
	b.	Cryogenic condensation – see S6.1	
	c.	Thermal oxidation – see S6.1	
	d.	Wet scrubbing – see S6.1	
	The BAT-AEL for TVOC emissions to air set in Section 4.5 (below) applies. *Monitoring requirements are outlined in BAT 8*		
REGENERATION OF SPENT SOLVENTS			
46	**Improve overall environmental performance by using <u>ONE OR BOTH</u> of the following techniques:**		
	a.	Material recovery (by evaporation from distillation residues)	N/A

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
	b.	Energy recovery e.g. using distillation residues	
47	**Reduce emissions to air of organic compounds by applying BAT 14d <u>AND</u> using <u>a combination of</u> the following techniques:**		
	a.	Recirculation of process off-gases in a steam boiler. Avoid generating PCBs and/or PCDD/Fs	N/A
	b.	Adsorption – see S6.1	
	c.	Thermal oxidation – see S6.1. Avoid generating PCBs and/or PCDD/Fs	
	d.	Condensation or cryogenic condensation	
	e.	Wet scrubbing – see S6.1	
	The BAT-AEL for TVOC emissions to air set in Section 4.5 (below) applies. *Monitoring requirements are outlined in BAT 8*		
BAT-AEL FOR EMISSIONS OF ORGANIC COMPOUNDS TO AIR – SECTION 4.5 (RE-REFINING OF WASTE OIL) (PHYSICO-CHEMICAL TREATMENT OF WASTE WITH CV) (REGENERATION OF SPENT SOLVENTS)			
	BAT-AEL for channelled TVOC emissions to air from the re-refining of waste oil, physico-chemical treatment of waste with calorific value and regeneration of spent solvents (mg/Nm3) *Table 6.9 and its supporting note. Monitoring requirements are outlined in BAT 8*		
	TVOC	5.0-30	N/A
THERMAL TREATMENT OF SPENT ACTIVATED CARBON, WASTE CATALYSTS AND EXCAVATED CONTAMINATED SOIL			

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
48	**Improve overall environmental performance by using <u>ALL</u> of the following techniques:**		
	a.	Heat recovery from the furnace off-gas e.g. for preheating combustion air or steam generation	N/A
	b.	Indirectly fired furnace i.e. avoids contact between the furnace contents and the burner flue-gases. Note applicability constraints.	
	c.	Process-integrated techniques to reduce emissions to air – see examples	
49	**Reduce emissions to air of HCl, HF, dust and organic compounds by applying BAT 14d <u>AND</u> using one or a combination of the following techniques:**		
	a.	Cyclone – see S6.1	N/A
	b.	Electrostatic precipitator (ESP) – see S6.1	
	c.	Fabric filter – see S6.1	
	d.	Wet scrubbing – see S6.1	
	e.	Adsorption – see S6.1	
	f.	Condensation – see S6.1	
	g.	Thermal oxidation – see S6.1	
	Note supporting text for BAT 49g (thermal oxidation) *Monitoring requirements are outlined in BAT 8. No BAT-AELs have been set for this BATc.*		
WATER WASHING OF EXCAVATED CONTAMINATED SOIL			

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
50	**Reduce emissions to air of dust and organic compounds from the storage, handling and washing steps by applying BAT 14d <u>AND</u> using one or a combination of the following techniques:**		
	a.	Adsorption – see S6.1	N/A
	b.	Fabric filter – see S6.1	
	c.	Wet scrubbing – see S6.1	
	Monitoring requirements are outlined in BAT 8. No BAT-AELs have been set for this BATc.		
Decontamination of equipment containing PCBs			
51	**Reduce emissions to air of PCBs and organic compounds and improve overall environmental performance by using <u>ALL</u> of the following techniques:**		
	a.	Coating of the storage and treatment areas – see examples	N/A
	b.	Implementation of staff access rules to prevent dispersion of contamination – see examples	
	c.	Optimised equipment cleaning and drainage – see examples	
	d.	Control and monitoring of emission to air – see examples	
	e.	Disposal of waste treatment residues – see examples	N/A
	f.	Recovery of solvent when solvent washing is used	
	Monitoring requirements are outlined in BAT 8. No BAT-AELs have been set for this BATc.		
TREATMENT OF WATER-BASED LIQUID WASTE			

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant, Compliant in the future (within 4 years of publication of BAT conclusions), Not Compliant
52	**Improve overall environmental performance by monitoring the waste input as part of the waste pre-acceptance and acceptance procedures. See also BAT 2.**	
	Monitoring the waste input	
	Bioeliminability e.g. BOD, BOD-COD ratio, Zahn-Wellens test, biological inhibition potential	N/A
	Feasibility of emulsion breaking e.g. lab testing	
53	**Reduce emissions to air of HCl, NH3 and organic compounds by applying BAT 14d <u>AND</u> using one or a combination of the following techniques:**	
	a. Adsorption – see S6.1	N/A
	b. Biofilter – see S6.1	
	c. Thermal oxidation – see S6.1.	
	d. Wet scrubbing – see S6.1	
	BAT-AELs for channelled HCl and TVOC emissions to air from the treatment of water-based liquid waste (mg/Nm3) *Table 6.10 and its supporting notes. Monitoring requirements are outlined in BAT 8*	
	HCl 1.0-5.0	N/A
	TVOC 3.0-20	

ANNEX 2: Consultation Reponses

A) Advertising and Consultation on the Application

The Application has been advertised and consulted upon in accordance with Natural Resources Wales Public Participation Statement. The way in which this has been carried out along with the results of our consultation and how we have taken consultation responses into account in reaching our draft decision is summarised in this Annex. Copies of all consultation responses have been placed on Natural Resources Wales public register.

1) Consultation Responses from Statutory and Non-Statutory Bodies

Response Received from South Wales Fire and Rescue Service	
Brief summary of issues raised:	**Summary of action taken / how this has been covered**
The operator was asked to clarify 4 points of detail from within their fire prevention and mitigation plan.	The operator clarified the points raised.

2) Consultation Responses from Members of the Public and Community Organisations

None received.

Published by:
Natural Resources Wales
Cambria House
29 Newport Road
Cardiff
CF24 0TP

0300 065 3000 (Mon-Fri, 8am - 6pm)

enquiries@naturalresourceswales.gov.uk
www.naturalresourceswales.gov.uk

B) Advertising on the Draft Decision

Advertising was conducted on the draft decision from 17 November 2021 until 15 December 2021.

Representations from Individual Members of the Public

Response Received	
Brief summary of issues raised:	**Summary of action taken / how this has been covered**
Noise Concerns: *"We have had to endure loud explosions which have shook the house and windows on numerous occasions I feel that it is only a matter of time that damage will occur to properties in Chapel farm. Will the explosions be more frequent? Complaints made".*	Natural Resources Wales are aware of the concerns raised regarding existing permitted site compliance. Natural Resources Wales invests a large resource to assess permit compliance and take appropriate action where necessary. Action has been taken in the past, and if needed will be taken again. The draft permit, as with the previous permits includes permit conditions to prevent noise pollution, see section 3.4.
also noise levels have been increasing and getting earlier in the morning (prior to 8am). Will noise get worse? Complaints made.	The new shredder generates less noise than the one that it is replacing, see noise assessment. The operator also provided a noise management plan. The draft permit, as with the

Published by:
Natural Resources Wales
Cambria House
29 Newport Road
Cardiff
CF24 0TP

0300 065 3000 (Mon-Fri, 8am - 6pm)

enquiries@naturalresourceswales.gov.uk
www.naturalresourceswales.gov.uk

	previous permits includes permit conditions to prevent noise pollution, see section 3.4. See comment below about operating hours.
Operating too early, sometimes 7am, and too late. Complaints made.	This matter is primarily within the scope of the planning authority rather than the permitting regime.
Dust from existing facility which should not be allowed to get worse with more shredding. Complaints made	The new shredder includes a better standard of dust prevention measures than the one that it is replacing. The draft permit, as with the previous permits includes permit conditions to prevent pollution (including dust), see section 3.2.
Failing to comply with current permit	Natural Resources Wales are aware of the concerns raised regarding existing permitted site compliance. Natural Resources Wales invests a large resource to assess permit compliance and take appropriate action where necessary. Action has been taken in the past, and if needed will be taken again.
Noise dropping things from height.	The operator has procedures in place to minimise this, though this is not specifically changing as a result of this permit. The draft permit, as with the previous permits includes permit conditions to prevent noise pollution, see section 3.4.

Published by:
Natural Resources Wales
Cambria House
29 Newport Road
Cardiff
CF24 0TP

0300 065 3000 (Mon-Fri, 8am - 6pm)

enquiries@naturalresourceswales.gov.uk
www.naturalresourceswales.gov.uk

	Natural Resources Wales are aware of the concerns raised regarding existing permitted site compliance. Natural Resources Wales invests a large resource to assess permit compliance and take appropriate action where necessary. Action has been taken in the past, and if needed will be taken again.
Noise from machines, especially the blue one that loads the shipping containers. Noise from dropping waste. Complaints made.	The draft permit, as with the previous permits includes permit conditions to prevent noise pollution, see section 3.4. Natural Resources Wales are aware of the concerns raised regarding existing permitted site compliance. Natural Resources Wales invests a large resource to assess permit compliance and take appropriate action where necessary. Action has been taken in the past, and if needed will be taken again.
Often odour of oil and other mechanical/chemical odours. Complaints made.	This is not a matter which is changing as a result of this permit, which is authorising the replacement shredder. The draft permit, as with the previous permits includes permit conditions to prevent odour pollution, see section 3.3.

Published by:
Natural Resources Wales
Cambria House
29 Newport Road
Cardiff
CF24 0TP

0300 065 3000 (Mon-Fri, 8am - 6pm)

enquiries@naturalresourceswales.gov.uk
www.naturalresourceswales.gov.uk

	Natural Resources Wales invests a large resource to assess permit compliance and take necessary action. Action has been taken in the past, and if needed will be taken again.
Smoke from large green shredder is often blue	This permit includes emission limits for the shredder which were not present in the previous permit. Natural Resources Wales invests a large resource to assess permit compliance and take necessary action. Action has been taken in the past, and if needed will be taken again. The draft permit, as with the previous permits includes permit conditions to prevent pollution (including smoke), see section 3.2.
Intermittent vibration from machinery. Complaints made previously.	The new shredder is expected to produce less vibration than the one that it is replacing. There are several other potential sources of vibration on the site. The draft permit, as with the previous permits includes permit conditions to prevent vibration, see section 3.4.
Lighting not good for nocturnal animals. Lights are excessively bright.	This matter is outside of the scope of the environmental permit. It may be

Published by:
Natural Resources Wales
Cambria House
29 Newport Road
Cardiff
CF24 0TP

0300 065 3000 (Mon-Fri, 8am - 6pm)

enquiries@naturalresourceswales.gov.uk
www.naturalresourceswales.gov.uk

	within the scope of the planning authority.
Visual intrusion, not scenic and will worsen when nearby trees are felled.	This matter is outside of the scope of the environmental permit. It may be within the scope of the planning authority.
Site operates without consideration to neighbouring properties, except during a site visit.	Natural Resources Wales are aware of the concerns raised regarding existing permitted site compliance. Natural Resources Wales invests a large resource to assess permit compliance and take appropriate action where necessary. Action has been taken in the past, and if needed will be taken again.

Published by:
Natural Resources Wales
Cambria House
29 Newport Road
Cardiff
CF24 0TP

0300 065 3000 (Mon-Fri, 8am - 6pm)

enquiries@naturalresourceswales.gov.uk
www.naturalresourceswales.gov.uk