

CRoW Act 2000: Natural Resources Wales application for permission - Formal Notice

Natural Resources Wales Formal Notice.

Requirements of Section 28I of the Wildlife & Countryside Act 1981 as amended by the Countryside and Rights of Way Act (CRoW) 2000.

Duty in relation to granting any consent, licence or permit for activities likely to damage Sites of Special Scientific Interest (SSSI).

Guide to filling in this form for Natural Resources Wales staff:

To be completed by Permitting Officers for any applications for a permission which the Natural Resources Wales has considered under S28G duties to protect and enhance SSSIs. This applies to all proposed permissions within a SSSI, and to operations outside the SSSI boundary which are likely to damage its special features.

Refer to OI 140_10 'Applying the Countryside and Rights of Way (CRoW) Act 2000 to applications for permits with potential for impact on Sites of Special Scientific Interest (SSSI)', including the flowchart in Appendix 2.

Pink italic text – drafting notes, to be deleted before completion/consultation.

Blue text – examples, to be replaced with permission-specific information.

Ensure you have completed all sections.

1. Natural Resources Wales area/region/NPS hub:	South Central
2. Name of SSSI:	Severn Estuary (Wales) SSSI (33WGX) : Located 88-320 meters from the proposed activities Gwent Levels - Rumney and Peterstone (33WET) : approximately 1500 meters to the east of the installation
3. Type of permission:	Environmental Permit
4. Date for Natural Resources Wales permit determination:	09/02/2024 (draft decision)
5. Predicted 28 day date for response from NRW conservation/ecology (under S28 I(4)):	N/A Filed for audit
6. Natural Resources Wales reference no:	EPR/TP3639BH/V010 (PAN-018725)
7. National grid reference:	ST 21508 76337 (Shredder Yard)

8. Description of proposal:

Celsa Manufacturing UK Limited have applied to vary their installation permit (EPR/TP3639BH) for Tremorfa melt shop, which includes the Rover Way site, primarily for the addition of a new shredder that will process more than 75 tonnes per day and falls under Schedule 1 activity, Section 5.4 Part A(1) b iv of the Environmental Permitting Regulation (EPR) 2016. The site will also have the following changes:

- Addition of a new abatement plant (filter bag house) and with an associated 18 meter high stack for particulate matter generated from the shredder. This is proposed to be listed as a new emission point to air in the permit (as emission point A11).
- Installation of a new fixed scrap metal shear that will replace the currently permitted mobile plant. The new shear will also increase the maximum processing limit from 5000 tonnes per month to 7000 tonnes per month.
- Integration of best available techniques (BAT) conclusions from the BAT reference document (BRef) for the waste treatment sector (2018).
- Integration of a new end of life vehicle depollution station. One was previously permitted for the site but was never used.
- Upgrade surfacing and roadways to hardstanding surfacing and installation of a new drainage system. All contaminated wastewater from the shredder yard where waste is processed and stored is to discharge to sewer (under a trade effluent consent). The site previously carried out activities on unsurfaced ground.
- Movement of currently permitted slag handling equipment (listed in the permit as emission points A6-A10) 300 meters south of their current permitted location. The new location of the slag handling equipment will remain within the existing site boundary.
- Additional European waste codes (EWCs) to be listed in the permit.

9. Is the proposed activity within (wholly or partially) the SSSI boundary?

No

Severn Estuary SSSI- The installation boundary is adjacent to the SSSI boundary but location of the proposed activities are 320 meters from new shredder and 88 meters from new location of slag handling equipment

Gwent Levels - Rumney and Peterstone approximately 1580 meters from the installation

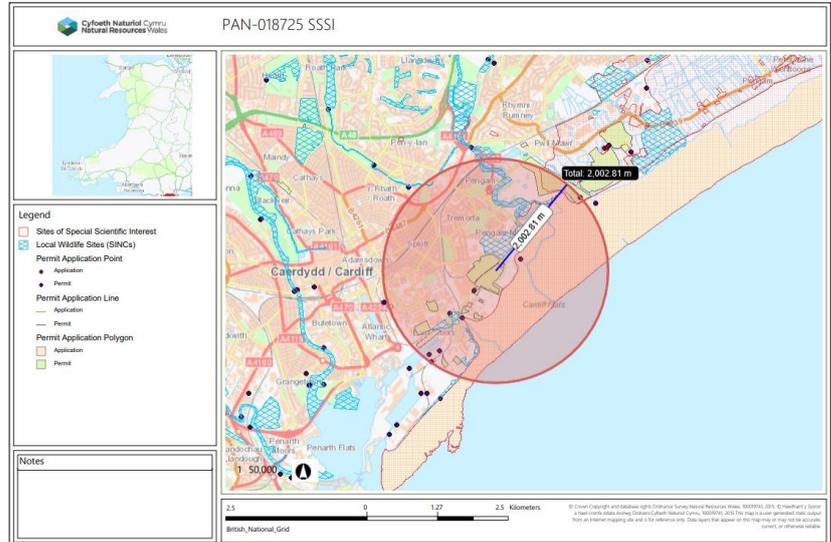


Figure 1: Map showing risk screening distance and location of SSSI

10. Has there been any pre-application discussion or correspondence with NRW conservation/ecology

No

11. What aspect(s) of the proposed permission may damage the features which are of special interest for the SSSI?

The following 'Operations Requiring Consent' (or other activities associated with the permission) that may cause damage) are relevant to the proposed permission.

7. Dumping, spreading or discharging of any materials – Through new emissions to air and water and the movement of permitted sources of emissions

- 1) This will be through the following emissions of particulate matter through**
 - a) the new point source emissions of particulate matter to air (A11)**
 - b) the movement of the slag handling equipment (A6-A10) closer to the Severn estuary**
- 2) Discharge of contaminated water runoff from to sewer and discharge of uncontaminated water runoff to ground.**
- 3) Noise from the new and/or changed activities carried out on site.**

Severn Estuary

The following SSSI features of the Severn Estuary as stated in the SITE OF SPECIAL SCIENTIFIC INTEREST CITATION for the Severn Estuary ([here](#)).

“The Severn Estuary lies on the south west coast of Britain at the mouth of four major rivers (the Severn, Wye, Usk and Avon) and many lesser rivers. The immense tidal range (the second highest in the world) and classic funnel shape make the Severn Estuary unique in Britain and very rare worldwide”.

Designated features of the Seven Estuary include:

- Estuary Process
- intertidal mud and sand
- Rocky shores
- Saltmarsh
- Reeds and swamp
- Eel grass beds
- Assemblages of birds
- Assemblages of fish
- Assemblages of invertebrates
- Flood plain grazing marsh

Both the habitats and the species could be potentially impacted from the proposed variation. The Seven estuary is also designated as a special area of conservation (SAC), Ramsar and special protection area (SPA) which shares some designated feature and impact pathways. Habitats regulation assessment (HRA) has been produced which discuss many of the same impact pathways.

The following mechanisms of impact have been considered to assess the likelihood of damage:

Emissions from the Shredder (emission point A11) and fugitive emissions of dust

The introduction of the shredder (as an installation activity under (S5.4 Part A(1) b iv) will result in the emissions of dust and particulate matter. The features of the site could potentially be impacted through the deposition of dust generated by the emissions from the new shredder of dust, which can cause smothering of the features closet to the new shredder/emission stack.

The shredder will be equipped with a cyclone and a bag filter to abate particulate matter from the air. These are requirements of the best available techniques for waste treatment. The applicant will also have monitoring requirements and emissions limits of 5 mg/m^3 . The applicant has stated that in reality the emissions from the shredder would be far lower than the emission limit.

While particulate matter does not have an ecological standard the applicant had shown in their submitted air impact assessment that the concentration at worst case scenarios would be less than $0.05 \mu\text{g/m}^3$ for annual average at the closet point between the point source emission and the designated site. The isopleth produced by the applicant shows that the emission of particulate matter rapidly decreases within a relatively short distance (100-200 meters) therefore the worst case scenario (which is almost negligible) would only occur within a small area of the SSSI.

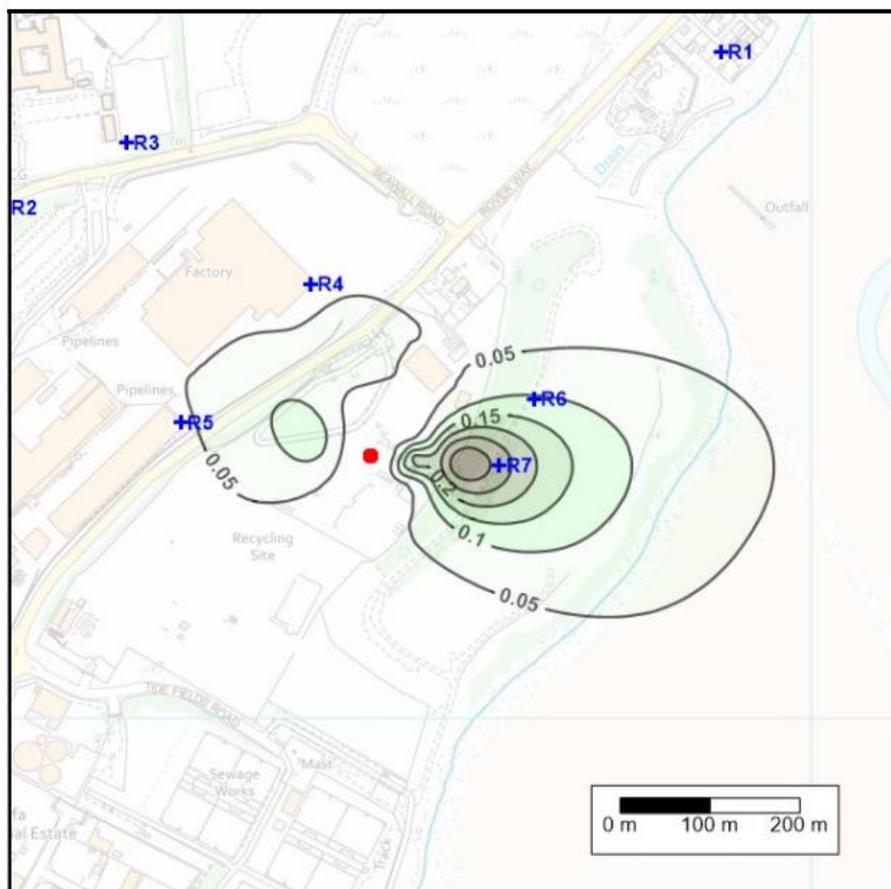


Figure 2: Isopleth of predicted ground level concentration of Particulate matter (10 µm diameter) taken from the air quality impact assessment (Prepared for Earth & Marine Environmental Consultants Ltd By ADM Ltd) copy available on the online public register.

While dust and particulate matter do not have an environmental assessment standard for ecological sites, there has been an assessment for human health that shows the emissions screen out as insignificant.

Given the very small amount of deposition presented for worst case scenario in a small area of the SSSI, the emissions of dust from the shredder are unlikely to lead to any real damage to the features of the SSSI.

Fugitive emissions

The storage and treatment of waste at the site has a of generating fugitive emissions of dust from the site's activities including handling of waste and can also occur from deposition on stored waste and surfaces under certain metrological conditions, notably periods of wind and/or low rainfall. The fugitive dust could potential cause impact to the features of the SSSI through deposition. This could potentially impact the features nearby to the site.

The site as currently permitted carried out similar activities at this location to those being proposed (although on a smaller scale). The proposed changes to the site will include a new hardstanding concrete surfacing. The site previously had no surfacing which could result in dust being generated during high wind and/or dry weather conditions. The new surfacing would therefore reduce the amount of dust generated. The applicant has also submitted a dust management plan to minimise the dust emissions from the activities, monitor for dust and to take appropriate action if excess dust occurs.

The site also implements a dust management plan to reduce and mitigate the amount of fugitive dust generated from proposed activities. The site currently has two Turnkey Optical Particle Analysis System (TOPAS) to monitor dust emissions from the site with two more being proposed as part of the variation to monitor deposition of particulate matter and would investigate if exceedances are shown (In the submitted Fugitive Dust Impact Assessment the applicant assess against a deposition rate 200 mg/m²/day (below which the levels are insignificant on ecological receptors).

As such the variation is unlikely to lead to an increased risk of deposition of dust from fugitive emissions over the existing site and is unlikely to cause damage to the features of the SSSI.

Emissions from the movement of slag handling equipment (points A6-A10)

Part of the proposed changes to the site involve the movement of existing (and permitted) emission points 300 meters close to the Seven Estuary. The only channelled emissions to air from the slag handling equipment is from oxides of nitrogen and carbon monoxide. The slag handling equipment was assessed in the previous variation (V009) which concluded that the emissions screened out as insignificant at the point source. Therefore, the equipment movement closer to the designated site is not going to lead to any real impacts and will remain an insignificant emission.

Noise

The new shredder is a potential source of noise which could impact the bird species located in close proximity. The applicant will have a noise management plan to minimise and mitigate the source noise produced from the shredder (for both human and environmental protection). Given that the operator has done similar activities in the area and the existing location is an industrialised area with similar noise and sound scape, the new shredder is unlikely to lead to any changes in risk of noise compared to what is presently permitted on site.

Discharge to sewer and ground (through soakaways)

The variation will include a new drainage strategy which will introduce a new concrete slab in the area where waste (including end of life vehicle) will be stored and processed. The site previously had no surfacing in this area.

Waste processing areas where water run off can be contaminated from waste, is segregated from and water run off (considered trade effluent) is collect and discharged to sewer.

The applicant has submitted a H1 assessment for the discharge to sewer using the emission limits set out for indirect discharge as outlined in the waste treatment BRef (the exception is for lead for which the applicant has used a lower limit as outlined by the proposed trade effluent consent)

Table 1 BAT limits for indirect discharge for mechanical treatment of metal waste (taken from waste treatment BRef ([here](#)))

<i>Substance</i>	<i>Limit</i>
<i>Hydrocarbon oil index (HOI)</i>	<i>0.5-10 mg/l</i>
<i>Arsenic</i>	<i>0.01-0.05 mg/l</i>
<i>Cadmium</i>	<i>0.01-0.05 mg/l</i>
<i>Chromium</i>	<i>0.01-0.15 mg/l</i>
<i>Copper</i>	
<i>Lead</i>	<i>0.3 mg/l*</i> <i>(higher limit allowed for shredder but applicant has proposed a limit of 0.2 mg/l)</i>
<i>Nickle</i>	<i>0.05-0.5 mg/l</i>
<i>Mercury</i>	<i>0.5-5 µg/l</i>
<i>Zinc</i>	<i>0.1-1 mg/l</i>

The trade effluent consent also places a limit for iron (0.2 mg/l) and chemical oxygen demand which have not had limits outlined in the waste treatment BRef for this activity.

The applicant had followed the guidance as outlined here: <https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit>. The most substances identified did not screen out at stage 1 test (the pollutant concentration with the environment quality standard) only chromium and iron screened out.

The applicant then assessed the Effective Volume Flux (stage 5). This stage being the relevant assessment for the discharge type and location. The H1 assessment had shown that all of the substances the effective volume flux was

less than the allowable effective volume flux and therefore had screened out as insignificant and no further assessment was required.

The applicant assessment also carried the loading for mercury and cadmium in the H1 assessment. The maximum annual discharge (kg) from the proposal for both substances was found to be less than the significant loading and as such the annual discharge loading screens out as insignificant.

Discharge Proportion:	Substance:	Annual Load: Kg	Significant Load for Substance: Kg	Part B Significant Load Test:
Severn Estuary	Cadmium and its compounds (100 - <200 mg/l CaCO3)	4.6310616	6	Pass
Severn Estuary	Mercury and its compounds	0.520344	1	Pass

Figure 3: Screenshot of the H1 assessment showing the predicted annual loading of mercury and cadmium.

Therefore the applicant has shown that in the H1 assessment that in the worst-case scenario the emissions screen out as insignificant. This assessment not taking into account treatment that the wastewater treatment works (permit number AN0303701) has its own permitted requirements and limits for many of these substances.

The only discharge to ground water is from water runoff from areas outside the waste process areas (via a soakaway). These areas only consist of roadways and facility car park where no processing activities occur. The water runoff from the waste processing area and the roadway/car park are segregated.

Based on the H1 screening produced by the applicant we have concluded that there is no risk of contamination to the SSSI through surface or ground water.

Gwent Levels - Rumney and Peterstone

The features of the Gwent Levels - Rumney and Peterstone have been taken from the site's summary which can be found here [CYNGOR CEFN GWLAD CYMRU \(naturalresources.wales\)](#)

The summary provides the following designated features of Gwent Level – Rumney and Peterstone;

- Reen and Ditch Habitat
- Insects and other Invertebrates
- Shril carder bee

These features all could potentially be impacted by the proposed variation. The following mechanisms of impact have been identified and assessed below;

Emissions of particulate matter/dust from the Shredder

The introduction of the shredder (as an installation activity under (S5.4 Part A(1) b iv) will result in the emissions of dust and particulate matter.

While dust and particulate matter do not have an environmental assessment standard for ecological sites and is not required for further assessment the air quality modelling for human health showed that the emissions screen out as insignificant for locations significantly closer to the installation. The applicant's air quality risk assessment shows that the concentration of emissions of PM₁₀ and PM_{2.5} from the shredder decreases rapidly within the first 100-200 meters and was deemed insignificant at levels at the edge of the much closer seven estuary SSSI 200 meters away (Gwent Levels is located approximately 1.6 km west of the installation boundary). The emissions of dust/particulate matter are therefore not going at any level to have any real impact to the features of the Gwent Level SSSI.

Fugitive emissions of dust

The proposed changes to the site will include a new hardstanding concrete surfacing. The site previously had no surfacing which could result in dust being generated during high wind. The new surfacing would therefore reduce the amount of dust generated. The applicant has also submitted a dust management plan to minimise the dust emissions from the activities and to take action if excess dust occurs.

The site also implements a dust management plan to reduce and mitigate the amount of fugitive dust generated from proposed activities. The site also has Turnkey Optical Particle Analysis System (TOPAS) with two more being proposed as part of the variation to monitor deposition of particulate matter.

The designated site is located 1580 meters to the west from the site. Given that most dust settles within the first 500 meters ([mineralsguidance_2016.pdf \(iaqm.co.uk\)](#)) and the dust is unlikely to be present in significant amounts at this location in the event of a fugitive emissions of dust.

Given the dust management plan, the monitoring (both already present in the permit and additional monitoring proposed by the applicant) and the deposition of dust over a short distance, the variation is unlikely to lead to an increased risk of deposition of dust from fugitive emissions.

Emissions from the movement of the slag handling equipment

The slag handling equipment was assessed in the previous variation (V009) which concluded that the emissions screened out as insignificant at the point source and therefore the emissions will continue to be insignificant at the designated site.

Discharge to sewer and ground

No likely damage- designated site is located 1580 meters upstream from the designated site.

12. Decision

i) The proposed permission is **not likely to damage** any of the flora, fauna or geological or physiological features which are of special interest.

Severn Estuary

No mechanism of impact. The proposed changes are unlikely to lead to an increased risk of fugitive dust emissions to air (over the existing site) as a result of the variation. The new emission of dust is unlikely to cause any damage under worst case scenarios.

All water runoff from areas where waste is stored and processed is to be discharged to sewer under a trade effluent consent where it will be treated at the local waste water treatment work prior to discharge. The H1 assessment for sewer discharge shows that all substances screen out as insignificant.

Gwent Levels - Rumney and Peterstone

No mechanism of impact as there is no pathway from the proposed changes to the installation that would result in any damage to the features of the Gwent Levels.

**Natural Resources Wales is minded to:
Issue the permission**

13. Name and job title of Natural Resources Wales officer:	William Wallace Senior Officer, Installation and RSR permitting.
14. Date form sent to NRW conservation/ecology	N/A file for audit
For Natural Resources Wales use only, once NRW conservation/ecology response received	
15. NRW conservation/ecology comment on assessment:	N/A -filed for audit i) NRW conservation/ecology advise the operation can go ahead ii) NRW conservation/ecology advise the operation can go ahead with conditions iii) NRW conservation/ecology advise against permitting the operation Please ensure that the NRW conservation/ecology response is attached to this Formal Notice.
16. Name and job title of NRW conservation/ecology officer:	
17. Date of receipt of NRW conservation/ecology response:	