



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.

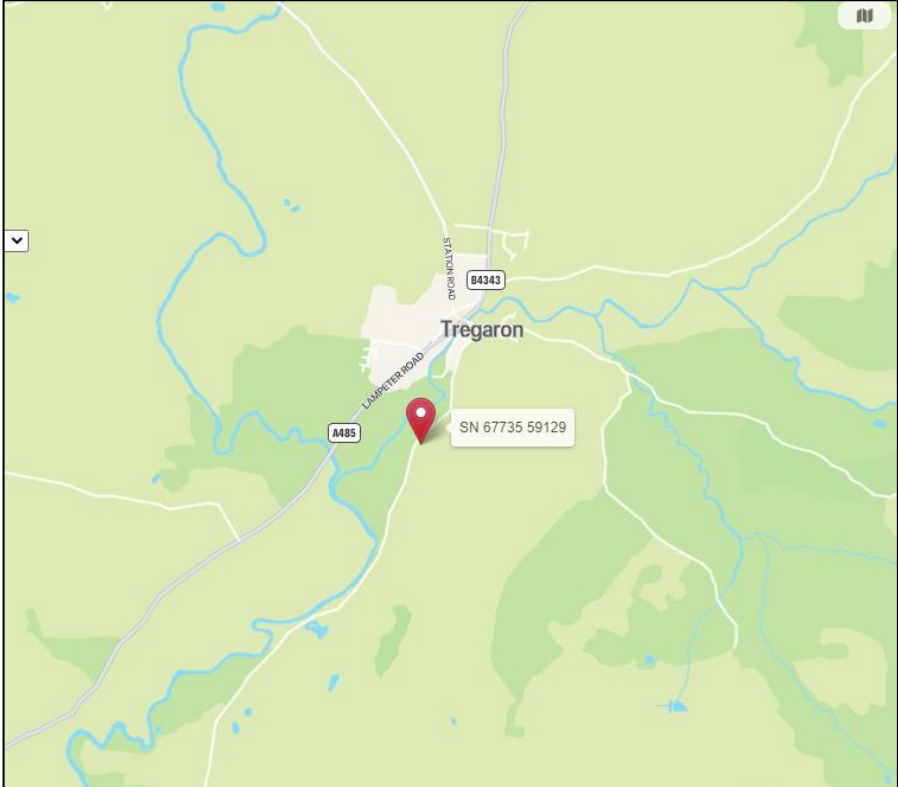
Refer to OI 140_10 'Applying the Countryside and Rights of Way (CRoW) Act 2000 to applications for permits with potential for impact on Sites of Special Scientific Interest (SSSI)', including the flowchart in Appendix 2.

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:	Ceredigion Environment Team South West Industry Regulation Team
2. Name of SSSI:	Afon Teifi SSSI 32WLU Gwaun Ystrad Caron SSSI 32WBK
3. Type of permission:	Environmental Permit – Environmental Permitting (England and Wales) Regulations 2016: Schedule 25A – Medium Combustion Plant Directive Schedule 25B – Specified Generator Regulations
4. Date for Natural Resources Wales permit determination:	02 December 2022
5. Predicted 28 day date for response from NRW conservation/ecology (under S28 I(4)):	26 October 2022
6. Natural Resources Wales reference no:	PAN-017822

<p>7. National grid reference:</p>	<p>SN 67735 59129</p> 
<p>8. Description of proposal:</p>	<p>GFI73 LTD “the Operator” and “the Applicant” has applied for a bespoke Medium Combustion Plant / Specified Generator permit. Under the permit they propose to operator:</p> <ul style="list-style-type: none"> • 6x 2.5 MW thermal input compression ignition engines fuelled on low-sulphur diesel with Selective Catalytic Reduction (SCR) abatement fitted to each engine to reduce NOx emissions. <p>The combustion plant will discharge combustion products to air via individual stacks on each engine. Pollutants of concern for habitats assessment from these type of combustion plant are oxides of nitrogen (NOx) and sulphur dioxide. Due to the use of SCR abatement emissions of ammonia may also occur. The Applicant has assessed the impacts on habitats sites within 5 km (the relevant screening distance for this type of plant) using detailed air dispersion modelling from all 6 engines and a maximum annual operating period of 1500 hours per year (the Operator will be conditioned to this in the permit if issued). They have assessed long-term and short term airborne NOx impacts; long-term airborne sulphur dioxide and ammonia impacts and long-term nutrient nitrogen deposition and acid deposition impacts. For short-term airborne NOx impacts the Applicant has completed two modelling scenarios: one is the realistic operational scenario (5 hours operation per day) and the other is non-realistic operational scenario (24 hours operation per day). The second scenario is considered overly conservative and not realistic given the past operational history of the plant, so this assessment herein has included data from the realistic operational scenario.</p> <p>There are no other emissions to land or water from the regulated facility. As per the legislation these types of permit (standalone MCP/SG) only contain conditions for emissions to air and no other conditions apply (emissions to water, land, noise or odour, BAT).</p>
<p>9. Is the proposed activity within (wholly or partially) the SSSI boundary?</p>	<p>NO</p>
<p>10.Has there been any pre-application discussion or correspondence with NRW conservation/ecology</p>	<p>YES – considerable correspondence in relation to River Teifi SSSI with conservation site officer, Simon Bareham (policy advisor), Heather Galliford (policy advisor) and the JNCC (Khalid Aazem).</p>
<p>11.What aspect(s) of the proposed permission may damage the features which are of special interest for the SSSI?</p> <p>The following ‘Operations Requiring Consent’ (or other activities associated with the permission) that may cause damage) are relevant to the proposed permission.</p>	

Afon Teifi SSSI – 32WLU

There are no 'Operations Requiring Consent' that are relevant to this permission, although list is not exhaustive so relevant mechanisms of impact are considered below.

Gwaun Ystrad Caron SSSI – 32WBK

There are no 'Operations Requiring Consent' that are relevant to this permission, although list is not exhaustive so relevant mechanisms of impact are considered below.

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

Afon Teifi SSSI – 32WLU

Features

- A range of river plant communities including those characterised by water crowfoot
- Associated riverside habitats, including marshy grassland, swamp and saltmarsh and broadleaved woodland
- Nutrient-poor, mildly acidic upland lakes (Teifi Pools)
- Fish, including Atlantic salmon, bullhead and three species of lamprey
- Otters
- A range of unusual flowering plants and mosses, including floating water-plantain, northern yellow-cress and multi-fruited river moss
- A range of rare and scarce insects and other invertebrates, including club-tailed dragonfly and freshwater pearl mussel
- Breeding river and wetlands birds
- Bottle-nosed dolphins
- Fluvial landform assemblage at Cenarth Gorge
- Fluvial landform assemblage at Cors Caron

Mechanisms of impacts

- Toxic contamination – increased levels of airborne NO_x, SO₂ and ammonia from emissions to air
- Nutrient enrichment – nitrogen deposition from emissions to air of NO_x and ammonia
- Acidification – acid deposition from emissions to air of NO_x, ammonia and SO₂
- Smothering – nitrogen deposition and acidification impacts as above

Gwaun Ystrad Caron SSSI – 32WBK

Features

- Mixture of habitats – marshy grassland and swamp communities with small areas of acid grassland

Mechanisms of impacts

- Toxic contamination – increased levels of airborne NO_x, SO₂ and ammonia from emissions to air
- Nutrient enrichment – nitrogen deposition from emissions to air of NO_x and ammonia
- Acidification – acid deposition from emissions to air of NO_x, ammonia and SO₂
- Smothering – nitrogen deposition and acidification impacts as above

12. Decision

Afon Teifi SSSI – 32WLU

Toxic contamination

There are emissions to air of NO_x, SO₂ and ammonia. Each pollutant will be assessed in turn below.

Oxides of nitrogen (NO_x)

A long-term critical level of 30 µg/m³ NO_x (annual) has been applied. The maximum long-term process contribution (PC) is 3.29 µg/m³ and >1 % (10.96 %) of the long term critical level. The maximum long-term predicted environmental concentration (PEC) is 7.7 µg/m³ and <70 % (25.6 %) of the long-term critical level. In line with current guidance long-term airborne NO_x emissions are considered insignificant.

A short-term critical level of 200 µg/m³ NO_x (daily mean) has been applied in line with current guidance here where ozone and sulphur dioxide is low: [Air emissions risk assessment for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit). The maximum short-term PC is 36.3 µg/m³ and >10 % (18.15 %) of the short-term critical level. The maximum predicted short-term PEC is 45.2 µg/m³ and 22.6 % of the short-term critical level. The emissions are not likely to cause an exceedance of the critical level and can be considered not significant.

Sulphur dioxide

A long-term critical level of 20 µg/m³ SO₂ (annual) has been applied. The maximum long-term process contribution (PC) is 0.0052 µg/m³ and <1 % (0.026 %) of the long term critical level. In line with current guidance long-term airborne SO₂ emissions are considered insignificant.

Ammonia

As per APIS there are not lichens or bryophytes present at the SAC therefore a long-term critical level of 3 µg/m³ NH₃ (annual) has been applied. The maximum long-term process contribution (PC) is 0.016 µg/m³ and <1 % (0.53 %) of the long term critical level. In line with current guidance long-term airborne NH₃ emissions are considered insignificant.

Nutrient enrichment

We have concluded following a thorough assessment of APIS and advice from JNCC that no critical loads should be applied to the River Teifi SAC. See separate briefing note for further information and decision making evidence.

Acidification

Site specific advice has been sought regarding the acid deposition critical loads to be used as there are none present on APIS. None have been provided therefore the applicant is unable to complete this assessment.

Smothering

See above for acidification and nitrogen deposition assessment. Considered not relevant.

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

Gwaun Ystrad Caron SSSI – 32WBK

Toxic contamination

There are emissions to air of NO_x, SO₂ and ammonia. Each pollutant will be assessed in turn below.

Oxides of nitrogen (NO_x)

A long-term critical level of 30 µg/m³ NO_x (annual) has been applied. The maximum long-term process contribution (PC) is 0.35 µg/m³ and >1 % (1.2 %) of the long term critical level. The maximum long-term predicted environmental concentration (PEC) is 4.8 µg/m³ and <70 % (16.0 %) of the long-term critical level. In line with current guidance long-term airborne NO_x emissions are considered insignificant.

A short-term critical level of 200 µg/m³ NO_x (daily mean) has been applied in line with current guidance here where ozone and sulphur dioxide is low: [Air emissions risk assessment for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit). The maximum short-term PC is 5.5 µg/m³ and <10 % (2.8 %) of the short-term critical level. In line with current guidance short-term airborne NO_x emissions are considered insignificant.

Sulphur dioxide

A long-term critical level of 10 µg/m³ SO₂ (annual) has been applied. The maximum long-term process contribution (PC) is 0.0006 µg/m³ and <1 % (0.006 %) of the long term critical level. In line with current guidance long-term airborne SO₂ emissions are considered insignificant.

Ammonia

As per APIS there are unlikely to be N-sensitive lichens or bryophytes present at the SSSI therefore a long-term critical level of 3 µg/m³ NH₃ (annual) has been applied. The maximum long-term process contribution (PC) is 0.002 µg/m³ and <1 % (0.06 %) of the long-term critical level. In line with current guidance long-term airborne NH₃ emissions are considered insignificant.

Nutrient enrichment

As per APIS a minimum critical load of 8 kgN/ha/yr has been applied. The maximum process contribution is 0.04 kgN/ha/yr and <1 % (0.5 %) of the minimum critical load. In line with current guidance long-term nitrogen deposition impacts are considered insignificant.

Acidification

The following acid deposition critical load values have been applied as per APIS: 0.438 keq/ha/yr MinN; 2.028 keq/ha/yr MaxN; 1.59 keq/ha/yr MaxS. The maximum PC (from N and S) is 0.0039 keq/ha/yr and <1 % of the critical load function therefore the impacts from acid deposition can be considered insignificant.

Smothering

See above for acidification and nitrogen deposition assessment, considered insignificant.

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

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

13.Name and job title of Natural Resources Wales officer:	Rebecca Williams Lead Specialist Permitting Officer
14.Date form sent to NRW conservation/ecology	28 September 2022
For Natural Resources Wales use only, once NRW conservation/ecology response received	
15.NRW conservation/ecology comment on assessment:	ii) NRW conservation/ecology advise the operation can go ahead with conditions
16.Name and job title of NRW conservation/ecology officer:	Jonathan Turner Senior Officer, Ceredigion Environment Team
17.Date of receipt of NRW conservation/ecology response:	25 October 2022