


oAnnex (iv) – SSSI Assessment Form

SSSI Assessment for permit/licence and deployment applications	 Cyfoeth Naturiol Cymru Natural Resources Wales
<p>To be completed by Permitting Officers for any applications for a permission which Natural Resources Wales has considered under S28I duty to notify SNCB and take their advice into account. This applies to all proposed permissions within a SSSI, and to operations outside the SSSI boundary which are likely to damage its special features.</p> <p>NRW as a Section 28G authority has, when exercising its functions, a general duty to take reasonable steps, consistent with the proper exercise of its functions, to further the conservation and enhancement of the flora, fauna or geological or physiological features by reason of which the site is of special interest'</p> <p>Part 1 – SSSI Assessment Part 2 – Formal notification to SNCB (to be completed if part 1 assessment concludes likely damage, not likely to damage because of conditions or you cannot conclude no likely damage) Part 3 – Decision</p> <p>Blue text – examples, to be replaced with permission-specific information and text turned to black.</p>	

Part 1 – SSSI Assessment

1. Permitting officer/team	Emma Smith Installations and Radioactive Substances Regulations Permitting.
2. Permit application reference and site name	PAN-023541 Dunbia (UK)
3. a. SSSI name(s) b. location c. NRW Operational Area/Environment Team	a. Afon Teifi UK0012670 b. Teifi Park Abattoir and Meat Processing Plant, Teifi Park, Lampeter Road, Llanybydder, SA40 9QE c. Carmarthenshire
4. Brief description of proposal	The application site is located at Teifi Park, Llanybydder. The proposed development consists of one 2.5MWth input deisel-(gas oil) fired hot water boiler which is located within 1km from the Afon Teifi. The applicant has assessed the impact of an operating hour capacity of up to 8760 hours per annum, but in reality the boiler will only be used as a back-up boiler as the application also involves installing a heat pump and an electric boiler. There are no emissions to air associated with the heat pump and electric boiler. The two existing gas oil fired hot water boilers will be decommissioned as part of this variation application.

There is one SSSI within 1km of the site:

Afon Teifi:UK0012670

DMS Link here: [EPR-BV9683IH \(sharepoint.com\)](#)

5. What aspects of the proposed permission are likely to damage the SSSI features of special interest?

The following activities are likely to cause damage: Emissions of oxides of nitrogen (NO_x) from the stack/chimney

The following SSSI(s) features and potential impacts have been considered to assess the likelihood of damage:

Air Quality - Oxides of Nitrogen (NO_x) Critical Level (CL_e) and Critical Loads (CL_o)

The applicant has supplied an air quality impact assessment for the emissions of NO_x. The assessment has assumed worst case scenario which assume the boiler will be in operation for the entire year with NO_x at the permit levels. In reality the emissions are most likely lower than what is reflected in the assessment.

We have focussed our assessment on Units 3 and 4 as considering the height and diameter of the stack, and the thermal input of the boiler, it is unlikely that dispersion of NO_x from the stack will travel further than the geographical extent of these Units.

The significance criteria provided by the Environment Agency states that for SSSIs the air quality impact can be considered to be insignificant if the long-term process contribution (PC) is less than 1% of the relevant long-term CL_e or if it does not screen out at this stage, then the predicted environmental contribution (PEC) is less than 70% of the relevant long-term CL_e. The applicant has submitted air emissions modelling using the SCAIL combustion screening tool for the primary emission of concern for the habitat: oxides of nitrogen NO_x

A long-term CL_e of 30µg/m³ NO_x (annual) has been assumed for the SSSI Key Habitat Feature 'Running Water' in units 3 and 4 of the river in the Core Management Plan. The maximum long-term process contribution (PC) is 3.7ug/m³ and >1% of the long-term CL_e and therefore cannot be screened out. The NO_x background is 4.5µg/m³ and therefore the predicted environmental concentration (PEC) is 8.27µg/m³. The (PEC) is <70% of the long term CL_e and can therefore be screened out as insignificant.

The long term (annual) process contribution (PC) of SO₂ is 0µg/m³, which is 0% of the critical level of 20 µg/m³. The highest predicted environmental concentration (PEC) (the process contribution and background NO_x) is 3µg/m³, which is 15% of the critical level. As the PC is less than 1% of the Critical Level and the PEC is less than 70% of the Critical Level, NO_x emissions screen out as insignificant when considered alone. There are no Critical Loads set on APIS as the habitat is not sensitive to acid pollution. No further assessment is required

A nutrient nitrogen (N) CL_o range of 2 kgN/ha/yr(MinN) to 10 kgN/ha/yr(MaxN) has been assumed for the 'Running Water' feature in units 3 and 4 of the river in the core management plan. Using the CL_o of 2 kgN/ha/yr the maximum PC of N is 0.5329 kgN/ha/yr and is >1% of the CL_o value and cannot be screened out. The

background concentration NDep. kg N/ha/yr is 13.36ug/m³ and therefore the (PEC) is 13.8929ug/m³ and is >70% for both the lower and upper CL_o and cannot be screened out.

However, the PC is 0.5329 kgN/ha/yr which is 26.6% of the lower critical load of 2 and 5.329% of the maximum critical load of 10 kgN/ha/yr. The predicted environmental concentration PEC is above 100% of the higher critical load of 10 due to the high background in the area.

As the PC is 26.6% of the lower critical load and 5.3% of the higher critical load it can be concluded that while the emission is not insignificant, the site alone will not cause an adverse impact. Please note The Favourable Conservation Status in the CMP indicates that phosphate run-off has been a problem, and there is no mention of nutrient nitrogen deposition. The NO_x from the existing boilers will already be 'counted' in the background on APIS. Also when the variation is issued, the Operator will no longer be able to use them and therefore their contribution to the background will cease.

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

As the emissions from the boiler are not likely to damage the features of the SSSI

6. Summary of any informal advice received from internal experts (if required and including pre-app advice)

7. Recommendation

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

8. Signature and date assessment made

Emma Smith 1ST October 2024

9. Officers name and job title

Permitting Officer