

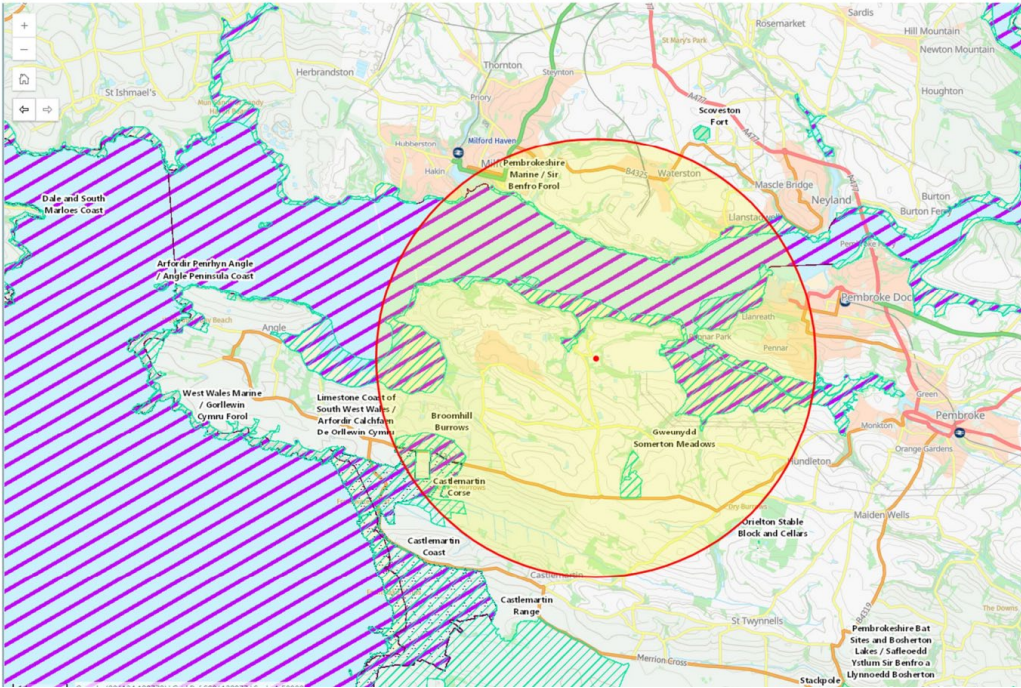
OGN 200 Form 1A

Record of a Habitats Regulations Assessment

Plan or project name, brief description or application reference number	EPR application PAN-027129 for Pembroke Power Station, operated by RWE Generation UK plc in accordance with installation permit EPR/DP3333TA. The operator has applied for a substantial permit variation to add an electrolytic hydrogen production facility to the existing Combined Cycle Gas Turbine (CCGT) power station.
HRA iteration/version	1.0 Final, April 2026

1. Plan or Project Details

Information about the plan or project		
1	Date application received	07/10/2024
2	Applicant details	Operator: RWE Generation UK plc Facility: Pembroke Power Station, West Pennar, Pembroke, Pembrokeshire SA71 5SS Site reference: EPR/DP3333TA (DMS hyperlink). Application no. PAN-027129 Key application contacts: See 'Form EPR Part A' of the permit application. Link to NRW public register PAN-027129
3	NRW team responsible for carrying out, or requiring to be carried out, the plan or project, and name of lead officer	N/A – external permit application consent requiring HRA.
4	Activity/ies proposed	A substantial variation to installation permit EPR/DP3333TA to add a new electrolytic hydrogen (H2) production facility with an operating capacity of 110-120MWe, capable of producing up to 2 tonnes per hour of purified hydrogen gas using either Alkaline Electrolysis (AEL) or Proton Exchange Membrane (PEM) technology. Purified hydrogen gas will be compressed and supplied by pipeline to a neighbouring industrial installation (Pembroke Refinery, operated by Valero Energy Ltd). The variation also adds two directly associated activities capable of generating emissions to air: emergency power generation and hydrogen flaring. Further technical explanation of the hydrogen production process and expected emissions from the facility can be found in the application documents and NRW's permitting decision document.
5	Relevant legislation or statutory basis	The Environmental Permitting (England and Wales) Permitting Regulations 2016 (as amended). Adding a S4.2 A(1)(a)(i) activity to the installation permit. Planning consent 24/0372/PA issued by Pembrokeshire County Council (PCC).

6	Location	Pembroke Power Station, West Pennar, Pembroke, Pembrokeshire SA71 5SS National Grid Reference (NGR) corresponding to the centre of the proposed hydrogen production facility at the permitted installation: SM 92510 02478 Installation boundary plan (Rev C) shows the extent of the installation (green line) and the new hydrogen production facility (purple hatched area), with the hydrogen flare and emergency generator as emission points A15 & A23. The locations of nearby habitats designations (SACs and SSSIs) relative to the permitted installation are shown below, reproduced from Appendix 4 of the applicant's air quality impact screening assessment. Appendix 4 Habitat Receptors 
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7	Plan or project documents, including any application documents	See above DMS link (site reference) or the NRW public register: PAN-027129
8	Environmental Statement	Not included with permit application, but see PCC planning ref. 24/0372/PA
9	Pre-application correspondence	General EPR pre-application correspondence available using the DMS link to the installation permit folder (see above). Pre-app reference PPN-00890
10	NRW team responsible for preparing this HRA report, and lead officer	Douglas Cowie, Industry Policy, Decarbonisation and Standards Team On behalf of NRW Installations Permitting (C/O Holly Noble & Jennifer McGuire)
11	Team or person responsible for approving the plan or project (competent authority role)	As above (Row 10)

2. Determining the need for a Habitats Regulations Assessment

2.1 Is there any possibility that the plan or project could negatively affect any European sites?	YES – Pembroke Power Station is a significant industrial installation with potential for impact on nearby designated habitats sites, within 0.5km. The variation may influence the potential for impact. There are no direct process effluent discharges to water or land from the proposed hydrogen production facility, so the only conceivable impact pathway is via HPF air emissions (noise, NOx, SO2, particulates, nitrogen deposition, acid deposition).
2.2 Is the whole of the plan or project directly and only connected with or necessary to the management of one or more European sites, for the purposes of conserving the habitats or species for which the European site(s) is/are designated?	NO

3. Considering the likelihood of a significant effect (LSE)

3.1 Renewal of a project authorisation on the same or more restrictive terms as an extant authorisation

Is this a renewal of an extant authorisation which complies with NRW approved criteria for ruling out significant effects of renewals (see Part 2 of OGN200) without conducting a project-specific LSE test?	NO
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3.2 Likelihood of significant effects (LSE) test

3.2.1 Which European sites might be affected by the plan or project?

(a)	Based on the plan or project specification or information provided in the application, it is considered that these European sites have features which could be negatively affected by the plan or project	Pembrokeshire Marine / Sir Benfro Forol SAC UK0013116 432m Limestone Coast of South Wales Marine SAC UK0014787 2967m Castlemartin Coast SPA UK9014061 3096m These are the European sites within 4000m / 4.0km of the proposed hydrogen production facility. A conservative screening distance has been used, considering the SCAIL combustion screening tool methodology.
(b)	The potential for the plan or project to negatively affect these European sites was also initially considered, but can be ruled out without further consideration	N/A

3.2.2 Screening for likelihood of significant effect

TABLE 3.2.2 Screening assessment

The protected sites considered are within 4km of the installation, as identified in 3.2.1(a) above. There are no direct discharges from the proposed Hydrogen Production Facility (HPF) to land, surface waters or the marine environment, nor any changes to corresponding limits and conditions in the EPR installation permit. There is no hydrological change, coastal erosion, land take (from protected sites), habitat disturbance, or habitat noise impact associated with the proposal. The only relevant mechanism of potential harm is the impact of combustion emissions to air from two HPF processes: hydrogen flaring and emergency power generation, which both operate intermittently and are not active during normal operating conditions i.e. continuous hydrogen production. Oxygen emissions from electrolysis of water are not considered polluting or capable of having likely significant effect.

SCREEN OUT all mechanisms other than air (including noise) emission impacts – no LSE

European site name: Pembrokeshire Marine / Sir Benfro Forol SAC ([JNCC site entry and standard data form – UK0013116](#))

Priority habitats (primary): estuaries, large shallow inlets and bays, reefs

Priority species (primary): grey seal, shore dock

Qualifying habitats (non-primary): sandbanks which are slightly covered by seawater all the time, mudflats and sandflats not covered by seawater at low tide, coastal lagoons, Atlantic salt meadows, submerged or partially submerged sea caves

Qualifying species (non-primary): sea lamprey, river lamprey, allis shad, twaite shad, otter

Potential air emission impacts: the protected site is located 0.432km from air emission points within the proposed HPF.

Oxygen will be emitted continuously from the proposed HPF, but this does not require assessment for air quality impact screening or assessment of LSE and can be discounted. There are no point source emissions of hydrogen from the proposed HPF.

The impact of HPF operational sound on marine mammals (fauna: grey seal, otter) has been assessed by the applicant in Section 10 of [Appendix B](#) included with the permit application. This assessment confirms that the predicted HPF operational sound level at the closest positions within the SAC is no higher than existing (residual) ambient sound levels, which intermittently reach much higher levels. Accordingly, the assessment of no potential risk of likely significant effect on this protected site appears reasonable.

The applicant's air quality impact screening assessment (see link in Section 1, Row 6 above) has used the SCAIL combustion tool and is based on a predicted operating pattern for the hydrogen flare and the emergency (diesel) generator [Scenario 1], and a worst-case operating pattern [Scenario 2]. For Scenario 2, the screening assessment indicates that modelled pollutant concentrations are all expected to be <1% of relevant critical loads/levels at the SAC boundary [nitrogen oxides (NO_x), sulphur oxides (SO_x), ammonia (NH₃), N-deposition, and Acid deposition]. Impact has 'screened out' as not having likely significant effect on this protected site and others within 4km of the proposed HPF.

SCREEN OUT air emission impacts of noise, NO_x, SO_x, NH₃, N-deposition & Acid deposition on all site features – no LSE

European site name: Limestone Coast of South West Wales SAC ([JNCC site entry and standard data form – UK0014787](#))

Priority habitats (primary): vegetated sea cliffs of the Atlantic and Baltic coasts, fixed coastal dunes with herbaceous vegetation ("grey dunes")

Priority species (primary): greater horseshoe bat, early gentian

Qualifying habitats (non-primary): European dry heaths, semi-natural dry grasslands and scrubland facies on calcareous substrates, caves not open to the public, submerged or partially submerged sea caves

Qualifying species (non-primary): petalwort

Potential air emission impacts: the protected site is located 2.967km from air emission points within the proposed HPF.

Oxygen will be emitted continuously from the proposed HPF, but this does not require assessment for air quality impact screening or assessment of LSE and can be discounted. There are no point source emissions of hydrogen from the proposed HPF.

Due to the distance between the HPF and designated priority species for this SAC (fauna: greater horseshoe bat), it is not expected that operational noise emissions will cause adverse impact or likely significant effect on site features.

For air emissions screening, please refer to the above entry for Pembrokeshire Marine SAC. Impact has 'screened out' as not having likely significant effect on this protected site and others within 4km of the proposed HPF.

SCREEN OUT air emission impacts of noise, NO_x, SO_x, NH₃, N-deposition & Acid deposition on all site features – no LSE

European site name: Castlemartin Coast SPA ([JNCC standard data form – UK9014061](#))

Priority species (primary): breeding coastal birds (red-billed chough)

Potential air emission impacts: the protected site is located 3.096km from air emission points within the proposed HPF.

Oxygen will be emitted continuously from the proposed HPF, but this does not require assessment for air quality impact screening or assessment of LSE and can be discounted. There are no point source emissions of hydrogen from the proposed HPF.

Due to the distance between the HPF and designated priority species for this SPA (fauna: red-billed chough), it is not expected that operational noise emissions will cause adverse impact or likely significant effect on site features.

For air emissions screening, please refer to the above entry for Pembrokeshire Marine SAC. Impact has 'screened out' as not having likely significant effect on this protected site and others within 4km of the proposed HPF.

SCREEN OUT air emission impacts of noise, NO_x, SO_x, NH₃, N-deposition & Acid deposition on all site features – no LSE

TABLE 3.2.3 Screening decision of the plan or project 'alone'	
(a) If the screening conclusion for <u>all</u> features for all sites in Table 3.2.2 is 'SCREEN OUT'	The plan or project is not likely to have a significant effect on any European site, and no further consideration under the Habitats Regulations is required in order to determine the approval/application.
(b) If the conclusion for <u>any</u> features in Table 3.2.2 is 'SCREEN IN'	The plan or project is likely to have a significant effect on one or more European sites and therefore an appropriate assessment is required.
(c) If there are <u>no</u> features in Table 3.2.2 that are 'SCREEN IN' and <u>any</u> features that are 'IN COMB'	The plan or project is not likely to have a significant effect on any European sites when considered alone, but the possibility of significant effects in combination with other plans and projects needs to be considered.

Sections 4 and 5 of Form 1A are not required based on the screening decision outlined above and are removed from this record.

6. Conclusion

HRA is not required because there is no conceivable impact on any European sites. (As documented in section 2.1)	
HRA is not required because the whole of the plan or project is directly connected with or necessary to the management of one or more European sites, for the purposes of conserving the habitats or species for which the site(s) is/are designated, <u>and</u> the plan or project is not likely to have a significant effect on any other European sites. (As documented in section 2.2 and 2.3)	
This project is a renewal of a current permission which complies with NRW agreed criteria for ruling out likely significant effects of a renewal without conducting a project-specific LSE test. Therefore, it is considered not likely to have a significant effect on any European sites, either alone or in combination with other plans or projects. (As documented in section 3.1 of this form)	

The plan or project has been screened for likelihood of significant effects and is considered not likely to have a significant effect on any European sites. (As documented in section 3.2 of this form) and section 5 if applicable)	X
In light of the conclusions of an appropriate assessment it has been established that the plan or project will not adversely affect the integrity of any European sites, taking into account any conditions or restrictions as applicable, either alone or in combination with other plans or projects. (As documented in section 4 of this form, and section 5 if applicable)	
In light of the conclusions of the appropriate assessment, it has <u>not</u> been ascertained that the plan or project will not adversely affect the integrity of any European sites, as documented in section 4 of this form, and section 5 if applicable. Approval for the plan or project <u>cannot</u> be given unless either: • the plan or project specification, and/or the terms under which it might be approved, are modified so as to remove the risk of adverse effects, and a revised HRA is prepared, or • the plan or project (not being an SSSI consent*) satisfies the requirements for a derogation and a Derogation Notice is prepared and submitted for consideration by the appropriate authority, normally Welsh Ministers (*SSSI consents cannot be given as derogations)	
Signed: Name: Douglas Cowie Position: Lead Specialist Advisor, Industry Policy, Decarbonisation and Standards Team, on behalf of Installations Permitting function Date: 30/04/2026	
Was this HRA conclusion an escalated decision? YES or NO	NO

7. Consultation with the ANCB and how sections 2, 3, 4 and 5 of this HRA report (as applicable) take into account that advice.

Relevant section of the HRA report	Correspondence and/or meetings with the ANCB	Description of how the comments from the ANCB have been taken into account
2		
3		
4		
5		

9. Appendix: supporting information

- PAN-027129 – the applicant's [air quality impact screening assessment](#) submitted on 18/11/2025. SCAIL combustion tool screening outputs are included as Appendix 3 of the assessment.
- PAN-027129 – [installation boundary plan \(Revision C\)](#) showing location of HPF air emission points
- PAN-027129 – [Schedule 5 Notice](#) requiring further information from the applicant, including air emissions screening results for the proposed hydrogen flare stack and emergency generator.
- PAN-027129 – [email correspondence](#) with applicant re use of the SCAIL combustion tool (for hydrogen flaring emissions)