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Catherine Howard and Annika Holden
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Your ref:
EPR/HP3228XT/V004
Date: 2 September 2022

Dear Ms Howard and Ms Holden

**Environmental Permitting Regulations 2016
Appeal by NNB Generating Company (HPC) Ltd
Removal of acoustic fish deterrent conditions from Water
Discharge Activity (WDA) Permit**

Permit Variation Ref: EPR/HP3228XT/V004

1. I am directed by the Secretary of State to say that consideration has been given to the report of Mike Robins MSc BSc(Hons) MRTPI (the Inspector), who held a public local inquiry from 8 June 2021 to 24 June 2021 into your client's appeal against the deemed refusal by the Environment Agency of your client's application for variation of the permit to remove conditions relating to the requirement for installation of an acoustic fish deterrent (AFD), in accordance with application Ref: EPR/HP3228XT/V004, dated 14 February 2019.
2. On the 24 March 2021, the Secretary of State recovered the appeal, in pursuance of paragraph 5 of Schedule 6 of the Environmental Permitting (England and Wales) Regulations 2016.

Inspector's recommendation and summary of the decision

3. The Inspector recommended that the appeal be dismissed and the environmental permit not be varied.
4. For the reasons given below, the Secretary of State agrees with the Inspector's conclusions and his recommendation and dismisses the appeal. A copy of the

Inspector's report (IR) is enclosed. All references to paragraph numbers, unless otherwise stated, are to that report.

Matters arising since the close of the inquiry

5. Six representations were received after the Inquiry concluded, as set out at the Annex to this letter. Copies of these letters may be obtained on request to the following email address: HPC.EPR@defra.gov.uk.
6. The Secretary of State is satisfied that the issues raised in the six additional representations do not materially affect his decision, and no other new issues were raised in this correspondence that warrant further investigation or necessitate additional referrals back to the parties.

Policy and statutory considerations

7. In reaching his decision, the Secretary of State has had regard to Regulation 63(1) of the [Conservation of Habitats and Species Regulations 2017](#) (Habitats Regulations). This requires him, as the competent authority, to make an appropriate assessment of the implications of the proposed variation for any European site on which it is likely to have a significant effect, in view of that site's conservation objectives. He has also had regard to paragraph 181 of the [National Planning Policy Framework](#). This requires that Ramsar sites are afforded the same protection as sites designated under the Habitats Regulations. This includes the requirement to make an appropriate assessment. Government guidance on appropriate assessments is given in [Habitats regulations assessments: protecting a European site](#) (HRA guidance).
8. The Secretary of State notes the common ground and areas of disagreement set out at IR11.23-24 as to the sites and interest features relevant to the appeal.
9. Your client disagreed with the Environment Agency that the 'notable estuarine assemblage' of fish species forms part of the Severn Estuary SAC Annex I qualifying habitat. For the reasons given at IR11.26-38, the Secretary of State agrees with the Inspector that it is necessary to consider the identified species within the fish assemblage as part of any assessment of integrity of the Severn Estuary SAC. He also agrees with the Inspector that the 'health' of the estuary feature can only realistically be assessed through the maintenance or restoration of its habitats. These are a function of both its geomorphology and its ecology, of which a notable sub-feature is identified as the assemblage of typical species.
10. Your client disagreed with the Environment Agency that the fish assemblage of species forms part of Criterion 8 of the Severn Estuary Ramsar site. For the reasons given at IR11.39-46, the Secretary of State agrees with the Inspector that

the agreed species of relevance, Atlantic cod, European sea bass, Atlantic herring and whiting, are not species to take into account when considering impacts on the Ramsar site. He notes that the Ramsar criteria (on which Ramsar sites are designated) draw a distinction between Criterion 8 (habitats), under which the Severn Estuary Ramsar site was designated, and Criterion 7 (criteria based on fish populations), which do not form part of the site's designation. The Secretary of State further agrees with the Inspector that this does not alter the position that the migratory species, Atlantic salmon, allis shad and twaite shad, are relevant features for assessment against Criterion 4 (criteria based on a wetland's role in supporting plant and/or animal species at a critical stage in their life cycles).

Main issue

11. The Secretary of State agrees that the main issue is as set out by the Inspector at IR 11.9. That is the necessary appropriate assessment (to be carried out by the Secretary of State) to ascertain whether the variation to remove the AFD would not adversely affect the integrity of the designated or Ramsar sites.
12. Your client argued that the variation would not adversely affect the integrity of these sites and presented evidence to support their position. The Environment Agency disagreed and presented evidence to support its position that it was not possible to rule out adverse effects on the integrity of the Severn Estuary SAC, Severn Estuary Ramsar site, the River Usk SAC and the River Wye SAC. The Secretary of State has considered the Inspector's assessment at IR11.52-186 of the key areas of disagreement, as well as the key areas of disagreement and uncertainties listed by the Inspector at IR12.6.

Equivalent Adult Value

13. The Secretary of State has considered the Inspector's assessment at IR11.61-74 of the appropriate Equivalent Adult Value (EAV) factor and methodology to use. The Inspector considered that the Environment Agency's methodology provides a more appropriate and precautionary representation of real-world impacts. The Secretary of State notes that there are no agreed best methodologies within the scientific literature to calculate EAV. He considers that both the parties' methodologies are appropriate for the task. He also notes the uncertainties when trying to quantify the population size and impact upon it for any fish stock over the planned 60-year operational timeframe of HPC. These uncertainties could potentially result in an under or overestimate of the impacts of HPC with either methodology. As set out in the government's published HRA guidance, the competent authority must take a precautionary approach at each stage of the HRA process. In the absence of clear evidence to favour one set of methodologies over the other, the Secretary of State has therefore concluded that it is appropriate to follow the methodology showing the greater impact. This is the methodology adopted by the Environment Agency and also favoured by the Inspector.

Low Velocity Intake Head Scaling Factor

14. For the reasons given at IR11.75-80, the Secretary of State agrees with the Inspector that a Low Velocity Side Entry (LVSE) intake head scaling factor of 1 should not be viewed as precautionary. The LVSE factor is a scaling factor used to estimate the impingement due to HPC relative to the Hinkley Point B (HPB) nuclear power station. The Secretary of State notes that your client's predictions were based on modelling studies. There was no "real world" data to support the conclusions from these studies. This intake design would be the first of its kind constructed anywhere in the world. This novelty creates uncertainty in the inferences that are possible and accuracy of any modelled studies.

Assessment of Effects on Interest Features

15. The Secretary of State has considered the Inspector's analysis at IR11.91-186 of the evidence presented about the quantitative assessment of interest features and the effects on relevant habitats and species.

16. As stated above, the Secretary of State notes that both parties further agreed that, for the purposes of this appeal, the species of concern were:

- a. twaite shad, allis shad and Atlantic salmon ("the migratory species"), and
- b. Atlantic cod, Atlantic herring, European sea bass and whiting ("the marine species").

17. The Secretary of State has considered the Inspector's analysis at IR11.94-129 of the migratory species. He agrees with the Inspector's assessment (IR11.199) that all three species have been declining, are considered in a poor state and that even low-level impacts on a population at risk can be significant. He notes the shortage of data about migratory populations. This includes the limitations highlighted by the Inspector (IR11.182) of data from the Routine Impingement Monitoring Programme (RIMP) and the Comprehensive Impingement Monitoring Programme (CIMP). The Secretary of State agrees that there are significant uncertainties in the data and calculations of the potential impacts of the proposed variation on these species presented by both parties.

18. The Secretary of State has considered the Inspector's analysis at IR11.130-173 of the marine species. He notes that cod, sea bass and whiting stocks are acknowledged to be in a poor state and that the herring stock is known to be vulnerable. He also notes that cod, whiting and herring stocks currently have reduced reproductive capacity. The Secretary of State agrees with the Inspector that impacts of the scale indicated by the Inspector (IR11.173) would have a potential material effect on these stocks. The Secretary of State notes that your client made use of ICES (International Council for Exploration of the Sea) stock

assessment areas to calculate the population sizes for cod, sea bass and whiting. The Environment Agency instead chose smaller subpopulation areas more locally to HPC. Additionally, the Secretary of State notes that stock identification remains an area of ongoing research. He also notes that there is often not a clear, stable or correct answer to determining a population's boundaries, or the existence of subpopulations. He therefore considers there to be significant uncertainties in the data and calculations presented by both parties on the potential impacts on these species.

Severn Estuary Ramsar

19. The Secretary of State has considered the Inspector's analysis at IR11.197-202 of the effects on the Severn Estuary Ramsar site. As set out above, he considers the migratory species, Atlantic salmon, allis shad and twaite shad relevant features for assessment against Criterion 4. The conservation objective is to maintain the feature in favourable condition as defined by conditions (as set out in the [Severn Estuary European Marine Site Regulation 33 Conservation Advice Package](#)). This includes that the size of the populations of the assemblage species in the Severn Estuary are at least maintained and are at a level that is sustainable in the long term. As set out above, the Secretary of State considers that these species have been declining, are considered in a poor state and that even low-level impacts on a population at risk can be significant. He also considers that there are significant uncertainties in the data and calculations of the potential impacts on these species.
20. On the basis of the evidence presented to the Inquiry, the Secretary of State considers that the Inspector was correct to conclude that it has not been demonstrated that the conservation objective for Criterion 4 of the Ramsar site can be met and adverse effects on the integrity of the site cannot be excluded beyond reasonable scientific doubt.

Severn Estuary SAC

21. The Secretary of State has considered the Inspector's analysis at IR11.203-213 of the effects on the Severn Estuary SAC. The Secretary of State notes that the relevant interest features are the Annex I estuaries feature and the Annex II twaite shad.
22. The Secretary of State notes that the high-level conservation objective for the site (as set out in the [European Site Conservation Objectives for Severn Estuary SAC \(UK0013030\)](#)) is to ensure the integrity of the site is maintained or restored to ensure that the site contributes to achieving favourable conservation status (FCS) for its qualifying features. As set out above, the Secretary of State considers that species within the fish assemblage must be part of any assessment of integrity of the Severn Estuary SAC. This includes the migratory species, Atlantic salmon,

twaite and allis shad, as well as the marine species, the Atlantic cod, European sea bass, whiting and herring.

23. As set out above, the Secretary of State considers that the migratory species have been declining, are considered in a poor state and that even low-level impacts on a population at risk can be significant. He also considers that the marine stocks are in a poor or vulnerable state and that impacts of the scale indicated by the Inspector would have a potential material effect on these stocks. Also as set out above, the Secretary of State considers that there are significant uncertainties in the data and calculations of the potential impacts on both the migratory and marine species.
24. On the basis of the evidence presented to the Inquiry, the Secretary of State considers that the Inspector was correct to conclude that it cannot be demonstrated that the FCS can be maintained or restored, and the conservation objective of the estuary habitat feature be met. He considers that the Inspector was correct to conclude that adverse effects on the integrity of the site cannot be excluded beyond reasonable scientific doubt.
25. The Secretary of State notes that the relevant conservation objective for the twaite shad (as set out in the [Severn Estuary European Marine Site Regulation 33 Conservation Advice Package](#) – s4.1.8) is to maintain the feature in a favourable condition where the size of the population within the Severn Estuary and the rivers draining into it is at least maintained and is at a level that is sustainable in the long-term. As set out above, the Secretary of State considers the twaite shad to have been declining, to be considered in a poor state and that even low-level impacts on a population at risk can be significant. He also considers that there are significant uncertainties in the data and calculations before the Inquiry of the potential impacts.
26. Consequently, on the basis of the evidence presented to the Inquiry, the Secretary of State also considers that the Inspector was correct to conclude that it cannot be demonstrated that the conservation objective for twaite shad can be met and that adverse effects on the integrity of the site cannot be excluded beyond reasonable scientific doubt.

River Usk SAC

27. The Secretary of State has considered the Inspector's analysis at IR11.214-215 of the effects on the River Usk SAC. The Secretary of State notes that the relevant interest features are the Atlantic salmon and twaite shad (as set out in the [Core Management Plan Including Conservation Objectives for River Usk Special Area of Conservation](#)). He also notes that the conservation objectives are that the features should be in FCS where the population of the feature in the SAC is stable or increasing over the long-term.

28. As set out above, the Secretary of State considers that these species have been declining, are considered in a poor state and that even low-level impacts on a population at risk can be significant. He also considers that there are significant uncertainties in the data and calculations of the potential impacts on these species.
29. On the basis of the evidence presented to the Inquiry, the Secretary of State considers that the Inspector was correct to conclude that it cannot be demonstrated that the FCS can be maintained as either stable or increasing. Consequently, he considers that the Inspector was correct to conclude that the conservation objectives for Atlantic salmon or twaite shad cannot be met and that adverse effects on the integrity of the site cannot be excluded beyond reasonable scientific doubt.

River Wye SAC

30. The Secretary of State has considered the Inspector's analysis at IR11.216-217 of the effects on the River Wye SAC. The Secretary of State notes that the relevant interest features are the Atlantic salmon, twaite shad and allis shad. He also notes that the conservation objectives (as set out in the [European Site Conservation Objectives for River Wye SAC \(UK0012642\)](#)) are that the features should be in FCS where the population of the feature in the SAC is stable or increasing over the long-term.
31. As set out above, the Secretary of State considers that these species have been declining, are considered to be in a poor state and that even low-level impacts on a population at risk can be significant. He also considers that there are significant uncertainties in the data and calculations of the potential impacts on these species.
32. On the basis of the evidence presented to the Inquiry, the Secretary of State considers that the Inspector was correct to conclude that it cannot be demonstrated that the FCS can be maintained as either stable or increasing. Consequently, he considers that the Inspector was correct to conclude that the conservation objectives for Atlantic salmon or twaite shad cannot be met and that adverse effects on the integrity of the site cannot be excluded beyond reasonable scientific doubt.

Formal decision

33. Having reviewed the Inspector's advice, including the levels of uncertainty and areas of scientific disagreement, the Secretary of State agrees with the Inspector's conclusions that, in the absence of an AFD, it cannot be concluded that there would not be adverse effects on the integrity of the Severn Estuary SAC and Ramsar site, the River Usk SAC and the River Wye SAC. In the light of these conclusions and the Inspector's review and conclusions about the [Environment Agency's Appropriate Assessment \[CD4.1\]](#), the Secretary of State has considered and adopted this appropriate assessment with the modification set out above in paragraph 10 of this decision. This is that the agreed species of relevance, Atlantic

cod, European sea bass, Atlantic herring and whiting, are not species to take into account when considering impacts on the Ramsar site.

34. Accordingly, for the reasons given above, the Secretary of State agrees with the Inspector's recommendation. He therefore dismisses your client's appeal and refuses your client's application for variation of the permit to remove conditions relating to the requirement for installation of an AFD, in accordance with application Ref: EPR/HP3228XT/V004, dated 14 February 2019.

Right to challenge the decision

35. The decision on this appeal is final. After it has been issued, neither the Secretary of State nor the Inspector can consider further representations or make any comments on the merits or otherwise of the case.

36. This decision can only be challenged in the courts by judicial review. An application to seek permission for judicial review should be made to the Administrative Court of the High Court and must be done quickly, and in any case within 3 months of the date of this decision (see [Environmental permit - Guidance on the Appeal procedure](#)).

Yours sincerely

Sarah Swash
Deputy Director – Environmental Regulations
Environmental Quality Directorate

Annex - Schedule of representations

General representations

Party	Date
Sue Aubrey	12 October 2021
Suella Braverman QC MP	6 January 2022
Kwasi Kwarteng MP	8 February 2022
Dr James Robinson	3 May 2022
Herbert Smith Freehills LLP	10 August 2022
Priyal Bunwaree	25 August 2022