



# The Sizewell C Project

SZC Co.'s Response to the Secretary of State's  
Letter dated 31 May 2022

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Revision: 1.0

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June 2022



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## 1 INTRODUCTION

- 1.1.1 This document sets out SZC Co.’s response to the letter from the Secretary of State for Business, Energy & Industrial Strategy (“the Secretary of State”), dated 31 May 2022 ([EN010012/EN010012-010979-Sizewell C - Letter to Applicant and ONR.pdf](#)), requesting: (i) a response to the Government of Austria’s final expert statement (refer to **Section 2** of this document); and (ii) an update on any further progress made regarding a permanent water supply connection (refer to **Section 3** of this document).
- 1.1.2 **Section 4** of this report responds to each of the points raised in the recent response by Natural England, dated 14 June 2022, in relation to air quality matters related to the Habitats Regulations Assessment (HRA). In summary, SZC Co. believes that Natural England’s comments of 14 June 2022 do not fully take into account the material that SZC Co. has submitted as part of the Shadow HRA, most recently in response to question 7.3 of the Secretary of State’s request of 18 March 2022.



## 2 SZC CO.'S RESPONSES TO FINAL RECOMMENDATIONS OF THE GOVERNMENT OF AUSTRIA

### 2.1 Introduction

2.1.1 As explained in the Planning Statement and its updates [[APP-590](#), [REP2-043](#) and [REP10-068](#)], the application for the Sizewell C Project falls to be determined under section 105 of the Planning Act 2008, and for the purposes of such a decision the Overarching National Policy Statement ("NPS") for Energy (EN-1) and the NPS for Nuclear Power Generation (EN-6) are important and relevant considerations, and significant weight should be given to them.

2.1.2 Paragraph 1.7.1 of EN-6 confirms that all of the energy NPSs were subject to an Appraisal of Sustainability ("AoS"). Paragraph 1.7.3 of EN-6 states that the development of EN-6 was influenced by the Nuclear AoS, which assessed the NPS as a whole as well as each site listed within it, including Sizewell. Paragraph 1.7.4 of EN-6 summarises the main findings of the Nuclear AoS, including that:

*"Significant trans-boundary effects arising from the construction of new nuclear power stations are not considered likely. Due to the robustness of the regulatory regime there is a very low probability of an unintended release of radiation, and routine radioactive discharges will be within legally authorised limits."*

2.1.3 Section 2.7 of EN-6 explains the relationship between the regulatory framework for nuclear power stations and the planning regime. In particular, paragraph 2.7.3 states that the licensing and permitting of nuclear power stations by the nuclear regulators is a separate regulatory process and to avoid unnecessary duplication and/or delay and to ensure that planning and regulatory expertise are focussed on the most appropriate areas, when considering a development consent application the Secretary of State should act on the basis that:

- (i) the relevant licensing and permitting regimes will be properly applied and enforced;
- (ii) the Secretary of State should not duplicate the consideration of matters that are within the remit of the nuclear regulators; and
- (iii) the Secretary of State should not delay a decision as to whether to grant consent until completion of the licensing or permitting process.

2.1.4 Paragraph 2.7.4 provides that certain matters are for consideration of the Nuclear Regulators, and that the examining authority and Secretary of State should not duplicate the consideration of these matters itself. Such matters include the Generic Design Assessment (GDA) and the site licensing and environmental permitting processes (including in respect of the management and disposal of radioactive waste, the permitting of cooling water discharges etc.).

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- 2.1.5 Section 2.11 explains the Government’s approach to radioactive Waste Management. Paragraph 2.11.4 provides that the question of whether effective arrangements will exist to manage and dispose of the waste that will be produced from new nuclear power stations has been addressed by the Government and should not be considered under the DCO process. The Secretary of State should act on the basis that the relevant licensing and permitting regimes will be properly applied and enforced (paragraph 2.11.6). Annex B of NPS EN-6 provides more detail on the issue of Radioactive Waste Management and explains why the Government is satisfied that effective arrangements will exist to manage and dispose of the waste that will be produced from new nuclear power stations.
- 2.1.6 The draft NPS for Nuclear Power Generation revisits this issue in section 3.8 and reaches the same conclusion (see paragraph 3.8.20).
- 2.1.7 The lawfulness of relying on the effective operation of other regulatory regimes in this way was confirmed by the Court of Appeal in R (An Taisce) v. SSECC [2014] EWCA Civ 1111. The Court considered the Secretary of State’s decision to grant development consent for Hinkley Point C and in particular the points raised in the expert report submitted by the Austrian Government for that application. A copy of the judgment is provided in **Appendix 1** to this response. Paragraph 7 of the judgment sets out the Secretary of State’s response to the expert report in the decision letter, as follows:

*“6.6.2(ii) The expert report focuses on nuclear safety issues and as such has been reviewed by the Office of Nuclear Regulation (“ONR”). It draws heavily on documents published by the ONR during the Generic Design Assessment of the EPR. Although broadly technically sound, it tends to overemphasise the significance of those areas where ONR has in any event determined that more work needs to be done during any subsequent construction and commissioning of a power station based on the EPR (i.e. such as at Hinkley Point) as part of its own regulatory processes.*

*6.6.2(iii) The Austrian expert contends that in assessing the likely environmental effects of [Hinkley Point C] project, I should take into account the effects of very low probability, extreme (or severe) accidents. Effectively the report says that unless it can be demonstrated that a severe accident (involving significant radiological release) cannot occur, then no matter how unlikely it is, I must consider its consequences as part of the development consent process, having regard, in particular, to the possible deleterious effects on Austria. However, in my view such accidents are so unlikely to occur that it would not be reasonable to “scope in” such an issue for environmental impact assessment purposes.”*

- 2.1.8 The claimant had alleged that the Secretary of State misdirected himself as to the meaning of “likely” by scoping out severe nuclear accidents on the basis that they were very unlikely (ground 1) and that the Secretary of State erred in relying on the existence of the UK nuclear regulatory regime to fill gaps in current knowledge when reaching his conclusion as to the likelihood of nuclear accidents (ground 2).

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2.1.9 In dismissing ground 1, Lord Justice Sullivan held at paragraph 21 that *"If...Environmental Statements had to deal with every possible significant environmental effect, however unlikely, unless it could be excluded on the basis of objective evidence, there is a real danger that both the public when consulted and decision takers would "lose the wood for the trees", thereby causing the EIA process to become less effective as an aid to good environmental decision making"*.

2.1.10 In dismissing ground 2, Lord Justice Sullivan at paragraph 46 agreed with Mrs Justice Patterson's ruling in the High Court as follows:

*"In my judgment there is no reason that precludes the Secretary of State from being able to have regard to, and rely upon, the existence of a stringently operated regulatory regime for future control. Because of its existence, he was satisfied, on a reasonable basis, that he had sufficient information to enable him to come to a final decision on the development consent application. In short, the Secretary of State had sufficient information at the time of making his decision to amount to a comprehensive assessment for the purposes of the Directive. The fact that there were some matters still to be determined by other regulatory bodies does not affect that finding. Those matters outstanding were within the expertise and jurisdiction of the relevant regulatory bodies which the defendant was entitled to rely upon."*

2.1.11 The Court of Appeal acknowledged the fact that major development projects of this type are commonly not designed to the last detail at the EIA stage, and that the Secretary of State has to form a judgment as to whether any resulting gaps or uncertainties mean there is a likelihood of significant environmental effects, or whether there is no such likelihood because it can be confident that the remaining details will be addressed in the relevant regulatory regime. It was held that the Secretary of State’s judgment that there was no such likelihood for that reason was entirely lawful.

2.1.12 That principle, reflected in both law and policy, provides important context for the Secretary of State’s consideration of the points now raised by the Government of Austria’s Statement in relation to the application for a DCO for the development of Sizewell C.

## 2.2 Response to individual topics within final expert statement

2.2.1 The Government of Austria’s final expert statement (submitted 23 May 2022) covered several topics, including: spent fuel storage, design of the UK EPR™ reactor proposed for Sizewell C, assessment of accident risk and transboundary impacts. This section provides SZC Co.’s response to the key matters raised by the Government of Austria.

## 2.3 FR1: To demonstrate the safe management of nuclear waste and spent fuel from Sizewell C, detailed information on the interim storage and final disposal should be provided; also alternative nuclear waste

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management solutions in case these facilities will not be operable in time.

- 2.3.1 The Intermediate Level Waste Store (ILWS) on the Sizewell C site will be built as part of the construction of Sizewell C and will be in place prior to the start of operation.
- 2.3.2 A description of the ILWS is provided in the Environmental Statement (see Volume 2, Chapter 7 [[APP-192](#)]). In summary, the majority of ILW will be stored in 500l stainless steel drums, within a shielded store, an approach that is widely used and readily available now.
- 2.3.3 In the case of the Interim Spent Fuel Store (ISFS), this will be constructed within the first 10 years of operation of the station to ensure it is available at the point that spent fuel will be generated (following its initial 10-year cooling period). A summary of the ISFS design is provided in the Environmental Statement (Volume 2, Chapter 7 [[APP-192](#)]).
- 2.3.4 The ISFS building is of simple design and construction and will take 2 or 3 years, so a long delay would be extremely unlikely. The protection of the spent fuel is actually provided by the cask system. The cask technology itself is widely used in the US, and already in use in the UK, so the technology is demonstrably available now.
- 2.3.5 The final disposal of Higher Activity Radioactive Waste and Spent Fuel in the UK’s National Geological Disposal Facility is out of the scope of the development consent process, as explained in section 2.1 above.
- 2.3.6 SZC Co. notes that Nuclear Waste Services (a subsidiary of the Nuclear Decommissioning Authority) will be responsible for transport and storage of Radioactive Waste as the Licensee/Permit Holder not SZC Co.. However, details of the final disposal container will be confirmed closer to the time of transport to the Geological Disposal Facility and will be subject to approval by the ONR and Environment Agency (EA) following assessment of the Safety Case and Environment Case.. Nuclear Waste Services will specify the type of container used, and should copper be the preferred material they would need to assess and mitigate potential corrosion to the satisfaction of the ONR and EA.
- 2.4 **FR 2: It is recommended that the solution of the problem that occurred at the operating EPR at Taishan NPP be closely followed to avoid the occurrence of the same or similar problem at the EPRs in Sizewell C.**
- 2.4.1 The specific issue at Taishan, relating to the tightness of the fuel rods, of reactor 1, is still being investigated. SZC Co. will act on any information arising from that investigation.

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2.4.2 EDF, as Responsible Designer for the EPR™, formally collates all operational experience (OPEX) and will recommend design change, where applicable, to the plant under construction. All changes are scrutinised through the SZC formal Design Change processes and, where a change may significantly differ from a safety perspective, will need ONR and EA assessment and approval.

2.4.3 In response to the Government of Austria’s query on how the UK EPR™ design deviates from the Flamanville 3 reference design, the Generic Design Assessment (GDA) undertaken by the ONR when considering the UK EPR™ was underpinned by a large volume of information and it is not easy, or considered appropriate, to summarise here. Furthermore, since the GDA assessment a further 3,000 modifications have been made to the GDA reference design to provide the basis for the design being constructed at Hinkley Point C (which will be the entry point design for Sizewell C). These modifications have essentially come from three main streams:

- construction feedback from Flamanville 3 (and, where relevant, Olkiluoto 3 and Taishan);
- adaptations to meet UK regulatory requirements; and
- resilience enhancements post-Fukushima.

2.4.4 Some key changes are:

- having a diverse feed to the Steam Generators;
- Instrumentation & Control (I&C) improvements;
- Filtered Containment Vent provisions (to allow future installation, if deemed necessary later);
- flooding protection provisions due to multiple failures after earthquake analysis;
- Heating, Ventilation, and Air Conditioning (HVAC) improvements – provision of greater levels of diversity and redundancy to meet UK regulatory expectations;
- removal of fibre insulation from the reactor building fibre-free zones to prevent clogging of cooling capability in the event of severe accidents (includes consideration of cable wrapping protection); and
- general provisions after diversity analysis was completed.

2.4.5 These matters will be resolved via the UK’s GDA regulatory process and are, therefore, not within the scope of the DCO process. As part of the DCO process,



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the decision make must assume that other relevant regulatory regimes are working effectively.

- 2.5 FR3: It is recommended to re-assess external hazards at the Sizewell C site before the design process for the NPP starts. The re-assessment should be based on the latest state-of-the-art methods and take into account most current data. Especially the climate change should be appropriate considered in the scenarios for flooding including the scenario of failing the limit of global warming to 1.5 degrees.
- 2.5.1 SZC Co. does not think it necessary to repeat the external hazards assessment as suggested. A full and robust assessment was undertaken as reported in the SZC Site Data Summary Report submitted as part of the Nuclear Site Licence application. This assessment undertook a full characterisation of the hazards at the SZC site and was performed taking due cognisance of current national and international best practices, including taking account of expectations in ONR Technical Assessment Guide 13 ([NS-TAST-GD-013 \(Rev 8\)](#)). ONR confirmed in their technical assessment of the Site Data Summary Report that SZC Co. had provided sufficient demonstration to allow Nuclear Site Licence grant. However, in a small number of areas, additional evidence will need to be provided to demonstrate that ONR’s expectations are fully met. This will be completed before permission to construct is sought from ONR.
- 2.5.2 ONR is a goal setting, non-prescriptive regulator, so does not generally define specific safety margins for the Licensee to meet. The ONR’s expectations are that Licensee’s will meet the requirements of codes and standards, or demonstrate an equivalent level of safety by alternative means, and ensure that risk is reduced to a level that is ALARP (this is a legal requirement in the UK). ONR’s expectations in relation to external hazards are set out in ONR Technical Assessment Guide 13 ([NS-TAST-GD-013 \(Rev 8\)](#)).
- 2.5.3 The potential effects of climate change were assessed in accordance with UKCP18 (the latest UK Government based upon IPCC advice) as part of the Site Data Summary Report submitted to ONR with the Nuclear Site Licence (NSL) application. The scenario used was Representative Concentration Pathway (RCP) 8.5. RCPs are a means of capturing economic, social and physical changes to our environment that will influence climate change and specify concentrations of greenhouse gases that will result in total radiative forcing increasing by a target amount by 2100, relative to pre-industrial levels. The RCP8.5 scenario is the most severe and assumes a temperature rise of +4.3°C by 2081-2100, well in excess of the 1.5°C to which the Austrian Government’s Statement refers.
- 2.6 FR4: It is recommended to use a conservative approach that should address the loss of major sections of the marshlands whether from

depletion of the Sizewell-Dunwich banks or climate change sea level rise of anything above 1.5°C.

- 2.6.1 Within the SDSR, coastal flooding studies for SZC take account of conservative assumptions around the evolution for the coastline/geomorphology and climate change in accordance with latest government guidance (UKCP18). This is fully in-line with ONR and Environment Agency's expectations for these studies. As noted in the response to FR3, the RCP8.5 scenario used by SZC is the most precautionary scenario defined in UKCP18 and considers climate change where surface temperature exceeds the 1.5°C referred to (+4.3°C).
- 2.6.2 In relation to the Sizewell-Dunwich banks, flood risk assessments and coastal geomorphology assessments took the precautionary approach of modelling scenarios with the banks completely absent [see SZC Co response to Refs 3 – 8 in SZC Co's **Response to SoS Request for Comments 25 April - [Appendix 1](#)**]. In the response to Ref 5 in [Appendix 1](#) SZC Co. specifically addresses potential loss of the banks via natural processes and explains that there is no identified scientific reason for the banks to be lost in the manner described.
- 2.7 **FR5: To achieve the safety goal of new nuclear power plants consisting in the requirement that accidents leading to early or large releases have to be practically eliminated, it is necessary to also consider hazard events with frequencies below  $<10^{-4}$  if their impacts reach beyond the design basis. For ensuring compliance with the safety goals, a comprehensive Probabilistic Safety Analysis (Extended PSA) is necessary, taking into consideration all relevant internal and external events and possible accident causes.**
- 2.7.1 The ONR Safety Assessment Principles define an expectation to demonstrate there are no cliff-edge effects so SZC Co. will perform 'Beyond Design Basis' assessment of the design to eliminate any '*cliff-edge*' effects beyond the design basis. This will be based on the approach developed for HPC, where a '*Beyond Design Basis*' strategy was developed to meet ONR expectations which aligned significant '*Beyond Design Basis*' events with the Severe Accident rules (i.e. no large or early releases from a significant '*Beyond Design Basis*' event, should one occur).
- 2.7.2 The '*Beyond Design Basis*' assessment will consider events that occur at  $<<1E-4/y$ . The hazard events will also be modelled within the SZC PSA. The PSA modelling and outcomes will be scrutinised as part of a future safety case submission to ONR.
- 2.7.3 SZC Co. acknowledges that there are elements of the Hinkley Point C PSA that are still to be completed and these will be completed as part of the ongoing permissions process with the ONR. All will be subject to regulatory consent via the safety submissions made to ONR (such as the HPC PCmSR).

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- 2.8 FR6: It is recommended to require the implementation of appropriate margins to external hazards in the design of the Sizewell NPP that are based on current scientific studies and data.
- 2.8.1 See previous comments about hazard margins, ‘*Beyond Design Basis*’ assessment and use of modern standards/best practice. Ultimately, the SZC civil design will meet the expectations of modern codes and standards and will demonstrate the risk at SZC is ALARP.
- 2.9 FR7: It is recommended to apply the concept of practical elimination consistently in the safety requirements for Sizewell C. Practical elimination of accident sequences has to be demonstrated with state-of-the-art probabilistic and deterministic methods, fully taking into account the corresponding publications of WENRA in 2019.
- 2.9.1 The analyses for SZC Co. will be performed in accordance with SZC Co.’s Nuclear Safety Design Assessment Principles.
- 2.9.2 The safety case will be assessed by the ONR in accordance with its own Safety Assessment Principles (2014) [see: <https://www.onr.org.uk/saps/saps2014.pdf>].
- 2.9.3 Both sets of principles take account of national and international guidance as appropriate, including that issued by WENRA. As it currently stands, there has been no change in either SZC Co.’s or the ONR’s principles since 2015, so it is anticipated that the HPC analyses can be directly repeated for SZC. However, SZC Co. and the ONR continue to keep their principles under review and any future changes will be considered in future updates. Both SZC Co.’s and the ONR’s principles include both probabilistic and deterministic elements and assessments will be made using methods and tools that meet worldwide best practice. UK law requires that these analyses demonstrate that risks are reduced ALARP.
- 2.10 FR8: It is recommended to consider severe accident scenarios with possible late containment failure in the notion of practical elimination and therefore plan a filtered containment venting systems at Sizewell C like at the Finnish EPR OL3.
- 2.10.1 The safety case presented by HPC previously showed a Filtered Containment Vent (FCV) was not needed in light of other EPR provisions already provided. As part of the process to permission SZC, SZC Co. will need to demonstrate to the ONR that this risk at SZC is also ALARP. For HPC it was demonstrated that the risk without FCV was very low and already ALARP and there is no reason to believe the same position would not be replicated at SZC. However, SZC Co. must present a valid safety case to the ONR that must demonstrate risks, including risk from these types of accidents, remain ALARP before construction can commence.

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- 2.10.2 It should be noted that provision was made at HPC to allow the addition of FCV at a later date, should further assessment demonstrate the need and such a provision will be replicated at SZC.
- 2.11 FR9: It is recommended to provide information about the upcoming demonstration proving that the level of risk of Sizewell C is as low as reasonably practicable (ALARP).
- 2.11.1 SZC Co. can confirm that the demonstration requested will be provided as part of the SZC Pre-Construction Safety Report (PCSR) which is due for submission to the ONR in 2024.
- 2.11.2 Consent to construct and operate SZC from the ONR, in the form of a Nuclear Site Licence and related licence instruments, will only be granted once a suitable safety case has been presented and risks have been demonstrated as ALARP (ALARP is a fundamental part of UK law).
- 2.12 FR10: It is recommended to include a conservative worst-case release scenario which should have been part of the EIA. A severe accident with a source term for e.g. containment failure or bypass scenario should be analysed as part of the EIA – in particular because of its relevance for impacts at greater distances.
- 2.12.1 SZC Co. submitted a scoping request on 22 May 2019 to the Planning Inspectorate on behalf of the Secretary of State (SoS) under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) for the proposed Sizewell C Nuclear Development (the Proposed Development). On 2 July 2019 a Scoping Opinion was issued by the Secretary of State; and Section 4.18 of that Opinion detailed its response to the proposed approach to the assessment of major accidents and disasters, having regard to feedback from the Officer for Nuclear Regulation. The Environmental Statement submitted in support of the application for development consent had regard to the details set out in the original scoping request and comments in the scoping opinion and included matters relating to radiological aspects. Such matters were considered throughout the examination stage; and the assessment conclusions of ‘not significant’ remain unchanged.
- 2.13 FR11: Concerning the protection of the Sizewell C against aircraft crash it is recommended that the NPP should be designed in a way that vital safety functions can be fulfilled despite of the thermal and mechanical impacts corresponding to the assumed crash of passenger aircrafts of the largest class (Airbus A-380) and fast military jets.
- 2.13.1 SZC Co. welcomes the acknowledgement that the Government of Austria has accepted the previous answers in relation to aircraft crash assessments. No further



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information to that contained in the HPC PCSR is considered necessary, and has been shared with the ONR, but could be released to organisations with relevant security clearance if identified as necessary. However, to reiterate five distinct aircraft families are considered in the HPC design basis: light aircraft, helicopters, small transport aircraft, large transport aircraft, and military combat aircraft. SZC Co. has demonstrated that the vital plant safety can be maintained taking account of thermal and mechanical challenges from aircraft impact.

- 2.13.2 Chapter 13 of the HPC PCSR deals with aircraft crash ([HPC PCSR: Chapter 13](#)).
- 2.14 FR12: Because the source term used in the accident analysis of the Environmental Statement does not reflect a severe accident, it is recommended to calculate the consequences of a severe accident with a large release since the effects of severe accidents can be widespread and long-lasting and even countries in Central Europe, such as Austria, can be affected.
- 2.14.1 As part of the assessment of the Sizewell C Project under Article 37 of the EURATOM Treaty, the Transboundary Impacts were modelled for a number of reference accidents associated with Sizewell C. This included consideration of a DEC-B Severe Accident as noted in Section 7.2 of the Austrian Report. The Source Term used in the assessment has been validated and aligns with that used in the Article 37 assessments for other EPR Reactors built in Europe.
- 2.14.2 The impacts were assessed for a number of member states, including France and Belgium, noting these were identified as greatest impacted states. The impacts to other member states would be far less. The bounding dose to a member state from an unplanned DEC-B release was assessed as broadly equivalent to a dental x-ray (5 microSv).
- 2.14.3 Since early failure of the containment in a severe accident would result in significant consequences, the EPR™ safety objective is to avoid risk of early containment failure and prevent a radiological release. As such, accident situations with DEC-B that could result in a large early release are practically eliminated.
- 2.14.4 SZC Co. notes that, when considering the plan for the disposal of radioactive waste arising from the Sizewell C power station, the European Commission concluded:

*“that the implementation of the plan for the disposal of radioactive waste in whatever form, arising from the two EPR reactors on the Sizewell C nuclear power station site located in the Suffolk Coast, United Kingdom, both in normal operation and in the event of accidents of the type and associated magnitudes of unplanned release of radioactive effluents, as considered in the General Data, is not liable to result in radioactive contamination, significant from the point of view of health, of the water, soil or airspace of a Member State, in respect of the provisions laid down in the Basic Safety Standards (Directive 2013/59/Euratom).” (see: European Commission, June 2021).*

### 3 PERMANENT WATER SUPPLY CONNECTION

- 3.1 Question (Paragraph 3): The Applicant was asked to confirm if any further progress has been made in its discussions with Northumbrian Water Limited regarding a permanent water supply connection.
- 3.1.1 SZC Co. and Northumbrian Water Limited (NWL) continue to engage closely on the permanent water supply connection. In the most recent progress meeting, held on 6 May 2022, NWL helpfully confirmed that preparations for their draft Water Resource Management Plan 2024 (WRMP24) are progressing well. NWL will submit its draft WRMP24 to the Department for Environment, Food and Rural Affairs (DEFRA) in October 2022, in accordance with the deadline that must be met by all Water Companies under the prevailing WRMP24 and 2024 Price Review cycle.
- 3.1.2 NWL has confirmed that its draft WRMP24 will make full provision for Sizewell C’s long-term demand (2.2Ml/d annual average and 2.8Ml/d peak), following construction of the power station, and that, subject to the necessary approvals from DEFRA and the Water Services Regulation Authority (Ofwat), it is likely to be feasible to deliver the required infrastructure to supply Sizewell C.
- 3.1.3 It has been agreed between the Parties that negotiations under Sections 55 and/or 56 of the Water Industry Act 1991 to fund the design and delivery of Sizewell C specific water supply infrastructure will commence in October 2022, following publication of the draft WRMP24, in readiness for them to be signed once NWL’s Business Plan has been approved by Ofwat, most likely in early 2024.
- 3.1.4 In summary, we remind the Secretary of State that Sizewell C’s construction water demand will be supplied principally by means of the proposed temporary desalination plant, with water tankering being used to supply preparatory works activities and the initial period of construction, whilst the temporary desalination plant is being installed. The temporary desalination plant will have sufficient capacity to meet the 4Ml/day construction peak in full and will be retained up to the end of construction, when NWL’s connection for Sizewell C’s long-term supply is likely to be available. Under the protective provision agreed between SZC Co. and NWL (see Appendix B to the final Statement of Common Ground between the parties (REP10-092)), NWL is committed to deliver Sizewell C’s long term supply as soon as reasonably practicable, subject to proposed new supply schemes identified in its draft WRMP24 this October being approved by DEFRA and Ofwat as outlined above. There is no reason to suppose that a new water supply scheme for a critical Nationally Significant Infrastructure Project will not be approved in the 2024 Price Review; and there is every reason to expect that NWL, using reasonable endeavours, will be able to deliver the necessary infrastructure to make the permanent water supply connection before the end of construction of Sizewell C.

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## 4 SZC CO.’S RESPONSE TO NATURAL ENGLAND’S COMMENTS ON AIR QUALITY DATED 14 JUNE 2022

- 4.1.1 SZC Co. welcomes Natural England’s conclusion set out in paragraph 1.4.2 of their response that there will be no adverse effects on site integrity in relation to the Minsmere to Walberswick Special Protection Area (SPA) and Sandlings SPA arising from changes in air quality. However we are surprised by their conclusion that adverse effects on site integrity arising from changes in air quality cannot also be excluded for the Minsmere to Walberswick Heaths and Marshes Special Area of Conservation (SAC) and the Minsmere to Walberswick Ramsar site. Natural England state at the end of paragraph 1.4.3 that further assessment is required. SZC Co. is surprised at Natural England’s position in this regard, which appears not to take account of the evidence contained in the Shadow HRA (including our response to question 7.3 of the Secretary of State’s request of 18 March 2022 that we reminded them of in recent discussions).
- 4.1.2 **Appendix 2** provides a tabulated response to each of Natural England’s comments in turn relating to air quality, as set out in Section 1.4 of their letter to the Secretary of State for Business, Energy & Industrial Strategy dated 14 June 2022.
- 4.1.3 In summary, SZC Co. would like to reassure the Secretary of State that all potential effects associated with air quality are fully addressed in the Shadow HRA, which concludes that adverse effect on site integrity, in relation to air quality, can be ruled out for the Minsmere to Walberswick Heaths and Marshes SAC and the Minsmere to Walberswick Ramsar site, both in relation to all emission sources from the Sizewell C Project acting alone and in-combination with other plans and projects. **Appendix 2** provides further details and links to the relevant supporting evidence.





# The Sizewell C Project

SZC Co.'s Response to the Secretary of State's Letter dated 31 May 2022: Appendix 1 - An Taisce Ruling

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Revision: 1.0

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June 2022







Neutral Citation Number: [2014] EWCA Civ 1111

Case No: C1/2013/3763

**IN THE COURT OF APPEAL (CIVIL DIVISION)**  
**ON APPEAL FROM THE HIGH COURT OF JUSTICE**  
**QUEEN'S BENCH DIVISION (ADMINISTRATIVE COURT)**  
**MRS JUSTICE PATTERSON**  
**CO/5020/2013**

Royal Courts of Justice  
Strand, London, WC2A 2LL

Date: Friday 1<sup>st</sup> August 2014

**Before:**

**LORD JUSTICE LONGMORE**  
**LORD JUSTICE SULLIVAN**  
and  
**LADY JUSTICE GLOSTER**

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**Between:**

<b>The Queen on the Application of An Taisce (The National Trust for Ireland)</b>	<b><u>Claimant</u></b>
<b>- and -</b>	
<b>The Secretary of State for Energy and Climate Change</b>	<b><u>Defendant</u></b>
<b>- and -</b>	
<b>NNB Generation Company Limited</b>	<b><u>Interested Party</u></b>

(Transcript of the Handed Down Judgment of  
WordWave International Limited  
A Merrill Communications Company  
165 Fleet Street, London EC4A 2DY  
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Official Shorthand Writers to the Court)

**David Wolfe QC, John Kenny and Blinne Ni Ghralaigh** (instructed by **Leigh Day Solicitors**) for the **Appellants Jonathan Swift QC, Rupert Warren QC and Jonathan Moffett** (instructed by the **Treasury Solicitor**) for the **Respondent Nathalie Lieven QC and Hereward Phillpot** (instructed by **Herbert Smith Freehills LLP**) for the **Interested Party**

Hearing dates: 15<sup>th</sup> & 16<sup>th</sup> July 2014

Judgment

As Approved by the Court

## **Lord Justice Sullivan:**

### **Introduction**

1. In this claim for judicial review the Claimant challenges the decision dated 19<sup>th</sup> March 2013 of the Defendant to make an Order (“the Order”) granting development consent for the construction of a European pressurised reactor (“EPR”) nuclear power station at Hinkley Point in Somerset (“HPC”).

### **Background**

2. The background to the claim is explained in considerable detail in the judgment of Patterson J [2013] EWHC 4161 (Admin) dismissing the Claimant’s application for permission to apply for judicial review following a “rolled up” hearing. On the 27<sup>th</sup> March 2014 I granted the Claimant permission to apply for judicial review and ordered that the application should be retained in the Court of Appeal.
3. The judge set out the factual background in paragraphs 5-62 of her judgment. There was no challenge to this aspect of her judgment, and I gratefully adopt, and will not repeat, all of the detail that is contained in those paragraphs.
4. There is no dispute as to the legal framework, which the judge set out in paragraphs 63-79 of her judgment. Article 7 of Directive 2011/92/EU (“the EIA Directive”) is of central importance in this claim, and for convenience I set out the material paragraphs:

“1. Where a Member State is aware that a project is likely to have significant effects on the environment in another Member State or where a Member State likely to be significantly affected so requests, the Member State in whose territory the project is intended to be carried out shall send to the affected Member State as soon as possible and no later than when informing its own public, inter alia:

- (a) a description of the project, together with any available information on its possible transboundary impact;
- (b) information on the nature of the decision which may be taken.

The Member State in whose territory the project is intended to be carried out shall give the other Member State a reasonable time in which to indicate whether it wishes to participate in the environmental decision-making procedures referred to in Article 2(2), and may include the information referred to in paragraph 2 of this Article.

2. If a Member State which receives information pursuant to paragraph 1 indicates that it intends to participate in the environmental decision-making procedures referred to in

Article 2(2), the Member State in whose territory the project is intended to be carried out shall, if it has not already done so, send to the affected Member State the information required to be given pursuant to Article 6(2) and made available pursuant to points (a) and (b) of Article 6(3).

3. The Member States concerned, each insofar as it is concerned, shall also:
  - (a) Arrange for the information referred to in paragraphs 1 and 2 to be made available, within a reasonable time, to the authorities referred to in Article 6(1) and the public concerned in the territory of the Member State likely to be significantly affected; and
  - (b) ensure that the authorities referred to in Article 6(1) and the public concerned are given an opportunity, before development consent for the project is granted, to forward their opinion within a reasonable time on the information supplied to the competent authority in the Member State in whose territory the project is intended to be carried out.”
5. It is common ground that the construction of HPC is a project which falls within Annex I to the EIA Directive. An environmental impact assessment was required and was carried out, and the necessary public consultation was undertaken within the United Kingdom, in accordance with Articles 4-6 of the Directive.
6. The Defendant did not carry out transboundary consultation in accordance with Article 7 because he did not consider that the HPC project was “likely to have significant effects on the environment in another Member State.” A transboundary screening assessment carried out by the Planning Inspectorate (“PINS”) on the Defendant’s behalf, having referred to Appendix 7E to Volume 1 of the Interested Party’s Environmental Statement, which contained an assessment of potential transboundary effects, said:

“On the basis that licensing and monitoring conditions are effective, impacts will not be significant.”

The screening assessment also said, when dealing the “Probability”:

“The probability of a radiological impact is considered to be low on the basis of the regulatory regimes in place.

There could be direct impacts related to the discharge of water during normal operational conditions. However, the discharge of water is expected to be controlled by appropriate licensing conditions and regular monitoring, and hence the probability of any adverse impacts is likely to be low.

The Developer has indicated that information is included in the Government's submission to the European Commission under Article 37 of the Euratom Treaty to show that transboundary impacts from accidents during operation or decommissioning will be so low as to be exempt from regulatory control."

7. The Austrian Government wrote to the Department of Energy and Climate Change indicating that it wished to participate in the process of considering the application for the Order. It was sent a copy of the application, and its response included an expert report. The decision letter dated 19<sup>th</sup> March 2013 summarised the expert report, and the Defendant's response thereto, in paragraphs 6.6.2(ii) and (iii):

"6.6.2(ii) The expert report focuses on nuclear safety issues and as such has been reviewed by the Office of Nuclear Regulation ("ONR"). It draws heavily on documents published by the ONR during the Generic Design Assessment of the EPR. Although broadly technically sound, it tends to overemphasise the significance of those areas where ONR has in any event determined that more work needs to be done during any subsequent construction and commissioning of a power station based on the EPR (i.e. such as at Hinkley Point) as part of its own regulatory processes.

6.6.2(iii) The Austrian expert contends that in assessing the likely environmental effects of HPC project, I should take into account the effects of very low probability, extreme (or severe) accidents. Effectively the report says that unless it can be demonstrated that a severe accident (involving significant radiological release) cannot occur, then no matter how unlikely it is, I must consider its consequences as part of the development consent process, having regard, in particular, to the possible deleterious effects on Austria. However, in my view such accidents are so unlikely to occur that it would not be reasonable to "scope in" such an issue for environmental impact assessment purposes."

8. The Claimant contends that there was a failure to comply with Article 7 of the Directive. The Defendant failed to consult the public in the Republic of Ireland in accordance with Article 7 because:

- (1) He misdirected himself as to the meaning of "likely" within Article 7 by "scoping out" severe nuclear accidents on the basis that they were very unlikely (Ground 1 "likelihood"); and
- (2) Even if he was correct as to the meaning of "likely", the Defendant erred in relying on the existence of the UK nuclear regulatory regime to fill gaps in current knowledge when reaching his conclusion as to the likelihood of nuclear accidents (Ground 2 "regulatory regime").

9. Before considering these two grounds, it is necessary to understand the reference in the decision letter to "very low probability" severe accidents. The Austrian Expert



Report had said that severe accidents with high releases of caesium-37 cannot be excluded, and there would be a need for official intervention in Austria after such an accident, but the report recognised that the calculated probability of such an accident is below  $1E-7/a$ , which means that such an accident would not be expected to occur more frequently than once in every 10 million years of reactor operation: see paragraph 53 of Patterson J's judgment.

## Discussion

### Ground 1 Likelihood

10. The words “likely to have significant effects on the environment” occur in a number of places in the EIA Directive: in recitals (7) and (9), in Articles 1(1), 2(1) and 7(1), and in a slightly different formulation – “likely significant effects of the proposed project on the environment” – in Annex IV. In similar vein, an Environmental Statement must include “the data required to identify and assess the main effects which the project is likely to have on the environment”: see Article 5(3).
11. Two points should be made at the outset of any consideration of what is meant by “likely” in Article 7(1). It is now common ground that:
  - (1) The words “likely to have significant effects on the environment” must have the same meaning throughout the EIA Directive (not least because the environmental information to be supplied to the authorities and the public in the other Member State under Article 7 is the information that must be provided under Article 6 to the public in the Member State in which the project is located); and
  - (2) Whatever that meaning might be, in the context of the EIA Directive the word “likely” does not mean, as an English lawyer might suppose, more probable than not.
12. The CJEU has not ruled on the meaning of “likely to have significant effects on the environment” in the EIA Directive. The Domestic authorities were considered by Patterson J in paragraphs 123-126 of her judgment. None of those authorities is binding on this Court. In *R (Morge) v Hampshire County Council* [2010] EWCA Civ 608 [2010] PTSR 1882, Ward LJ recorded the parties' agreement that “likely” connotes real risk and not probability (paragraph 80). In *R (Bateman) v South Cambridgeshire District Council* [2011] EWCA Civ 157 Moore-Bick LJ expressed the view in paragraph 17 that “something more than a bare possibility is probably required, though any serious possibility would suffice”, but he did not find it necessary to reach a final decision on the question (paragraph 19).
13. The Claimant's submission that a project is “likely to have significant effects on the environment” if such effects “cannot be excluded on the basis of objective evidence” is founded on the decision of the Grand Chamber of the CJEU in Case C-127/02 *Landelijke Vereniging tot Behoud van de Waddenzee and Nederlandse Vereniging tot Bescherming van Bogels v Staatssecretaris van Landbouw, Natuurbeheer en Visserij* (“Waddenzee”). *Waddenzee* was concerned with the Habitats Directive, Article 6 of which materially provides:

“1. For special areas of conservation, Member States shall establish the necessary conservation measures involving, if need be, appropriate management plans specifically designed for the sites or integrated into other development plans, and appropriate statutory, administrative or contractual measures which correspond to the ecological requirements of the natural habitat types in Annex 1 and the species in Annex II present on the sites.

2. Member States shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this Directive.

3. Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.” (emphasis added)

14. In paragraphs 42-44 of its judgment the Grand Chamber said:

“42. As regards Article 2(1) of Directive 85/337 [now Article 2(1) of the EIA Directive], the text of which, essentially similar to Article 6(3) of the Habitats Directive, provides that “Member States shall adopt all measures necessary to ensure that, before consent is given, projects likely to have significant effects on the environment ... are made subject to an assessment with regard to their effects”, the Court has held that these are projects which are likely to have significant effects on the environment (see to that effect Case C-117/02 *Commission v Portugal* [2004] ECR I-5517, paragraph 85).

43. It follows that the first sentence of Article 6(3) of the Habitats Directive subordinates the requirement for an appropriate assessment of the implications of a plan or project to the condition that there be a probability or a risk that the latter will have significant effects on the site concerned.

44. In the light, in particular, of the precautionary principle, which is one of the foundations of the high level of protection pursued by Community policy on the environment, in

accordance with the first subparagraph of Article 174(2) EC, and by reference to which the Habitats Directive must be interpreted, such a risk exists if it cannot be excluded on the basis of objective information that the plan or project will have significant effects on the site concerned (see, by analogy, inter alia Case C-180/96 United Kingdom v Commission [1998] ECR I-2265, paragraphs 50, 105 and 107). Such an interpretation of the condition to which the assessment of the implications of a plan or project for a specific site is subject, which implies that in case of doubt as to the absence of significant effects such an assessment must be carried out, makes it possible to ensure effectively that plans or projects which adversely affect the integrity of the site concerned are not authorised, and thereby contributes to achieving, in accordance with the third recital in the preamble to the Habitats Directive and Article 2(1) thereof, its main aim, namely, ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora.

45. In the light of the foregoing, the answer to Question 3(a) must be that the first sentence of Article 6(3) of the Habitats Directive must be interpreted as meaning that any plan or project not directly connected with or necessary to the management of the site is to be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects.” (emphasis added)

15. On behalf of the Claimant, Mr. Wolfe QC, understandably, placed much emphasis upon the Grand Chamber's interpretation of the “essentially similar” text of Article 6(3) of the Habitats Directive; and the fact that the Grand Chamber had drawn an analogy with the judgment in the *United Kingdom* case in which the Court was considering the meaning of likelihood in a very different context: the United Kingdom's response to the BSE crisis, and a Directive which required notification of

“any zoonoses, diseases or other cause likely to constitute a serious hazard to animals or to human health.”

This demonstrated, he submitted, that the Grand Chamber's approach to the likelihood of significant harm in any context where environmental concerns, including the protection of human health, were in issue was based on first principles, and was not confined to the specific characteristics of the Habitats Directive.

16. While the text of Article 2(1) of the EIA Directive and Article 6(3) of the Habitats Directive is essentially similar, and both Directives are concerned with environmental protection, there is in my view a clear distinction between the two Directives. The scope of the EIA Directive is wide ranging, it ensures that any project which is likely to have significant effects on the environment is subject to a process of environmental impact assessment. The EIA Directive does not prescribe what decision must be

taken by the competent authority – to permit or to refuse – if the environmental impact assessment concludes that the proposal is likely to have significant effects on the environment. The Habitats Directive is more focussed, it protects particular areas of Community importance, which have been defined as “special areas of conservation”, and which must be maintained at, or restored to, “favourable conservation status”: see Articles 2 and 3. In order to achieve this aim Article 6(3) provides that, subject only to “imperative reasons of overriding public interest” (see Article 6(4)), where there has been an “appropriate assessment”:

“the competent authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned.” (emphasis added)

17. Thus, where there has been an “appropriate assessment” Article 6(3) imposes a very strict test for approval. The Grand Chamber said that competent authorities may approve a plan or project:

“55..... only after having made sure that it will not adversely affect the integrity of the site.

56 It is therefore apparent that the plan or project in question may be granted authorisation only on the condition that the competent national authorities are convinced that it will not adversely affect the integrity of the site concerned.

57 So, where doubt remains as to the absence of adverse effects on the integrity of the site linked to the plan or project being considered, the competent authority will have to refuse authorisation.

58 In this respect it is clear that the authorisation criterion laid down in the second sentence of Article 6(3) of the Habitats Directive integrates the precautionary principle (see case C-157/96 *National Farmers' Union and Others* [1998] ECR I-2211. paragraph 63) and makes it possible effectively to prevent adverse effects on the integrity of protected sites as the result of the plans or projects being considered. A less stringent authorisation criterion than that in question could not as effectively ensure the fulfilment of the objective of site protection intended under that provision.

59 Therefore, pursuant to Article 6(3) of the Habitats Directive, the competent national authorities, taking account of the conclusions of the appropriate assessment of the implications of mechanical cockle fishing for the site concerned, in the light of the site’s conservation objectives, are to authorise such activity only if they have made certain that it will not adversely affect the integrity of that site. That is the case where no reasonable scientific doubt remains as to the absence of such effects (see, by analogy, Case C-236/01 *Monsanto Agricoltura Italia and Others*

[2003] ECR I-8105, paragraphs 106 and 113).” (emphasis added)

18. In order to achieve this very high level of protection for special areas of conservation an equally stringent approach is required at the screening stage when the competent authority is deciding whether an “appropriate assessment” is required: see paragraph 70 of the Opinion of Advocate General Kokott [2004] ECR I-7405. It is for this reason that in a case falling within the Habitats Directive an “appropriate assessment” must be carried out unless the risk of significant effects on the site concerned can be “excluded on the basis of objective information.” Reading the *Waddenzee* judgment as a whole, it is clear that significant effects can be excluded on the basis of objective evidence if “no reasonable scientific doubt remains as to the absence of such effects.”
19. Standing back from a detailed analysis of the text of the two Directives, there is no obvious reason why such a strict approach should apply to the screening stage in the EIA Directive, which merely seeks to ensure that any likely significant effects on the environment are identified and properly taken into account in the decision making process. Even if significant environmental effects are identified, and are not merely likely, but are certain to occur, the EIA Directive does not require that approval for an EIA project within either Annex I or II of the EIA Directive must be refused in the absence of some overriding public interest. The Grand Chamber referred to the precautionary principle in *Waddenzee* (see paragraph 44), but it was applying that principle in the context of the Habitats Directive, where the objective is the protection of the integrity of particular sites designated for their conservation importance. In the wider context of environmental protection a “real risk” test embodies the precautionary principle: see *Evans v Secretary of State for Communities and Local Government* [2013] EWCA Civ 114, per Beatson LJ at paragraph 21.
20. I have already mentioned the fact that, by contrast with the Habitats Directive, the EIA Directive has a broad scope: it applies to all “projects which are likely to have significant effects on the environment” (Article 1); and the Environmental Statements prepared for all such projects must include information about all of the likely significant effects (Article 5), and must be subject to public consultation (Article 6). While the claimant stresses the need for any likely environmental effect to be “significant”, it seems to me that adopting the Claimant’s approach to the meaning of likelihood – that a significant environmental effect is “likely” if it cannot be excluded on the basis of objective evidence – would inevitably have the effect of both (a) materially increasing the number of projects within Annex II which would have to be the subject of an EIA; and (b) increasing the number of “likely” significant effects that would have to be included in all Environmental Statements, and consulted upon.
21. Many Environmental Statements for major projects which are now prepared on a “real risk” basis are already very lengthy. If, in addition to being required for more Annex II projects, Environmental Statements had to deal with every possible significant environmental effect, however unlikely, unless it could be excluded on the basis of objective evidence, there is a real danger that both the public when consulted and decision takers would “lose the wood for the trees”, thereby causing the EIA process to become less effective as an aid to good environmental decision making: see *R (Loader) v Secretary of State for Communities and Local Government* [2012] EWCA Civ 869, [2012] 3 CMLR 29, per Pill LJ at paragraph 46; and *Bateman* per Moore-Bick LJ at paragraph 19.



22. In addition to these wider policy considerations, it is necessary to consider the text of the EIA Directive as a whole. I accept the submission of Mr. Swift QC on behalf of the Defendant that the Claimant's approach to likelihood is inconsistent with the selection criteria that are set out in Annex III, which must be taken into account when a decision is being taken as to whether an Annex II project shall be made subject to an environmental impact assessment, ie. whether it is likely to have significant effects on the environment. The selection criteria include "Characteristics of the Potential Impact". The potential significant effects of projects must be considered in relation to the criteria set out in points 1 and 2 [the characteristics and the location of projects] and having regard in particular to:

- "(a) the extent of the impact (geographical area and size of the affected population);"
- (b) the transfrontier nature of the impact;
- (c) the magnitude and complexity of the impact;
- (d) the probability of the impact;
- (e) the duration, frequency and reversibility of the impact".  
(emphasis added)

Mr Swift submits, rightly in my view, that the need to have regard to "the probability of the impact" would be redundant if the test of likelihood was whether the risk of any impact, however improbable, could be excluded on the basis of objective evidence.

23. For these reasons, I consider that the differences between the scope, purpose and text of the two environmental Directives are such that it is unduly simplistic to say that, because one part of the text in both Directives is "essentially similar", the meaning of that part of the text in the context of Article 6(3) of the Habitats Directive as determined by the Grand Chamber in *Waddenzee* can simply be carried over into the EIA Directive. The "real risk" test adopted in the domestic authorities (above) incorporates the protective principle in the context of the EIA Directive.

24. Mr Wolfe submitted that even if we were minded to conclude that the Defendant had not erred in his approach to likelihood for the purposes of Article 7, a reference to the CJEU was required because this Court could not be convinced that applying the "real risk" test in the context of the EIA Directive would be correct as a matter of EU law: see *CILFIT (Srl) v Ministry of Health* [1982] ECR 1-3415 at paragraphs 16-20. In support of that submission he relied, in addition to the Grand Chamber's judgment in *Waddenzee* (above), upon five considerations, as follows:

- (a) the German text of Article 7(1);
- (b) the Russian text of the Convention on Environmental Impact Assessment in a Transboundary context, ("the Espoo Convention");
- (c) the interpretation of the Espoo Convention by that Convention's Implementation Committee;
- (d) the Aarhus Convention; and

(e) Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (“the SEA Directive”).

25. While both (a) and (b) support the proposition that “likely” in Article 7(1) has a broader meaning than “more likely than not”, they do not support the Claimant’s proposition that “likely” in Article 7(1) means “cannot be excluded no matter how unlikely.” In *Waddenzee* [2004] ECR I-7405 Advocate General Kokott explained in paragraph 69 of her opinion:

“As regards the degree of probability of significant adverse effect, the wording of various language versions is not unequivocal. The German version appears to be the broadest since it uses the subjunctive “könnte (could). This indicates that the relevant criterion is the mere possibility of an adverse effect. On the other hand, the English version uses what is probably the narrowest term, namely “likely”, which would suggest a strong possibility. The other language versions appear to lie somewhere between these two poles. Therefore, according to the wording it is not necessary that an adverse effect will certainly occur but that the necessary degree of probability remains unclear.”

26. There is no dispute that Article 7 of the EIA Directive gives effect to the Espoo Convention: see recital (15) to the EIA Directive. The English language version of the Convention uses the word “likely”. The Claimant obtained a translation of the Russian version of the Espoo Convention (of which there are three authentic texts, English, French and Russian). The translator states that the word “may” in the expression “may cause a significant adverse transboundary impact”, “fails to convey the meaning of likelihood and expresses a mere possibility which can be either high or low.” In a further statement, the translator explains that the Russian word for “may” “includes something which cannot be excluded or ruled out.” It seems that the Russian word for “may” conveys a flexible concept of possibility which ranges from a high possibility at one end of the spectrum to a possibility which cannot be excluded. As with the German text of the EIA Directive, the Russian text would not constrain the CJEU to adopt the lowest level of possibility inherent in the Russian version of the Espoo Convention. I will deal with the view expressed by the Implementation Committee after I have considered whether any assistance can be obtained from the Aarhus Convention and the SEA Directive.
27. There is no dispute that the EIA Directive must be construed so as to give effect to the Aarhus Convention. Recital (20) to the EIA Directive records the fact that:

“Article 6 of the Aarhus Convention provides for public consultation in decisions on the specific activities listed in Annex I thereto and on activities not so listed which may have a significant effect on the environment.” (emphasis added)

In broad terms, Annex I to Aarhus lists the kinds of projects that are listed in Annex I to the EIA Directive, while Annex II projects in the EIA Directive may fall within the second part of Article 6(1) of Aarhus. While the word “may” indicates a lower

threshold than “likely” (used in the sense of more likely than not), it does not indicate that the test for public consultation across the board – for all activities which may have a significant effect on the environment – is so low as to include any activity where a significant effect on the environment, however unlikely, cannot be excluded.

28. Article 3(2) of the SEA Directive requires an environmental assessment for all plans and programmes (a) which are prepared for certain purposes and which set the framework for future development consent of projects listed in Annexes I and II to the EIA Directive; and (b) “which in view of the likely effect on sites [special areas of conservation] have been determined to require an [appropriate] assessment pursuant to Article 6 or 7 of [the Habitats Directive].” In the latter case, the CJEU has held that an environmental assessment is required if a significant effect on the site cannot be excluded: see Case C-177/11 *Sylogos Ellinon Poleodomon kai Khorotakton v Ypourgos Perivallontos, Khorotaxias & Dimosion Ergon and Others*. This decision of the CJEU merely applies the *Waddenzee* approach to plans or programmes which are likely to have a significant effect on sites of Community importance, which have been designated as special areas of conservation by the Member States: see paragraphs 19-23 of the judgment. It does not address the issue in the present case: whether the *Waddenzee* approach to likelihood should be carried over into the EIA Directive.
29. For these reasons, I am not persuaded that any of these considerations assists the Claimant’s case. Against this background, I turn to the views expressed by the Implementation Committee (“the Committee”). The judge dealt with this issue in paragraphs 132-142 of her judgment. In summary, the Claimant had relied upon the endorsement by the Parties to the Espoo Convention at their Fourth Meeting of the findings of the Committee in Annex I that Ukraine had not complied with the Convention in, what for convenience I will call the “Danube Black Sea” case. In paragraph 54 in Part III of the Committee’s report “Consideration and Evaluation”, preceding its “Findings” in Part IV, the Committee said:
- “Article 3, paragraph 1. of the Convention stipulates that Parties shall notify any Party of a proposed activity listed in Appendix I that is likely to cause a significant adverse transboundary impact. The Committee is of the opinion that, while the Convention’s primary aim, as stipulated in Article 2, paragraph 1, is to “prevent, reduce and control significant adverse transboundary environmental impact from proposed activities”, even a low likelihood of such an impact should trigger the obligation to notify affected Parties in accordance with Article 3. This would be in accordance with the *Guidance on the Practical Application of the Espoo Convention*, paragraph 28, as endorsed by decision III/4 (ECE/MP.EIA/6 annex IV). This means that notification is always necessary, unless significant adverse transboundary impact can be excluded with certainty. This interpretation is based on the precautionary and prevention principles.” (emphasis added)”
30. The judge concluded that the Meeting of the Parties was not purporting to determine the legal position under the Convention, but was setting out a pragmatic approach for the parties to follow, and also said that the Committee had no status to give a legal ruling: see paragraph 135 of the judgment. At the Fourth Meeting, the Parties also

asked the Committee “To promote and support compliance with the Convention including to provide assistance in this respect, as necessary.” In response to that request the Committee published its Opinions, as expressed in the reports of its sessions, from 2001 to 2010. Those Opinions included its views expressed in paragraph 54 of Annex 1 to decision IV/2 (above).

31. In 2013 the European Commission published “Guidance on the Application of the Environmental Impact Assessment Procedure for large-scale Transboundary Projects.” Under the heading “Need for notification” the Commission’s guidance says:

“The Espoo Convention requires that the Party of origin notifies affected Parties about projects listed in Appendix 1 and likely to cause a significant adverse transboundary impact (Article 3(2)). The notification triggers the transboundary EIA procedure. The Espoo Convention’s primary aim is to *prevent reduce and control significant adverse transboundary environmental impact from proposed activities*’ (Article 2(1), but in fact the Party of origin is obliged to notify affected Parties (in accordance with Article 3 of the Espoo Convention) even if there is only a low likelihood of such impact. This means that notification is always necessary, unless significant adverse transboundary impact can be excluded with certainty.<sup>17</sup> This interpretation is based on the precautionary and prevention principles.” (emphasis added)

Footnote 17 cross-refers to paragraph 54 of decision IV/2 (above).

32. As I explained when granting permission to appeal, [2014] EWCA Civ 666, the Chair of the Committee wrote a letter dated 14<sup>th</sup> March 2004 to the United Kingdom Government. The Committee had requested a copy of Patterson J’s judgment, and had considered the matter between 25<sup>th</sup> and 27<sup>th</sup> February 2014 at its 30<sup>th</sup> session held in Geneva. The Committee’s letter dated 14<sup>th</sup> March 2014 expressly endorsed the view that it had expressed in the Danube Black Sea case, as to the circumstances in which transboundary consultation was required by the Convention:

“This means that notification is necessary unless a significant adverse transboundary impact can be excluded (decision IV/2, annex I paragraph 54)”

The letter continued:

“On the above grounds, the Committee found that there was a profound suspicion on non-compliance and decided to begin a Committee initiative further to paragraph 6 of the Committee’s structure and functions. In line with paragraph 9 of the Committee’s structure and functions, the Committee decided that the United Kingdom should be invited to the Committee’s thirty-second session (9-11 December 2014) to participate in the discussion and to present information and opinions on the matter under consideration.”

33. Having read the Committee's letter, I was satisfied that there was a compelling reason for granting permission to appeal. There was a need for this Court to decide whether it was possible to give a definitive ruling as to the approach to likelihood in the EIA Directive, or whether there should be a reference of that question to the CJEU. I have explained in paragraphs 16-23 (above) why I consider that the Defendant was not required to apply the *Waddenzee* approach to the likelihood of significant transboundary environmental effects under Article 7 of the EIA Directive. This is not a court of final appeal. If we had to apply *CILFIT* I could not say that I was convinced that the other Member States and the CJEU would necessarily conclude that the "real risk" approach is the correct approach to the likelihood of significant effects on the environment for the purposes of the EIA Directive. Does this mean that a reference to the CJEU is necessary for the purpose of deciding this claim?
34. Mr. Swift acknowledged that the threshold for the likelihood of significant effects on the environment for the purposes of the EIA Directive is a very important issue, with EU-wide implications. However, both he and Miss Lieven QC on behalf of the Interested Party submitted that a reference to the CJEU was not necessary for the purpose of determining this claim for judicial review, because no matter how low the threshold for a likely significant effect on the environment might be set by the CJEU, the Defendant's decision dated 19<sup>th</sup> March 2013 would still be lawful.
35. I accept that submission. There is an artificiality in the Claimant's claim. The Defendant was not writing an academic dissertation on the concept of likelihood in the EIA Directive, he was deciding whether to grant development consent for a particular project: the construction of an EPR nuclear power station, HPC. In its submissions, the Claimant posited a stark contrast between the "real risk" and the "cannot be excluded on the basis of objective information", approaches, to the issue of likelihood in the EIA Directive. The distinction between these two approaches to likelihood is clear as a matter of abstract legal analysis, but the Defendant, unsurprisingly in the context of a proposal for the construction of a nuclear power station, did not purport to apply a "real risk" approach. The disagreement between the approach adopted by the Defendant and the approach advocated in the Austrian expert report was not a disagreement as to whether the "real risk" approach or the "cannot be excluded on the basis of objective evidence" approach should be applied to the risk of a serious nuclear accident. It was a disagreement as to the point at which the significant environmental effects of a severe nuclear accident could properly be "excluded on the basis of objective evidence." Was that point reached only when it had been demonstrated that the probability of such a severe accident was zero; or was the Defendant entitled to conclude that that point had been reached in this case because the probability of a severe accident was very remote indeed – in circumstances where the Austrian expert report had calculated the probability of such an accident to be as low as 1 in 10 million years of reactor operation?
36. The true nature of the dispute in this case – whether the exclusion of a significant environmental effect from the EIA process is permissible only if it has been demonstrated that there is no risk whatsoever of it occurring, or if exclusion is permissible where it has been demonstrated that the risk is extremely remote – emerges most clearly from the response of the Department of Energy and Climate to the letter dated 14<sup>th</sup> March 2014 from the Espoo Implementation Committee (paragraph 32 above). In its letter dated 19<sup>th</sup> June 2014 the Department maintained



that the present case was very different from the Danube Black Sea case in which there was no doubt that the Convention was engaged:

“On any analysis, the risk of an accident occurring from the proposed new nuclear development at Hinkley Point C is extremely low. Given the very remote nature of the risk, it is difficult to quantify, and the estimates produced will depend to some extent on the accident scenarios considered. However, the literature on this issue is summarised in the European Commission’s 2005 Report ‘Externe – The Externalities of Energy, Methodology 2005 Update’, which points to a probability of major accidents (core meltdown plus containment failure) in the UK of  $4 \times 10^{-9}$ . This suggests that the potential for a major accident in the UK – the meltdown of the reactor’s core along with failure of the containment structure – is one in 2.4 billion per reactor year; by comparison, it is thought that the risks of a meteorite over a kilometre hitting the earth, which could have significant global environmental impacts, could be one in 0.5 million per year. The Austrian Government also commissioned its own expert analysis of the risks of an accident from a new nuclear development at Hinkley Point C, which expressed the risk of an accident as being not expected to occur more frequently than once in every 10 million years of reactor operation. On no natural understanding of the term could such a remote risk be considered to constitute a ‘likely significant effect’.”

37. The Claimant’s challenge to the Defendant’s decision in this case does not simply depend upon the proposition that the Grand Chamber’s approach in *Waddenzee* to the meaning of “likely to have a significant effect” in the Habitats Directive should be carried over into the EIA Directive, it also depends upon a very literal meaning being given to the Grand Chamber’s words “cannot be excluded on the basis of objective information” in its judgment in *Waddenzee*. If a remote risk can properly be excluded, the Claimant does not challenge the Defendant’s assessment that the remoteness of the risk in this case was such that it could be excluded. In order to succeed in this claim the Claimant has to establish that any risk, no matter how remote, cannot be excluded unless it has been demonstrated that there is no possibility of its occurring. It is, in effect a “zero risk” approach to the likelihood of significant environmental effects.
38. It would be surprising if the Grand Chamber had intended to impose such a high and inflexible threshold for “appropriate assessment”, even in the context of the Habitats Directive. However purposive the interpretation of the Habitats Directive, its text cannot be ignored. The word “likely”, and the concept of likelihood, implies at least some degree of flexibility. There comes a point when the probability (to use the word in Annex III to the EIA Directive) of a significant effect is so remote that it ceases to be “likely”, however broad the concept of likelihood. In *Waddenzee* the Grand Chamber said that, following an appropriate assessment, a project could be authorised only if the competent authority “have made certain that it will not adversely affect the integrity of that site. That is the case where no reasonable scientific doubt remains as

to the absence of such effects....” (see paragraph 17 above). Thus, certainty was equated with the absence of reasonable scientific doubt.

39. Even if the *Waddenzee* approach to likelihood is carried over into the EIA Directive, it must be open to a competent authority to conclude that the risk of a significant adverse effect on the environment is so remote (eg if it is more remote than the risk of a meteorite of over a kilometre hitting the earth) that there is “no reasonable scientific doubt” as to the absence of that adverse effect for the purpose of the EIA Directive. The competent authority does not have to be satisfied that there is no risk, however remote, that a severe nuclear accident will occur in order to be satisfied that there is “no reasonable scientific doubt” that such an accident will not occur. This approach is consistent with the guidance that is contained in the Planning Inspectorate’s *Advice note 12: Development with significant transboundary impacts consultation*.
40. I do not accept Mr. Wolfe’s submission that the Defendant failed to follow this advice from the Planning Inspectorate. When dealing with “Screening”, and with those cases in which it is necessary for the Secretary of State to determine whether or not a proposed development is likely to have significant effects on the environment in another EEA State, the Advice note say this:

“In reaching a view, the precautionary approach will be applied and following the court’s reasoning in the *Waddenzee* case such that ‘likely to have significant effects’ will be taken as meaning that there is a probability or risk that the development will have an effect, and not that a development will definitely have an effect...”

Mr. Wolfe emphasised the reference to the CJEU’s reasoning in *Waddenzee*; but the Advice note continues:

“As a rule of thumb (taking the precautionary approach), unless there is compelling evidence to suggest otherwise, it is likely that the Planning Inspectorate may consider the following [Nationally Significant Infrastructure Projects] as likely to have significant transboundary impacts:

- nuclear power stations; and
- off-shore generating stations in a Renewable Energy Zone.”

I accept Mr. Swift’s submission that evidence that the risk of a severe nuclear accident is not merely unlikely, but extremely remote, is capable of being “compelling evidence” that a proposed nuclear power station is not likely to have significant transboundary effects, since it is common ground that such effects would be likely to occur only if there was such an accident.

41. The contrast between the evidential basis for the low level of risk in the present case and the extent of the scientific uncertainty in the *United Kingdom* case to which the CJEU referred by way of analogy in its judgment in *Waddenzee* (see paragraph 14 above) is instructive. In the *United Kingdom* case the Spongiform Encephalopathy Advisory Committee (“SEAC”) had said that “it was not in a position to confirm

whether or not there was a causal link between BSE and the recently discovered variant of Creutzfeldt-Jacob disease, a question which required further scientific research” (paragraph 14). A similar position had been adopted by the Scientific Veterinary Committee of the European Union: while it was not possible on the available data to prove that BSE was transmissible to humans, in view of the possibility of such transmission, which the committee had always considered, it had recommended certain precautionary measures and that research on the question of transmissibility of BSE to humans be continued (paragraph 13). The recitals to the Directive that was challenged by the United Kingdom reflected the extent of the scientific uncertainty:

“Whereas under current circumstances, a definitive stance on the transmissibility of BSE to humans is not possible; whereas a risk of transmission cannot be excluded; whereas the resulting uncertainty has created serious concern among consumers; ... ”

42. In the present case, it is common ground that the probability of a severe nuclear accident is very low indeed. There may be an issue as to just how low that probability is (see the correspondence with the Implementation Committee, paragraph 36 above) but there is no doubt that the Defendant was entitled to describe it in his decision as a “very low probability”. The issue, therefore, is whether the risk of a significant effect on the environment can properly be excluded on the basis of a very low probability, or only upon the basis of a zero probability. In this case we are concerned with a proposal for a nuclear power station, and the environmental consequences of a severe nuclear accident. In that context, for obvious reasons, “very low probability” means very low probability indeed, far below the levels of probability (or “risk”) that might be regarded as acceptable in the context of other developments. Although Annex I to the EIA Directive includes other inherently dangerous projects, eg chemical installations for the production of explosives, where only the remotest of risks will be acceptable, the Directive covers a very wide range of projects in Annexes I and II. In the context of very many, if not most, of the projects listed in the Directive, it is difficult to see how it could seriously be contended that a significant effect on the environment which would not be expected to occur more frequently than once in every 10 million years could not properly be excluded from environmental impact assessment on the basis of objective information.
43. Annex III requires the Member States to consider both the magnitude and complexity of an environmental impact and the probability of such an impact when deciding whether an Annex II project is likely to have significant effect on the environment (see paragraph 22 above). As a matter of common sense, the greater the potential impact, the lower will be the level of probability at which the competent authority will decide that it should be subjected to the environmental impact assessment process: see Miller v North Yorkshire County Council, [2009] EWHC 2172 (Admin) per Hickinbottom J at paragraphs 31 and 32. This leaves an area of judgment for the competent authority – balancing the severity of any potential environmental harm against the probability of it occurring. It recognises the fact that some significant effects on the environment, eg a significant radiological impact, are much more significant than others. Given the wide range of projects covered by the EIA Directive and the express requirement to consider the probability of any impact, I am satisfied that, even if it is appropriate to apply the “cannot be excluded on the basis of

objective evidence” approach to the likelihood of significant effects on the environment in the EIA Directive, there is no realistic prospect of the Claimant’s “zero risk” approach being adopted by the CJEU. I would add that our attention was not drawn to any decision of a Court in which the Claimant’s approach to exclusion has been adopted. However purposive the interpretation of the EIA Directive, a “zero risk” approach to likelihood would be an interpretative step too far and would frustrate, rather than further the purpose of the Directive.

44. In reaching that conclusion, I have not ignored the views expressed by the Committee in its letter dated 14<sup>th</sup> March 2014. They provide the only possible support for a “zero risk” approach to the point at which a serious environmental impact may be excluded from the EIA process. While I respect the Committee’s view, it is not the function of the Committee to give an authoritative legal interpretation of the Convention. The correspondence with the Committee makes it clear that there is a dispute as to the proper interpretation of the Convention. Article 15 makes provision for the settlement of such disputes. If the dispute cannot be resolved by negotiation between the Parties it may be either submitted to the International Court of Justice, or referred to arbitration in accordance with the procedure set out in Appendix VII to the Convention.
45. The Committee does have an important role in promoting best practice under the Convention, and it is noteworthy that its conclusion in paragraph 54 of Annex I to decision IV/2 - that even a low likelihood of a significant adverse transboundary environmental impact would trigger the obligation to notify affected parties in accordance with Article 3 of the Convention [Article 7 of the EIA Directive] - is expressly based upon its “*Guidance on the Practical Application of the Espoo Convention*”, as endorsed by decision III/4. Thus, it would appear that the views expressed by the Committee are based upon a combination of its advice as to what would be best practice, and its view as to what is the legal position, under the Convention. I intend no criticism of the Committee when I say that, insofar as its decision in paragraph 54 of Annex I to decision IV/2 moves from advice as to what would be best practice to a statement of what the legal position is, it is not based upon any legal analysis (that is not surprising, the Committee is not a legally qualified body). Even if a “low likelihood” of a significant transboundary effect not merely should (as a matter of good practice), but does (as a matter of law) trigger the obligation to notify any affected party, the Committee will still have to consider the issue raised in this case: whether a “likelihood” may be so very low that it can be excluded for the purpose of transboundary consultation, or whether exclusion is permissible only when all risk has been eliminated. Of critical importance for present purposes, the Committee understandably focuses simply upon the terms of the Espoo Convention, and does not consider the need for the words “likely to have significant effects on the environment” to have a consistent meaning throughout the EIA Directive. For these reasons, the views expressed by the Committee in its letter dated 14<sup>th</sup> March 2014 do not persuade me that it is necessary for this Court to make a reference to the CJEU in order to determine this claim.

## Ground 2

46. The judge dealt with this issue in paragraphs 177-193 of her judgment. She concluded in paragraph 193:

“In my judgment there is no reason that precludes the Secretary of State from being able to have regard to, and rely upon, the existence of a stringently operated regulatory regime for future control. Because of its existence, he was satisfied, on a reasonable basis, that he had sufficient information to enable him to come to a final decision on the development consent application. In short, the Secretary of State had sufficient information at the time of making his decision to amount to a comprehensive assessment for the purposes of the Directive. The fact that there were some matters still to be determined by other regulatory bodies does not affect that finding. Those matters outstanding were within the expertise and jurisdiction of the relevant regulatory bodies which the defendant was entitled to rely upon.”

I agree with the judge. Had this ground of challenge stood alone I would not have granted the Claimant permission to apply for judicial review.

47. There is no dispute that the Defendant was in principle entitled to have regard to the UK nuclear regulatory regime when reaching a conclusion as to the likelihood of nuclear accidents: see *Gateshead Metropolitan Council v Secretary of State for the Environment* [1995] Env LR 37.

48. Many major developments, particularly the kind of projects that are listed in Annex I to the EIA Directive, are not designed to the last detail at the environmental impact assessment stage. There will, almost inevitably in any major project, be gaps and uncertainties as to the detail, and the competent authority will have to form a judgement as to whether those gaps and uncertainties mean that there is a likelihood of significant environmental effects, or whether there is no such likelihood because it can be confident that the remaining details will be addressed in the relevant regulatory regime. In paragraph 38 of his judgment in *R (Jones) v Mansfield District Council* [2004] 2 P & CR 14, Dyson LJ (as he then was) adopted paragraphs 51 and 52 of the judgment of Richards J (as he then was) which included the following passage:

“It is for the authority to judge whether a development would be likely to have significant effects. The authority must make an informed judgment, on the basis of the information available to it and having regard to any gaps in that information and to any uncertainties that may exist, as to the likelihood of significant environmental effects. Everything depends on the circumstances of the individual case.”

49. This is precisely what happened on the facts of the present case. The elaborate regulatory regime for nuclear power stations is described in the Witness Statements filed on behalf of the Defendant and the Interested Party. For present purposes, it is sufficient to note that by the time the Defendant made his decision dated 19<sup>th</sup> March 2013 the Office for Nuclear Regulation (“ONR”) had issued a nuclear site licence, and both the ONR and the Environment Agency had completed the Generic Design Assessment (GDA) process, including a severe accident analysis, for the EPR, the type of reactor to be used at HPC. All of the GDA issues had been addressed, and the ONR had issued a Design Acceptance Confirmation (“DAC”). The ONR had said



that it was confident that the design was “capable of being built and operated in the UK, on a site bounded by the generic site envelope, in a way that is safe and secure”. Site specific matters not covered by the GDA process would still need to be considered, but the ONR was confident that they could, and would, be addressed under the site licence conditions. As the ONR explained:

“Whilst the GDA process, leading to the issue of a DAC, is not part of the licensing assessment, the successful completion of GDA does provide confidence that ONR will be able to give permission for the construction, commissioning and operation of a nuclear power station based on that generic design.”

50. In view of this factual background, it might be thought that this case was the paradigm of a case in which a planning decision-taker could reasonably conclude that there was no likelihood of significant environmental effects because any remaining gaps in the details of the project would be addressed by the relevant regulatory regime. Undaunted, Mr. Wolfe submitted that there was a distinction between reliance upon a pollution regulator applying controls “which it has *already* identified in the light of assessments which it has *already* undertaken on the basis of a scheme which has *already* been designed”, which he said was permissible, and reliance upon “*current*” gaps in knowledge “being filled by the fact of the *existence* of the pollution regulator [who] will make *future* assessments... on elements of the project still subject to design changes...”, which was not.
51. There is no basis for this distinction, which is both unrealistic and unsupported by any authority. The distinction is unrealistic because elements of many major development projects, particularly the kind of projects within Annex I to the EIA Directive, will still be subject to design changes, and applying Mr. Wolfe’s approach those projects will not have “already been designed” at the time when an environmental impact has to be carried out. The detailed design of many Annex I projects, in particular nuclear power stations, is an immensely complex, lengthy and expensive process. To require the elimination of the prospect of all design changes before the environmental assessment of major projects could proceed would be self-defeating. The promoters of such projects would be unlikely to incur the, in some cases, very considerable expense, not to mention delay, in resolving all the outstanding design issues, without the assurance of a planning permission. If the environmental impact assessment process is not to be an obstacle to major developments, the planning authority (in this case the Defendant) must be able to grant planning permission so as to give the necessary assurance if it is satisfied that the outstanding design issues – which may include detailed design changes – can and will be addressed by the regulatory process.
52. In support of his submission Mr. Wolfe relied on the decision of the CJEU in Case C-435/97 *World Wildlife Fund (WWF) and Others v Autonome Provinz Bozen and Others* [1999] ECR I-5613. *Bozen* was concerned with whether there was a power under Article 4(2) of the EIA Directive to exclude from the environmental impact assessment process, from the outset and in their entirety, certain classes of projects falling within Annex II (paragraph 35). Unsurprisingly, the CJEU decided that it was not permissible to exempt whole classes of projects in advance from the obligation to carry out a screening exercise. The criteria and/or the thresholds mentioned in Article 4(2) must “facilitate examination of the actual characteristics of any given project” (paragraph 37 emphasis added). No project should be exempt from environmental

assessment “unless the specific project excluded could, on the basis of a comprehensive assessment be regarded as not being likely to have [significant effects on the environment].” (paragraph 45 emphasis added)

53. *Bozen* was not concerned with the level of detail that is required about a project if, as in the present case, an environmental assessment is carried out. The CJEU was not asked to, and did not address the issue raised by Ground 2 in the present case: at what point may the competent planning authority conclude that it has sufficient information about the “actual characteristics” of a project, and/or that the environmental assessment is sufficiently “comprehensive”, to enable it to decide that a significant environmental effect is not likely because any outstanding details will be satisfactorily addressed by the relevant pollution regulator.
54. I have considered Ground 2 upon the basis that, as submitted by the Claimant, it has a life of its own even if Ground 1 is rejected. In the abstract, the Claimant’s submission is correct – the circumstances in which a planning authority may rely upon a pollution regulator is a separate issue – but on the facts of this case Ground 2 has no substance if Ground 1 is rejected. The Claimant does not contend that the Defendant’s decision that severe nuclear accidents were very unlikely to occur was unreasonable. There has been no suggestion by any Member State, or any recognised scientific body, that such accidents are anything other than very unlikely. If Ground 1 is rejected, and it is concluded that the Claimant’s “zero risk” approach is not well founded, there is nothing to suggest that the Defendant’s assessment of the degree of unlikelihood of the risk of such accidents was erroneous. The views expressed by the ONR, the European Commission, the Austrian expert report and the Radiological Protection Institute of Ireland, were all to the same effect: that the risk of a severe nuclear accident is very low indeed. If the Defendant was not required to adopt a “zero risk” approach there is no basis for a submission that he should not have concluded that the risk was so unlikely that the environmental effects of such an accident should not be “scoped in” (ie should be excluded) for environmental impact assessment purposes.

### **Conclusion**

55. A reference to the CJEU is not necessary. I would dismiss this application.

### **Lady Justice Gloster:**

56. I agree.

### **Lord Justice Longmore:**

57. I also agree.



# The Sizewell C Project

SZC Co.'s Response to the Secretary of State's Letter dated 31 May 2022: Appendix 2 - SZC Co.'s response to comments made by Natural England related to the Habitats Regulations Assessment (Air Quality) in their letter to the SoS dated 14 June 2022

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Revision: 1.0

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**Appendix 2: SZC Co.’s response to comments made by Natural England related to the Habitats Regulations Assessment (Air Quality)  
in their letter to the SoS dated 14 June 2022**

<b>Reference</b>	<b>NE Comment</b>	<b>SZC Response</b>
1.4.2	Having reviewed the assessment Natural England advise that there will be no adverse effects on site integrity of Minsmere-Walberswick Special Protected Area (SPA) and Sandlings SPA arising from changes in air quality	Noted.
1.4.4	Furthermore, .... An ‘in-combination’ air quality assessment is therefore required at the screening stage of the Applicants shadow HRA for Natural England to fully assess whether an adverse effect on site integrity due to the impacts of changes in air quality can be excluded for the qualifying features of Minsmere-Walberswick SAC and Ramsar. However, an in-combination air quality assessment has yet to be provided by the Applicant.	<p>The potential effects of the Sizewell C Project, both alone and in-combination with other plans and projects, has been assessed within the DCO application and examination submissions.</p> <p>Furthermore, SZC Co.’s response to question 7.3 of the Secretary of State’s request of 18 March 2022 made explicit provision to the assessment of in-combination effects (taking account of the updated modelling report that was also submitted in the same response). SZC Co. reminded Natural England of this point in recent discussions between the Parties so it is disappointing to see the claim re-stated.</p> <p>In summary, the air quality assessment provides Natural England with a robust basis for understanding both project-wide and in-combination effects, for the reasons set out in the response to comment ref 1.4.11.</p>
1.4.5	Detailed advice - The assessment, described as an “indicative air impact assessment”, includes a lot of assumptions and averages (e.g. in paragraphs 1.1.7 and 2.1.4 in terms of control measures and emission parameters) which we believe does not provide the necessary level of certainty required under the Habitat Regulations to reach a robust, evidence-based conclusion at this time. Assumptions must be clearly presented and justified as part of the assessment.	<p>At this stage in the development of a major infrastructure project it is normal for an assessment to have to be based on reasonable conservative assumptions, using a ‘Rochdale envelope’ approach, that represent the type of plant and working practices that would be used and not the detailed inventory of plant by make and model or day by day schedules of work that would be developed during detailed design work after the granting of a DCO.</p> <p>The air quality assessment is transparent in describing the assumptions made and provides a conservative assessment to inform decision making. The level of detail provided is comparable to – or</p>

**Appendix 2: SZC Co.’s response to comments made by Natural England related to the Habitats Regulations Assessment (Air Quality)  
in their letter to the SoS dated 14 June 2022**

		<p>greater than – that presented and assessed on other granted DCOs including, for example, Eggborough Power DCO, West Burton C DCO and South Humber Bank Energy Centre DCO.</p> <p>Importantly, the modelled scenarios include all plant that are scheduled to be used at any time within each phase, as if they were all present at the same time. This represents a precautionary approach to the assessment.</p> <p>Furthermore, the application of the lower Critical Load from the range for each habitat is highly precautionary. By way of comparison, if the upper end of the Critical Load range was applied in the assessment, all locations within the Minsmere European sites would experience combined impacts that are less than 1% of the Critical Load and could, therefore, be considered to be imperceptible.</p> <p>With respect to Natural England’s comment on control measures, regulation of emissions from the diesel generators will be through an Environmental Permit required from the Environment Agency. The operation of the diesel generators will therefore be assessed and controlled by the Environment Agency through the permitting process. It is appropriate for the Secretary of State to rely upon the proper and robust operation of that process (in accordance with relevant policy in EN-1 and EN-6).</p> <p>In summary, SZC Co. is confident that the assessment is precautionary and provides a reliable assessment of ‘worst case’ impacts based on the current evidence that is available.</p>
1.4.7	The assessment’s inference appears to be that the impact on European sites is negligible and that there will be no likely significant effect on Minsmere-Walberswick SAC and Ramsar site. Section 3.2.2 states that predicted concentration during phases 1 and	Tables 15 and 16 also report the predicted environmental concentrations (PEC) and the PEC as a percentage of the critical levels. This information is used in the next assessment step to test if the PEC is less than 70% of the critical level value. The greatest PEC



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	<p>2 are insignificant at all of the habitat sites, however Tables 15 and 16 show multiple exceedances of the annual NOx Cle threshold. Table 24 clearly indicates that the threshold is also exceeded for nitrogen deposition at several designated features. These features are sensitive to direct effects from NOx toxicity as well as indirect effects as a result of nitrogen deposition. In accordance with the precautionary approach required at screening, this exceedance of the threshold triggers the need for an appropriate assessment. No evidenced justification is given as to why the process required under the Habitat Regulations would not be relevant in this case.</p>	<p>value is 46% of the relevant critical level for annual mean NOx and is, therefore, well below the 70% threshold for further assessment. It would be more appropriate for the air quality modelling report to have used the phrase ‘no further assessment is required’ than to have used the phrase ‘insignificant’ but they are to all intents and purposes synonymous. In any event, the toxicity effects were then considered in the shadow HRA.</p> <p>For nitrogen deposition, SZC Co.’s response to question 7.3 of the Secretary of State’s request of 18 March 2022 assessed the effect where the PC/Critical Load exceeds 1% (as previously pointed out to Natural England). SZC Co. wishes to highlight that the response to question 7.3 focussed on nitrogen deposition rather than NOx because it was understood that deposition was Natural England’s only remaining potential concern at the close of examination based on Natural England’s comment in REP10-199 (i.e. paragraph 2.7.1 of REP10-199 stated “<i>Natural England remain concerned on the increased deposition of nitrogen oxides (NOx) arising from diesel generators on the Minsmere to Walberswick European sites only</i>”).</p>
1.4.7	<p>It is also not clear if the Applicant has included other project-wide emission sources that could also contribute such as Heavy Goods Vehicles and associated increases in annual average daily traffic.</p>	<p>The air quality assessment is clear on the fact that a column has not been included to the results tables to report the contribution of transport emissions. Had such a column been included the reported impact would have been no change to the reported values, as the sensitive features are too remote from the transport network. This has been extensively evidenced during the DCO examination process.</p> <p>The potential for significant effects from the combined impact from all affected road and rail transport emission sources in Norfolk, Suffolk and Essex upon all relevant receptors including Minsmere-Walberswick SAC and Ramsar and on Sandlings SPA have been quantified through the use of dispersion modelling. The methods used were considerably more conservative than those outlined in Natural England’s general guidance. Book 6 of the Environmental Statement,</p>

**Appendix 2: SZC Co.’s response to comments made by Natural England related to the Habitats Regulations Assessment (Air Quality) in their letter to the SoS dated 14 June 2022**

		<p>(<a href="https://sizewellcdco.co.uk/wp-content/uploads/2020/06/SZC_Bk6_ES_V2_Ch12_Air-Quality.pdf">https://sizewellcdco.co.uk/wp-content/uploads/2020/06/SZC_Bk6_ES_V2_Ch12_Air-Quality.pdf</a>) concluded at paragraph 12.6.73 that:</p> <p><i>“Minsmere – Walberswick Heaths and Marshes SAC, SPA, Ramsar and Sizewell Marshes/levels SSSI will experience a maximum contribution of pollutants from proposed development traffic of less than 1% of critical levels.”</i></p> <p>The dispersion modelling described above informed the Shadow HRA for the Sziewell C Project and, therefore, all project-wide emission sources are reflected in the modelling and the Shadow HRA.</p> <p>The most impacted location at Minsmere-Walberswick from potential traffic emissions occurs at the verge of the B1125 (Blythburgh Road) where it adjoins the SSSI designated section of the site, with the reported contribution to the annual mean NOx concentration at 1.1 µg/m<sup>3</sup> during the peak construction period. The boundary of the SAC, SPA and Ramsar site is several hundreds of metres further from any road and the contribution to annual mean NOx concentrations reduces to &lt;0.1 µg/m<sup>3</sup> during the peak construction period. The area of the Minsmere – Walberswick Heaths and Marshes SAC, SPA, Ramsar most affected by main site construction works is represented by receptor location E2a in the earlier assessments and is located approximately 5.9 km from the verge of the B1125 and more than 500m from any road or rail emission source.</p> <p>As the likely effects of the emissions had already been established at an earlier point in the DCO process and those effects at the SAC, SPA and Ramsar site were known to demonstrate no change in concentrations due to transport emissions, this source was not included in the updated air quality assessment considering in-project and in-combination effects, since the transport effects could be screened out.</p>
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**Appendix 2: SZC Co.’s response to comments made by Natural England related to the Habitats Regulations Assessment (Air Quality) in their letter to the SoS dated 14 June 2022**

		<p>Evidence of the predicted impacts from the dispersion modelling of combined transport (road and rail) emissions are set out in Appendix B of the Environmental Statement (<a href="https://sizewellcdco.co.uk/wp-content/uploads/2020/06/SZC_Bk6_ES_V2_Ch12_Air_Quality_Appx12A_12F_Part_1_of_2.pdf">https://sizewellcdco.co.uk/wp-content/uploads/2020/06/SZC_Bk6_ES_V2_Ch12_Air_Quality_Appx12A_12F_Part_1_of_2.pdf</a>) including annual mean NOx concentrations, nitrogen deposition rates, and acid deposition rates, together with Figure 12.1 illustrating receptor locations used in the transport emissions assessment that informed the Shadow HRA.</p>
1.4.8	<p>Potential impacts of excess airborne pollutants and subsequent deposition on the European dry heathland qualifying feature of Minsmere-Walberswick SAC include, but are not limited to, changes in species composition from ericoid species (heather) to grass species, increased risk of heather beetle attacks on <i>Calluna vulgaris</i> and general increased nitrogen inputs due to initial nitrogen stimulated growth for <i>Calluna</i> species, increased litter, nitrogen return and mineralization. Similarly, the annual vegetation of drift lines qualifying feature can be very variable, with similarities with grasslands, heaths, wetlands, and scrub with many locations being important for lichen heath vegetation and is therefore sensitive to aerial concentrations of pollutants and subsequent nitrogen deposition.</p>	<p>With regard to the Minsmere to Walberswick Heaths and Marshes SAC, it is important to note that the Site Improvement Plan for the Minsmere to Walberswick Heaths and Marshes (which includes the SAC and the Minsmere-Walberswick SPA) lists nitrogen deposition as a specific threat <b>only</b> to the European dry heaths qualifying feature of the SAC. The European dry heaths qualifying feature, however, is not present within the area predicted to experience deposition exceeding 1% of the Critical Load. This point is made in SZC Co.’s response to question 7.3 of the Secretary of State’s request of 18 March 2022 (and also in REP10-153). On this basis, and with specific reference to the conservation objectives of the SAC, it can be concluded that there would not be an adverse effect on the integrity of the SAC due to nitrogen deposition.</p> <p>Natural England’s statement regarding annual vegetation of drift lines qualifying feature is a generic statement (and has not been raised previously by Natural England). However, this statement is not relevant to the habitat present within the SAC, as evidenced by the SAC citation and Natural England’s <i>Supplementary advice on conserving and restoring site features</i>.</p> <p>Furthermore, a very relevant point with regard to assessing the potential impact of nitrogen deposition is that the application of the lower Critical Load from the range for each habitat is highly precautionary. If the upper end of the Critical Load range was applied</p>

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		<p>in the assessment, all locations within the Minsmere European sites would experience combined impacts that are less than 1% of the Critical Load and could, therefore, be considered to be imperceptible.</p>
<p>1.4.9</p>	<p>The uncertainties and omissions in the air quality assessment mean Natural England cannot yet advise upon the presence or absence of adverse effects on site integrity at Minsmere-Walberswick SAC and Ramsar as no appropriate assessment has been carried out in the shadow HRA by the Applicant.</p>	<p>The reference to ‘omissions’ is understood to be limited to:</p> <ul style="list-style-type: none"> <li>• The contribution of road traffic emissions of NOx (see above response to 1.47).</li> <li>• The contribution of road traffic emissions of ammonia (see below response to 1.4.10) and;</li> <li>• Inclusion of relevant projects and plans (see below response to 4.1.11).</li> </ul> <p>The reference made to uncertainties is understood to be in regard to the air quality assessment being based on certain design assumptions, however as noted in the response to 1.4.5, this is consistent with that presented and assessed on other granted DCOs . For example, reasonable conservative assumptions have been used in the assessment where the make and model of equipment to be used on site during the construction works has yet to be decided. It is normal for decisions to be made on the best evidence and understanding available at the time of the consent application, recognising that the environmental permit will control the operation of and emissions from generators and that any such permit can only be granted provided that it does not result in any unacceptable effects on the environment. Natural England will be consulted by the Environment Agency as part of the determination of any such permit.</p> <p>In summary, no relevant information has been omitted from the air quality assessment and the ‘uncertainties’ are reasonable for this stage of the project (and are taken into account in the ‘Rochdale envelope’ approach that has been used on a precautionary basis).</p>

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		<p>It is simply not that case that “no appropriate assessment has been carried out in the shadow HRA by the Applicant”. SZC Co.'s assessment is set out in sections 7.4, 7.7 and 7.8 of the Shadow HRA Report [APP-145] with supplementary analysis of the potential for inter-pathway effects provided in Appendix 1A of the Shadow HRA Report Addendum [AS-174]). During the examination, a number of other submissions have been made of relevance to this effect pathway, as follows:</p> <ul style="list-style-type: none"> <li>• Section 11.3 of [REP3-042], responding to Natural England's Written Representation [REP2-153].</li> <li>• Section 14.4 of [REP5-119], responding to concerns raised by Heveningham Hall Estate [RR-0908 and REP2-287]. Section 14.4 of [REP5-119], responding to concerns raised by Heveningham Hall Estate [RR-0908 and REP2-287]. SZC Co. has provided a further response to Heveningham Hall Estate at Deadline 10 in connection with its comments relating to in-combination effects (see item 4 of Response to ExA's Request for Further Information (Doc Ref. 9.123)).</li> </ul> <p>Further assessment is provided in REP10-153 and in SZC Co.'s response to question 7.3 of the Secretary of State's request of 18 March 2022.</p>
1.4.10	<p>Furthermore, the Applicant has not assessed ammonia emissions as part of the updated air quality report. There is growing evidence to support the significance of ammonia as a source of pollution from vehicle emissions. Ammonia is a source of nitrogen deposition and can act in-combination with NOx to increase deposition experienced on a designated site. Ammonia also has</p>	<p>While we recognise this is an active area of research activity, and at some point in the future, guidance may be published on assessment methods for ammonia, the current statutory guidance is clear that the list of emissions from road traffic requiring assessment does not include ammonia. It would be inappropriate use of unofficial assessment methods that are not in line with assessment guidance if ammonia emissions from traffic were to be assessed at this stage. Nevertheless, the modelling does include the combined NOx contribution of the entire modelled road network (affected road links in</p>

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	<p>direct toxic effects upon sensitive species. Natural England has advised that the impacts of ammonia from vehicle emissions should be considered at the appropriate assessment stage, particularly where case specific circumstances would benefit from such an analysis (for example, where there are significant exceedances of the critical load).</p>	<p>Essex, Norfolk and Suffolk), and the contribution from traffic emissions to the predicted annual mean concentrations of NOx is less than 0.1 µg/m<sup>3</sup>. The ammonia contribution from traffic will be considerably less than the NOx contribution.</p>
<p>1.4.11</p>	<p>Furthermore, the Applicants air quality assessment is a culminative assessment of project-wide emissions and not an in-combination assessment, which is what is required at the appropriate assessment stage of the HRA to comprehensively assess potential impacts on designated sites. The alone assessment should include the current background pollution and any live plans or projects since the data was last updated. The in-combination assessment should include all relevant sources of air pollution (from across sectors) which are 'live' at the time of assessment. The need for in-combination assessment arises at both the screening stage for LSE (likely significant effects) and the appropriate assessment stage. The need for appropriate assessment arises when the project is found to have a likely significant effect on a European site either alone or in combination with other plans or projects at the screening stage.</p>	<p>The air quality assessment is both a cumulative assessment of project-wide emissions and also an in-combination assessment (i.e. alone and in-combination).</p> <p>At the time the air quality assessment was undertaken, a review of planning applications within 15km of the receptors was undertaken to ensure the inclusion all relevant sources of air pollution (from across sectors) which were 'live' at the time of assessment. No relevant project or plans were identified.</p> <p>A further review undertaken on 14<sup>th</sup> June 2022 confirmed that the situation remains unchanged. Natural England have not shared details of any relevant plans or projects they believe have been omitted.</p> <p>The reported effects for this specific assessment remain identical whether it is entitled as a cumulative assessment of project-wide emissions or as an in-combination assessment</p> <p>Finally, SZC Co.'s response to question 7.3 of the Secretary of State's request of 18 March 2022 included assessment of in-combination effects.</p>



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1.4.12	<p>Finally, Natural England recognise that at the Minsmere-Walberswick SAC and Ramsar site the background levels of Nitrogen and sulphur already exceed the CLe. Whilst it is not the Applicant’s responsibility to get concentrations and loadings to below the threshold, they must not undermine Natural England’s ability to reach the conservation objectives of the site and is not a justification to allowing further deposition, especially when they have been found to be significant (&gt; 1% of the CLe and CLo) as the potential for restoration risks being undermined which is a conservation objective of the site.</p>	<p>As noted in response to point 1.4.7, the greatest PEC value is 46% of the relevant critical level, for annual mean NOx. This is well below the 70% threshold for further assessment.</p> <p>With respect to deposition, this is assessed in SZC Co.’s response to question 7.3 of the Secretary of State’s request of 18 March 2022.</p> <p>As noted in response to point 1.4.8, the Site Improvement Plan for the Minsmere to Walberswick Heaths lists nitrogen deposition as a specific threat to the European dry heaths qualifying feature of the SAC, which is not present within the area predicted to experience deposition exceeding 1% of the Critical Load as a result of emissions from the project.</p> <p>The shadow HRA does not simply use the fact that background levels already exceed the Critical Load as justification that further deposition is acceptable. It is a valid ecological argument (as set out in SZC Co.’s response to question 7.3 of the Secretary of State’s request of 18 March 2022) that any botanical effect would be expected to be significantly less than it might be if background nitrogen deposition rates were lower. This is supported by Natural England Commissioned Report 21019, Table 21 and Appendix 5 which show that the scale of change in various parameters from adding a given dose of nitrogen is smaller when the existing deposition rates are higher.</p>