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| ONR Project Assessment Report  Hunterston B EIADR Application for Consent Project Assessment Report |



**Report Title**: Hunterston B EIADR Application for Consent Project Assessment Report

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# Executive summary

The intention of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations, 1999, as amended (EIADR) is to involve the public through consultation in considering the potential environmental impacts of a decommissioning project, and to make the decision-making process open and transparent. Since EIADR entered into force in 1999, the decommissioning of nuclear power stations and other nuclear reactors within the scope of EIADR may only proceed with consent from the Office for Nuclear Regulation (ONR). To obtain consent, a licensee must submit an environmental statement to us, which presents a detailed environmental impact assessment for the proposed decommissioning project and the mitigation measures to be used to avoid or minimise any significant adverse impacts on the environment, together with a non-technical summary of this information. This will be considered by us during an extensive public consultation. If the project is considered acceptable, we will grant consent for the decommissioning project to commence.

This report presents the findings of the assessment of, and the resulting decision on, the Application for Consent submitted by EDF Energy Nuclear Generation Ltd on 1 December 2023 to decommission Hunterston B power station. The assessment considered the environmental statement and supporting documents, the responses received during our three month public consultation, and the output of a technical review conducted by our technical support contractor.

The environmental impact assessment concluded that the only significant adverse environmental impacts would be temporary visual disruptions to the views of the power station for people in the local area and socioeconomic impacts on the local employment market and workers at Hunterston B as they are released from their roles during certain phases of the decommissioning project. The environmental statement proposes suitable mitigation measures to reduce these impacts as far as is reasonably practicable. Our assessment accepted and agreed with these conclusions and judged the environmental statement to be complete, of an adequate quality, and in line with relevant good practice.

This assessment recommends granting consent and attaching six conditions to the consent decision (see Appendix 2 for the full list).

Table 2: List of abbreviations

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| Term/Acronym | Description |
| EEA | European Economic Area |
| EIA | Environmental impact assessment |
| EIADR | Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations, 1999, as amended |
| ES | Environmental statement |
| HES | Historic Environment Scotland |
| HNB | Hunterston B nuclear power station |
| HRA | Habitats Regulations Appraisal |
| HSE | The Health and Safety Executive |
| ONR | Office for Nuclear Regulation |
| PAO | Pre-application Opinion |
| SEPA | Scottish Environment Protection Agency |
| TSC | Technical support contractor |

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# Permission requested

1. On 1 December 2023, EDF Energy Nuclear Generation Ltd (EDF, the ‘licensee’) submitted to the Office for Nuclear Regulation (ONR) its Application for Consent to decommission the Hunterston B nuclear power station (HNB) in West Kilbride, Scotland under the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations, 1999, as amended (EIADR). In line with our arrangements [1] [2], this Project Assessment Report (PAR) has been produced to document our view on the adequacy of the Application for Consent. A decision letter has also been produced to communicate our decision to the licensee.

# Background

1. EIADR is a legal instrument that requires the environmental impact of decommissioning nuclear power stations and other nuclear reactors to be considered in detail before consent for the decommissioning project to commence can be granted. The intention of EIADR is to involve the public through consultation in considering the potential environmental impacts of a decommissioning project, and to make the decision-making process open and transparent. To obtain consent, the licensee must submit an environmental statement (ES) to us which presents a detailed environmental impact assessment (EIA) for the proposed decommissioning project and any features of the project or measures envisaged to avoid, prevent or reduce and, if possible, offset, any likely significant adverse effects on the environment.
2. In order to inform our consent decision, we are required to consider the ES and the supporting documents and consult with relevant consultation bodies, which includes the relevant regulatory authorities, such as the appropriate environmental agency and local highway and planning authorities, together with the public and any other interested parties. As such, we conducted a three month consultation on the HNB Application for Consent and sought views from all of these parties. The responses can be found on our website (www.onr.org.uk).
3. A Pre-application Opinion (PAO) is an optional step in which a licensee can seek our opinion as to the content of their Application for Consent. This assessment considered the points raised in our PAO [3] provided to EDF in response to the HNB Scoping Report [4] in October 2022. Our PAO took into account comments received on the scoping report consultation and the outputs of a technical review undertaken by a technical support contractor (TSC) [5]. We highlighted a number of areas where the scope of the EIA could be clarified or expanded; these were followed up in the assessment of the ES.
4. HNB ceased generating electricity on 7 January 2022. Since then, one of the reactors has been defueled whilst defueling of the other reactor is ongoing. If consented, the decommissioning works would include the dismantling and deconstruction of buildings and structures in areas within and outside of the nuclear site licence boundary that are part of the power station. Under EIADR, dismantling or decommissioning of a nuclear power station or nuclear reactor is not treated as having commenced unless plant or equipment is disabled or removed for the purpose of permanently preventing the continued operation of that station or reactor. Following defueling, ownership of HNB will transfer to the Nuclear Decommissioning Authority and the site will then be operated by Nuclear Restoration Services (formerly Magnox Ltd).

# Assessment work carried out by ONR in consideration of this request

1. The full methodology and assessment of the ES [6] is presented in the assessment report [7]; a summary is provided here. We conducted a three month public consultation exercise, running from December 2023 to March 2024. At the end of the consultation period, seven responses were received from six organisations (see Appendix 1), including the Scottish Environment Protection Agency (SEPA), NatureScot, Historic Environment Scotland (HES), and the Hunterston Site Stakeholder Group, which comprises representatives of local councils, local community groups, local residents and other interested stakeholders.
2. A review of the ES and its supporting documents was undertaken to judge whether the contents of the ES [6] meets the regulatory requirements of EIADR. This included checking the structure and logic of the ES, as well as the overall quality of the data, judgements and conclusions presented. In addition, in line with our Enforcement Policy [8], a sampling approach was used to conduct a detailed assessment of the topics in the ES which are considered to present the most environmental risk and/or topics which received the most attention during the public consultation on EDF’s scoping report. These topics included:

* Marine biodiversity
* Traffic and transport
* Soils, geology, and hydrogeology
* People and communities

1. The assessment was supported by a technical review of the ES carried out by our TSC [5]. The TSC’s review and the responses from the public consultation informed our judgement as to whether consent for the project should be granted. Consideration was given to whether relevant good practice had been followed in the EIA process to reach conclusions about the likelihood of significant adverse environmental effects occurring as a consequence of the project and how effects will be prevented, reduced, or offset through mitigation and monitoring measures. The suitability of these mitigation measures was also reviewed and commented on by expert stakeholders, such as SEPA, NatureScot, and HES. Our assessment also considered whether or not there are likely to be significant adverse environmental impacts of the decommissioning project on other European Economic Area (EEA) states.
2. The Conservation (Natural Habitats.) Regulations 1994 (hereafter referred to as the Habitats Regulations) in Scotland require competent authorities (in this case, ONR) to make an appropriate assessment of the implications of a project or plan on a European site. The term ‘European site’ is used to refer to what were previously known as ‘Natura’ sites. This recognises that Special Protection Areas and Special Areas of Conservation protect species and habitats shared across Europe and were originally designated under European legislation. Under EIADR Regulation 4A(2), ONR must be satisfied that an assessment under the Habitats Regulations has been co-ordinated and that the conclusions of the assessment have been considered in the EIA, where applicable. EDF submitted to us a Habitats Regulations Appraisal (HRA) Report [9] alongside the ES. We assessed this report to ascertain that the decommissioning project will not adversely affect the integrity of any European site.
3. EIADR provides us with the power to attach conditions to any consent that we grant, as considered necessary or desirable in the interests of limiting the impact of that project on the environment. Such conditions usually require the licensee to prepare and implement an environmental management plan (EMP). The EMP identifies mitigation measures, describes the implementation and effectiveness of mitigation measures, and describes changes to mitigation measures and reasons for changes in light of experience. In such circumstances, a copy of the EMP and its subsequent annual revisions must be sent to us and made available to the public. We must also be notified in advance of any proposed significant changes to the mitigation measures in the plan. EDF provided an outline EMP [10] to us alongside the ES on the basis that the first official issue of the document would be provided after the consent decision has been made. Since the EMP is not required as part of an Application for Consent, we did not assess the document. However, it is referenced throughout the ES and provides a useful summary of the proposed mitigation measures in the EIA.

# Matters arising from ONR’s work

1. The detailed review prompted technical queries posed to EDF on the content of the ES. Specifically, greater granularity was requested on the project description for the marine works so that the worst-case scenario considered in the assessment of effects on marine receptors could be understood. Justification for the assessment methodologies used in the traffic and transport and the people and communities assessments were clarified by EDF.
2. Significant adverse environmental effects were identified in two of the 16 technical chapters. Firstly, there will be significant effects on the views of the power station for people in the local vicinity of the HNB site, including on Power Station Road and Ayrshire Coastal path. However, the effects will be temporary due to the phased nature of the project. EDF plans to clad the reactor building safestore with dark/greyscale colour material which we consider to be a suitable mitigation measure to reduce the adverse visual effect. Significant visual effects were also identified on other viewpoints as a result of the decommissioning project interacting cumulatively with other projects proposed in a 10 km search radius. However, the assessment considered these cumulative effects to be primarily due to the other projects and not as a result of HNB decommissioning, namely the construction of an offsite cable factory and the ongoing decommissioning at Hunterston A power station.
3. Secondly, significant adverse effects are anticipated on employment markets and the HNB workers due to their release from site employment as the project proceeds. EDF proposed a suite of mitigation measures to reduce these effects, such as offering enhanced redundancy packages and operating a site socio-economic programme. We consider these measures to be adequate and accept that these effects identified are the inevitable and unavoidable consequence of a nuclear decommissioning project.
4. During the consultation, two developments near to HNB were identified which were not considered in EDF’s cumulative impact assessment. EDF subsequently provided evidence of its consideration of the potential inter-project effects of these two developments on the decommissioning project. Firstly, the Millport Coastal Protection Scheme (application reference number: 00009702) is due to complete works by autumn 2024, therefore there would be no temporal overlap between this and the decommissioning project, and hence no inter-project effects are anticipated. Secondly, the Hunterston Construction Yard upgrade project (application reference number: 23/00757/EIA) is currently in the scoping stage and so does not yet have a fixed and complete design, however, there is potential for the project and the proposed works to temporally overlap. There is potential for inter-project effects to occur in the marine environment where the zone of influence would overlap in relation to marine biodiversity receptors. However, since the EIA of the decommissioning project identified negligible or minor effects on marine receptors, the Hunterston Construction Yard development application would have to consider any resulting inter-project effects in its EIA and provide any mitigation as necessary. We are therefore content and have confirmed that all relevant developments have been considered in the EIA.
5. The consultees raised a number of topics that were relevant to the decommissioning process but which did not necessarily require detailed consideration under the EIA process under EIADR. Consultees also raised a number of topics that we considered had been dealt with reasonably in the ES, when the long timescale of the project and resulting uncertainties are taken into account. Consequently, we decided not to pursue such topics for the purposes of further information.
6. It should be noted that if a change to the decommissioning project may have significant adverse effects on the environment, then the licensee must apply to us for a determination as to whether an EIA for that change should be conducted (under Regulation 13 of EIADR). If so, the licensee would have to apply for consent and prepare an ES for public consultation under EIADR. The change to the decommissioning project cannot be carried out until such consent is granted.

# Conclusions

1. Based on the work carried out by ONR, I judge that the ES submitted by EDF contains all of the relevant information required by EIADR and identifies the likely significant environmental effects of the HNB decommissioning project, whilst accounting for the uncertainties and assumptions in the forecasting methods and data used to support the EIA. EDF used ‘worst-case’ scenarios for the various environmental aspects in the EIA, which adopts the precautionary principle, in line with relevant good practice, and provides assurance that any environmental impacts are likely to be less than those determined by the assessment. The ES proposes suitable measures envisaged to avoid, prevent, and reduce any identified significant adverse effects on the environment and sets out the proposed monitoring arrangements.
2. EDF’s screening exercise outlined in the HRA identified a lack of pathways for likely significant effects on European sites due to the decommissioning project. It therefore concluded that there is no requirement for further assessment to be undertaken, which I agree with. This judgment was supported by consultee comments on the HRA, in particular from the statutory nature conservation body, NatureScot. The assessment also concluded that there are not likely to be significant adverse environmental impacts of the decommissioning project on other EEA states.
3. Overall, I judge the ES to be compliant with EIADR and that the Application for Consent meets our regulatory expectations. I can confirm the EIA has been coordinated with all relevant assessments, namely the HRA. The mechanism of the EMP will be used to ensure that future surveys, monitoring, and mitigation requirements are reported to us and the public.

# Recommendations

1. After reviewing the information and evidence provided as part of HNB’s Application for Consent, I recommend that consent to decommission HNB is granted.
2. I recommend ONR attaches six conditions to the EIADR consent as outlined in Appendix 2. This includes the requirement for EDF to submit its first EMP to ONR within six months of consent being issued.
3. I also recommend ONR maintains regulatory oversight of the HNB decommissioning project and routinely monitors progress by reviewing the annual EMP and conducting periodic site inspections.
4. The licensee has the right to challenge the validity of this decision, the procedures for which are set out in ONR’s Decision Review and Appeals Process [11].

# References

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| [1] | ONR, “NS-TAST-GD-105 The Assessment of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations Submissions,” 2023. |
| [2] | ONR, “ONR-NLR-GD-001 Guidance on the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations,” 2023. |
| [3] | ONR, “ONR-OFD-AR-22-026 Hunterston B Nuclear Power Station - Environmental Statement Pre-Application Opinion,” 2022. |
| [4] | EDF Nuclear Generation Limited, “Hunterston B EIADR Scoping Report,” 2022. |
| [5] | Mott MacDonald, “Hunterston B Nuclear Power Station Decommissioning - Environmental Statement - Technical Review,” 2024. |
| [6] | EDF Energy Nuclear Generation Ltd, “Decommissioning of Hunterston B - Environmental Statement,” 2023. |
| [7] | ONR, “ONRW-2126615823-3730 Assessment of the Hunterston B Application for Consent under EIADR,” 2024. |
| [8] | ONR, “ONR-ENF-POL-001 Enforcement Policy Statement,” 2024. |
| [9] | EDF Energy Nuclear Generation Limited , “Decommissioning of Hunterston B - Habitats Regulations Appraisal Report,” 2023. |
| [10] | EDF Energy Nuclear Generation Ltd, “Decommissioning of Hunterston B - Outline Environmental Management Plan,” 2023. |
| [11] | ONR, “ONR-PER-IN-006 Decision Review and Appeals Process,” 2023. |

# Appendix 1 – Organisations which responded to the consultation

The following organisations responded to ONR’s consultation on the HNB ES and their comments were considered when making the consent decision.

* Health and Safety Executive
* Historic Environment Scotland
* Hunterston Site Stakeholder Group
* NatureScot
* NHS Ayrshire & Arran
* Scottish Environment Protection Agency

# Appendix 2 – Conditions attached to the EIADR Consent

**Condition 1**

The project shall commence before the expiration of five years from the date of this Consent.

**Condition 2**

(1) The licensee is required to prepare and implement an environmental management plan to cover mitigation measures to prevent, reduce and where possible offset any significant adverse effects on the environment.

(2) The project shall not be carried out except in accordance with the environmental management plan.

**Condition 3**

Within six months of the date of this consent, with reference to the environmental statement provided under regulation 5(1) and evidence to verify information in the environmental statement, provided under regulation 10(9), the environmental management plan shall:

a. list the mitigation measures that are already identified in the environmental statement and evidence submitted to verify information in the environmental statement;

b. list the options to implement work activities where mitigation measures may be required but where selection of an option will only be possible in the future;

c. list the work activities where mitigation measures may be required but where assessments to identify mitigation measures will only be possible in the future.

**Condition 4**

Subsequent to condition 3, the environmental management plan shall:

a. with reference to condition 3b, identify the mitigation measures for options that have been selected, giving reasons for their selection;

b. with reference to condition 3c, identify the mitigation measures from assessments carried out, giving reasons for their selection;

c. describe the effectiveness of the mitigation measures over time;

d. describe significant changes to the mitigation measures in light of experience, giving reasons for such changes.

**Condition 5**

The licensee is required to:

a. provide the environmental management plan to ONR within six months of the date of this consent and every year thereafter, or within such longer time as ONR may agree;

b. make the environmental management plan available to the public within 30 days of the plan being sent to ONR, or within such longer time as ONR may agree; the plan may replace earlier versions.

**Condition 6**

The licensee is required to provide notice to ONR of any significant change to a mitigation measure to prevent, reduce and where possible offset any major adverse effects on the environment no less than 30 days before the change is made, or within such shorter time as ONR may agree.