1. **Environmental Considerations**

Introduction

12.1 Decommissioning options must have proper regard for the marine environment, and the Decommissioning Programme (DP) must include supporting information detailing the potential environmental impacts of the proposed decommissioning activities, based upon:

* the presumption that, wherever possible, all offshore infrastructure will be reused, recycled or disposed of on land;
* the use of a Comparative Assessment (CA) process, and in more complex cases the operator’s risk and consequence evaluation, to identify the most appropriate decommissioning option for any infrastructure that cannot be reused, recycled or disposed of on land;
* assessment of the selected decommissioning option in accordance with current domestic and international requirements; and
* assessment in accordance with the provisions of OSPAR Decision 98/3 for any offshore installation that cannot be totally reused, recycled or disposed of on land.

12.2 The environmental impact assessment must be documented in an Environmental Appraisal (EA) report providing an assessment of the potential environmental impacts of the selected decommissioning option and identifying any significant environmental impacts and any mitigation or remedial works which may be required.

12.3 The EA must be submitted to OPRED’s Offshore Decommissioning Unit (OPRED-ODU) to support the DP:

* in draft form for consideration at the Public Consultation stage; and
* in final form, when the DP is submitted for approval

EA versus the EIA Directive

12.4 In order to demonstrate the potential environmental impacts of proposed decommissioning activity on the marine environment, an environmental impact assessment process must be executed. Most operators seemed to assume that the assessment should be aligned with the requirements of the Environmental Impact Assessment (EIA) Directive (Directive 2011/92/EU as amended by Directive 2014/52/EU). However, there is no statutory requirement to undertake an environmental impact assessment that satisfies the EIA Directive requirements for proposed decommissioning activities (for example, there is no expectation to assess all the options considered in the CA, or to assess the impact of accidental events e.g. spills from vessels). Under the Petroleum Act 1998 there is a more straightforward requirement to undertake an assessment of the potential environmental impacts of the proposed decommissioning proposals, and the EA described here fulfils that requirement.

12.5 The EA should be proportional with respect to the proposed decommissioning activities, the potential environmental impacts and the sensitivities of the marine environment in the vicinity of the activities. It should provide a satisfactory level of information in order to describe the potential environmental impacts of the selected decommissioning option and should provide a more detailed assessment of any potentially significant environmental impacts.

12.6 The following sections include guidance on the type and level of information expected within an EA.

Undertaking an EA

Information expected within an EA

12.7 The EA should be a single standalone document that assesses the potential environmental impacts of the selected decommissioning option described in the DP and discussed in the CA. It should provide an environmental evidence base and justification with respect to the selected option. Where a number of decommissioning methodologies for the selected option remain under consideration, the worse-case scenario in terms of potential environmental impact should be assessed. Table 1 summarises the information expected within an EA.

12.8 The level of information in the EA should be proportionate to the scale of the activities described in the DP. Where the proposed activities could impact a sensitive area (e.g. a Marine Protected Area or coastal resources), this will also usually merit more detailed information and a more robust assessment of the potential impacts.

Table 1: Type and level of information expected in an EA

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| **Section** | **Type of information** | **Level of information** |
| Non-technical summary | This should include a summary description of the selected decommissioning option (and any decommissioning methods which may be employed), the baseline environment and environmental sensitivities, the aspects of the environment likely to be affected by the activities, any identified likely significant impacts and any mitigation measures to be implemented. | Provision of sufficient, but concise information to allow a non-specialist reader to understand the proposals, the potential impacts and the proposed mitigation, without recourse to consideration of the rest of the submission. |
| Introduction | Details the rationale of the assessment, including a summary of why it has been undertaken. This may include a summary of the policy and regulatory context, if not presented in a separate section. | Clear and concise. |
| Policy and regulatory context | If not included in the introduction, a summary of the relevant policy and legislation and how the EA and the proposed activities comply with the requirements. | Clear and concise. |
| Stakeholder consultation | Where stakeholder consultation has been undertaken, the relevant stakeholders should be identified and their comments should be summarised, stating where in the EA any comments have been addressed. | This should be clear and concise (either text or a tabular format would be acceptable). |
| Decommissioning activities | This should include a detailed, but not overly technical description of the proposed decommissioning activities and methodologies that have been selected and are described in the DP. The description should include information relating to the design and proposed execution of the activities, including methodologies, the location, spatial extent, timing and duration of the activities, and the nature and quantities of any proposed deposits, discharges, emissions or other aspects relevant to the impact assessment, including reference to any debris clearance surveys and proposals. The description does not need to provide a full inventory of the infrastructure, as that should already be included in the DP, but it should set the parameters of the proposed activities relevant to the EA, such as worse-case scenarios with respect to, for example, deposits, discharges, emissions (including noise), deposits, area of impact, etc. The description should always be supported by maps and/or diagrams where applicable. | Each element of the project should be described in sufficient detail to enable adequate identification and assessment of the potential environmental impacts and to enable the reader to understand the proposals. |
| Environmental Baseline | It is important that the area covered by the environmental description should be consistent with the area that could potentially be impacted by the proposed activities.  The environmental description should describe the existing environment at the project location. The description should draw on available data such as the information included in Strategic Environmental Assessment (SEA) and related studies undertaken by the Department, available operational data, previous survey reports (e.g. environmental, pipeline inspection and ROV survey reports) and information obtained from published literature. Where appropriate it should also incorporate site-specific survey data directly relevant to aspects that are likely to be affected by the proposed activities and relevant to any existing activities.  The description should include information relating to the environment and the proposed activities, including for example, sediment characterisation, chemical contamination, benthic organisms, fish spawning/nursery areas, seabird sensitivities, marine mammal sensitivities, protected habitats and species, marine plan policies and other users of the sea (including aspects such as amenity use, fishing, shipping, offshore renewables and aggregate extraction), and should identify any potential conflict of interests or where there may be in-combination or cumulative impacts.  Maps and/or diagrams are very useful for putting proposals into context in relation to important features, such as fish spawning/nursery areas; seabird sensitivities; marine mammal sensitivities; sites protected under international or domestic legislation (e.g. Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Marine Conservation Zones (MCZs) and Marine Protected Areas (MPAs)); marine plan areas; fishing and shipping intensity; and windfarms or aggregate extraction areas.  Any gaps or limitations in the environmental information provided should be acknowledged and, where appropriate, strategies proposed to address critical deficiencies. | It is important that all the relevant environmental considerations are included and sufficiently described to adequately identify and assess environmental impacts. Each element of the description should be proportional and achieve the right emphasis in terms of its importance and its relevance to the potential environmental impact and the conclusions of the EA. |
| Environmental Issues Identification | As part of the EA, project data should be subjected to a preliminary scoping exercise to identify relevant potential environmental issues and impacts. This could involve using a standard industry or company Environmental Issues Identification (ENVID) system.  The key objective of the scoping process is to identify all relevant issues resulting from the selected decommissioning option, and to agree practicable measures to ensure that throughout the duration of the operations there is minimal harm to the environment. The process should consider all relevant factors, based on expert judgement using multidisciplinary team strengths, particularly with regard to understanding both demonstrated and perceived potential environmental impacts, sensitivities and mitigation. This process should also determine the issues that need to be further assessed as they have been identified as having the potential to result in a significant impact.  There are several methodologies used to identify impacts, but the most commonly used in the UK is the qualitative risk-based interaction matrices. Whatever methodology is used, it should be clearly identified a formal summary of the process should be included either as standalone section in the EA report or as an appendix to the report. | There are several methods for presenting the results of a scoping exercise, the most commonly used being matrices or tables. However, there is no preference, as long as the outcome is presented in a logical and clear manner. |
| Environmental Assessment | The assessment should identify all potential environmental impacts, placing them in a spatial and quantitative context e.g. area of impact, and should focus on those impacts that been identified in the scoping process as potentially significant and therefore requiring detailed assessment.  The assessment of the impacts and their significance should demonstrate an understanding of the environment in the area of the proposed activity, including its spatial and temporal variation, using the baseline information to inform the assessment. For some impacts, modelling can be used to gain a better understanding of the extent and magnitude of potentially significant impacts, such as discharge modelling, noise modelling, etc.  The assessment should include third party impacts, such as navigational safety, the disturbance of cuttings pile by fishing gear and the snagging of fishing gear on infrastructure left in place and should also include in-combination and cumulative impact assessment where applicable. The assessment should also consider whether the proposed activities are in accordance with relevant marine plan policies, and it may be necessary to make a more detailed assessment if the proposed activities are within a Special Area of Conservation (SAC), Special Protection Area (SPA) and/or other Marine Protected Areas (MPA’s).  The assessment should also describe the measures proposed to eliminate, reduce or otherwise mitigate potential adverse impacts. It should provide an indication of the predicted effectiveness of the stated measures, and demonstrate a firm commitment to implementing the proposed measures.  Finally, it should be noted there is no expectation for the EA to include an assessment of wastes or waste management returned to shore for treatment or disposal. as this is considered an onshore issue and not relevant to impacts in the marine environment. Section 9 of this guidance discusses further the DP requirements for waste disposal. | The environmental assessment should be clear and logical in its layout and presentation. It should clearly detail the potential direct and indirect impacts of the proposed activities.  It is important that all the relevant environmental impacts are included, and the assessment is sufficient so that the reader can draw the same conclusions as the report with regard to significance. Each element of the assessment should be proportional and achieve the right emphasis in terms of its importance and relevance to the receiving environment and the significance of the impact. |
| EA Conclusions | The conclusion should not be a summary of everything within the report, but it should provide the reader with a clear and concise understanding of the overall message of the EA. | The conclusion should provide a brief explanation of the main findings. Conclude - do not just summarise. |
| References | Correct and complete references should be included. Regardless of whether the information is directly quoted, paraphrased or summarised, and taken from a journal article, a report (including survey reports), a textbook or a website, the original author and title must be cited. | There are number of different types/methods of referencing. There is no preferred method, as long as it is consistently applied. |
| Appendix | Supplementary information that provides context or value to the body of the report should be provided in the appendix e.g. a scoping or ENVID summary, modelling scenarios and statistical information. | Appendices should be relevant to the body of the report and referenced where applicable. |

Marine Protection

Sites for the protection of Annex I habitats and Annex II species

12.9 As stated in Table 1 any relevant Special Areas of Conservation (SAC’s) or Special Protection Areas (SPA’s) which could be impacted by the proposed activities must be identified in the environmental baseline description, and any beneficial or adverse impacts must be detailed in the assessment.

12.10 Where OPRED’s Environmental Management Team (OPRED-EMT) or the relevant Statutory Nature Conservation Body (SNCB) considers that the decommissioning proposals may have a significant effect on the integrity of a SAC or SPA, it is likely that OPRED-EMT, as the competent authority, will undertake a Habitats Regulations Assessment (HRA) at the DP stage. The HRA can be a screening assessment (often called a Likely Significant Effects assessment, or LSE assessment), and/or a full Appropriate Assessment (AA) if the activities are considered likely to have a significant effect on the integrity of the relevant site.

12.11 Although the requirement to undertake the HRA rests with OPRED, it is essential that EA submissions address the potential impacts on SACs or SPAs as part of the overall assessment of the proposed activities, and the information must be sufficient to inform OPRED’s HRA. Wherever possible, the information provided should be both qualitative and quantitative, for example to confirm the proportion of the protected site or species likely to be affected by the project. If uncertain about the requirements, the operator should seek advice from OPRED-EMT.

Other protected habitats and species

12.12 Details of any other protected sites or species or proposed protected sites or species that are the subject of consultation, should also be included in the baseline environmental description, including details of any protected mobile species (e.g. European Protected Species) that are not associated with a specific protected site but are found in the vicinity of the project. The sites considered should include any MCZs, international and domestic MPAs, Marine Nature Reserves (MNRs), Ramsar Sites, and Sites of Special Scientific Interest (SSSIs).

12.13 Although there is no requirement for OPRED to undertake a separate assessment (HRA) for sites other than SACs and SPAs, it is still essential that the EA submission addresses potential impacts on all protected sites and species.

Marine Plans

12.14 Where activities are within an area that is covered by an adopted marine plan, or one that is subject of consultation, or located in an adjacent area and potential impacts are likely within the marine plan area, the EA must include consideration of whether the proposed activities are in accordance with relevant marine plan policies. There may be a number of plan policies that are relevant to the activities, including both general and sector specific policies. Impacts on the policies should be addressed in a proportionate manner depending on the size and complexity of the project and the nature of any interaction with the plan policies. It is expected that in most cases, the consideration will normally be at a fairly high level and in many it may be possible to conclude that there will be no impact on a marine plan policy.

Environmental surveys to support the EA

12.15 The requirements and scope of environmental baseline surveys and sampling may differ according to individual decommissioning activities and the local environmental sensitivities.

12.16 It is recommended that a gap analysis of existing environmental data is undertaken to determine if additional baseline information and/or surveys will be required. For some decommissioning proposals it may be possible to use existing regional and local area survey data to determine an acceptable baseline. This may encompass data from multiple surveys covering the area under evaluation to establish a baseline of the environmental characteristics. If no new survey work is undertaken because the information and data available is deemed to be satisfactory, the EA should justify that the baseline is sufficient to inform the EA.

12.17 Where a gap analysis determines that additional survey data is required, it is recommended that baseline environmental surveys should be completed before cessation of production to avoid potential delays in the DP preparation and approval process. Bearing this in mind, environmental survey reviews should be undertaken at the earliest opportunity in order that any new surveys can be executed and interpreted in a timely manner.

12.18 It is the responsibility of the operator to satisfy themselves that the environmental baseline data is adequate to inform the EA, also bearing in mind the age of the survey data, its spatial coverage and it’s relevance to the proposed decommissioning operations. Where an operator is uncertain about the adequacy, they should engage with OPRED-EMT (and where appropriate the relevant SNCB) at an early stage to discuss the existing baseline data and the specification and scheduling of any necessary additional surveys, to ensure that there is sufficient information to inform the impact assessment.

12.19 Drill cuttings pile characterisation may also be required as part of the baseline data and will generally be essential for large cuttings piles. Section 9 provides further information in relation to the management regime for cuttings piles.

Other environmental approvals

12.20 During the development and implementation of the DP, operators should discuss the proposals with OPRED-EMT to confirm the environmental regulatory requirements relevant to the proposed decommissioning activities, and to discuss the procedures for obtaining or surrendering any relevant consents, permits, etc. Table 2 summarises the principal regulatory requirements, most of which can be generated and submitted through the UK Energy Portal Environmental Tracking System (PETS) or the ETSWAP (Emission Trading Scheme Workflow Automation Project) Portal.

Table 2: Other regulatory requirements

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| **Regulatory Requirement** | **Description** |
| Marine Licence | Application for, or amendment of, a Marine Licence under the Marine and Coastal Access Act 2009 (MCAA), or the Food and Environment Protection Act 1985 Part II Deposits in the Sea (FEPA) for territorial waters adjacent to Scotland |
| Consent to Locate | Application for, or amendment of, a Consent to Locate under Part 4A of The Energy Act 2008 (as amended). |
| Chemical Permit | Application for, or amendment of, a Chemical Permit for the use and/or discharge of offshore chemicals under The Offshore Chemicals Regulations 2002 (as amended). |
| Oil Discharge Permit | Application for, or amendment of, an Oil Discharge Permit under The Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations 2005 (as amended). |
| Marine Surveys | Notification of proposed marine survey and/or application for, or amendment of, a Marine Geological Survey Consent under The Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001 (as amended). |
| European Protected Species Licence | Application for, or amendment of, a European Protect Species Injury or Disturbance Licence under The Conservation of Offshore Marine Habitats and Species Regulations 2017. |
| Atmospheric Emissions Permit | Application for, or amendment of, an Atmospheric Emissions Permit under The Offshore Combustion Installations (Pollution Prevention and Control) Regulations 2013 (as amended) |
| Greenhouse Gas Emissions Permit | Application for, or amendment of, a Greenhouse Gas Emissions Permit under The Greenhouse Gases Emissions Trading Scheme Regulations 2012 |
| Oil Pollution Emergency Plan | Requirement for Oil Pollution Emergy Plan (OPEP) under The Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations 1998 (as amended) |

Late-life activities pre-DP approval

12.21 Operators may undertake limited, discrete, decommissioning related activities in advance of the main decommissioning activities, such as well abandonment, pipeline flushing and topside cleaning. These activities can be undertaken in advance of full DP approval. However, OPRED-ODU must be advised of the proposed activities and may require a separate DP submission. Advice should also be sought from OPRED-EMT, as in many cases the proposals will also require environmental approval prior to execution of the activities.

12.22 The use and discharge of chemicals in preparation for decommissioning of production / host installations can be covered by submitting a variation of the relevant production operations application (PRA). The flushing and cleaning of pipelines where the discharge point is at an installation (or within 500m of the installation) can, in most cases, also be covered by the relevant PRA. However, where the discharge point is remote from an installation it will probably be necessary to submit a pipeline operations application (PLA).

12.23 Well plugging and abandonment operations should be covered by submitting a new Well Intervention application (WIA).

Activities post-DP approval

12.24 Most of the activities that are detailed in the approved DP will also require approval from OPRED-EMT prior to execution, through the marine licensing process. For decommissioning activities associated with the removal of an installation or associated infrastructure, this will require a decommissioning operations application (DCA). For the decommissioning of pipeline systems, this will usually require a new PLA.

12.25 For a number of decommissioning activities, there will be operational uncertainties when the DP is drafted and there is therefore an expectation that further technical and methodology details will be provided to support the Marine Licence application. Where there are changes from the proposals detailed in the approved DP, they should be clearly identified, and relevant changes and additions to the original EA should be summarised in the impact assessment submitted in support of the PETS application(s).

12.26 If the DP was the subject of a HRA and any changes or additional information notified at the marine licensing stage could have a material impact on the conclusions of the HRA, or if any changes or additional information notified at the marine licensing stage would necessitate a new HRA, OPRED-EMT will have to update or complete the HRA process prior to determining the marine licence application.

12.27 Further advice on the Marine Licensing process can be obtained from OPRED‑EMT, and this is particularly recommended if the proposed decommissioning activities are complex and/or where operations will extend over a prolonged period of time.

12.28 Where it has been concluded that the preferred option cannot be executed and the revised proposals were not assessed in the EA, there may be a requirement to resubmit the DP supported by a new EA. Advice should therefore be sought from OPRED-ODU and OPRED-EMT.

12.29 Decommissioning operations may also represent a navigational hazard to other users of the sea, and it may therefore be necessary to amend or obtain a Consent to Locate to cover the proposed operations. Where considered necessary by OPRED-EMT or the selected consultees, the application may need to be supported by a Vessel Traffic Survey (VTS) and/or a Collision Risk assessment (CRA).

12.30 Where decommissioning activity extends over several months or years (e.g. in a phased approach where topsides are removed followed by jacket removal at a later date), the operator may be required to provide additional information on the provision of interim navigational aids, covering the key parameters for Aids to Navigation (accuracy, integrity, availability, continuity and coverage).

12.31 If an installation has ceased production and the topsides remain, but it is not possible to maintain the requirements detailed in the Standard Marking Schedule (SMS), for example because of decreased power supply, the operator should seek dispensation through the consent variation process and provide details the proposals to mitigate the navigational risk.

12.32 If there is a period after topside removal when the jacket or suspended subsea infrastructure will be left in place for future removal, the operator must confirm how they will address navigational safety requirements.

12.33 In all cases, the scope and scheduling of any necessary additional navigational requirements should be discussed and agreed with OPRED-EMT early in the DP schedule. Consultation with the relevant General Lighthouse Authority may also be appropriate to confirm that the proposed provisions are adequate to ensure navigational safety.

Surrender of environmental approvals

12.34 Operators are required to surrender any permits, consents, licences, etc. that are no longer required. Before surrender, the approval holder must ensure that all relevant obligations associated with the approval or any of its terms or conditions, for example monitoring and reporting requirements, have been met.

12.35 To surrender an approval issued via PETS, the approval holder should notify OPRED-EMT in writing detailing the date on which the approval is to be surrendered. OPRED-EMT will confirm in writing that the approval has been surrendered on the due date.

12.36 Following the removal of any installation or infrastructure, it will be necessary to apply to surrender any relevant Consent to Locate as indicated above, but if any facilities are abandoned *in situ* it may be necessary to amend an existing consent or create a new consent. Operators should therefore seek advice from OPRED‑EMT.

12.37 To surrender an EU ETS permit, the approval holder should contact OPRED‑EMT within one month of cessation of relevant combustion operations to advise that they wish to surrender the permit. The surrender should then be made via ETSWAP. The permit holder will be required to provide evidence of the cessation of operations, and to submit a verified Annual Emissions Report for the period from the 1st January up to the date at which the surrender took place.

Monitoring

Debris surveys and clearance

12.38 As set out in Sections 10 and 15 of this guidance, upon completion of the decommissioning activities, appropriate surveys should be undertaken to identify and recover any debris or other obstructions on the seabed. Operators should note that the activities may require a Geological Survey consent or notification to cover the proposed identification surveys and a Marine Licence to cover the debris and obstruction removal. However, the debris removal proposals can be included in the Marine Licence covering other elements of the decommissioning activity.

12.39 The area to be covered will depend on the specifics of each decommissioning project. However, the minimum requirement is to undertake a survey within 500 metres (m) radius of any installation that attracted a safety zone. In exceptional circumstances, surveys may also be required to cover an area up to 50 m either side of a decommissioned pipeline, over part(s) or all of the pipeline, but operators will usually hold existing operational survey data to establish whether there is a requirement for pipeline debris clearance.

12.40 Following the removal of any debris, verification of completion of the seabed clearance operations is required. This requirement may be provided in the form of survey reports or a seabed clearance certificate issued by the body that undertook the survey and removal operations.

12.41 Verification that an area is clear of debris or obstructions that could interfere with future fishing operations may also be required, and this is normally provided by the relevant fishermen’s representative body following a survey undertaken using trawl gear that is appropriate for the area under consideration. However, environmental considerations (e.g. cuttings piles, environmental sensitivities) may preclude the use of trawl gear and alternative methods to determine seabed clearance will be considered on a case-by-case basis.

12.42 If an operator proposes to use an alternative organisation to provide verification that an area is clear of debris or obstructions that could interfere with future fishing operations, this should be discussed in advance with OPRED-ODU and OPRED-EMT and should cover:

* the means of verification and form of the clearance certificate; and
* the capability/expertise (with evidence) of the organisation proposed to carry out the work.

12.43 In all cases, the proposed scope and scheduling of any survey and clearance activity or over-trawl operations should always be discussed and agreed with the OPRED-ODU and OPRED-EMT before work commences.

12.44 Copies of any seabed clearance certificate must be submitted to OPRED‑ODU and should also be submitted to the Seabed Data Centre (Offshore Installations) at the United Kingdom Hydrographic Office (Section 14).

Post-decommissioning environmental monitoring

12.45 In addition to debris identification and clearance surveys and over-trawl surveys, there may be instances where a post-decommissioning environmental survey is required. This is most likely where there is significant contamination in the vicinity of an installation that necessitates monitoring of the levels of hydrocarbons, heavy metals or other contaminants in sediment and biota, or where infrastructure decommissioned *in situ* needs to be monitored to assess its condition, its colonisation by marine organisms or the potential risk to fishing operations.

12.46 Where, based on the information provided in the DP, OPRED-ODU and OPRED‑EMT determine that post-decommissioning monitoring is necessary, operators will be required to develop a robust survey strategy in consultation with OPRED-EMT.

12.47 The agreed strategy may entail multiple surveys, with the first being part of the decommissioning close-out process and further surveys scheduled for some time after the initial survey.

12.48 The results of post-decommissioning monitoring surveys should be submitted to OPRED-ODU, and they will take a risk-based approach when determining whether there is a requirement for further surveys based on the information included in the submitted report. Every project and survey report will be considered on a case-by-case basis.