

A photograph of an offshore wind farm at sunset. The sky is a mix of orange, yellow, and light blue, with a few wispy clouds. The sun is low on the horizon, creating a strong glow. In the foreground, dark, choppy waves are breaking, with white foam visible. Several wind turbines are visible in the distance, their silhouettes against the bright sky. The overall mood is serene and powerful.

Salamander Offshore Wind Farm

Onshore EIA Report

Volume ER.B.6 Plan P.1: Outline Onshore Construction Environmental Management Plan (CEMP)



Powered by Ørsted and
Simply Blue Group

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Acronyms

Term	Definition
CEMP	Construction Environmental Management Plan
CNVMP	Construction Noise and Vibration Management Plan
CTMP	Construction Transport Management Plan
DBA	Desk-Based Assessment
DMRB	Design Manual for Roads and Bridges
DMP	Dust Management Plan
EBI	Energy Balancing Infrastructure
ECoW	Ecological Clerk of Works
EIAR	Environmental Impact Assessment Report
EMP	Environmental Management Plan
ECU	Energy Consents Unit
EPC	Engineering, Procurement and Construction
EPS	European Protected Species
HSE	Health and Safety Environment
IAQM	Institute of Air Quality Management
INNS	Invasive Non-Native Species
JV	Joint Venture
km	Kilometres
MW	Megawatts
OEMP	Operational Environmental Management Plan
OnSS	Onshore Substation

TCPA	Town and Country Planning Act
TJB	Transitional Joint Bay
SHPP	Species and Habitat Protection Plan
SWMP	Site Waste Management Plan
SuDS	Surface Water Management Plan
SWPC	Salamander Wind Project Company Limited (formerly called SBES)
WSI	Written Scheme of Investigation

1 Introduction

1.1.1.1 This outline Onshore Construction Environment Management Plan (CEMP) has been produced along with the Onshore Environmental Impact Assessment Report (EIAR) and aims to ensure general best practice measures are adhered to throughout construction.

1.2 Project Background

1.2.1.1 Salamander Wind Project Company Limited (SWPC) ('the Developer'), a joint venture (JV) partnership between Ørsted, Simply Blue Group and Subsea7, is proposing the development of the Salamander Offshore Wind Farm (hereafter 'Salamander Project'). The Salamander Project will consist of offshore and onshore infrastructure. Including the installation of a floating offshore wind farm (up to 100 MW capacity) approximately 35 kilometres (km) east of Peterhead. It will comprise of up to seven wind turbine generators, associated floating foundations and moorings, subsea hubs and cabling. The export cabling will run from the Offshore Array Area to the Landfall where the marine cable will be jointed to the terrestrial cable.

1.2.1.2 This document relates to the onshore components of the Salamander Project on the landward side of Mean Low Water Spring (MLWS), termed the Onshore Development. The Onshore Development of the Salamander Project includes the onshore components that are required across all of the Salamander Project phases from Construction, Operation and Maintenance to Decommissioning, including Transitional Joint Bays (TJBs) to join the offshore and onshore cables; onshore export cables buried in up to two trenches; an onshore substation (OnSS) compound and associated infrastructure; Energy Balancing Infrastructure (EBI) including battery storage; grid connection works; and an access road to the OnSS and EBI.

1.2.1.3 The Salamander Project is applying for the following key consents for the Onshore Development:

- Planning permission under the Town and County Planning (Scotland) Act 1997 for the development of the onshore works and infrastructure to MLWS; and
- Section 36 Consent under the Electricity Act 1989 for the ≥ 50 MW EBI with battery storage.

1.2.1.4 The earliest possible date that onshore construction could commence is January 2027.

1.3 Purpose of the Outline CEMP

1.3.1.1 This outline Onshore CEMP will form the basis of the final CEMP. This CEMP is an iterative document that will be developed over the course of the construction of the project. The final CEMP will be finalised and approved post-consent as part of condition discharge prior to construction by Aberdeenshire Council and the Energy Consents Unit (ECU) of the Scottish Government, in accordance with the Section 36 Consent of the Electricity Act 1989 and associated Town and Country Planning Regulations 2017 under Schedule 2. It sets out the framework and minimum arrangements for the environmental management of the Construction phase of the Salamander Project Onshore Development and has been produced to provide the framework to discharge the requirements of the relevant consents / licence conditions. From this point onwards, 'CEMP' refers to the final, approved Onshore CEMP.

1.3.1.2 The broad objectives of the CEMP are as follows:

- To provide a mechanism to ensure that measures to mitigate potentially adverse environmental impacts are implemented during all construction works;
- To promote and meet good construction practice standards throughout construction of the Salamander Project Onshore Development; and

- To provide a framework for compliance auditing and inspection to enable the Developer to be assured that the necessary levels of environmental performance are being met.

Table 1-1 The Electricity Act Section 36 Consent and Town and Country Planning Act Planning Permission Conditions of Relevance to the CEMP

Licence/Consent	Condition	Details	Relevant Section
[To be added post-consent]			

1.3.1.3 The legislative requirements, current standards and best practice measures which define the standards of construction practice adhered to by the Contractors shall be outlined within the CEMP. However, adhering to the CEMP does not absolve the Developer, Contractors, or Subcontractors from complying with legislation and bylaws relevant to their construction activities.

1.3.1.4 Applications for the above consents and licences are submitted alongside this EIAR to Aberdeenshire Council and the ECU seeking approval for the Onshore Development.

1.4 Approach to Amending and Updating the Approved CEMP

1.4.1.1 Once approved, the CEMP sets out the proposed environmental management framework and procedures that will be followed by all Contractors and Subcontractors during the construction and commissioning of the Salamander Project Onshore Development. Prior to the handover of the Salamander Project Onshore Development to the Operational Phase, the CEMP will be reviewed and updated, and an Operational Environmental Management Plan (OEMP) will become active. The operations and maintenance activities are therefore outside the scope of this document.

1.5 Implementation of the CEMP

1.5.1.1 The CEMP approved by Local Authorities (Aberdeenshire Council and ECU) will be integrated into the contracts for Principal Contractors responsible for the works. All Principal Contractors, Subcontractors, and their suppliers must adhere to the pertinent provisions of the CEMP. They are obligated to furnish evidence detailing how they will guarantee the implementation and monitoring of the CEMP's requirements and will develop their own EMPs tailored to their tasks, ensuring compliance with the CEMP. Prior to construction, Contractor EMPs will be submitted to the Developer for review and approval to ensure conformity with the CEMP.

1.6 Scope of the CEMP

1.6.1.1 The Onshore CEMP will cover the following:

- Onshore personnel, roles and responsibilities and reporting structures in relation to environmental management, including for Contractors and Subcontractors;
- Details of a Soil Management Plan; Lighting Management Plan; Construction Noise and Vibration Management Plan; Pollution Prevention Plan; Air Quality Management Plan (With Dust Management Plan); Waste Management Plan; Drainage Strategy; Wet Weather Protocol; Biosecurity Plan; Onshore Species and Habitat Protection Plan (SHPP); and
- The procedure for communicating and reporting any environmental compliance matters associated with the CEMP with Aberdeenshire Council, ECU and relevant stakeholders.

2 CEMP Content

2.1.1.1 This section outlines the content to be included within the CEMP.

2.2 Roles and Responsibilities

2.2.1.1 To ensure effective management throughout the project, the management responsibilities must be documented. The roles and responsibilities of key personnel relevant to the CEMP are outlined in **Table 2-1**. More specific roles and responsibilities pertinent to key activities or aspects of this plan are detailed in the corresponding sections. These will be further refined and finalised post-consent. Key project contacts will be set out in **Appendix A**.

Table 2-1 Roles and Responsibilities of the Salamander Project (indicative for outline Onshore CEMP)

Role	Responsibilities
Project Director	Overall responsibility for the delivery of the Salamander Project.
Engineering, Procurement and Construction (EPC) Director	Responsible for ensuring that the Salamander Project team adhere to relevant environmental consents, relevant legislation and company policy and processes.
Project Health Safety and Environment (HSE) Manager	Delivery of HSE elements including HSE performance and promoting safety leadership across the Salamander Project, encouraging an exemplary behavioural safety culture.
Construction Project Manager	Responsible for the technical delivery of the construction activities in relation to the onshore works and co-ordinating all construction works and ensuring health and safety standards on site.
HSE Advisor	Responsible for ensuring that the project team adhere to relevant HSE policy and processes, manages the site HSE teams, accountable for the reporting and investigation of HSE incidents. Also responsible for HSE site inductions and compliance with training and medical requirements for personnel / Contractors.
HSE Duty Holder	Duty Manager, available 24/7 to provide 1st line emergency response support.
Package Managers	Package Managers will report to the EPC Director and have responsibility for the delivery of their respective Work Package.
Consent Manager	Overall responsibility for ensuring the Salamander Project remains compliant with the key project consents, that the relevant consent Conditions are discharged prior to the commencement of construction and that all Contractors are aware of and comply with the relevant consents. The Consent Manager is also responsible for liaising with the relevant licensing authorities.
Environmental Liaison Officer	Responsible for environmental management, monitoring and communication of the CEMP.
Ecological Clerk of Works	Responsible for ecological advice to the Developer in compliance with consent conditions and ecological mitigation.
Client Representative	Represents the Client during onshore operations.

2.2.2 Contractor Responsibilities

2.2.2.1 The role of the Principal Contractor is to:

- Adhere to applicable laws and regulations, and be responsible for regularly reviewing and updating the CEMP;
- Ensure that all staff and sub-contractors abide by and implement the CEMP; and
- Implement the CEMP and all the environmental mitigation measures outlined in the EIA Report.

2.2.2.2 The Principal Contractor will be primarily responsible for the following aspects of the Site:

- Control of Access / Egress
- Welfare Facilities and Construction Compound
- Materials
- Chemical Inventory
- Diesel
- Oil and Greases
- Site Toilets
- Other Chemicals
- Plant
- Mud/Bio Contamination
- Concrete Management

2.2.3 Onshore Construction Method Statements

2.2.3.1 Before initiating specific tasks the Principal Contractor will formulate Construction Method Statements. These statements will outline the planned construction operations, detailing construction methods, required equipment, and addressing associated environmental, health, and safety considerations. Identification of activities necessitating a method statement will be conducted through a risk-based approach during the detailed design phase.

2.2.4 Training

2.2.4.1 Every onshore construction staff member engaged in the Salamander Project Onshore Development will undergo training on their duties related to environmental reporting, mitigating environmental risks and implementing the measures within the CEMP.

2.2.4.2 The Principal Contractors are obligated to guarantee that Contractors engage a workforce possessing suitable qualifications and experience. They will also take on the responsibility of identifying the training requirements of their personnel, facilitating the provision of appropriate training.

2.2.4.3 This training encompasses site inductions and briefings including toolbox talks designed to impart essential knowledge on health, safety, and environmental matters. It shall also cover the relevant environmental control measures pertinent to the specific tasks scheduled for the day.

2.2.4.4 Contractors are required to offer comprehensive training to all personnel, including those from Subcontractors. The training should encompass the content of their respective Contractor's Environmental

Management Plans, aligning with the CEMP and all consents and licences for the Salamander Project Onshore Development.

2.2.4.5 Contractors will be responsible for keeping and furnishing training records to the Developer.

2.3 Routine Reporting, Notifications and Communications to Stakeholders

2.3.1.1 This section addresses the Salamander Project Onshore Development’s regular reporting, notification, and communication procedures with Aberdeenshire Council, ECU and other relevant stakeholders.

2.3.1.2 **Table 2-3** describes the routine reporting obligations.

Table 2-2 Routine Salamander Project Reporting, Notification and Communications to Stakeholders

Activity	Summary of Requirement	Responsibility	Frequency
[To be added post-consent]			
e.g. Chemical usage reporting			

2.3.1.3 Aberdeenshire Council and ECU may also conduct periodic site inspections to monitor compliance with consents and approved Consent Plans. The Developer will facilitate access to all onshore construction activities for this purpose, with appropriate prior notification.

2.4 Environmental Incidents and Non-Compliance Procedures

2.4.1.1 The Contractor bears the responsibility of identifying and recording all environmental risks related to their activities throughout the Salamander Project Onshore Development works. They must ensure the implementation of appropriate controls and procedures to prevent spillage, environmental incidents, and non-compliance with Salamander Project Onshore Development consents / licences to the extent reasonably feasible, prior to commencing the works. Additionally, the Contractor is obligated to establish effective response and reporting processes in anticipation of any potential failure of preventive measures, to be activated in the event of spillage, environmental incidents, or non-compliance with the Salamander Project Onshore Development’s consents / licences.

2.4.1.2 The Developer will comply with all relevant legislation and that the works are undertaken with appropriate licences and permissions in place. The Developer shall continually monitor and audit the activities of Contractors and Subcontractors and require that they too comply with all relevant legislation and any consent / licence conditions.

2.4.2 Recording and Documenting of Incidents

2.4.2.1 The Developer is committed to rapid and proportionate action and a proactive approach to learning in response to environmental incidents. To achieve this, prompt reporting of all environmental incidents is expected from all individuals and Contractors. This is in addition to any legal requirements or other recognised industry best practice.

2.4.2.2 In case of other non-compliances, the Contractor must forward an environmental incident report to the HSE Site Manager within 24 hours of becoming aware of non-compliance. The incident report must describe the non-compliance and a description of how to make sure that the incident does not happen again.

3 Management of Environmental Aspects and Compliance Obligations

3.1 Overview

- 3.1.1.1 This section categorises the primary environmental aspects associated with the construction phase and subsequently outlines the comprehensive approach for managing related environmental impacts, as delineated in the Salamander Project Onshore EIAR.
- 3.1.1.2 Where impacts have been identified in the EIAR, each Contractor must create a register of project environmental aspects and impacts to illustrate compliance with Salamander Project Onshore Development consents, licences, and conditions, which will demonstrate relevant mitigation measures applied.
- 3.1.1.3 Likewise, each Contractor must generate a register of project environmental compliance obligations to showcase that pertinent legal and other requirements have been identified and are being effectively managed within the scope of their work.

3.2 Environmental Management

- 3.2.1.1 This section of the CEMP will outline the controls and processes to be adopted to mitigate environmental impacts on site. Such controls and processes will be included as follows:
- Soil Management Plan;
 - Lighting Management Plan;
 - Construction Noise and Vibration Management Plan;
 - Pollution Prevention Plan;
 - Air Quality Management Plan (With Dust Management Plan);
 - Waste Management Plan;
 - Drainage Strategy;
 - Wet Weather Protocol;
 - Biosecurity Plan; and
 - Onshore Species and Habitat Protection Plan (SHPP).
- 3.2.1.2 It should be noted that this list is not exhaustive and has the potential to be developed further.

3.3 Environmental Management Plan

- 3.3.1.1 The CEMP will include an Environmental Management Plan (EMP). The following management plans and site controls will be encompassed within the EMP as required.

3.3.2 Pollution Prevention, Drainage and Water

- 3.3.2.1 A Pollution Prevention Plan will be prepared in accordance with guidance provided by SEPA for Construction Sites (SEPA, 2021) to identify any contamination encountered during the construction phase and subject any exposures to an appropriate risk assessment and if necessary, contamination will either be removed, treated and / or mitigated as part of the Salamander Project. Good practice measures will be implemented as highlighted by the plan, to limit the potential risk of spillages and contamination. Example pollution prevention measures to be considered include: use of buffer distances for refueling, application of spill kits and designated wash-out areas.

3.3.2.2 A Drainage Strategy Plan will be prepared to outline drainage designs, including Sustainable Drainage System (SuDS) measures, such as the use of settlement lagoons, swales and interception bunds, to mitigate runoff and sedimentation, and impediment to drainage pathways.

3.3.2.3 A Surface Water Management Plan will be adhered to and will identify various flood risks and outline the preferred strategy to mitigate these risks. The plan will include a detailed long-term coordinated action plan to influence planning, investments, maintenance and community engagement.

3.3.3 Soil Management

3.3.3.1 A Soil Management Plan will be adhered to and will describe the appropriate method and procedures for classification, recovery, storage and reuse of soils on site whilst minimising loss and maintaining quality.

3.3.4 Ecological Protection

3.3.4.1 An appropriately qualified Ecological Clerk of Works (ECoW) will be present at sensitive locations and/or during sensitive periods where required, to minimize the effects of permanent and temporary habitat loss.

3.3.4.2 A SHPP will be created and implemented, following pre-construction surveys of protected species. The plan will build on the results of the surveys to look at the potential impacts of the development on protected species and ensure an appropriately qualified ECoW is present at sensitive locations and/or sensitive periods where required throughout the development.

3.3.4.3 A Biosecurity Plan will be developed to minimise risks of introduction and spread of Invasive Non-Native Species (INNS) during construction. The plan will include a detailed risk assessment of construction activities, proposed biosecurity control measures, contingency plans, as well as monitoring and reporting procedures.

3.3.5 Archaeological Protection

3.3.5.1 Any non-designated heritage assets identified within the Desk-Based Assessment (DBA) or through further archaeological site investigations, will also be avoided throughout the development. In cases where avoidance is not possible, appropriate mitigation strategies will be developed in consultation with statutory authorities, and included in a Written Scheme of Investigation (WSI).

3.3.5.2 The WSI has been produced alongside the EIAR and will be finalized post-consent. The WSI has outlined the provision for further post-consent archaeological site investigations, to clarify the extent of any previously unknown below ground heritage resource. The WSI will also detail requirements for, if relevant, Walkover Survey, Historic Building Recording, Geophysical Survey, Trial Trench Evaluation, Open Area Excavation and / or Watching Brief. The WSI will also include a Protocol for Chance Finds, during construction to avoid and mitigate accidental discoveries of archaeological interest. The WSI will include a process for consultation with Aberdeenshire Council, ECU and / or Transport Scotland to mitigation to Balmoor Bridge.

3.3.6 Air Quality Management

3.3.6.1 An Onshore Air Quality Management Plan will be developed, which will contain best practice air quality measures, and be adopted in line with the Institute of Air Quality Management (IAQM) Guidance on the Assessment of Dust from Demolition and Construction (IAQM, 2014).

3.3.6.2 Forming part of the Air Quality Management Plan, a Dust Management Plan (DMP) will be developed to ensure that dust issues are correctly mitigated. The DMP will include dust deposition, visual inspections and wheel washing systems. The DMP will include 'action levels' for triggering further dust mitigation when exceeded (feed-back loop). There will be training on dust control procedures, safety protocols and the importance of compliance.

3.3.7 Traffic and Transport

3.3.7.1 Site access throughout the construction phase has been designed in line with the Design Manual for Roads and Bridges (DMRB) standards, and in consultation with Transport Scotland. A Construction Transport Management Plan (CTMP) will be developed in accordance with the Outline CTMP. Measures to be implemented as guided by the CEMP include:

- Details of measures to manage the number and routing of HGVs and Abnormal loads during the construction phase;
- Details of measures to manage the movement of construction staff traffic during the construction phase;
- Details of measures to manage the safe passage of HGV traffic on the surrounding roads network and core path network;
- The CTMP will set out a phasing and timing strategy for construction traffic movements. Where necessary construction traffic movements will be reduced during periods of increased baseline traffic.

3.3.7.2 The CTMP will include, but not be limited to, the program of works, the agreed routes to site, details of a site Liaison Officer who would have responsibilities for managing traffic and transport impacts and effects and would also identify measures to manage / reduce construction staff travel by private car, particularly single occupancy trips, to minimise traffic impacts during the construction of the Onshore Development.

3.3.8 Onshore Noise and Vibration

3.3.8.1 A Construction Noise and Vibration Management Plan (CNVMP) will set out:

- Best practice measures to minimise construction of noise and vibration, including control of working hours;
- Procedures for agreeing with the Aberdeenshire Council and ECU that are suitable for noise management and monitoring for any 'out of hours' work;
- Roles and responsibilities for implementing the plan;
- A stakeholder engagement plan including a complaints handling procedure; and
- A further assessment of construction noise.

3.3.8.2 Construction traffic routes will be chosen to avoid routing lorries through villages and residential properties on minor roads as far as possible.

3.3.9 Waste Management

3.3.9.1 A Site Waste Management Plan (SWMP) will be developed and adhered to in order to appropriately document and control waste at construction sites. The SWMP will describe the appropriate method and procedures for outlining the types and amount of waste created and the processes to store and dispose of them safely, legally, and efficiently. As a minimum the SWMP will include: a waste inventory and procedure for each waste type, a site plan with waste disposal/recycling locations, expected percentage recycling levels and waste management actions for each waste type.

3.3.10 Wet Weather Protocol

3.3.10.1 A Wet Weather Protocol will be adhered to and will describe the appropriate method and procedures for managing adverse weather conditions on site whilst minimising loss and maintaining quality.

3.4 Monitoring

3.4.1.1 A program of monitoring is an essential component of the CEMP to assess the effectiveness of environmental management measures and ensure compliance with regulatory requirements. The CEMP will document a monitoring program, which may include the following items, as relevant to the project:

- Surveys;
- Site Inspections;
- Environmental Audits; and
- Physical Monitoring.

4 References

IAQM. 2014. Guidance on the assessment of dust from demolition and construction. Available online at:
<https://iaqm.co.uk/text/guidance/construction-dust-2014.pdf>

Scottish Environmental Protection Agency. 2021. Supporting Guidance (WAT-SG-75) Sector Specific
Guidance: Water Run-Off from Construction Sites. Available online at:
<https://www.sepa.org.uk/media/340359/wat-sg-75.pdf>.

5 Appendix A: Contacts Database

Role	Name	Telephone	E-mail
Salamander Contacts			
[To be added post-consent]			
External Stakeholder Contact Details			
[To be added post-consent]			