


TECHNICAL APPENDIX A14.6 VIKING WIND FARM ADDENDUM ENVIRONMENTAL STATEMENT		 <b>viking energy</b> Harnessing Shetland's natural resources
SITE ENVIRONMENTAL MANAGEMENT PLAN (SEMP) TECHNICAL SCHEDULE No. 9 ENVIRONMENTAL INCIDENT AND EMERGENCY RESPONSE		
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# SITE ENVIRONMENTAL MANAGEMENT PLAN


## VIKING WIND FARM

### TECHNICAL SCHEDULE 9

## ENVIRONMENTAL (INCIDENT AND EMERGENCY) RESPONSE PLAN


<b>SEMP Version:</b>	1.0	
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## 1 INTRODUCTION

### 1.1 Scope and Objectives

1.1.1 The information contained herein forms Technical Schedule 9 (TS9), Environmental (Incident and Emergency) Response Plan, of the Viking Wind Farm Site Environmental Management Plan (SEMP). The SEMP, including the information and measures contained within this Technical Schedule, form part of the Contract and will be made available to those tendering for construction works.

1.1.2 The Contractor is required to prepare a detailed Environmental (Incident and Emergency) Response Plan in line with the requirements of the SEMP and in particular the information contained within this Technical Schedule. Within this plan, the Contractor's will provide emergency response contacts, reporting procedures, and procedures for dealing with all potential pollution incidents during the construction of the wind farm. A pollution incident is any discharge to land, air or water that could cause environmental damage. Examples of pollution incidents include:


- fuel drips or spills during refuelling;
- leaking plant or equipment;
- leaks from fuel or chemical containers;
- contaminated water or sediment / silt entering a watercourse or drain;
- wind blown dust and waste;
- operational failures of pumps and pipelines; and
- failures of treatment plant.

### 1.2 Reference Documentation

1.2.1 The Contractor's detailed Environmental Response Plan will take into account the requirements of current legislation as well as published guidance documents such as:

- **SEPA PPG21, Pollution Incident Response Planning.**

1.2.2 In developing the detailed plan, reference will be made to Technical Schedules TS2 (Pollution Prevention Plan), TS3 (Site Waste Management Plan) and TS4 (Drainage Management Plan).

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## 2 GENERAL REQUIREMENTS

2.1.1 Environmental incidents may include: spillages (oils and chemicals); contaminated run-off; flooding; riverbed disturbance; damage to underground services; damage to habitats; poor waste disposal and storage.

2.1.2 The Environmental Response Plan will:

- Provide an outline of the construction works and appropriate references to other developed environmental plans (Pollution Prevention Plan, Drainage Management Plan and Site Waste Management Plan) and construction method statements.
- Summary of local environmental sensitivities, e.g. private water supplies or other abstractions, protected species or habitats and high amenity areas;
- Identify key staff and contact details for environmental management and emergency response, including contact details for staff trained in the use of spill kits, booms etc.
- Provide contact telephone numbers for the emergency services and SEPA Pollution Hotline (0800 80 70 60).
- Inventory of stored materials and emergency response spill kits (e.g. oil absorbent materials, silt fencing, sand bags etc);
- Provide detailed procedures to be taken in the event of an incident or emergency (including procedures for positioning and movement of plant) and identify relevant personnel who will be responsible for implementing such procedures.
- Provide details and evidence of training of site staff/plant operators in emergency response procedures, including the correct use of spill kits and booms etc.
- Procedures contained within the plan should consider preventative measures, containment, clean up, waste disposal of recovered spilled materials or contaminated soils and clean up kits, and reporting requirements.
- Provide details on training requirements, including inclusion of Environmental Incident and Response training in site inductions and tool box talks.
- Provide a 1-2 page Summary Sheet as outlined in Section 4 containing the key information for incidents response. This sheet, once finalised as part of the detailed SEMP, will be provided as a laminate copy to all plant operators (i.e. one copy to be located in all machinery and on-site vehicles) and displayed at prominent locations (to be agreed with EcoW and the Employer).

2.1.3 The *Contractor* will provide a site layout plan that shows:

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- all areas that potential pollution sources including the locations of car parks, delivery and fuel / chemical storage areas, oil separator equipment, excavations, and any other high risk areas (oil/chemical storage areas, refuelling areas, concrete batching and wash out areas etc) that could give rise to pollution;
- The location of potential sensitive environmental receptors, including locations of private water supply, sensitive habitats or species, surface watercourses, drains or culverts where pollution may travel to; and
- The location of spill kits and other pollution control or emergency response equipment; and
- Those areas on site which have limited or no mobile phone reception (or reception for certain providers only).

2.1.4 To ensure that the incident response plan works, and that all involved know their role in it, the procedures for responding to a major pollution incident will be a regular topic at tool box talks and management meetings on site. Any lessons learnt from any response to real incidents will be fed back into the plan to ensure that best practice is followed.

### **3 ENVIRONMENTAL INCIDENT AND HAZARD REPORTING**

- 3.1.1 A system for reporting environmental incidents or potential hazards will be developed for the site. All reported incidents or hazards will be logged in a database to allow review, auditing and lessons learned.
- 3.1.2 A blank Environmental Audit Form is appended to this document. Non-compliance with this SEMP may result in a potentially damaging environmental incident. Non-compliances and corrective actions will be logged as part of the reporting system referred to above.

## 4 SUMMARY SHEET FOR MACHINERY / PLANT OPERATORS

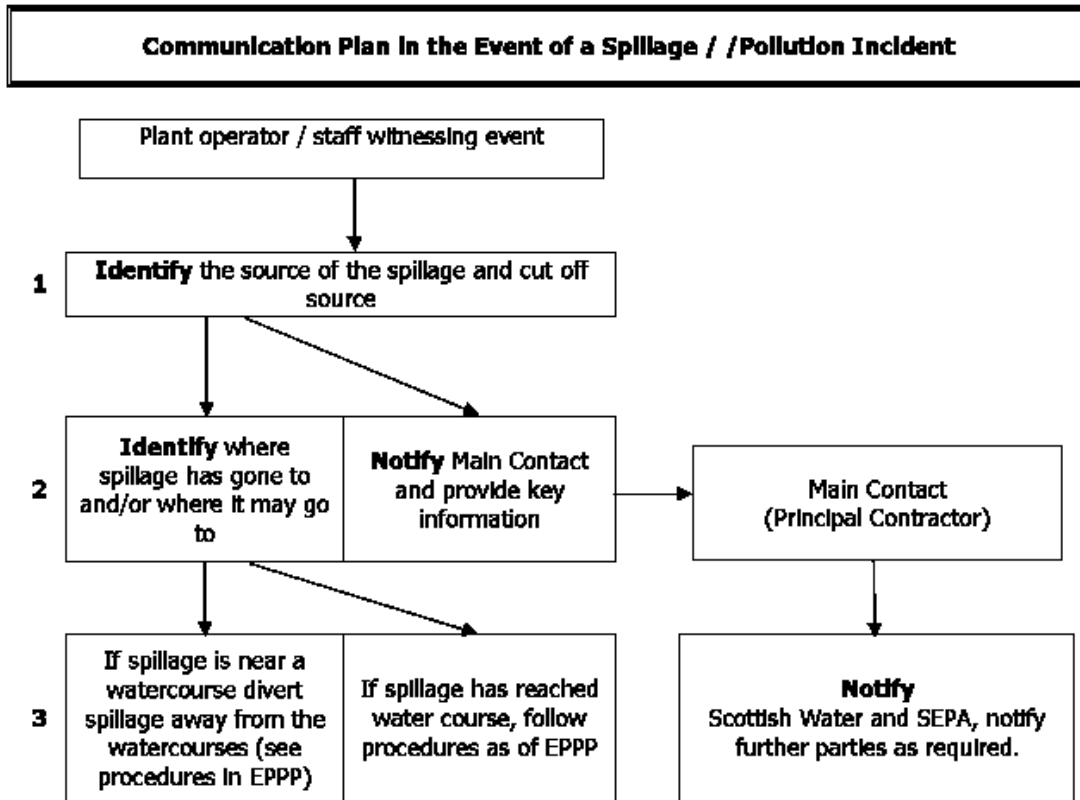
- 4.1.1 As outlined in Section 2 above, the *Contractor* will provide a 1-2 page Summary Sheet containing the key information for incidents response to be used as a quick reference for any on-site personnel witnessing an incident. A laminate copy of this Summary Sheet will be located with all plant / machinery / on-site vehicles. Suggested content of this sheet is provided as follows:

### **PROCEDURES TO BE FOLLOWED IN THE EVENT OF A SPILLAGE/ INCIDENT:**

The following procedures are intended as a guide to dealing with incidents. Staff shall act in accordance with these procedures whilst applying common sense and ensuring their own health & safety and those of others.

1. If possible, identify the source of the spillage and cut off source, e.g. by closing valve, righting container etc;
2. Identify where spillage has gone to and/or where it may go to. If spillage is near a watercourse (drainage ditch, burn, river) divert spillage away from the watercourses by digging interception trenches or by using absorbent material (spill kit);
3. Notify all parties in an appropriate order as stated below. Notification should be made by one person only whilst the remainder of staff present attend to the spill itself;
4. If a spill has reached a watercourse the following measures should be applied-
  - Place flexible absorbent booms ahead of the contamination within a quiet stretch of water;
  - Place absorbent cushions in the water immediately upstream of these booms; and
  - Repeat this process further downstream and remove and replace saturated absorbent material as required.
5. Dig up all contaminated ground as soon as possible / immediately. All contaminated materials should be placed in sealed polythene bags/containers and disposed of appropriately by the Principal Contractor; and
6. Complete required record of incident and response into reporting system / database.

4.1.2 A Communication Plan (to be followed in the event of a spillage) will be provided by the *Contractor*, in liaison with relevant stakeholders and will be included in the updated TS9 prior to commencement of site development works. An outline Communication Plan is proposed below:



*The final plan should also provide relevant key telephone/mobile numbers.*

**Key Information to be provided in a clear and concise manner:**

- What substance was spilled;
- Approximate volume and time of spillage;
- Accurate Location of spill (GPS or grid reference if possible, or bridge ID/number referenced on map etc);
- All measures taken;
- Help required i.e. manpower, machinery, expert advice, disposal, etc; and,
- Whether the spill has reached a watercourse.

# SITE ENVIRONMENTAL AUDIT REPORT

## VIKING WIND FARM



<b>Site:</b>		<b>Date:</b>	
<b>Time:</b>		<b>Weather conditions:</b>	

<b>Report by:</b>		<b>Position:</b>	
<b>Viking Energy Partnership personnel present:</b>		<b>Position:</b>	
<b>Contractor personnel present:</b>		<b>Position:</b>	

Item	Questions	Yes	No	Corrective Action Required	
				Action	By
<b>1. Miscellaneous</b>					
1.01	Does the contractor carry out regular internal environmental audits on the site? Are recommendations recorded and is corrective action monitored?				
1.02	Have any environmental incidents occurred and have these been reported as per on site procedure?				
1.03	Does the site induction contain a section on environmental requirements, including spill procedures, and is this communicated effectively?				
<b>2. Land</b>					
2.01	Are areas of hard standing (excluding bunded and refuelling areas) appropriately drained?				
2.02	Have local roads been inspected and cleaned where necessary?				
2.03	Has all test pitting and soil stripping been monitored by an archaeologist?				
2.04	Have all site clearance works been checked by an ecologist prior to works?				



# SITE ENVIRONMENTAL AUDIT REPORT

## VIKING WIND FARM



Item	Questions	Yes	No	Corrective Action Required	
				Action	By
<b>3. Materials and equipment</b>					
3.01	Is there knowledge of the Water Environment (Oil Storage) Regulations 2006(Scotland)?				
3.02	Are transformers/generators located in secondary containment bunds?				
3.03	Are all bunds capable of containing 110% of the volume of the largest container?				
3.04	Is refuelling carried out in a designated refuelling bay?				
3.05	Does all site drainage on hard standing drain to an oil interceptor?				
3.06	Is the designated area for oil, fuel and chemical storage appropriately sited (i.e. on hard standing at least 10m from a watercourse)?				
3.07	Are there procedures in place to monitor bund integrity and manage bund rainwater levels? Are these followed and recorded?				
3.08	Is there awareness that oil or residue from contaminated water removed from bunds should be disposed of as special waste and not discharged to land or the water environment? (oil absorbent materials (pads etc) should be used first)				
3.09	Are all drums and mobile plant (e.g. generators) placed on drip trays more than 10m from any watercourse?				
3.10	Is all plant maintained in a good state of repair and checked for evidence of leaks? Are there records of this?				
3.11	Are there adequate spill kits available and stored in close proximity to potential risks?				
3.12	Are all refuelling bowsers double skinned, locked when not in use, and in				

# SITE ENVIRONMENTAL AUDIT REPORT

## VIKING WIND FARM



Item	Questions	Yes	No	Corrective Action Required	
				Action	By
	a good state of repair?				
3.13	Is there evidence of unmanaged / unrecorded fuel / oil spillages on site?				
3.14	Are dry or wet wheel washing facilities fully operational and effective?				
3.15	If wet wheel washing facilities are required, are these closed systems with no discharge to the water environment?				
3.16	Are there laboratory certificates (accredited by the UK Accreditation Service (UKAS)) to confirm that imported material stone aggregate brought onto site is free from any contamination?				
<b>4. Noise, Dust and Light</b>					
4.01	Are there facilities to dampen stockpiles and site working areas/roads to suppress dust?				
4.02	Are vehicles carrying loose material sheeted at all times?				
4.03	Are construction works, or deliveries of materials to and from the development, audible at noise sensitive premises?  To avoid noise nuisance, do deliveries take place within the hours of 07.30-19.00 Monday to Friday and 07.30-13.00 on Saturdays?				
4.04	Has all external construction lighting received the approval of the planning authority?				
<b>5. Waste</b>					
5.01	Is the site tidy and free from litter?				
5.02	Is there evidence of waste beyond the site boundary?				
5.03	Is waste segregated and kept securely in containers in clearly designated areas?				
5.06	Does all waste leaving the site have the appropriate duty of care paperwork?				

# SITE ENVIRONMENTAL AUDIT REPORT

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Item	Questions	Yes	No	Corrective Action Required	
				Action	By
5.07	Is all waste leaving the site being taken to an appropriately licensed site?				
5.08	Does all special/hazardous waste (e.g. oil contaminated soils, waste oil) have the appropriate Special Waste Consignment Note?				
5.09	Is material re-used/recycled on site where possible?				
5.10	Are waste management practices in line with the site waste management plan?				
5.11	Are relevant Waste Management Exemptions in place for use of waste on site (e.g. use of waste concrete to create foundation sub-base)?				
5.12	Is there any evidence of burning on site?				
5.13	Is there any evidence of unlicensed burial of waste?				
<b>6. Water</b>					
6.01	Do all discharges to land or watercourses have appropriate authorisation from SEPA?				
6.02	Does all watercourse engineering (bank protection, crossings etc.) have the appropriate authorisation from SEPA?				
6.03	Do any abstractions from a watercourse or groundwater body have the appropriate authorisation from SEPA?				
6.04	Has confirmation for the SUDS design for access roads been gained from SEPA?				
6.05	Are cut-off ditches installed on the uphill side of the working area to avoid contaminating surface water run-off?				
6.06	Have field drains been diverted where necessary?				
6.07	Is adequate treatment (e.g. settlement tanks/lagoons/ discharge to land) provided to prevent silt contaminated water entering watercourses and				

# SITE ENVIRONMENTAL AUDIT REPORT

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Item	Questions	Yes	No	Corrective Action Required	
				Action	By
	groundwater?				
6.08	Has vegetation removal/ clearance of the site been minimised to avoid unnecessary areas of bare ground?				
6.09	Have buffer-strips been left between working areas and watercourses?				
6.10	Is plant operating in the watercourse?				
6.11	Have all culverts been approved in writing by the planning authority / local council in conjunction with SEPA and SNH?				
6.12	Have silt fences been installed at the base of stockpiles situated within close proximity to watercourses?				
6.13	Are there adequate controls on site construction roads to minimise sediment runoff into watercourses (in particular, are there adequate flow attenuation measures within surface drains)?				
6.14	Are there any signs of decaying straw bales in water courses? (this could lead to organic pollution of the water course)				
6.15	Are silt traps regularly maintained?				
6.16	Has ease of maintenance been considered in the design of permanent drainage features?				
6.17	Is there evidence of contamination of any watercourse (e.g. with oil, sediment, concrete, waste) in the vicinity of the works?				
6.18	Is monitoring of potential impacts on watercourses carried out on a regular basis and fully recorded?				
6.19	Are dewatering operations being carried out in such a way to minimise sediment contamination?				
6.20	Is drainage and run off in concrete batching areas adequate?				
6.21	Are adequate pollution prevention				

# SITE ENVIRONMENTAL AUDIT REPORT

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Item	Questions	Yes	No	Corrective Action Required	
				Action	By
	measures considered and put in place during concrete pours?				
<b>7. Landscape</b>					
7.01	Have earthworks been designed to promote successful re-instatement of vegetation?				
7.02	Are reinstatement and restoration works being implemented in a timely manner as per the requirements of the Contract?				
<b>8. Ecology</b>					
8.01	Have storage sites (soil, plant etc.) been sited on areas of lower quality habitat where possible?				
8.02	Is the ECoW a member of the Institute of Ecology and/or Environmental management as required by planning conditions?				
8.03	Has the ECoW inspected areas of forest prior to felling?				
8.04	Have buffer zones been constructed and maintained around designated protected species exclusion areas (e.g. red squirrel dreys, water vole habitats, otter holts etc)?				
8.05	Have bat emergence/ dawn surveys been carried out prior to tree felling to ensure bats are not present in forested areas?				
8.06	Have toolbox talks on the subject of ecology and environmental responsibilities on site been delivered?  Have attendance records been maintained for these?				
<b>9. Documentation Check</b>					
9.01	Start up meeting record				
9.02	Full contacts list in Section 3, Table 3.0 of SEMP				
9.03	Induction records				

# SITE ENVIRONMENTAL AUDIT REPORT

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Item	Questions	Yes	No	Corrective Action Required	
				Action	By
9.04	Pollution Prevention Measures Register				
9.05	Geotechnical Risk Register				
9.06	Weekly meeting minutes				
9.07	Records of environmental checks and routine monitoring of mitigation measures				
9.08	Monthly ECoW reports				
9.09	Final report				
9.10	Water Quality Monitoring Results				
9.11	Safety and Environmental Awareness Reports (SEARs). Filed and entered on database?				
9.12	Previous Environmental Audit Reports for the site.  (If yes, insert date of last audit_____)				
9.13	Contractor's Environmental Plans (Technical Schedules or Construction Method Statements): <ul style="list-style-type: none"> <li>• TS1-Site Induction Schedule</li> <li>• TS2-Pollution Prevention Plan</li> <li>• TS3-Site Waste Management Plan</li> <li>• TS4-Drainage Management Plan</li> <li>• TS5-Water Course Crossing Plan</li> <li>• TS6-Water Quality Monitoring Plan</li> <li>• TS7-Excavated Material and Reinstatement Plan</li> <li>• TS8-Ecological (Species and Habitat) Protection Plan</li> <li>• TS9-Environmental Incident and Emergency Response Plan</li> </ul>				