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FCBC
Queensferry Crossing

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Project **FORTH REPLACEMENT CROSSING**

Document title
LAND BASED INCIDENT RESPONSE PLAN

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INCIDENT RESPONSE PLAN

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1 INTRODUCTION AND SCOPE

- 1.1.1 This plan sets out the controls and arrangements that will be implemented to ensure that site works comply with statutory requirements and good practice with regard to preventing pollution and nuisance from environmental incidents and accidents. An Environmental Incident may include a spillage to a water resource (surface and/or groundwater), the ground or the marine environment, abnormal emissions to air and damage to an ecosystem.
- 1.1.2 This plan should be read in conjunction with the following other parts of the FCBC Construction Environmental Management Plan:
- Area Management Plan;
 - Marine Incidence Response Plan;
 - Noise and Vibration Management Plan;
 - Dust and Air Quality Management Plan;
 - Geology, Groundwater and Land Contamination M-anagement Plan; and
 - Surface Water Management Plan.
- 1.1.3 This plan has been prepared in line with the following Pollution Prevention Guidelines and reports:
- SEPA PPG 18: Managing fire water and major spillages;
 - SEPA PPG 21: Pollution Incident Response Planning
 - SEPA PPG 22: Incident Response – dealing with spills; and
 - SEPA PPG 26: Safe Storage – drums and intermediate bulk containers
- 1.1.4 This plan covers all construction operations within the principal contract construction site(s) area. It also includes the following key locations:
- Ferrytoll construction site compound;
 - Echline Fields construction site compound; and
 - Network Connections.
- 1.1.5 This document is for land based spills, for spillages to the Marine Environment refer to the Marine Spillage Response Plan.
- 1.1.6 All construction activities will be undertaken in accordance with an approved Method Statement, which will provide additional task-specific and location-specific controls to augment those identified in this Incident Response Plan where applicable.

2 CONTACTS

2.1.1 Key contacts are provided below (Table 1). FCBC and EDT contacts will be responsible for ensuring that an appropriate nominated contact is available to cover any periods of absence. The contact procedure is set out in Section 10 and Figure 1.

Table 1: Contacts

FCBC Construction Team

Contact	Contact Name and Number(s)
FCBC Environmental Manager	
FCBC Line Manager	
FCBC H&S Manager	
FCBC Contract Administrator	

Employer's Delivery Team (EDT)

Contact	Contact Name and Number(s)
EDT Environmental Management	
EDT Networks Resident Engineer	
EDT H&S Manager	
EDT Insurance Advisor	

Stakeholders & Regulatory Bodies

Contact	Contact Number(s)
City of Edinburgh Council	0131 200 2000
Fife Council	0845 155 0099
West Lothian Council	01506 777000
SEPA	0800 807 060
Scottish Hydro-Electric - S&SE	0800 300 999
Scottish Natural Heritage	0131 316 2633
Scottish Power	0845 272 7999
Scottish Water	0845 600 8855

H&S Emergency – Please refer to Health and Safety Plan

Contact	Contact Number(s)
Fire Brigade - Fife	999/01592 261 601 (Emergency/non-emergency)
Fire Brigade- Lothian and Borders	999/0131 228 2401 (Emergency/non-emergency)
Gas emergency number	0800 111 999.
Police – Fife (Scotland)	999/0845 600 5702 (Emergency/non-emergency)
Police - Lothian and Borders (Scotland)	999/0131 311 3131 (Emergency/non-emergency)
St. Johns Hospital, Livingston	01506 523 000
Victoria Hospital, Fife	01592 643 355

- 2.1.2 For each out of hours works activity FCBC will nominate a Person in Charge (PiC) identified in method statements who can be contacted on a dedicated number. The PiC will receive detailed training on the control and reporting steps set out in this management plan. Following an incident, any affected 3rd parties will be contacted by the Community Relations Team to ensure they are informed of the incident and any steps taken to correct and remediate the situation, and whether protective measures have been effective.
- 2.1.3 FCBC will maintain a drawing and flier in each office and compound detailing the address, directions and contact numbers for all emergency services. This will be checked every 6 months, or updated as necessary.
- 2.1.4 The FCBC out of hours contact numbers have been circulated to the regulatory authorities. The public hotline number is 0800 078 6910 and can be contacted 24/7 by members of the public should any concern arise regarding the works.

3 DEFINITIONS

- 3.1.1 For consistency, FCBC will use the same definitions for land based spills as marine spills, as defined by the internationally recognised Tier system (National Contingency Plan) as follows:
- 3.1.2 **Near Miss:** An unplanned event (such as a spillage) which has the potential to cause pollution but due to location or quick response does not result in pollution/contamination/nuisance.
- 3.1.3 **Tier 1 - Minor Incident:** An event which is likely to cause, or has caused, pollution or harm to either water resources or ground, or involves abnormal emissions to air, or physical impact to ecosystems, that can be controlled and any emissions dealt with within one hour of the incident occurring locally by the person in charge without having to call on assistance internally or externally. This includes breaches of consent, permit or licence conditions.
- 3.1.4 **Tier 1 - Medium Incident:** An event which is likely to cause, or has caused, pollution or harm to either water resources or ground, or involves abnormal emissions to air, or physical impact to ecosystems, that can be controlled and any emissions dealt with within one hour of the incident occurring locally with assistance from internal spill responders. This includes breaches of consent, permit or licence conditions.
- 3.1.5 **Tier 2 - Major Incident:** An incident where an emergency situation arises, a legal breach is identified or enforcement action is served by a regulator, or there has been a major system failure.
- 3.1.6 **Tier 3 - Major Incident:** A large spill, requiring a national response and resources.
- 3.1.7 **'Incident':** Also defined by the Controlled Activity Regulations (CAR) licence as:
- any accident which has had or could have an adverse impact on the water environment; or
 - any malfunction, breakdown or failure of plant or techniques which has had or could have an adverse impact on the water environment; or
 - any event, such as *force majeure* or action taken to save human life or limb, which results, or is likely to result, in a breach of any condition of this licence.
- 3.1.8 **Emergency:** A major incident where the effects of the event cannot be controlled (e.g. blowout from cement silos, breakout from processes involving bentonite, major spillages of hazardous substances).
- 3.1.9 **Blowout:** Any malfunction or breakdown which results in abnormal emissions to the air which are likely to have an effect on the local community, and which require the local enforcing authority to be notified (note - this is covered in the Dust and Air Quality Management Plan).

- 3.1.10 **Line Managers:** A Line Manager is the most senior member of staff present at the location of the incident. The Line Manager may be the: Project Manager, Area Manager, Construction Manager, Agent, Supervisor or Team Leader, Section Engineer, Site Engineer or Senior Foreman.
- 3.1.11 **Enforcing Authority:** This may be any statutory authority such as SEPA (water and land), Local Authority (air, nuisance) and SNH (flora and fauna).

4 RELEVANT LEGISLATION

- Environmental Liability (Scotland) Regulations 2009.
- Environmental Protection Act 1990.
- Water Environment (Controlled Activities) (Scotland) Regulations 2011.
- Water Environment (Oil Storage) (Scotland) Regulations 2006.
- Pollution Prevention and Control (Scotland) Regulations 2000.

5 RESPONSIBILITIES

- 5.1.1 All site personnel: All site operatives are responsible for identifying and reporting any incidents and where appropriate implementing controls – see Figure 1 and Tables A1 – A2.
- 5.1.2 Line Managers are responsible for ensuring that appropriate controls, remedial procedures and reporting requirements are implemented when an incident is identified – See Figure 1. Line Managers are also responsible for providing briefing of this method statement to staff and operatives.
- 5.1.3 The Environmental Manager will assess the effectiveness of the response procedure to identify any areas where improvement is required to comply with the requirements of the CoCP. The Environmental Manager will be informed of all incidents.
- 5.1.4 FCBC have the necessary resources, skill-set and training to respond to deal with Tier 1 spills. In the event of a Tier 2 spill, Environmental Contractors will be mobilised by the project insurers to clean up the spill (Figure 1).
- 5.1.5 Any works interfacing with the BP pipeline will be controlled via method statements and consultation with BP and are out with the scope of this Incident Response Plan.

6 INCIDENT CONTROLS

6.1.1 The primary materials stored on site which could lead to a potential incident are shown in Table 2.

Table 2 – Material and potentially polluting materials kept on site

Material	Volume	Location
Fuel	40000l 40000l	Marine Yard Echline Compound
Cement	6 X 150t cement silos	Batching Plant
Paints/solvents	Various small containers	Across site (stored in locked and bunded areas)

6.1.2 Mobile refuelling bowsers will be filled at the fuel stores and operated throughout site to refuel equipment in accordance with appropriate method statements.

6.1.3 Table 3 sets out the type of incidents, high risk activities and relevant controls that will be applied by FCBC to control the incidents. Plans showing the Ferrytoll and Echline Compound drainage plans are attached in the appendices of this document. Consents/permits/ licences will be maintained at all times by FCBC on a consents register. This register of consents, with relevant conditions shown, will be maintained by the environment department and disseminated to the relevant construction teams prior to works commencing in that area.

Table 3- Overview of Incidents and Controls Currently Identified

Incident Type	High Risk Activities	Controls
Fugitive emission of dust	Batching plant blow out Earthworks Management of haulage routes	Refer to Dust and Air Pollution Management Plan.
Spillage of potentially polluting material		
- to land	Management of fuels and oils, concrete, PFA and cement	Refer to Figure 1.
- to fresh surface water	Management of fuels and oils and concrete	Refer to Figure 1.
- to marine waters (Refer to Marine Incident Response Plan)	Management of fuels and oils Management of concrete	Refer to Marine Incident Response Plan Table A3. Refer to Marine Incident Response Plan Table A4.
Fire	Unforeseen	If a fire occurs it will be extinguished by appropriate means. Absorbent mats will be deployed over the gully network if safe to do so. Any ponding firewater will be tested and then pumped or tankered from the site. Land contamination assessment will be undertaken once the fire has been fully controlled
Direct or indirect impact on ecological resource	Site clearance and earthworks	Refer to Ecological Management Plan Section 5
Direct or indirect impact on archaeological resource	Earthworks	Refer to Cultural Heritage Management Plan Section 4.
Breach of permit/licence/consent condition	Permit types- Drainage, abstraction or works affecting surface waters (CAR) Pollution Prevention Control permits for mobile crushers, screens and the batching plant Trade Discharge Consent	In the event of a breach of a condition within a permission, the Employers Delivery Team (EDT) will be notified. Works will be suspended where necessary or practicable to do so. Corrective controls will be implemented. The relevant regulatory authority will be notified.
Noise emissions	All construction works. In particular out of hour works.	Noise and Vibration Management Plan and relevant Plan for Control and Noise and Vibration.
Fugitive light emissions	Out of hour works or security lights in compounds	Refer to Area Management Plan.

7 SPILL KIT PROVISIONS

7.1.1 Locations of spill kits will vary as works progress in each location, and as such it is not appropriate to include plans showing spill kits. As a minimum the following locations and activities will have spillage control systems:

- Stores/main site compounds.
- With each refuelling bowser.
- On site at works near to surface waters and drains (e.g. Firth of Forth, Linn Mill Burn, Port Edgar).
- Where works have a risk of pollution (e.g. bentonite piling).
- In areas where any spillage could affect nearby residential properties.

7.1.2 In all situations account will be taken of the risks at the work location to determine what level of spill kit provision is required; this will be determined by the Site team and Environmental Team and varies from location to location. Spill kits will be restocked to appropriate levels after use in an incident.

8 MONITORING

8.1.1 The investigation and the processes to instigate corrective measures are set out in Section 9 and Figure 1.

8.1.2 All works areas will be subject to routine inspections to ensure spillage controls are in place and the construction teams fully comprehend the relevant controls. The adequacy of spillage controls will be part of weekly site inspections.

9 INCIDENT REPORTING

- 9.1.1 Where the incident is controllable (Tier 1) and the Environmental Manager or delegate believes no intervention is required from any third party/enforcing authority, then controls should be implemented, the incident cleaned up/resolved and a note made in the site diary and an incident response form completed and passed to the environmental team within 24 hours. All incidents will be reported to the Employer's Delivery Team including Irene Bisset (IB) who will report all Tier 1 incidents to the Insurers on notification. All Tier 2 incidents should be reported to IB as soon as practicably possible for notification to the project insurers immediately. In the event of a Tier 2 incident and IB is not available, notification should be provided to the Loss Adjuster directly.
- 9.1.2 A near miss should be reported in the same manner as a Tier 1 minor incident. The project insurers do not need to be notified of near miss incidents.
- 9.1.3 Where an incident cannot be managed using on-site resources (Tier 2), or where a Tier 1 incident escalates to a Tier 2 incident, assistance should be immediately requested from the relevant enforcement authority as listed within this Plan (see Figure 1). The most senior Line Manager present on site should report the incident. The insurers provide a consultancy resource in the event that this is required in the event of an incident. Whilst there is no obligation to use the insurer consultancy resource, they can be utilised at any time. Contact details for which are provided in Table 1.
- 9.1.4 In the event that external assistance is required or an incident is considered difficult to control (e.g. cannot be cleaned up within one hour of occurring) a non-conformance report should be raised by a Line Manager setting out the following data:
- Time of incident
 - Date of incident
 - Location of incident
 - Incident details (including type)
 - Nearby environmental receptors (e.g. river, burn, houses, ecology)
 - Root cause of the incident
 - Person reporting the incident
 - Third parties / enforcing authority contacted
 - Remediation measures taken and any preventative actions to be employed.
- 9.1.5 For activities where a CAR licence has been obtained, reporting of incidents should follow the requirements set out in the licence. Where a controlled activity is carried under General Binding Rules, SEPA should be furnished with the particulars of the incident as soon as practicable.
- 9.1.6 The FCBC Environmental Manager must ensure any Tier 1- Medium or Tier 2 incidents as detailed by this plan are reported to the FCBC Partners and Employers Delivery Team including Irene Bisset, as soon as practicable and within two hours of the incident occurring. Tier 1 Minor Incidents shall be reported to the EDT including IB within 48 hours of the incident occurring. In addition, all incidents must be recorded in the Contractor's Monthly Report to the EDT which will be provided to the Insurers for information.

9.1.7 The FCBC Environmental Manager will also report to the following as appropriate (further details are set out in Figures 1:

- FCBC Project Director
- Health & Safety Manager
- Enforcing Authority (SEPA/SNH)
- EDT
- Security

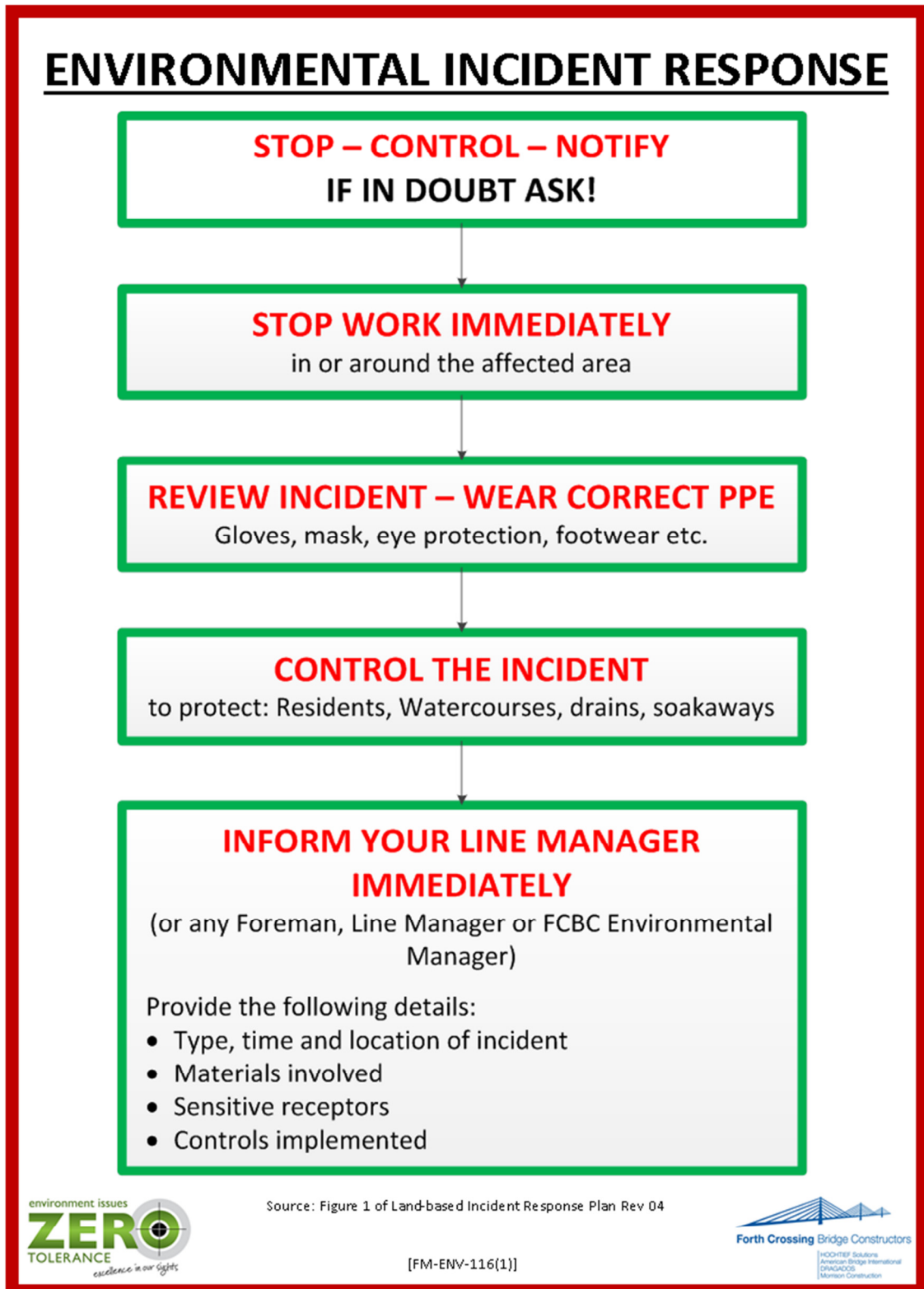
9.1.8 On receipt of the information regarding the incident the FCBC partners may instigate a process of investigation to evaluate the immediate causes, root causes, third parties informed and remedial actions undertaken.

10 TRAINING AND COMMUNICATION

10.1.1 All site operatives and line managers will receive training on the requirements of this plan to include the use of the spill kits and incident reporting as appropriate. This training will be used to inform the effectiveness of this plan and highlight any shortfalls that it may have during intervals of no longer than 6 months. Records of this training shall be kept on site in accordance with FRC Training Procedures.

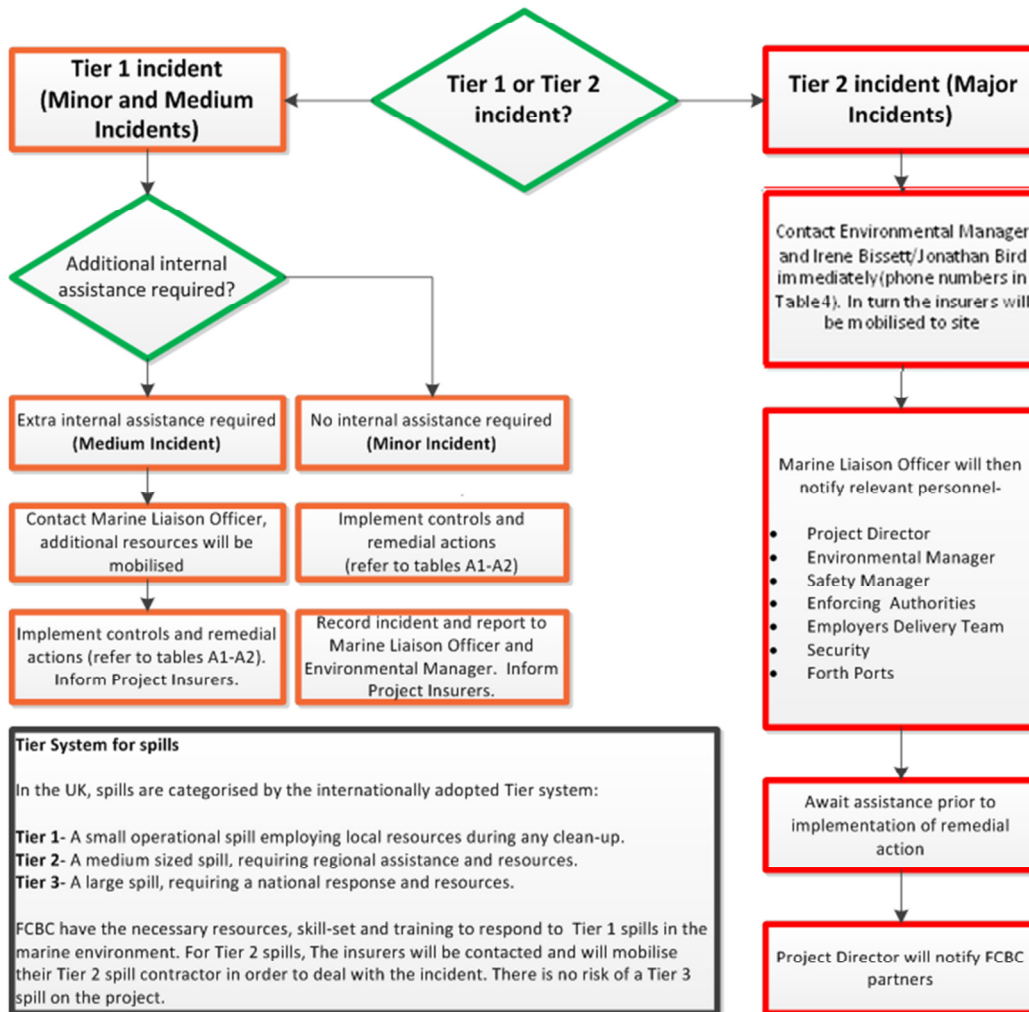
10.1.2 Copies of Figures 1 and 2, and Tables A1 and A2 will be posted in all site offices and welfare facilities to help ensure all staff have access to emergency numbers. Contact details of the Environment Team and Foremen are included in the spill kits.

Figure 1: Incidence Response Plan – land based



ENVIRONMENTAL INCIDENT RESPONSE

Review Incident including:
 Type and location
 Ensure controls are adequately applied
 Contact Environmental Manager
 Determine whether the incident is a Tier 1 or Tier 2 incident



Tier System for spills
 In the UK, spills are categorised by the internationally adopted Tier system:
Tier 1- A small operational spill employing local resources during any clean-up.
Tier 2- A medium sized spill, requiring regional assistance and resources.
Tier 3- A large spill, requiring a national response and resources.
 FCBC have the necessary resources, skill-set and training to respond to Tier 1 spills in the marine environment. For Tier 2 spills, The insurers will be contacted and will mobilise their Tier 2 spill contractor in order to deal with the incident. There is no risk of a Tier 3 spill on the project.

Source: Figure 2 of Marine Spillage Response Plan (REP-00127-02)



[FM-ENV-115(0)]



CONTROLS TO CONTAIN SPILLS ON LAND

Step	Controls	Absorbent Materials
1.	<p>Health and safety controls</p> <ul style="list-style-type: none"> • Identify type of substance and apply COSHH controls • Wear appropriate PPE • Extinguish items with potential to ignite spillage 	
2.	<p>Identify sensitive areas and protect</p> <ul style="list-style-type: none"> • Place a barrier of sand or suitable inert material around sensitive areas (surface waters, interceptors, landscape and ecological receptors and site drains etc.) to protect from spillage 	<p>Sand or inert material</p> <p>Plug rug</p>
3.	<p>Contain spillage by bunds</p> <ul style="list-style-type: none"> • Spillage onto sloping land - develop bund, of sufficient size and length to contact whole flow, across path • Small spillages on gentle slopes— contain using barriers made of absorbent material, located at the stores • Spillage on moderate slopes— develop an earth bund by excavator, dozer or manual tools. If time permits, establish a plastic lining across the containment area to stop ground penetration 	<p>Booms or sand</p> <p>Absorbent granules</p> <p>Available material and plastic sheeting</p>
4.	<p>Treat source of pollution</p> <ul style="list-style-type: none"> • Identify source of pollution and apply controls to stop re-release of polluting material • Turn off leaking valves, seal holes in containers etc 	
5.	<p>Demarcate affected area and apply absorbants</p> <ul style="list-style-type: none"> • Once contained demarcate the area • Place absorbent material (available from the stores) over the surface of the affected area. • Once the surface oils have been 'mopped up', remove absorbent material in bags or by a sealed device and place within the appropriate hazardous waste receptacle / skip. 	<p><i>Oil Based</i> - Treated Granules, Oil absorbent rolls and Sand</p> <p><i>Chemicals /Paint /solvent</i>— Chemical Pads and Sand</p> <p><i>Sewage</i>— Sand and Concrete</p>
6.	<p>Review substrate for contamination</p> <ul style="list-style-type: none"> • Environmental Manager to ensure that the soil below the affected area is thoroughly inspected for signs of contamination, e.g. changes in appearance, odour and consistency. • Soil testing to be undertaken if there is any doubt about whether any residual contaminants remain. • If contaminated then remove the substrate material to an appropriate area pending disposal and/or treatment, in liaison with the Environmental Manager. • Environmental manager to inform any relevant stakeholders and any affected property owners 	

CONTROLS TO CONTAIN SPILLS TO RIVERS & STREAMS

Any spillage to surface water resources, or to areas which may potentially lead to contamination of the water resources, should be immediately reported to your Line Manager.

Steps	Controls	Absorbent Materials
1.	<p>Health and safety controls</p> <ul style="list-style-type: none"> • Identify type of substance and apply COSHH controls • Wear appropriate PPE • Extinguish items with potential to ignite spillage 	
2.	<p>Protect the water resource</p> <ul style="list-style-type: none"> • Develop bunds on the banks or place absorbent material along ditch banks to prevent/restrict flow of pollutants to water resource 	Oil Absorbent Booms Sand and Soil
3.	<p>Contain spillage</p> <ul style="list-style-type: none"> • If the spillage occurs to a stream or ditch < 2.5 m wide, dam the affected stretch using sand bags. If sand bags are unavailable, use local material covered by a plastic sheet to create an impermeable dam. • If ditch capacity is limited and water is flowing into the ditch (e.g. if raining) then, provided the pollutant floats, install drainage pipe at base of the dam to allow unaffected water to flow — <i>only to be used if the capacity of the ditch is likely to be exceeded before pollutant is cleared up.</i> • If the width of the stream is >2.5m, i.e. close to the mouth of Linn Mill Burn, treat as per Marine Spillage Response Plan. 	Sand Bags or local inert material.
4.	<p>Control floating materials</p> <ul style="list-style-type: none"> • Establish booms immediately downstream of the affected area • Apply pads or rolls and sweep the booms over the surface of the affected area to remove any chemicals. • Continue until the chemical is completely removed. 	Booms Oils – white absorbent pads Chemical – black pads
5.	<p>Control sinking materials</p> <ul style="list-style-type: none"> • Apply procedures 1 to 3 • Immediately contact the Environmental Manager. • Ensure all possible controls limiting the volume of sinking materials entering the water resource have been implemented. 	
6.	<p>Remove any barriers or booms</p> <ul style="list-style-type: none"> • Once all the contaminants are removed from the surface of the water resource, booms and dams should be removed • reinstate bed and banks to the former quality. • Dispose of as hazardous waste. 	

REFERENCES

Environmental Liability (Scotland) Regulations 2009

Environmental Protection Act 1990

FCBC (2013) Area Management Plan

FCBC (2013) Dust and Air Pollution Management Plan

FCBC (2013) Geology, Groundwater and Land Contamination Management Plan

FCBC (2013) Noise and Vibration Management Plan

FCBC (2013) Surface Water Management Plan

Maritime and Coastguard Agency (2006) National Contingency Plan from Marine Pollution from Shipping and Offshore Installations

Pollution Prevention and Control (Scotland) Regulations 2000 as amended:

SEPA PPG 18: Managing fire water and major spillages

SEPA PPG 21: Pollution Incident Response Planning

SEPA PPG 22: Incident Response – dealing with spills

SEPA PPG 26: Safe Storage – drums and intermediate bulk containers

Water Environment (Controlled Activities) (Scotland) Regulations 2011

Water Environment (Oil Storage) (Scotland) Regulations 2006



11 APPENDIX A: FERRY TOLL DRAINAGE PLAN



12 APPENDIX B: ECHLINE COMPOUND DRAINAGE PLAN

150 mm ϕ
 → FOUL DRAIN

150 mm ϕ
 → STORM DRAIN

TO
 SUDS POND



ENGINE COMPOUND

DRAINAGE TW