

APPENDIX 18.1
Environmental Management System

Site Manager

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Corrective Action Procedure

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BORD NA MÓNA

BORD NA MÓNA ENERGY LIMITED
Leabeg, Tullamore, Co Offaly, Ireland

Srahmore Peat Repository
WL 199-1

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Environmental Non-Compliance Procedure (EP 1.0)

- Purpose:** To define a non-compliance and detail subsequent action
- Scope:** Environmental non-conformance and complaints at Srahmore Peat Deposition Site.
- Responsibility:** Site Manager or his/her deputy.
- References:**
1. (EP 2.0) Environmental Corrective and Preventive Action
 2. (EP 3.0) Environmental Incident Investigation and Reporting
 3. (EPF 2.1) Environmental Corrective Action Report Form
 4. (EPF 3.1) Environmental Notification Form
 5. (EPF 3.2) Environmental Incident Investigation Report Form
 6. Environmental Protection Agency Integrated Pollution Control Licence Register no. 507

Procedure:

1. In this case, an environmental non-compliance may be defined as any breach of a condition of the Waste Licence Register 199-1
2. Any environmental non-compliance detected by procedures already described must be communicated to the Environmental Manager who in turn informs the Site Manager or his/her deputy.
3. All relevant personnel are made aware of what constitutes a non-compliance as part of their environmental training and are informed that all non-compliance's, potential or actual, must be reported to the Environmental Manager

4. The Site Manager or his/her deputy, upon being made aware of an environmental non-compliance, will complete an *Environmental Corrective/Preventive Action Report Form (EPF 1.1)* to identify the nature and area of the non-compliance and follow the procedure as detailed in the *Environmental Corrective and Preventive Action procedure (EP 2.0)* to establish a corrective action plan to restore environmental compliance.
5. Where deemed necessary by the Site Manager, and with due reference to Conditions: 11.2, 11.3, 11.4, 11.5 of the Waste Licence, the relevant bodies will be informed of the non-compliance and associated corrective action.

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***Environmental Corrective and Preventative
Action Procedure (EP 2.0)***

Purpose: To detail procedures for environmental corrective and preventive action

Scope: Potential and actual environmental non-conformance and environmental complaints at Srahmore Peat Deposition Site.

Responsibility: Site Manager or his/her deputy.

References:

1. (EP 1.0) Environmental non-compliance
2. (EP 3.0) Environmental Incident Investigation and Reporting
3. (EPF 2.1) Environmental Corrective/Preventive Action Report Form
4. (EPF 3.1) Environmental Incident Investigation Report Form
5. (EPF 3.2) Environmental Notification Form
6. Environmental Protection Agency Waste Licence Register no. 199-1

Procedure:

1. On notification of an environmental non-conforming situation, or upon identification of a potential non-compliance through *EP1.0 Environmental non-compliance*, the Site Manager or his/her deputy will initiate and document the situation on the *Environmental Corrective/Preventive Action Report Form (EPF 2.1)*.
2. The Environmental Manager in conjunction with the Site Manager and/or his/her deputy assesses non-compliance's and potential non-compliances and relevant personnel are appointed to establish a corrective action plan. When the corrective action plan has been agreed, it will be authorised, and those responsible for the implementation of the plan will promptly conduct their duties as described therein.

3. The Site Manager or his/her deputy will ensure that any amendments to all issued procedures and/or work instructions as a result of corrective actions will be undertaken and recorded.
4. The Site Manager will monitor the implementation of corrective action, and on completion, shall assess if training or modification of a work procedure is required. If so a *Training Request Form* is completed (*EPF 7.1*).
5. On successful completion of the corrective action plan, the Site Manager will close off the corrective action plan.
6. As a result of a non-compliance situation and the corrective action taken, a plan of preventive actions will be developed and implemented to a magnitude corresponding to the non-conformance encountered.
7. All completed forms and action plans shall be retained on file at the facility in the Environmental Managers office.

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Srahmore Peat Deposition Site WL. 199-1**

Environmental Corrective/Preventative Action Report Form (EPF 2.1)

Reference Number		Date	/ /	Initiator:	
Nature of non-compliance?	Actual / Potential	Description of non-compliance			
Bodies Informed, Date and Details:					
Identified as a Result of:					
Identified by:				Date of Identification:	/ /
Action Plan:					
Responsibility:					
Target Date for Completion:	/ /	Actual Date of Completion:	/ /		
Closed by (Signature and Title):				Date:	/ /

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Environmental Incident Investigation and Reporting (EP3.0)

Purpose: To detail the appropriate response to an Environmental Incident

Scope: Environmental accidents/emergencies

Responsibility: Site Manager and/or his/her deputy

References:

1. (EP 1.0) Environmental non-compliance
2. (EP 2.0) Environmental Corrective and Preventive Action
3. (EPF 2.1) Environmental Corrective Action Report Form
4. (EPF 3.1) Environmental Incident Investigation Report Form
5. (EPF 3.2) Environmental Notification Form
6. Environmental Protection Agency Waste Licence No. 199-1

Procedure:

1. All environmental incidents must be reported to the Site Manager as soon as they occur.
2. The Site Manager with the assistance of the Environmental Manager will perform an immediate initial assessment of the incident. This assessment will determine the significance of the incident and whether corrective action must be taken (*EP2.0-Environmental Corrective and Preventive Action*). Findings of this assessment are recorded on the *Environmental Incident Investigation Report Form (EPF 3.1)*.
3. The Site Manager or his/her deputy, with reference to (*EP 2.0) Environmental Corrective and Preventive Action*, in consultation with the Environmental Co-ordinator, will instigate any appropriate *Environmental Corrective/Preventive Action (EP2.0)* to eliminate or minimise the environmental impact of the

incident. This action will be executed by the Site Manager, his/her deputy or by appointed suitably trained personnel. Any Corrective Action is detailed in the *Environmental Corrective and Preventive Action Report Form (EPF2.1)* and referenced in the *Environmental Incident Investigation Report Form (EPF3.1)*.

4. Where deemed necessary by the Site Manager or his/her deputy, and with due reference to Conditions: 11.2, 11.3, 11.4, 11.5 of the Waste Licence, the relevant bodies will be informed immediately of the non-conformance and associated corrective action. The *Environmental Notification Form (EPF3.2)* shall be completed at this stage.
5. Where the incident results in a significant environmental impact, an Environmental Programme will be established to eliminate or minimise the impact.
6. The Site Manager shall provide a proposal to the Agency for its agreement within one month to develop a preventative plan to avoid reoccurrence of the incident and to put in place any other appropriate remedial action.

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Srahmore Peat Deposition Site WL. 199-1**

Environmental Incident Investigation Report Form (EPF 3.1)

Report No.		Date and Time Recorded	/ / am/pm	Date and Time of Incident	/ / am/pm	
Nature of Incident						
Cause of Incident						
Environmental Significance of Incident						
Personnel Involved/Affected						
Statutory Bodies Informed and Details						
Consequences of Incident						
Corrective Action Required?	Yes / No	Corrective Action Report No.				
Signed:				Date		

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Srahmore Peat Deposition Site WL. 199-1**

Environmental Notification Form (EPF 3.2)

Company Name:		Phone No.:		Contact Person:		Phone No.:		
		Fax No.:				Fax No.:		
Location of Incident:								
Date and Time of Incident:				Duration of Incident:				
Nature of Incident:								
Source of Incident:						Has source been isolated?		
Cause of Incident								
Environmental Significance of the Incident:								
Corrective Action Taken?:		Corrective Action Ref. No.:		Environmental Incident Investigation Report Form Completed?				
Preventive Action Taken?		Preventive Action Ref. No.:		Remedial Action Taken?		Ref. No.:		
Emergency Services Contacted?:								
Details of Other Bodies Contacted:								
Signed:								

Srahmore Peat Repository
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Yard Inspection Log (YIL)
Daily & Weekly Inspections – Monthly Record Sheet

<i>DESCRIPTION</i>	<i>CHECKED BY</i>	<i>DATE</i>	<i>COMMENTS</i>
Sump Chamber			
Grit Trap			
Oil Interceptor			
Sump Chamber			
Grit Trap			
Oil Interceptor			
Sump Chamber			
Grit Trap			
Oil Interceptor			
Sump Chamber			
Grit Trap			
Oil Interceptor			

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Environmental Complaints Procedure

Purpose: To ensure all environmental complaints are dealt with effectively.

Scope: External and internal environmental complaints.

Responsibility: Site Manager or his/her environmental deputy

References:

1. Environmental Complaints Form (EPF 5.1)
2. Environmental Corrective Action Procedure (EP 2.0)
3. Environmental Corrective Action Report Form (EPF 2.1)

Procedure:

1. All environmental complaints with regard to the activities at the Peat Repository of the company are recorded, investigated and actioned if deemed necessary, or feasible, by the Site Manager or Environmental Manager.
2. The Site Manager or his/her environmental deputy will ensure that all environmental complaints written and verbal, from internal and external sources, are recorded on an Environmental Complaints Form
3. The Environmental Complaints Form will be processed by the Site Manager or Environmental Manager with any further relevant documentation attached.
4. Each Environmental Complaints Form will be completed with information detailing the name and address of the complainant, when known, and the time and date of the receipt of the complaint. The Environmental Complaints Form will also contain a reference number and detail the nature of the complaint including the time and date of the incident.
5. The Site Manager or his/her environmental deputy will investigate each complaint and record the results of the investigation on the Environmental Complaints Form. The results will indicate whether the complaint is valid, the source of the complaint, and whether corrective action is required. If corrective action is required, the Site

Manager or his/her deputy will initiate corrective action as per the *Environmental Corrective Action Procedure (EP 2.0)*.

6. The Site Manager and/or his/her environmental deputy, following consultation relevant employees of Bord na Móna Energy Limited, will notify all complainants of the result of the investigation and any associated corrective action, where possible within 14 days of receipt of complaint. The Environmental Complaint Form will detail the date that information was sent to complainants and authorised by the signature of the Site Manager and/or his/her environmental deputy.
7. All completed Environmental Complaints Forms are placed within a register of environmental complaints and maintained on file by the Site Manager or his/her environmental deputy. This Register will also include a summary list of filed forms. A copy of this register shall be maintained in the facility office at the Peat Deposition Site Office.
8. All complaints will be discussed at the following Environmental Management meeting and further corrective action may be required as a result.

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Environmental Complaint Form (ECF)

Method of Complaint :

Ref: No. _____

Letter ___ Telephone Call ___ Interface ___ Other ___

Date Received : _____

Name Of Complainant : _____

Address : _____

Telephone No's : **Ph.** _____ **Mob.** _____

Complaint Description	

Complaint Received By : _____

Complaint Forwarded to for Inspection : _____

Investigation Report	

Resolution	

Work Progress	

Corrective Action Required: Yes/No _____ **Ref. No.** _____

Date Resolved : _____ **Signed :** _____

**Srahmore Peat Repository
WL 0199-01**

Procedure:CSSP

Site Manager

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Environmental Manager

Rev: 1

Composite Sampler Service Procedure

1. Purpose

The purpose of this procedure is to provide for the efficient, uniform and representative weekly servicing of the Composite Sampler in accordance with the requirements of Waste Licence.

2. Scope

The scope of this procedure covers all Composite Samplers on-site

3. Responsibility

The servicing of the Composite Sampler is the responsibility of the Environmental Coordinator or an individual appointed by the Site Manager

4. Procedure

4.1 The sampler is visited once a week to remove samples and replace with clean empty bottles.

4.2 The sampler cover is removed and the programme is stopped.

4.3 The top of the sampler is removed, the securing ring removed, and the 7 x 2 litre composite samples are extracted from the sampler. The 8th bottle ie. the one being filled on the day of servicing, is placed in position 1.

4.4 A cap is placed on the composite sample bottle and it is gently agitated to provide a representative sample. The 1 litre plastic sample bottle is rinsed before filling from the 2 litre composite bottle. Where a sample volume is below the required volumes as set out below, the flow should be reduced so as to provide sufficient volumes in the next week.

- A minimum of 500mls in a plastic container is required for the daily composite samples for Total Solids and Total Suspended Solids analysis.
- A minimum of 1 litre of sample in a plastic container is required for the full suite of analysis on the composite samples. **If no sample has been collected for the day receiving the full suite of analysis, then a grab sample should be taken.**

4.5 All of the 2 litre composite sample bottles are **rinsed/cleaned thoroughly** and returned to the sampler, the securing ring and sampler cover replaced.

4.6 Each sample bottle for transportation to the Lab, is labeled with the following information provided:

Waste License No: WL 0199-01

Sample ID: (Composite sample SW4 or 104)

Client: (Bord na Mona Energy Ltd)

Sampling Date & Time: Date the composite sample was taken.

4.7 In addition to this a chain of Custody must be filled in. This will give the details of the sample, the analysis required, the sampler, transporter, and will be signed in by personnel from the lab.
A copy is attached.

4.8 The sampler must then be restarted, by running the programme.

4.9 Before leaving the site, the velocity probe and the conductivity meter should be checked for debris & scum build up, as this reduces the

performance of the flow meter. The suction head should also be checked for accumulated dirt/peat.

4.10 Samples must be delivered to the laboratory ASAP after sampling, at least, 24 hrs after taking the samples.

Site Manager

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Dust Handling Procedure

1. Purpose

The purpose of this procedure is to provide for the protection of the environment by reducing dust blow during transport operations at the site. This will be achieved by adopting a Dust Handling Procedure.

2. Scope

The scope of this procedure covers the entire road and bog transport network within the site boundary

3. Responsibility

The implementation of the Dust Handling Procedure is the responsibility of the Site Manager

Procedure

1. Meteorological Records are maintained at the Srahmore site. These include rainfall, evaporation & wind direction (using the installed wind sock).
2. If during any particular day, it is felt that the weather conditions are such that they may cause dust blow off the entrance road, peat reception area or internal haul roads, or if dust is observed blowing off these surfaces, appropriate measures should be taken. These observations should be noted on the attached daily inspection logs.
3. The tractor and water tanker should be deployed to dampen down all road surfaces, during the day in question.
4. The water tanker should be kept full at all times, and refilling should only occur at the sump on the main outfall.

5. Where excessive dust starts to accumulate on these surfaces, it should be swept to the side using a hydraulic brush.
6. Where dust suppression measures are required, these incidents should be noted on the day to day operational records.

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Environmental Management Documentation System

Purpose: To ensure that all procedures/codes of practice, inspections/ audits, reports, correspondence, notices and documentation are appropriately file and managed in relation to date of issue, reporting periods, revisions, replacement of notices and the reporting requirements of the Waste Licence.

Scope: All documentation relating to the management and day to day operation of the Srahmore Peat Reception Site

Responsibility: Site Manager or his/her environmental deputy

Procedure:

Correspondence.

1. All correspondence relating to the project, received at the site office at Srahmore, or at the Oweninny office, should be date stamped and file in the site office.
2. All correspondence requiring a response from Bord na Mona should be filed in an Action folder and brought to the attention of the Site Manager.
3. All correspondence from the site office should be given a reference no. and indication of the identity of the intended recipient e.g., WL199/001/EPA, Srahmore/002/MayoCOCO etc.
4. All correspondence from the site office should be signed off by the Site Manager.

Procedures:

1. All documented procedures should have a code and revision no.
2. All documented procedures issued to personnel should be signed for by the individual and a record of recipients maintained.
3. Each new revision of a procedure should be printed on different colour paper with the updated revision no.

Inspections/Audits

1. All inspection forms should be kept in individual files, clearly relating their purpose.
2. All inspection forms should be dated and signed by the inspector.
3. Where possible, inspection logs should be inserted on an electronic database.

Reports:

1. All reports relating to the operation and monitoring of the site should be prepared and sent to the relevant authority within the time period permitted.
2. All reports should be certified by the Site Manager.
3. All reports sent to the relevant authorities, should include an original and two copies. A copy should also be kept on file.
4. All reports to be given a reference no. and should be compiled in electronic format.

Notices:

1. All notices posted on site should be given a revision no.
2. All notices should be laminated and posted in a secure manner.
3. All revision of notices should be posted in a different colour, with the appropriate revision no.

General:

1. All environmental documents should be filed appropriately at the site office.
2. As part of the requirements of Condition 2.2.2.7 Communications Programme, the public must be able to obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility.

2.1. A public file must be maintained, containing the following:

- Annual Environmental Report
- Monitoring Records
- The Environmental Policy Statement.
- The Complaints file.

2.2. It should be accessible during normal opening hours (Mon – Fri 0700 to 1900 hrs & Sat 0700 to 1800 hrs).

2.3. All enquires, from the public must be logged and signed by the individual.

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Procedure: EMP

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Environmental Manager

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Environmental Monitoring Procedure

1. Purpose

The purpose of this procedure is to provide for the protection of the environment by inspecting all potential and actual surface water discharges from the site. Discharges from the peat deposition area are dealt with under the Silt Pond Inspection Procedure (3.0 SPIP)

2. Scope

The scope of this procedure covers all run-off from the peat reception, oil refuelling tank, carpark, and canteen/office areas.

3. Responsibility

The implementation of the Environmental Monitoring Procedure is the responsibility of the Site Foreman

Procedure.

1. All oil-traps/interceptors will be inspected on a weekly basis using the attached log.
2. Discharges from the Oil-traps/Interceptors will be sampled on a monthly basis and samples sent to Complete Laboratory Services Ltd for analysis for COD (mg/l).
3. Based on the weekly visual inspection and COD results from the lab, the interceptor will be cleaned using an appropriate contractor.
4. The oil refuelling area will also be checked for oil/diesel spillage's and any faults with equipment will be reported using the Corrective Action Report Form.

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Emergency Response Procedure (ERP 1.0)

Purpose:

The purpose of this programme is to define appropriate procedures in response to potential emergency situations occurring at the site including Environmental accidents and/or emergencies.

Definitions:

Environmental Emergency Response Team: Site Manager, Environmental Manager, and any other person or persons co-opted by the aforementioned individuals for the specific emergency.

References:

<u>Document No.</u> <u>No.</u>	<u>Description</u>	<u>Revision</u>
ERP 1.1	Oil Spill Clean Up Procedure	0
ERP 1.2	General Fire/Explosion Procedure	0

Procedure:

1. Should an emergency situation occur, appropriate Environmental Emergency Response Procedures, ERP 2.0 to ERP 3.0, which detail each emergency situation and the proposed response should this emergency occur are prepared.
2. Each Environmental Response Procedure is completed with reference to potential emergency situations. The response documented within the Environmental Emergency Response Procedure reflects the likelihood of the situation occurring and the associated potential environmental impacts of this occurrence.

3. On a Monthly basis the Site Manager or his/her deputy checks all emergency response equipment to ensure that it is provided in agreed quantities and in suitable working order. Any discrepancies shall be reported at once to the Site Manager and Environmental Manager.
5. Following an emergency, details of the incident shall be recorded on the Environmental Incident Investigation Form (EPF3.1) located within the Environmental Incident Investigation and Reporting Procedure (Environmental Procedure EP 3.0). Following this the Environmental Corrective and Preventive Action Procedure (EP 2.0) shall be implemented accordingly, to introduce a corrective and preventive action.
6. In the event of an incident occurring, records shall be maintained and the EPA shall be notified by telephone and facsimile as soon as possible and not later than 10.00am the following working day after the occurrence of the incident. Local Authority, Duchas and the North Eastern Regional Fisheries Board shall also be notified in the event of any incident which relates to discharges to surface water as required by condition 11.3, 11.4, & 11.5.

The written record shall be submitted to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident.

Should any further actions be taken after the date of written notification, as a result of any incident occurring, a written report shall be forwarded of those actions to the Agency as soon as practicable and no later than ten days after the initiation of those actions.

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**Emergency Response Procedure (ERP 2.0)
(Oil, Diesel & Petrol Spillage's)**

Purpose:

This procedure details the steps to be taken when dealing with an oil/diesel/petrol substance spill on site. It is required in order to:

- Protect Employees
- Protect the Environment
- Prevent Fugitive Emissions

This procedure should be followed for all large and massive spills, which may occur.

Definitions:

Small Spill: Greater than 5 litres and less than 250 litres

Large Spill: Greater than 250 litres.

Responsibility:

General staff and sub-contractors of Bord na Móna, Energy Limited, are responsible for being aware of the procedure and their responsibilities/requirements/obligations.

Procedure:

1. Ensure all diesel/oils are handled (loaded, unloaded and moved) by a competent person using the correct procedure. Appropriate precautions should be taken at all times to minimise the risk of accidental spillage.
2. In the event of a spillage occurring the Site Manager or his/her environmental deputy shall initially investigate the following issues:

- How long has it been since the incident occurred?
 - Consult the relevant data sheets (Material Safety Data Sheets or otherwise) for the method of spill containment and fire control of the affected material.
3. The spill must be assessed immediately by the Environmental Manager and or Site Manager for potential risks to health and safety of employees, and the potential environmental consequences.
 4. If there is a risk of explosion, all personnel in the area must be evacuated from the area.
 5. The spill should be sourced, isolated, and contained with polystyrene booms or dry peat (moisture content of 10%)
 6. All effort should be made to prevent the spill from entering a storm drain or the nearest outfall.
 7. If the spillage emanated from a drum, it is positioned so that the ruptured section is in upwards direction, thereby preventing further leakage.
 8. Use shovels, brushes or a machine to sweep the spilled material in to drums.
 9. Start on the outside and work in towards the centre of the spill.
 10. Do not mix different types of waste.
 11. Drum the waste and seal the container or bag and double bag
 12. Label the waste with the destination name, appropriate hazard label and name of waste, giving as much information as possible on contents, plus concentrations of constituents if applicable etc.
 13. If the spill occurred due to a damaged drum, place the ruptured drum into a salvage drum container, until disposal is arranged.
 14. Once the spill has been contained, suitable absorbent pads, to soak the spillage must be applied.
 15. All possible ignition sources such as electrical equipment, naked lights, machinery etc should be removed from the area. Any combustibles in the spill area should be removed.
 16. Follow-up action measures taken must include the implementation of appropriate remedial work to prevent such a spillage incident reoccurring in

future.

17. The Environmental Protection Agency, Regional Fisheries Board, and Local Authority Personnel are contacted by the Site Manager/Environmental Manager in the event of any incident occurring, paying due regard to Conditions 4 and using the Environmental Notification Form (EF3.2). Following an emergency, details of the incident shall be recorded on the Environmental Incident Investigation Form (EPF3.1) located within the Environmental Incident Investigation and Reporting Procedure (Environmental Procedure EP 3.0). Following the environmental incident investigation appropriate procedures shall be implemented accordingly i.e. Environmental Non-Compliance Procedure (EP 1.0) and the Environmental Corrective Action Procedure (EP 2.0)

A shortened version for posting at the Site is attached on the following page.

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EMERGENCY PROCEDURE IN THE EVENT OF OIL SPILLAGE

Inform Site Manager

Site Manager to inform EPA & Local Authority

Block outfall at nearest point

Establish cause and prevent further leakage

Inspect outfall downstream

Inspect receiving water (River/Stream/Lake)

Establish limit of spillage

Install booms in the outfall

Use the Oil Spill Kit provided

Arrange remedial work to prevent future occurrences

Requirements: Map of drainage system
 Stock of containment booms
 Oil Spill Kits

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Emergency Response Procedure (ERP 3.0) (General Fire/Explosion Procedure)

Purpose:

A procedure to deal with fire/explosion emergencies is required for the following reasons:

- To protect Employees.
- To protect the Environment.
- To prevent Fugitive emissions.

Responsibility:

General staff and sub-contractors of Bord na Móna, Energy Limited, are responsible for being aware of the procedure and their responsibilities/requirements/obligations.

RECOMMENDATIONS

GENERAL

1. The Site Manager will delegate a member of his staff to be responsible for all aspects of fire safety.
2. All fire equipment not deployed should be stored in a warm dry fire depot.
3. The Manager should specify certain persons who would be contacted in the event of a fire.
4. A formal report on fires involving people, stocks, buildings or equipment should be reported to the Safety Officer via form (Appendix III).
5. Formal records of all inspections and test of fire equipment should be maintained.

6. There should be a system of re-charging of extinguishers after usage. This system should include a method of delivering extinguishers to re-charge point.
7. A reserve water supply capable of dealing with any fire emergency on site, shall be maintained.
8. Fire wagon or fire depot contents should be listed in (Appendix IV).
9. A suitable vehicle capable of transporting all fire equipment during a fire emergency should be available and well maintained at all times.
10. Smoking should only be allowed in designated areas.
11. Fire Equipment should not be used for any other purposes and should be serviceable at all times.
12. As a matter of urgency all fire alarm systems should be completed and maintained to comply with Section 27B of the Safety, Health and Welfare at Work Act 1989.
13. Storage or usage of all flammable oil solvents or gases should be in accordance with I.S. 644 1983 and I.S. 3213 1987.
14. Warning notices should be kept in good condition and must be strictly observed at all times.
15. All electrical appliances and welding plants should be switched off when not in use. Gas bottles should be turned off when not used.
16. Where there is a clearly recognised fire danger, extinguishers shall be deployed as a first means of defence.
17. All lorries, vans, locos and other machines working in a dusty environment should have a suitable fire extinguisher(s) mounted in a convenient position. (Appendix V).
18. Details of all local fire authorities should be displayed at various points throughout the Works.
19. The annual service contract for all fire equipment should be continued.

RECOMMENDATIONS

BOG AREAS

1. Roadside signs should be erected in prominent positions and be maintained. They should only be erected during the months of fire dangers.
2. Notices of fire prevention should be located at strategic points to be decided by local management. See Appendix (I and II).
3. All machines must be washed down and cabs cleaned out on a regular basis to minimise the risk of fire. Particular care should be taken with production and loading machinery.
4. Cylinders of gas should be mounted outside of machine cabs and tea centres at all times.
5. A 4.5 kg. powder extinguisher should be mounted in all tea centres.

RECOMMENDATIONS

WORKSHOPS, STORES

1. Petrol and other oils (unless they are stored in non-flammable containers to BS 3475) should only be stored in designated oil stores.
2. Batteries should not be charged in working areas unless suitable protection is provided.
3. Flash-back arrestors should be fitted to all oxy-acetylene equipment.
 - a) Oxygen cylinders should be stored separately to fuel gas cylinders.
 - b) Oxygen and fuel gas cylinders, if stored out of doors, should be protected from sunlight.
 - b) All cylinder heads should be kept free of oil and grease.
4. Flame retardant overalls should be worn by all personnel exposed to heat or sparks.
5. Clearways to fire exits and means of escape should be unobstructed at all times.

RECOMMENDATIONS

OFFICES AND CANTEENS

1. Each canteen should be equipped with a fire blanket & fire extinguisher.
2. There should be at least one fire point in all office premises.

TRAINING

All personnel working on the Site shall be given training in the following areas for fires:

- The correct use of fire extinguishers. This training will be carried out on an annual basis.
- The correct use of the fire tractor and its equipment.
- The fire emergency plan.
- Precautionary measures to minimise the risk of fire.

APPENDIX (I)

BORD NA MONA

INSTRUCTION TO EMPLOYEES REGARDING FIRE DANGERS

There is always danger of disastrous fires occurring on the bog unless great care is taken by everybody. This danger is very great during fine weather. You can do your part by obeying these few simple rules:-

- DON'T** throw away burning matches or cigarette ends. Make sure that they are properly extinguished first.

- DO** remember that big fires have small beginnings.

- DO** put out fires yourself if you can.

- DO** report them immediately to your supervisor if you can't

- DO** remember that big fires can be prevented and that you can play a big part in their prevention.

Follow these instructions carefully.

Remember that fires may cause personal injury.

APPENDIX (II)

BORD NA MONA

FIRE WARNING

1. Don't leave unattended fires.
2. Ensure that all fires are extinguished before leaving bog.
3. Do not burn gorse or heather in this area during the period beginning on the 15th day of April and ending on the 31st day of August in any year. (Ref: Wildlife Act 1976, Ch. 4 Sect. 40).
4. Don't throw away lighting cigarette ends or matches.
5. Report any fires immediately to local fire authority.

APPENDIX (III)

FIRE REPORT FORM

Works: _____ Date: _____

Date of Fire: _____

Day: _____ Time: _____

Location: _____

Machine No. and Type: _____

Description of Fire: _____

Fire Equipment Available: _____

Injury to Personnel: _____

Estimated Cost of Damage: _____

Was Fire Brigade Called? _____ Which Brigade? _____

Who Called Brigade? _____ Time: _____

Was Fire Crew Called? _____

Was Hot Work permit Used? _____

Cause of Fire (Suspected): _____

Recommendations to Prevent Re-occurrence: _____

COPY TO BE SENT TO SAFETY OFFICER

APPENDIX (IV)
FIRE WAGON CONTENTS

Quantity	Items
2	4 Gal. Petrol Drum's of Petrol
34	Hoses (75' Lengths)
3	Hose Nozzles
10	Shovels
8	Helmets
1	Hose Junction
1	5 Gal. Diesel Drum
2	Suction Hose
1	Blank Cap
1	Hydrant Key
4	Baskets
2	Spanners
1	Hose Adapter
1	9 Hole Bar
2	Stand Pipes
7	Flash Lamps
7	Goggles
2	Breathing Apparatus
4	Beacons
1	Stretcher
6	Extinguisher's
1	First Aid Kit
1	Foam Making Machine
1	Manually Mobile Angus Fire Pump
5	Drums of Foam

Location	Machine Type	Size of Ext.	No. of Exts.	Type of Ext.
	Tractors up to 100 HP	4.5 Kg.	1	ABC Dry Powder or Foam
	Tractors over 100 HP	9 Kg.	1	ABC Dry Powder or Foam
	Double Ridger	9 Kg.	1	ABC Dry Powder or Foam
	Harvester Types 6,7	4.5 Kg.	2	ABC Dry Powder or Foam
	Bulldozers	4.5 Kg.	1	ABC Dry Powder or Foam
	Excavators	4.5 Kg.	2	ABC Dry Powder or Foam
	Locomotives	4.5 Kg.	1	ABC Dry Powder or Foam
	Canteens	1.5 Kg. or Fire Blanket	1	BCF

BORD NA MÓNA

BORD NA MÓNA ENERGY LIMITED

Srahmore Peat Deposition Site

Waste Management Record (Hazardous)

Waste Licence no. : _____

<i>WASTE DESCRIPTION</i>	<i>EWC CODE</i>	<i>TONNES</i>	<i>NAME OF CONTRACTOR</i>	<i>NAME OF PERSON ULTIMATELY RESPONSIBLE</i>	<i>DESTINATION</i>	<i>DATE</i>
Lubs,Hydraulic oil, Oil/Fuel Filters, Lead Acid Batteries, Florescent Tubes, Degreasing Still-bottoms, Anti-Freeze			Transporter of waste	Disposer of waste if different from transporter	Find out from contractor	

<i>DETAILS OF ANY REJECTED CONSIGNMENTS</i>						
None to date						

Site Manager

Procedure:O/DLP

Page: 1 of 3

Environmental Manager

Rev: 1

Oil/Diesel Loading Procedure

1. Purpose

The purpose of this procedure is to ensure that the company will take all the necessary steps to protect the environment from accidental spillage's arising from refuelling of machines on site.

2. Scope

The scope of this procedure covers the following diesel & oil loading/unloading operations

- External delivery of oil/diesel from the supplier to a mobile, double skinned tank on site.
- Internal refuelling of machines from the mobile oil/diesel tanks.

3. Responsibility

It is the responsibility of the Site Manager to ensure all personnel and contractors associated with the works and involved in handling oil/diesels are made aware of this procedure and adhere to it in their day to day operations

4. Procedure

External delivery from oil/diesel supplier.

1. The oil/diesel supplier must have an adequate spill clean-up kit on board the tanker in the event of a spillage.
2. The operator of the tanker must be present at all times while the delivery of the oil/diesel takes place.
3. A Bord na Mona employee must be present to supervise the delivery of the fuel.

4. The operator must be made aware of the location of Bord na Mona's spill kits/dry peat.

Internal refuelling of machines from mobile oil/diesel tanks.

1. The operator of the machine, should be present at the re-fuelling nozzle at all times during the re-fuelling.
2. The re-fuelling hose should be returned to the correct position on the tank once finished
3. All barrels on their side's, should contain a drip-tray.
4. The tank shall contain a spill kit/dry peat, in the event of an oil/diesel spill.
5. The Site Manager/Foreman/Environmental Manager should be notified at once, of any accidental oil/diesel spillage's during re-fuelling.
6. All empty barrels, being returned to the works, should be returned to the area labelled as empties.
7. All leaks, wear and tear and mechanical difficulties should be reported to the Site foreman.
8. Any incidents involving oil/diesel spillage's shall be reported to the EPA within 5 days. A Corrective Action Report Form will be included.

Srahmore Peat Repository
WL 199-1

Site Manager

Procedure: RNCP

Page: 1 of 1

Environmental Manager

Rev: 2

Road Network Cleaning Procedure

1. Purpose

The purpose of this procedure is to provide for the maintenance of the road network in and around the site, which is used for peat delivery.

2. Scope

The scope of this procedure covers all internal roads.

3. Responsibility

The implementation of the Road Network Cleaning Procedure is the responsibility of the Site Foreman

Procedure

1. A tractor and road sweeper will be on standby, on-site for all road sweeping Operations.
2. All roads used in connection with peat delivery operations will be inspected on a daily basis for peat debris, which may cause a nuisance to other road users.
3. All road haulage operators will report any spillage's to the Site Foreman.
4. Where a road requires cleaning, the tractor and sweeper will be deployed to remove any debris to the roadside.
5. All peat/debris scraped from the road will be secured away from any drains and barriers put in place where this is not possible.
6. In addition to this, where dry conditions occur, causing problems with dust from road haulage of the peat, the dust dampening bouser will be used as per the Dust Handling Procedure (7.0 DHP).

Srahmore Peat Repository Site WL.199-1

Site Manager

Procedure: SCP

Page: 1 of 1

Environmental Manager

Rev: 2

Silt Control Procedure

1. Purpose

The purpose of this procedure is to provide for the protection of the environment by minimising silt production.

2. Scope

The scope of this procedure covers all of the Peat Repository Site.

3. Responsibility

The implementation of the Silt Control Procedure is the responsibility of the Site Foreman.

4. Procedure

1. During predicted periods of high rainfall, the swale gate will be closed and any water backing up in the swale drain will be pumped out into the controlled over flow area.
2. Drainage manholes are protected and maintained free of excessive peat.
3. Headlands are kept clean and free of excessive loose peat.
4. All new manholes and outfalls are set well back from turning grounds, and drivers of bog plant do not turn short (over drains) at headlands.
5. Silt run-off, while piping or ditching, is minimised.
6. Outfalls are controlled to minimise silt discharge during cleaning operations.
7. Drains are ditched in dry weather.
8. While ditching, outfalls are blocked and ditching should take place towards the outfall.
9. Machine operations involved in moving the peat from the high fields to the deposit area will be carried out in a manner that prevents excessive loss of material to intervening drains.

General Manager

Procedure:SPEP

Page: 1 of 1

Environmental Co-ordinator

Rev:1

*Silt Pond
Excavation Procedure*

1. Purpose

The purpose of this procedure is to provide for the correct excavation and installation of all silt ponds within the Bord na Mona group of IPC licensed activities.

2. Scope

The scope of this procedure covers all silt ponds treating drainage water from all Bord na Mona production bogs, under IPC licence to the Environmental Protection Agency

3. Responsibility

It is the responsibility of the Bog Foreman and Environmental Co-ordinator to ensure that this procedure is adhered to and brought to the attention of all personnel engaged in this work.

4. Procedure

1. The sizing of the silt pond must be to Bord na Mona's design criteria.
2. Where an outfall is already in place, it must be blocked for the duration of the silt pond excavation. Where this is not the case, such as a new site, the silt ponds must be full excavated and controlled before connection to the outfall/stream or river.
3. The water depth of the pond must be maintained to at least 1.5 metres below the invert of the inlet pipe.
4. While excavating the pond, the spoil should be deposited well back from the edge of the pond, so as to provide room for maintenance and for bank stability.
5. The level of the base of the pond at the inlet should be maintained along the length of the pond to the outlet.
6. Depending on the machines available on site for maintenance, the silt pond should be 8 metres wide, with sloped banks.
7. The controls at the inlet and outlet of the pond should be maintained at the same level, so as to provide sufficient retention time for silt settlement.
8. Where two ponds are installed in parallel, sufficient room for maintenance should be provided between the two ponds.

- 9.** Where required, an adjustable weir should be provided at the outlet, for use during maintenance operations or during expected heavy rainfall events.
- 10.** All new silt ponds must be allocated a silt pond number and emission point number, inline with the existing silt pond log. Signage displaying these details should be erected at the pond.

BORD NA MÓNA

BORD NA MÓNA ENERGY LIMITED

Silt Pond- Outfall -River (SPI) Weekly Inspection (Monthly Record Sheet)

Site: _____ Waste Licence no.: _____

Silt Pond								
Silt Pond no.	Checked By	Date	Full				Comments	Date Cleaned
			1/4	1/2	3/4	full		
Outfall Inspection								
Date	Comments						Date Cleaned	
River Inspection								
Date	Comments							

Site Manager

Procedure:SPIP

Page: 1 of 1

Environmental Manager

Rev:1

***Silt Pond
Inspection Procedure***

1. Purpose

The purpose of this procedure is to provide for visual inspection of all silt ponds on a Weekly basis. This will be used for determining the silt pond de-silting roster.

2. Scope

The scope of this procedure covers all silt ponds treating drainage water from the area of land outlined in red on Drawing Ref. Figure 2 – Site plan in attachment A of the Waste Licence Application.

3. Responsibility

It is the responsibility of the Site Foreman to ensure all silt ponds are inspected on a Weekly basis and that these inspections are returned and filed in the facility office.

4. Procedure

1. Record the Silt Pond identification number on the Inspection Log (see attached)
2. Inspect the full length of the Silt Pond including inlets and outlet.
3. Tick the appropriate box on the Inspection Log to indicate the condition of the pond and record the date and time.
4. For ponds in series, the final pond should be clean at all times.
5. If a pond is observed as being ½ full during the weekly inspection, or at any other time arrangements should be made for the de-silting of the pond immediately.
6. Inspect the Outfall from the silt pond to the receiving water (River) and record any observations.
7. Once the silt pond has been cleaned, the date of de-silting should be logged on the Inspection Log.

SILT POND MAINTENANCE PROCEDURE

1. If the silt pond system has a by-pass channel or a stand-by pond then the drainage should be diverted through these. If not then the inlet to the pond should be blocked using a gate valve for the duration of the maintenance.
2. If the outlet from the pond has a weir then the level should be lowered so as to de-water the silt. If not, then the outlet pipe should be blocked.
3. The pond should be cleaned from the inlet to the outlet either from one side, if the width allows or from both sides, if not.
4. The silt should be deposited as far back from the silt pond as possible with the excavator, or additionally with the aid of a dozer if space is limited.
5. A peat bund should be left between the pond and the excavated silt so as to stop particularly wet peat from flowing back into the pond.
6. When the pond has been cleaned the inlet should be opened and the pond allowed to fill before lowering the outlet weir.
7. If the drainage was diverted during the maintenance, then it should be redirected back into the pond.
8. If there are signs of peat silt deposited upstream or downstream of the pond, in the outfall, then they should also be cleaned, starting upstream. This should occur once the pond has been cleaned and before the outlet weir has been lowered.
9. Once cleaned, the date should be entered on to the inspection log (SPIL).
10. All machine operators must be fully versed with the above procedure and maintain a copy in the machine.

Srahmore Peat Repository
WL 199-1

Site Manager

Environmental Manager

Procedure:TP

Page: 1 of 2

Rev:1

Training Procedure

1. Purpose

2. Scope

The scope of this procedure covers all of the Peat Repository Site.

3. Responsibility

The implementation of the Silt Control Procedure is the responsibility of the Site Foreman.

Site Manager

Procedure: WDP

Page: 1 of 1

Environmental Manager

Rev: 1

Waste Disposal Procedure

1. Purpose

The purpose of this procedure is to provide for the protection of the environment by providing for the documented on-site classification, labelling, segregation, storage and control of Hazardous & Non-hazardous waste generated on site by Bord na Mona Energy Ltd.

2. Scope

The scope of this procedure covers all of the site works.

3. Responsibility

The implementation of the Waste Disposal Procedure is the responsibility of the Site Manager and/or the Environmental Manager

4. Relevant Documentation

Waste Management Regulations 1998
Waste Management (Transfrontier Shipment of Waste) Regulations, 1998
European Waste Catalogue and Hazardous Waste List January 2002

5. Procedure

1. All wastes generated on site will be collected in appropriate containers for recycling or disposal.
2. A full inventory of all wastes generated will be maintained, with receipts from contractors.
3. Only Licensed Contractors will be engaged to handle the waste.
4. It is proposed to handle the waste as follows:

Waste Oil – Atlas Oil/suitably licensed contractor via Oweninny Works

Waste Oil Filters - Atlas Oil/or suitably licensed contractor via Oweninny

Works.

Batteries – Return to suitable licensed contractor via Oweninny Works.

Canteen/Office Waste – Local Licensed Contractor

Barrels/Drums – Return to supplier/Metal recycler via Oweninny Works.

5. All wastes will be designated either Hazardous or Non-hazardous and assigned the appropriate EWC code.