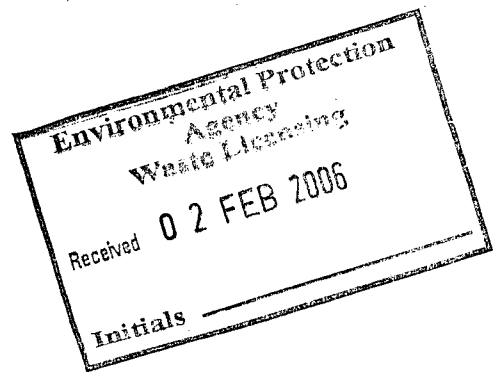


SECTION 4

MONITORING

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4.0 INTRODUCTION

Environmental monitoring is currently carried out in compliance with the existing waste licence. Any changes in the monitoring carried out are made under the agreement of the EPA.

4.1 DUST

Bord na Móna Energy Ltd, will continue to monitor dust emissions from the facility in compliance with Schedule F1 and G2 of their Waste Licence 49-1 as detailed in Table 4.1/1 below.

Table 4.1/1: Dust Monitoring at the Ash Repository Facility

Parameter	Station	Grid Reference	Monitoring Frequency	Emission Limit
Dust Deposition	Northern Boundary	259739 225001	Three times a year	350 mg/m ² /day
Dust Deposition	Western Boundary	258893 224920	Three times a year	350 mg/m ² /day
Dust Deposition	Southern Boundary	258864 225219	Three times a year	350 mg/m ² /day
Dust Deposition	Eastern Boundary	225969 225298	Three times a year	350 mg/m ² /day
PM10	Northern Boundary	259785 224354	Annually	50 µg/m ³
PM ₁₀	Dust Sensitive Location	259716 224928	Annually	50 µg/m ³

4.2 GROUNDWATER

Bord na Móna Energy Ltd, will continue to monitor groundwater beneath the facility in compliance with Schedule F3 of their Waste Licence 49-1 as detailed in Table 4.2/1 and 4.2/2 below.

Table 4.2/1: Groundwater Monitoring Locations at the Ash Repository Facility

Location	Grid Reference
MW05	258861 225075
MW06	259682 225344
MW07	259735 225097
MW08	259194 225287
MW09	258950 224930
MW10	259692 225288
MW11	259736 225022

Table 4.2/2: Groundwater Monitoring at the Ash Repository Facility

Parameter	Monthly	Quarterly	Annually
Visual Inspection		✓	
Groundwater Level	✓		
Ammoniacal Nitrogen	✓		
Electrical Conductivity	✓		
PH	✓		
Temperature	✓		
Cadmium			✓
Copper			✓
Fluoride			✓
Iron			✓
Lead			✓
Manganese			✓
Orthophosphate			✓
Total Oxidised Nitrogen		✓	
Zinc			✓

In addition, nearby private wells are monitored on an annual basis for pH and conductivity only.

4.3 LEACHATE

Bord na Móna Energy Ltd, will continue to monitor leachate generated at the facility in compliance with Schedule F3 and G3 of their Waste Licence 49-1 as detailed in Table 3.3/1 and 3.3/2 below.

Table 4.3/1: Leachate Monitoring Locations at the Ash Repository Facility

Location	Grid Reference	Description
LC 1A	259692 225122	Leachate Sump
LC 2A	259599 225108	Leachate Sump
L1	259702 225096	Lagoon
L2	259722 224967	Discharge from lagoon

Table 4.3/2: Leachate Monitoring at the Ash Repository Facility

Parameter	Weekly	Quarterly	Annually
Visual Inspection		✓	
Leachate level	✓		
Ammoniacal Nitrogen		✓	
COD		✓	
Electrical Conductivity		✓	
PH		✓	
TSS		✓	
Temperature		✓	
Cadmium			✓
Copper			✓
Fluoride			✓
Iron			✓
Lead			✓
Manganese			✓
Orthophosphate			✓
Total Oxidised Nitrogen		✓	
Zinc			✓

4.4 METEOROLOGICAL DATA

Bord na Móna Energy Ltd, will continue to monitor meteorological data at the facility in compliance with Schedule F4 of their Waste Licence 49-1 for Rainfall, Temperature, Humidity and Atmospheric Pressure.

4.5 NOISE

Bord na Móna Energy Ltd, will continue to monitor noise at the facility in compliance with Schedule F2 and G1 of their Waste Licence 49-1 as detailed in Table 4.5/1 overleaf.

Table 4.5/1: Noise Monitoring at the Ash Repository Facility

Location	Grid Reference	Description	Parameters
N1	259739 225001	SE boundary	L (A) _{EQ} (30 mins) L (A) ₁₀ (30 mins) L (A) ₉₀ (30 mins) Frequency Analysis
N2	258893 224920	NW boundary	
N3	258864 225219	W boundary	
N4	259683 225341	E boundary	
N5	259185 224354	Noise Sensitive Location	

4.6 SURFACE WATERS

Bord na Móna Energy Ltd, will continue to monitor surface waters at the facility in compliance with Schedule F3 and G4 of their Waste Licence 49-1 as detailed in Table 3.6/1 and 3.6/2 below.

Table 4.6/1: Surface Water Monitoring Locations at the Ash Repository Facility

Location	Grid Reference	Description
SW1	258882 224880	West-East Drain (upstream)
SW4	259752 224970	West-East Drain (downstream)
SW5	260587 224959	River Figile (upstream)
SW6	260555 224915	River Figile (downstream)

Table 4.6/2: Surface Water Run-off Monitoring Locations at the Ash Repository Facility

Location	Grid Reference	Description
SWR-1	259269 224920	Clean Surface Water Run-off
SWR-2	258631 224845	Clean Surface Water Run-off

Table 4.6/3: Surface Water Monitoring at the Ash Repository Facility

Parameter	Weekly	Quarterly	Annually
Visual Inspection	✓		
Ammoniacal Nitrogen		✓	
COD		✓	
Dissolved Oxygen		✓	
Electrical Conductivity		✓	
PH		✓	
TSS		✓	
Temperature		✓	
Cadmium			✓
Copper			✓
Iron			✓
Lead			✓
Manganese			✓
Orthophosphate			✓
Total Oxidised Nitrogen		✓	
Zinc			✓

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