

Licence Reg. No. W0172-01 Ceased (Never Commenced)
Please note that Licence Reg. No. W0172-01 ceased to have effect
from 2nd April 2009



Headquarters,
P.O. Box 3000,
Johnstown Castle Estate
County Wexford, Ireland

WASTE LICENCE

Waste Licence Register Number:	172-1
Licensee:	Minister for Communications, Marine and Natural Resources
Location of Facility:	Rossaveel Harbour Development, Rossaveel, County Galway.

INTRODUCTION

This introduction is not part of the licence and does not purport to be a legal interpretation of the licence.

This licence is for the recovery of dredged spoils by the Minister for Communications, Marine and Natural Resources in order to construct a new quay area in Rossaveel Harbour Development, Rossaveel, County Galway. Sands, gravels and rock dredged from the harbour and Casla Bay will be recovered/recycled to serve as infill material in order to reclaim an area of foreshore on the landward side of the proposed quay.

The licensee will be permitted to recover a maximum of 268,000 tonnes of dredging spoils in the construction of this quay development. The licensee will be restricted from accepting TBT contaminated spoils dredged from the harbour.

The licensee must manage and operate the facility to ensure that the activities do not cause environmental pollution. The licensee must carry out regular environmental monitoring and submit all monitoring results, and a wide range of reports on the operation and management of the facility to the Agency.

The conditions of this licence set out in detail the conditions under which the licensee is allowed to operate and manage this facility.

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DECISION & REASONS FOR THE DECISION

Reasons for the Decision

The Environmental Protection Agency (the Agency) is satisfied, on the basis of the information available, that the requirements of Section 40(4) of the Waste Management Act, 1996 have been complied with in respect of the application for a waste licence for the activities listed hereunder in Part I.

In reaching this decision the Agency has considered the application and supporting documentation received from the applicant, submission from third party and the report of its inspector. No objection having been received to the Proposed Decision, the licence is granted in accordance with the terms of the Proposed Decision and the reasons therefor.

Part I Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Act, 1996, the Agency, under Section 40(1) of the said Act hereby grants this Waste Licence to the Minister for Communications, Marine and Natural Resources to carry on the waste activities listed below at Rossaveel Harbour Development, Rossaveel, County Galway subject to twelve conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

Licensed Waste Recovery Activities in accordance with the Fourth Schedule of the
Waste Management Act 1996

Class 4. Recycling or reclamation of other inorganic materials:

This activity is limited to the recovery of non-hazardous dredge spoils dredged from Rossaveel Harbour and Casla Bay.

Class 13. Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced:

This activity is limited to temporary storage of non-hazardous dredge spoils dredged from Rossaveel Harbour and Casla Bay.

INTERPRETATION

All terms in this licence should be interpreted in accordance with the definitions in the Waste Management Act, (the Act), unless otherwise defined in this section.

Adequate lighting	20 lux measured at ground level.
Agreement	Agreement in writing.
Annually	At approximately twelve monthly intervals.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of the waste licence application.
Application	The application by the licensee for this waste licence.
Appropriate facility	A waste management facility authorised under relevant law & technically suitable.
Bi-monthly	Every two months.
Condition	A condition of this licence.
Containment boom	A boom which can contain spillages & prevent them from entering drains/ watercourses.
Daytime	8.00 a.m. to 10.00 p.m.
Documentation	Any report, record, result, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.
Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
Emergency	Those occurrences defined in Condition 9.4.
Emission Limits	Those limits, concentration limits and deposition levels established in <i>Schedule D: Monitoring</i> , of this licence.
European Waste Catalogue (EWC)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 94/3/EC and any subsequent amendment published in the Official Journal of the European Community.
Inert waste	Waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.
Licence	A Waste Licence issued in accordance with the Act.
Licensee	Minister for Communications, Marine and Natural Resources, Leeson Lane, Dublin 2.
Maintain	Keep in a fit state, including such regular inspection, servicing and repair as may be necessary to adequately perform its function.
Monthly	A minimum of 12 times per year, at approximately monthly intervals.

Night-time	10.00 p.m. to 8.00 a.m.
Quarterly	At approximately three monthly intervals.
Sample(s)	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments.
Specified Emissions	Those emissions listed in <i>Schedule C: Emission Limits</i> of this licence.
Specified Engineering Works	Engineering works listed in <i>Schedule B: Specified Engineering Works</i> , of this licence.
EPA Working Day	Refers to the following hours: 9.00 a.m. to 5.30 p.m. Monday to Friday inclusive.

PART II CONDITIONS

CONDITION 1 SCOPE OF THE LICENCE

- 1.1. Waste activities at the facility shall be restricted to those listed and described in Part I: Activities Licensed and authorised by this licence.
- 1.2. For the purposes of this licence, the facility is the area of land outlined in red on Drawing No. B.2.1. of the application. Any reference in this licence to “facility” shall mean the area thus outlined in red.
- 1.3. This licence is for the purposes of waste licensing under the Waste Management Act 1996 only and nothing in this licence shall be construed as negating the licensee’s statutory obligations or requirements under any other enactments or regulations.
- 1.4. Dredging Waste only may be recovered at the facility subject to the maximum quantities listed in *Schedule A: Waste Acceptance*, of this licence.
- 1.5. Waste Acceptance Hours and Hours of Operation
 - 1.5.1. Waste may be accepted at the facility for recovery on a 24 hour basis.
 - 1.5.2. Pile driving may only be carried out at the facility between the hours of 8:00am and 8:00pm
 - 1.5.3. Pile driving shall not be carried out on Sundays or bank holidays.
- 1.6. The following shall constitute an incident for the purposes of this licence:
 - a) an emergency;
 - b) any emission which does not comply with the requirements of this licence, and;
 - c) any indication that environmental pollution has, or may have, taken place.
- 1.7. Where the Agency considers that a non-compliance with any condition of this licence has occurred, it may serve a notice on the licensee specifying:
 - 1.7.1. That only those wastes as specified, if any, in the notice are to be accepted at the facility after the date set down in the notice;
 - 1.7.2. That the licensee shall undertake the works stipulated in the notice, and/or otherwise comply with the requirements of the notice as set down therein, within the time-scale contained in the notice; and
 - 1.7.3. That the licensee shall carry out any other requirement specified in the notice.

When the notice has been complied with, the licensee shall provide written confirmation that the requirements of the notice have been carried out. No waste, other than that which is stipulated in the notice, shall be accepted at the facility unless written permission is received from the Agency.
- 1.8. Every plan, programme or proposal submitted to the Agency for its agreement pursuant to any Condition of this licence shall include a proposed timescale for its implementation. The Agency may modify or alter any such plan, programme or proposal in so far as it considers such modification or alteration to be necessary and shall notify the licensee in writing of any such modification or alteration. Every such plan, programme or proposal shall be carried out within the timescale fixed by the Agency but shall not be undertaken without the agreement of the Agency. Every such plan, programme or proposal agreed by the Agency shall be covered by the conditions of this licence.

CONDITION 2 MANAGEMENT OF THE FACILITY

2.1 Facility Management

- 2.1.1 The licensee shall employ a suitably qualified and experienced facility manager who shall be designated as the person in charge. The facility manager or a nominated, suitably qualified and experienced, deputy shall be present on the facility at all times during its operation.
- 2.1.2 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and experience, as required and shall be aware of the requirements of this licence.

2.2 Management Structure

- 2.2.1 Prior to the date of commencement of waste activities, the licensee shall submit written details of the management structure of the facility to the Agency. Any proposed replacement in the management structure shall be notified in advance in writing to the Agency. Written details of the management structure shall include the following information.
- a) the names of all persons who are to provide the management and supervision of the waste activities authorised by the licence, in particular the name of the facility manager and any nominated deputies;
 - b) details of the responsibilities for each individual named under a) above; and
 - c) details of the relevant education, training and experience held by each of the persons nominated under a) above.

2.3 Environmental Management System (EMS)

- 2.3.1 The licensee shall establish and maintain an EMS. Prior to the date of commencement of waste activities, the licensee shall submit to the Agency for its agreement a proposal for a documented Environmental Management System (EMS) for the facility. Following the agreement of the Agency, the licensee shall establish and maintain such a system.
- 2.3.2 The EMS shall include as a minimum the following elements (and any other items required by written guidance issued by the Agency):
- 2.3.2.1 **Corrective Action Procedures**
The Corrective Action Procedures shall detail the corrective actions to be taken should any of the procedures detailed in the EMS not be followed.
 - 2.3.2.2 **Awareness and Training Programme**
The Awareness and Training Programme shall identify training needs, for personnel who work in or have responsibility for the licensed facility.

2.4 Communications Programme

- 2.4.1 The licensee shall establish and maintain a Communications Programme to ensure that members of the public can obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility. This shall be established prior to the commencement of waste activities at this facility.

REASON: To make provision for the proper management of the activity on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the environment.

CONDITION 3 FACILITY INFRASTRUCTURE

- 3.1 The licensee shall establish all infrastructure referred to in this licence prior to the commencement of the licensed activities or as required by the conditions of this licence.
- 3.2 Specified Engineering Works
- 3.2.1 The licensee shall submit proposals for all Specified Engineering Works, as defined in *Schedule B: Specified Engineering Works*, of this licence to the Agency for its agreement at least one month prior to the intended date of commencement of any such works. No such works shall be carried out without the prior agreement of the Agency.
- 3.2.2 All specified engineering works shall be supervised by a competent person(s) and that person, or persons, shall be present at all times during which relevant works are being undertaken.
- 3.2.3 Following the completion of all specified engineering works, the licensee shall complete a construction quality assurance validation. The validation report shall be made available to the Agency on request. The report shall where appropriate, include the following information;
- a) a description of the works;
 - b) as-built drawings of the works;
 - c) name(s) of contractor(s)/individual(s) responsible for undertaking the specified engineering works;
 - d) name(s) of individual(s) responsible for supervision of works;
 - e) records of any problems and the remedial works carried out to resolve those problems; and
 - f) any other information requested in writing by the Agency.
- 3.3 Facility Notice Board
- 3.3.1 The licensee shall provide and maintain a Facility Notice Board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the board shall be 1200 mm by 750 mm.
- 3.3.2 The board shall clearly show:
- a) the name and telephone number of the facility;
 - b) the normal hours of opening;
 - c) the name of the licence holder;
 - d) an emergency out of hours contact telephone number;
 - e) the licence reference number; and
 - f) where environmental information relating to the facility can be obtained.
- 3.4 Facility Security
- 3.4.1 Security fencing and gates shall be installed and maintained around the landward edge of the facility.

- 3.4.2 The licensee shall remedy any defect in the gates and/or fencing as follows:
- a) a temporary repair shall be made by the end of the working day; and,
 - b) a repair to the standard of the original gates and/or fencing shall be undertaken within three working days.
- 3.5 Facility Roads and Hardstanding
- 3.5.1 Effective site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility.
- 3.6 Suspended Solids control measures
- 3.6.1 The licensee shall use silt screens, or other control methods as agreed with the Agency, to control the dispersion of Suspended Solids from waste activities carried out at the facility.
- 3.7 Facility Office
- 3.7.1 The licensee shall provide and maintain an office at the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.
- 3.7.2 The licensee shall provide and maintain a working telephone and a method for electronic transfer of information at the facility.
- 3.8 The licensee shall establish and maintain a wheelwash at the facility.
- 3.9 Tank and Drum Storage Areas
- 3.9.1 All tank and drum storage areas shall be rendered impervious to the materials stored therein.
- 3.9.2 All tank and drum storage areas shall, as a minimum, be bunded, either locally or remotely, to a volume not less than the greater of the following:
- (a) 110% of the capacity of the largest tank or drum within the bunded area; or
 - (b) 25% of the total volume of substance which could be stored within the bunded area.
- 3.9.3 All drainage from bunded areas shall be diverted for collection and safe disposal.
- 3.9.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
- 3.9.5 The integrity and water tightness of all the bunds and their resistance to penetration by water or other materials stored therein shall be confirmed by the licensee and shall be reported to the Agency following its installation and prior to its use as a storage area.

REASON: To provide appropriate infrastructure for the protection of the environment.

CONDITION 4 RESTORATION AND AFTERCARE

- 4.1. The final height of the facility shall be no greater than 7mOD Malin Head, unless otherwise agreed with the Agency.
- 4.2. Following the cessation of waste recovery operations a post-closure monitoring programme with timeframes shall be submitted to the Agency.

REASON: To provide for the restoration of the facility

CONDITION 5 FACILITY OPERATIONS

- 5.1 Waste recovery activities shall not commence without the prior agreement of the Agency.
- 5.2 Operational Controls
- 5.2.1 Gates shall be locked shut when the facility is unsupervised.
- 5.2.2 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.
- 5.2.3 Fuels shall only be stored at appropriately bunded locations on the facility.
- 5.2.4 All tanks and drums shall be labelled to clearly indicate their contents.
- 5.3 Waste Acceptance
- 5.3.1 The licensee shall provide the Agency with a phasing plan for the deposition of dredge materials prior to the commencement of waste activities at the facility.
- 5.3.2 Dredging spoils accepted for recovery at this facility shall comply with the standards established in *Schedule F: Criteria for Acceptance of Non-Hazardous Dredge Spoil Waste*, of this licence. Analysis of such waste shall be in accordance with the requirements of that Schedule.
- 5.4 The wheel-wash shall be inspected on a daily basis and drained as required. Silt, stones and other accumulated material shall be removed as required from the wheel-wash and deposited appropriately at the facility.
- 5.5 The casting of any concrete materials shall be carried out in such a manner as to prevent emissions of wet concrete or concrete contaminated water into the marine environment.
- 5.6 All waste sent off-site for recovery or disposal shall be transferred to an appropriate facility and shall be transported to the consignee in a manner which will not adversely affect the environment.

REASON: To provide for appropriate operation of the facility to ensure protection of the environment.

CONDITION 6 EMISSIONS

- 6.1. No specified emission from the facility shall exceed the emission limit values set out in *Schedule C: Emission Limits*, of this licence. There shall be no other emissions of environmental significance.
- 6.2. The licensee shall ensure that the activities shall be carried out in a manner such that emissions do not result in significant impairment of, or significant interference with the environment beyond the facility boundary.
- 6.3. Noise emissions
- 6.3.1. The licensee shall operate plant, and employ noise abatement measures, as outlined in BS 5228 - "Noise control on Construction and open sites".
- 6.4. Emissions to Surface Water

- 6.4.1. No substance shall be discharged in a manner, or at a concentration which, following initial dilution causes tainting of fish or shellfish.

REASON: To control emissions from the facility and provide for the protection of the environment.

CONDITION 7 NUISANCE CONTROL

- 7.1 The licensee shall ensure that mud, dust, litter and odours do not give rise to nuisance at the facility or in the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution.
- 7.2 The road network in the vicinity of the facility shall be kept free from any debris caused by vehicles entering or leaving the facility. Any such debris or deposited materials shall be removed without delay.
- 7.3 In dry weather, site roads and any other areas used by vehicles and dredge spoil stockpiles shall be sprayed with water as and when required to minimise airborne dust nuisance.
- 7.4 Prior to exiting the facility, all waste vehicles shall use the wheelwash.
- 7.5 The licensee shall, where instructed by the Agency, employ birds of prey and/or other bird scaring techniques in order to prevent birds from scavenging at the facility.

REASON: To provide for the control of nuisances.

CONDITION 8 MONITORING

- 8.1. The licensee shall carry out such monitoring and at such locations and frequencies as set out in *Schedule D: Monitoring*, of this licence.
- 8.2. Prior to the commencement of waste activities the licensee shall provide a proposal to the Agency regarding the locations for surface water, benthic and dust monitoring to be carried out at the monitoring points referred to in *Schedule D: Monitoring*, of this licence.
- 8.3. The licensee shall amend the frequency, locations, methods and scope of monitoring as required by this licence only upon the written instruction of the Agency and shall provide such information concerning such amendments as may be requested in writing by the Agency. Such alterations shall be carried out within any timescale nominated by the Agency.
- 8.4. Monitoring and analysis equipment shall be operated and maintained in accordance with the manufacturers' instructions (if any) so that all monitoring results accurately reflect any emission, discharge or environmental parameter.
- 8.5. The licensee shall provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency.
- 8.6. Nuisance Monitoring
- 8.6.1. The licensee shall, at a minimum of one week intervals, inspect the facility and its immediate surrounds for nuisances caused by litter, mud, and dust.

REASON: To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions

CONDITION 9 CONTINGENCY ARRANGEMENTS

- 9.1. In the event of an incident the licensee shall immediately:
- a) identify the date, time and place of the incident;
 - b) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
 - c) isolate the source of any such emission;
 - d) evaluate the environmental pollution, if any, caused by the incident;
 - e) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
 - f) provide a proposal to the Agency for its agreement within one month of the incident occurring to:
 - i) identify and put in place measures to avoid reoccurrence of the incident; and
 - ii) identify and put in place any other appropriate remedial action.
- 9.2. The licensee shall, prior to commencement of waste activities, submit a written Emergency Response Procedure (ERP) to the Agency for its agreement. The ERP shall address any emergency situations which may originate on the facility and shall include provision for minimising the effects of any emergency on the environment.
- 9.3. The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the facility. Once used the absorbent material shall be disposed of at an appropriate facility.
- 9.4. Emergencies
- 9.4.1. All significant spillages occurring at the facility shall be treated as an emergency and immediately cleaned up and dealt with so as to alleviate their effects;
- 9.4.2. No waste shall be burnt within the boundaries of the facility. A fire at the facility shall be treated as an emergency and immediate action shall be taken to extinguish it and notify the appropriate authorities.

REASON: To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions.

CONDITION 10 RECORDS

- 10.1 The licensee shall keep the following documents at the facility office.
- a) the current waste licence relating to the facility;
 - b) the current EMS for the facility;
 - c) all written procedures produced by the licensee which relate to the licensed activities.
- 10.2 Daily Waste Acceptance records shall be maintained by the licensee and shall include the following, unless otherwise agreed with the Agency.
- a) Dredger location each day;

- b) Infill area each day;
- c) Quantity and type of material recovered each day.

10.3 Written Records

The following written records shall be maintained by the licensee:

- a) the types and quantities of waste recovered at the facility each year. These records shall include the relevant EWC Codes;
- b) the types and quantities of waste sent off-site for disposal or recovery and the waste contractor used;
- c) all training undertaken by facility staff;
- d) results from all integrity tests of bunds and other structures and any maintenance or remedial work arising from them;
- e) details of all nuisance inspections; and
- f) the names and qualifications of all persons who carry out all sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring.

10.4 The licensee shall maintain a written record of all complaints relating to the operation of the activity. Each such record shall give details of the following:

- a) date and time of the complaint;
- b) the name of the complainant;
- c) details of the nature of the complaint;
- d) actions taken on foot of the complaint and the results of such actions; and,
- e) the response made to each complainant.

REASON: To provide for the keeping of proper records of the operation of the facility

CONDITION 11 REPORTS AND NOTIFICATIONS

11.1 Unless otherwise agreed by the Agency, all reports and notifications submitted to the Agency shall:

- a) be sent to the Agency's Headquarters;
- b) comprise one original and four copies unless additional copies are required;
- c) be formatted in accordance with any written instruction or guidance issued by the Agency;
- d) include whatever information as is specified in writing by the Agency;
- e) be identified by a unique code, indicate any modification or amendment, and be correctly dated to reflect any such modification or amendment;
- f) be submitted in accordance to the relevant reporting frequencies specified by this licence, such as in *Schedule E: Recording and Reporting to the Agency*, of this licence;
- g) be accompanied by a written interpretation setting out their significance in the case of all monitoring data; and
- h) be transferred electronically to the Agency's computer system if required by the Agency.

11.2 In the event of an incident occurring on the facility, the licensee shall:

- a) notify the Agency as soon as practicable and in any case not later than 10.00 am the following working day after the occurrence of any incident;
- b) submit a written record of the incident, including all aspects described in Condition 9.1(a-e), to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident;
- c) in the event of any incident which relates to discharges to surface water, notify the Western Regional Fisheries Board and Galway County Council as soon as practicable and in any case not later than 10:00am on the following working day after such an incident; and
- d) Should any further actions be taken as a result of an incident occurring, the licensee shall forward a written report of those actions to the Agency as soon as practicable and no later than ten days after the initiation of those actions.

11.3 Environmental Report

11.3.1 The licensee shall submit to the Agency for its agreement, within three months from the date of cessation of waste activities an Environmental Report.

11.3.2 The Environmental Report shall include as a minimum the information specified in *Schedule G: Content of the Environmental Report*, of this licence and shall be prepared in accordance with any relevant written guidance issued by the Agency.

REASON: To provide for proper report to and notification of the Agency.

CONDITION 12 CHARGES AND FINANCIAL PROVISIONS

12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of €5,759 or such sum as the Agency from time to time determines, towards the cost of monitoring the activity or otherwise in performing any functions in relation to the activity, as the Agency considers necessary for the performance of its functions under the Waste Management Act, 1996. The licensee shall in 2003 and subsequent years, not later than January 31 of each year, pay to the Agency this amount updated in accordance with changes in the Public Sector Average Earnings Index from the date of the licence to the renewal date. The updated amount shall be notified to the licensee by the Agency. For 2002, the licensee shall pay a *pro rata* amount from the date of this licence to 31st December. This amount shall be paid to the Agency within one month of the date of grant of this licence.

12.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased the licensee shall contribute such sums as determined by the Agency to defraying its costs.

12.2 Financial Provision for Closure, Restoration and Aftercare

12.2.1 The licensee shall where required by the Agency establish and maintain a fund, or provide a written guarantee, that is adequate to assure the Agency that the licensee is at all times financially capable of implementing the Restoration and Aftercare Plan required by Condition 4. The type of fund established and means of its release/recovery shall be agreed by the Agency prior to its establishment.

REASON: To provide for adequate financing for monitoring and financial provisions for measures to protect the environment.

SCHEDULE A : Waste Acceptance

A.1 Waste Acceptance

WASTE TYPE	MAXIMUM TOTAL (TONNES)
Non-Hazardous Dredge Spoil Waste	268,000

SCHEDULE B : Specified Engineering Works

Specified Engineering Works
Any works notified in writing by the Agency.

SCHEDULE C : Emission Limits

C.1 Noise Emissions: (Measured at the monitoring points indicated in *Table D 1*).

Day dB(A) L _{Aeq} (1 hour)	Night dB(A) L _{Aeq} (1 hour)
65	45

C.2 Dust Deposition Limits: (Measured at the monitoring points indicated in *Table D 1*).

Level (mg/m ² /day) ^{Note 1}
350

Note 1: 30 day composite sample with the results expressed as mg/m²/day.

SCHEDULE D : Monitoring

D.1 Monitoring Locations

DUST (To be agreed with the Agency)	NOISE (As per Figure 8.1 of the EIS Vol. 1)	SURFACE WATER (To be agreed with the Agency)	BENTHOS (To be agreed with the Agency)
D1	N1	SW1	BM1
D2	N2	SW2	BM2
D3	N3	SW3	BM3
-	-	SW4	BM4
-	-	SW5	BM5
-	-	-	BM6

D.2 Dust monitoring

Parameter (mg/m ² /day)	Monitoring Frequency	Analysis Method/Technique
Dust	Monthly ^{Note 2}	Standard Method ^{Note 1}

Note 1: Standard method VDI2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute). A modification (not included in the standard) may be employed to eliminate interference due to algae growth in the gauge.

Note 2: Once before operations commence and monthly thereafter.

D.3 Noise monitoring

Parameter ^{Note 1}	Monitoring Frequency	Analysis Method/Technique
L(A) _{EQ} [1 hour]	Monthly	Standard ^{Note 2}
L(A) ₁₀ [1 hour]	Monthly	Standard ^{Note 2}
L(A) ₉₀ [1 hour]	Monthly	Standard ^{Note 2}
Frequency Analysis(1/3 Octave band analysis)	Monthly	Standard ^{Note 2}

Note 1: The results should also include a subjective assessment of the nature of any noise noted.

Note 2: "International Standards Organisation. ISO 1996. Acoustics - description and Measurement of Environmental noise. Parts 1, 2 and 3."

D.4 Surface Water monitoring

Parameter ^{Note 1, Note 2}	Monitoring Frequency
<ul style="list-style-type: none"> • Turbidity (NTU) • Total Suspended Solids • <u>Metals:</u> Arsenic, Chromium (Total) , Copper, Tin, Iron, Manganese, Nickel, Lead, Zinc, Cadmium & Mercury. • Tri Butyl Tin (TBT) • Atrazine, Dichloromethane, Simazine, Toluene, Xylene, Hardness, Cyanide and Flouride. 	<p>Bi-Monthly ^{Note 3}</p> <p>Bi-Monthly ^{Note 3}</p> <p>Bi-Monthly ^{Note 3}</p> <p>Bi-Monthly ^{Note 3}</p> <p>Once off after waste recovery activities commence ^{Note 4}</p>

Note 1: All the analysis shall be carried out by a competent laboratory using standard and internationally accepted procedures.

Note 2: Where there is evident gross contamination, additional monitoring locations should be sampled.

Note 3: One sampling round shall be carried out before dredging commences and another one week after dredging commences. Bi-monthly thereafter.

Note 4: Locations for the monitoring of these parameters shall be agreed as per Condition 8.2.

D.5 Benthic monitoring

Parameter ^{Note 1}	Monitoring Frequency
Macrofaunal sampling	Within 1 month after dredging has been completed. Thereafter as agreed under Condition 4.2.
TBT	As above
Organic carbon content and particle size analysis.	As above
<u>Metals:</u> Arsenic, Chromium (Total) , Copper, Iron, Manganese, Nickel, Lead, Tin, Zinc, Cadmium & Mercury.	As above

Note 1: All the analysis shall be carried out by a competent laboratory using standard and internationally accepted procedures.

SCHEDULE E : Recording and Reporting to the Agency

Report	Reporting Frequency ^{Note1}	Report Submission Date
Environment Report	Once	Three months from the date of cessation of waste activities.
Record of incidents	As they occur	Within five days of the incident.
Bund, tank and container integrity assessment	Prior to use of such structures	Within one week of test completion.
Specified Engineering Works reports	As they arise	Prior to the works commencing.
Dust, Noise , Surface water and Benthic Monitoring	Quarterly	Ten days after the period being reported on
Any other monitoring	As they occur	Within ten days of obtaining results.

Note 1: Unless altered at the request of the Agency

SCHEDULE F : Criteria for Acceptance of Non-Hazardous Dredge Spoil Waste

F.1 Waste monitoring frequency and limit values for dredge spoils acceptance.

Composite samples of waste accepted for recovery shall be analysed for the following parameters at the specified frequencies ^{Note 1}. The mean value of all individual measuring values from one bulk sample must not exceed the limit value.

Parameter ^{Note 2, Note 3}	Frequency	Limit Value (mg/kg dry mass)
TBT (Tri Butyl Tin)	Monthly	0.02

Note 1: Composite samples shall be taken from a uniform mix of 10 equal and individual samples.

Note 2: Locations of samples taken shall be recorded.

Note 3: A portion of each composite sample shall be retained for at least 2 months.

SCHEDULE G : Content of the Environmental Report

Environmental Report Content
Reporting Period.
Waste activities carried out, quantity of waste recovered and remaining capacity at the facility during the reporting period.
Summary report on emissions and interpretation of environmental monitoring.
Tank, pipeline and bund testing and inspection report.
Reported incidents and Complaints summaries.
Review of Nuisance Controls.
Any other items specified by the Agency.

Sealed by the seal of the Agency on this the 14th day of November 2002

**PRESENT when the seal of the Agency
was affixed hereto:**

Iain Maclean, Director/Authorised Person