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**WASTE LICENCE
Recommended Decision**

Licence Register Number:	W0290-01
Company Register Number:	262368
Applicant:	Port of Cork Company
Location of Facility:	Seafield & Reenrour West, Bantry, Co. Cork

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 ex-situ treatment and recovery as fill of dredge sediment as part of the Inner Bantry Harbour Development Phase 1 project at **Seafield and Reenrou West, Bantry, Co. Cork**. The waste type to be treated will comprise contaminated and uncontaminated dredge sediment taken from the Inner Bantry Harbour. The dredge sediment consists of the following:

- Fine-grained sediment which is contaminated to some extent with heavy metals, hydrocarbons, PAHs and/or PCBs;
- Uncontaminated fine-grained sediment; and,
- Uncontaminated coarse-grained sediment.

The contaminated material has been characterised and has been deemed to be non-hazardous.

The fine-grained dredge sediment will be treated by stabilisation and solidification, which will immobilise the contaminants and improve the structure of the material for engineering purposes. The coarse-grained sediment will be placed directly into position and will not require treatment. The treated mass of material will be recovered by infilling at two locations within the harbour area: at a proposed amenity area and at the town pier and quayside. An estimated total of 72,000 tonnes (45,000m³) of dredge sediment will be treated and recovered over the lifetime of the activity.

The licence sets out in detail the conditions under which the **Port of Cork Company** will operate and manage this facility.

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Glossary of Terms

All terms in this licence should be interpreted in accordance with the definitions in the Environmental Protection Agency Act 1992 as amended / Waste Management Act 1996 as amended, unless otherwise defined in the section.

AER	Annual Environmental Report.
Agreement	Agreement in writing.
Annually	At approximately twelve-monthly intervals.
Application	The application by the licensee for this licence.
Appropriate Facility	A waste management facility, duly authorised under relevant law and technically suitable.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of this licence application.
BAT	Best Available Techniques.
Biannually	At approximately six – monthly intervals.
Biennially	Once every two years.
BOD	5 day Biochemical Oxygen Demand (without nitrification suppression).
CEN	Comité Européen De Normalisation – European Committee for Standardisation.
COD	Chemical Oxygen Demand.
Construction works	Includes preparatory investigations
Containment boom	A boom that can contain spillages and prevent them from entering drains or watercourses or from further contaminating watercourses.
CRO Number	Company Register Number.
Daily	During all days of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement on any one day.
Day	Any 24 hour period.

Daytime	0700 hrs to 1900 hrs.
dB(A)	Decibels (A weighted).
DO	Dissolved oxygen.
Documentation	Any report, record, results, 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.
Emission limits	Those limits, including concentration limits and deposition rates, established in <i>Schedule B: Emission Limits</i> , of this licence.
EMP	Environmental Management Programme.
Environmental damage	As defined in Directive 2004/35/EC.
EPA	Environmental Protection Agency.
Evening Time	1900hrs to 2300hrs
Facility	Any site or premises used for the purpose of the recovery or disposal of waste.
Fortnightly	A minimum of 24 times per year, at approximately two week intervals.
Gas Oil	Gas Oil as defined in Council Directive 1999/32/EC and meeting the requirements of S.I. No. 119 of 2008.
GC/MS	Gas chromatography/mass spectroscopy.
ha	Hectare.
Heavy metals	This term is to be interpreted as set out in "Parameters of Water Quality, Interpretation and Standards" published by the Agency in 2001. ISBN, 1-84095-015-3.
Hours of operation	The hours during which the facility is authorised to be operational.
Hours of waste acceptance	The hours during which the facility is authorised to accept waste.

Incident	The following shall constitute as incident for the purposes of this licence: (i) an emergency; (ii) any emission which does not comply with the requirements of this licence; (iii) any exceedance of the daily duty capacity of the waste handling equipment; (iv) any trigger level specified in this licence which is attained or exceeded; and, (v) any indication that environmental pollution has, or may have, taken place.
L_{Aeq,T}	This is the equivalent continuous sound level. It is a type of average and is used to describe a fluctuating noise in terms of a single noise level over the sample period (T).
L_{Ars,T}	The Rated Noise Level, equal to the L _{Aeq} during a specified time interval (T), plus specified adjustments for tonal character and/or impulsiveness of the sound.
Licensee	Port of Cork Company, Custom House Street, Cork, CRO Number 262368.
List I	As listed in the EC Directives 2006/11/EC and 80/68/EEC and amendments.
List II	As listed in the EC Directives 2006/11/EC and 80/68/EEC and amendments.
List of Waste (LoW)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2000/532/EC, as amended by Commission Decision 2014/955/EU and any subsequent amendment published in the Official Journal of the European Community.
Local Authority	Cork County Council.
Maintain	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to perform its function adequately.
Mass flow limit	An emission limit value expressed as the maximum mass of a substance that can be emitted per unit time.
Mass flow threshold	A mass flow rate above which a concentration limit applies.
Monthly	A minimum of 12 times per year, at intervals of approximately one month.
Night-time	2300 hrs to 0700 hrs.
Noise-sensitive location (NSL)	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.

Oil separator	Device installed according to the International Standard I.S. EN 858-2:2003 (Separator system for light liquids, (e.g. oil and petrol) – Part 2: Selection of normal size, installation, operation and maintenance).
PRTR	Pollutant Release and Transfer Register.
Quarterly	At approximately three – monthly intervals. All or part of a period of three consecutive months beginning on the first day of January, April, July or October.
SAC	Special Area of Conservation designated under the <i>Habitats Directive</i> , Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.
Sample(s)	Unless the context of this licence indicates to the contrary, the term samples shall include measurements taken by electronic instruments.
Sanitary effluent	Wastewater from facility toilet, washroom and canteen facilities.
SOP	Standard operating procedure.
SPA	Special Protection Area designated under the Birds Directive, Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds.
Specified emissions	Those emissions listed in <i>Schedule B: Emission Limits</i> , of this licence.
Standard method	A National, European or internationally recognised procedure (e.g. I.S. EN, ISO, CEN, BS. or equivalent); or an in-house documented procedure based on the above references; a procedure as detailed in the current edition of "Standard Methods for the Examination of Water and Wastewater" (prepared and published jointly by A.P.H.A., A.W.W.A. & W.E.F.); American Public Health Association, 1015 Fifteenth Street, N.W., Washington DC 20005, USA; or an alternative method as may be agreed by the Agency.
Storm water	Rain water run-off from roof and non-process areas.
The Agency	Environmental Protection Agency.
TOC	Total organic carbon.
Trigger level	A parameter value, the achievement or exceedance of which requires certain actions to be taken by the licensee.
Water Services Authority	Cork County Council.
Weekly	During all weeks of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement in any one week.

Decision & Reasons for the Decision

The Environmental Protection Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of this licence, any emissions from the activities will comply with and will not contravene any of the requirements of Section 40(4) of the Waste Management Act 1996 as amended.

The Agency also considers that the activities will not adversely affect the integrity of any European Site, and has decided to impose conditions for the purposes of ensuring they do not do so. It has determined that the activities, if managed, operated and controlled in accordance with the licence, will not have any adverse effect on the integrity of any of those sites.

The Agency accordingly proposes to grant a licence to Port of Cork Company to carry on the activities listed in *Part I, Schedule of Activities Licensed*, subject to the conditions set out in *Part III, Conditions*.

In reaching this decision the Agency has considered the documentation relating to:

- the application, Register Number: W0290-01 and the supporting documentation received from the applicant;
- the submissions received;
- the Inspector's Report dated **15th August 2016**;

and has carried out an Environmental Impact Assessment (EIA) and an Appropriate Assessment of the likely significant effects of the licensed activities on European Sites.

It is considered that the Inspector's Report contains a fair and reasonable examination, evaluation and analysis of the likely significant effects of the licensed activities on the environment, and adequately and accurately identifies, describes and assesses those effects. The assessment as reported in those documents is adopted as the assessment of the Agency. Having regard to this assessment, it is considered that the proposed activities, if managed, operated and controlled in accordance with the licence will not result in the contravention of any relevant environmental quality standards or cause environmental pollution.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the proposed activities, individually or in combination with other plans or projects are likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Sites at Glengarriff Harbour and Woodland SAC (Site Code: 000090), Roaringwater Bay and Islands SAC (Site Code: 000101), Caha Mountains SAC (Site Code: 000093), Derryclogher (Knockboy Bog) SAC (Site Code: 001873), Dunbeacon Shingle SAC (Site Code: 002280), Sheep's Head SAC (Site Code: 000102), Reen Point Shingle SAC (Site Code: 002281), Sheep's Head to Toe SPA (Site Code: 004156) and Beara Peninsula SPA (Site Code: 004155).

The proposed activities are not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it cannot be excluded, on the basis of objective information, that the proposed activities, individually or in combination with other plans or projects, will have a significant effect on any European Site and accordingly determined that an Appropriate Assessment of the proposed activities was required, for the following reasons:

- The proposed activities are located within 15km of seven European Sites, with a further two European Sites within 25km of the facility.
- The proposed activities may result in adverse effects on water quality and disturbance impacts on qualifying interests at two of the identified European Sites, which are in the zone of potential influence as follows:
 - Glengarriff Harbour and Woodland SAC Site Code: 000090

- o Roaringwater Bay and Islands SAC ; Site Code: 000101

The Agency notes that a Natura Impact Statement was submitted by the Applicant on 31 March 2016.

The Agency has completed the Appropriate Assessment of potential impacts on these sites and has made certain, based on best scientific knowledge in the field and in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, pursuant to Article 6(3) of the Habitats Directive, that the proposed activities, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in particular Glengarriff Harbour and Woodland SAC (Site Code: 000090) and Roaringwater Bay and Islands SAC (Site Code: 000101), having regard to their conservation objectives and will not affect the preservation of these sites at favourable conservation status if carried out in accordance with this licence and the conditions attached hereto for the following reasons:

- The results of coastal process modelling conclude that there will be no significant impact on the intertidal habitats that support the species designated as qualifying interests.
- Marine water quality monitoring is required under Schedule C.2.2 of the licence and the treatment of the contaminated material will be tailored to the level of contamination.
- The Environmental Quantitative Risk Assessment demonstrated that the risk of contaminants leaching from the treated material is low and a low permeability perimeter engineered revetment structure (PERS) and impermeable sheet pile system will minimise or prevent contaminants entering Bantry Bay.
- There will be no bulk storage of fuels onsite. Small quantities of fuel will be stored in bunded areas in the chemicals stores. The treatment of the contaminated dredge sediment will be undertaken in contained treatment cells.
- A Marine Mammal Observer will be engaged before and during noise-producing licensed activities and activities associated with licensed activities at the facility that may cause disturbance impacts on the Harbour Porpoise, which is highly mobile within its habitat.
- Noise-producing activities will only take place during daylight hours where visibility provides for effective monitoring.

The Agency is satisfied that no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of those European Sites Glengarriff Harbour and Woodland SAC (Site Code: 000090) and Roaringwater Bay and Islands SAC (Site Code: 000101).

Part I Schedule of Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Act 1996 as amended, the Environmental Protection Agency (the Agency) proposes, under Section 40(1) of the said Acts to grant this Waste Licence to Port of Cork Company, Custom House Street, Cork to carry on the waste activity listed below at Seafield and Reenrou West, Bantry, Cork, Cork subject to 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 as amended

Class R 5.	Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials.
Class R 11.	Use of waste obtained from any of the operations numbered R 1 to R 10.
Class R 13.	Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).

Part II Schedule of Activities Refused

None of the proposed activities as set out in the licence application have been refused.

Part III Conditions

Condition 1. Scope

- 1.1 Waste activities at this facility shall be restricted to those listed and described in *Part I Schedule of Activities Licensed*, and shall be as set out in the licence application or as modified under Condition 1.4 of this licence and subject to the conditions of this licence.
- 1.2 Activities at this facility shall be limited as set out in *Schedule A: Limitations* of this licence.
- 1.3 For the purposes of this licence, the facility authorised by this licence is the area of land outlined in colour (red) on **Drawing No. 16341-7002 Site Plan** of the application. Any reference in this licence to "facility" shall mean the area thus outlined in red. The licensed activities shall be carried on only within the area outlined.
- 1.4 No alteration to, or reconstruction in respect of, the activity, or any part thereof, that would, or is likely to, result in
- (i) a material change or increase in:
 - the nature or quantity of any emission;
 - the abatement/treatment or recovery systems;
 - the range of processes to be carried out;
 - the fuels, raw materials, intermediates, products or wastes generated, or
 - (ii) any changes in:
 - site management, infrastructure or control with adverse environmental significance;
- shall be carried out or commenced without prior notice to, and without the agreement of, the Agency.
- 1.5 The facility shall be controlled, operated and maintained, and emissions shall take place as set out in the licence. All programmes required to be carried out under the terms of this licence become part of this licence.
- 1.6 This licence is for purposes of waste licensing under the Waste Management Act 1996 as amended only and nothing in this licence shall be construed as negating the licensee's statutory obligations, or requirements under any other enactments or regulations.
- 1.7 Waste Acceptance Hours and Hours of Operation
- Unless otherwise agreed by the Agency,
- the facility shall be operated only during the hours of 0800 and 1800 Monday to Friday inclusive and 0800 and 1300 on Saturdays; and
 - no waste shall be accepted on Sundays or Bank holidays.

Reason: To clarify the scope 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 or as otherwise required by the Agency.

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 Environmental Management System (EMS)

2.2.1 The licensee shall establish and maintain an Environmental Management System (EMS) in advance of the commencement of the activity. The EMS shall be updated on an annual basis.

2.2.2 The EMS shall include, as a minimum, the following elements:

2.2.2.1 Management and Reporting Structure.

2.2.2.2 Schedule of Environmental Objectives and Targets.

The licensee shall prepare and maintain a Schedule of Environmental Objectives and Targets. The schedule shall, as a minimum, provide for a review of all operations and processes, including an evaluation of practicable options, for energy and resource efficiency, the use of cleaner technology, cleaner production and the prevention, reduction and minimisation of waste and shall include waste reduction targets. The schedule shall include time frames for the achievement of set targets and shall address a five-year period as a minimum. The schedule shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER).

2.2.2.3 Environmental Management Programme (EMP)

The licensee shall, not later than six months from the date of grant of this licence, submit to the Agency for agreement an EMP, including a time schedule, for achieving the Environmental Objectives and Targets prepared under Condition 2.2.2.2. Once agreed the EMP shall be established and maintained by the licensee. It shall include:

- designation of responsibility for targets;
- the means by which they may be achieved;
- the time within which they may be achieved.

The EMP shall also include:

- **Closure, Restoration and Aftercare Management Plan**
- **Noise and Vibration Management Plan**
- **Dust Management Plan**
- **Odour Management Plan**
- **Waste Deposition/Fill Procedures (treated and untreated waste)**
- **Waste Treatment Procedures**
- **Waste Monitoring Procedures**

The EMP shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER).

A report on the programme, including the success in meeting agreed targets, shall be prepared and submitted to the Agency as part of the AER. Such reports shall be retained on-site for a period of not less than seven years and shall be available for inspection by authorised persons of the Agency.

2.2.2.4 Documentation

- (i) The licensee shall establish and maintain an environmental management documentation system which shall be to the satisfaction of the Agency.

- (ii) The licensee shall issue a copy of this licence to all relevant personnel whose duties relate to any condition of this licence.

2.2.2.5 Corrective Action

The licensee shall establish procedures to ensure that corrective action is taken should the specified requirements of this licence not be fulfilled. The responsibility and authority for persons initiating further investigation and corrective action in the event of a reported non-conformity with this licence shall be defined.

2.2.2.6 Awareness and Training

The licensee shall establish and maintain procedures for identifying training needs, and for providing appropriate training, for all personnel whose work can have a significant effect upon the environment. Appropriate records of training shall be maintained.

2.2.2.7 Communications Programme

The licensee shall establish and maintain a Public Awareness and Communications Programme to ensure that members of the public are informed, and can obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility.

2.2.2.8 Maintenance Programme

The licensee shall establish and maintain a programme for maintenance of all plant and equipment based on the instructions issued by the manufacturer/supplier or installer of the equipment. Appropriate record keeping and diagnostic testing shall support this maintenance programme. The licensee shall clearly allocate responsibility for the planning, management and execution of all aspects of this programme to appropriate personnel (see Condition 2.1 above).

2.2.2.9 Efficient Process Control

The licensee shall establish and maintain a programme to ensure there is adequate control of processes under all modes of operation. The programme shall identify the key indicator parameters for process control performance, as well as identifying methods for measuring and controlling these parameters. Abnormal process operating conditions shall be documented, and analysed to identify any necessary corrective action.

Reason: To make provision for 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. Infrastructure and Operation

- 3.1 The licensee shall establish and maintain, for each component of the facility, all infrastructure referred to in this licence in advance of the commencement of the licensed activities in that component; or as required by the conditions of this licence. Infrastructure specified in the application that relates to the environmental performance of the facility and is not specified in the licence, shall be installed in accordance with the schedule submitted in the application.
- 3.2 Facility Notice Board
- 3.2.1 The licensee shall, within one month of the date of grant of this licence, provide a Facility Notice Board on **each of two parts** of 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. The notice board shall be maintained thereafter.

- 3.2.2 The board shall clearly show:
- (i) the name and telephone number of the facility;
 - (ii) the normal hours of operation;
 - (iii) the name of the licence holder;
 - (iv) an emergency out of hours contact telephone number;
 - (v) the licence reference number; and
 - (vi) where environmental information relating to the facility can be obtained.
- 3.2.3 A plan of the facility clearly identifying the location of each storage and treatment area shall be displayed as close as is possible to the entrance to the facility. The plan shall be displayed on a durable material such that is legible at all times. The plan shall be replaced as material changes to the facility are made.
- 3.3 The licensee shall clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency. The requirement with regard to off-site points is subject to the prior agreement of the landowner(s) concerned.
- 3.4 Tank, Container and Drum Storage Areas
- 3.4.1 All tank, container and drum storage areas shall be rendered impervious to the materials stored therein. Bunds shall be designed having regard to Agency guidelines 'Storage and Transfer of Materials for Scheduled Activities' (2004).
- 3.4.2 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:
- (i) 110% of the capacity of the largest tank or drum within the bunded area; or
 - (ii) 25% of the total volume of substance that could be stored within the bunded area.
- 3.4.3 All drainage from bunded areas shall be treated as contaminated unless it can be demonstrated to be otherwise. All drainage from bunded areas shall be diverted for collection and safe disposal, unless it can be deemed uncontaminated and does not exceed the trigger levels set for storm water emissions under 6.12.
- 3.4.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
- 3.4.5 All tanks, containers and drums shall be labelled to clearly indicate their contents.
- 3.5 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.
- 3.9 All pump sumps, storage tanks, lagoons or other treatment plant chambers from which spillage of environmentally significant materials might occur in such quantities as are likely to breach local or remote containment or separators, shall be fitted with high liquid level alarms (or oil detectors as appropriate).
- 3.10 The provision of a catchment system to collect any leaks from flanges and valves of all over-ground pipes, used to transport material other than water shall be examined. This shall be incorporated into a Schedule of Environmental Objectives and Targets set out in Condition 2 of this licence for the reduction in fugitive emissions.
- 3.11 The licensee shall install in a prominent location on the site a wind sock, or other wind direction indicator, which shall be visible from the public roadway outside the site.
- 3.12 Facility Security
- 3.12.1 Security fencing or walls and gates shall be maintained **at an appropriate location to limit access to the facility**. Subject to the implementation of the restoration and aftercare plan, the requirement for such site security may be removed.
- 3.12.2 Gates shall be locked shut when the facility is unsupervised.
- 3.12.3 The licensee shall remedy any defect in the gates, fencing and walls as follows:

- (i) A temporary repair shall be made by the end of the working day; and
 - (ii) A repair to the standard of the original gates, fencing and walls shall be undertaken within three working days
- 3.13 Facility Roads and Site Surfaces
Effective site roads shall be provided and maintained to ensure the safe and nuisance-free movement of vehicles within the facility.
- 3.14 Facility Office
 - 3.14.1 The licensee shall maintain an office at, **or in close proximity to**, the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.
 - 3.14.2 The licensee shall maintain a working telephone and a method for electronic transfer of information at the facility
- 3.15 Operational Controls
 - 3.15.1 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.
 - 3.15.2 No smoking shall be allowed within the facility, **except within a designated smoking area.**
- 3.16 Weight of Waste and Wheel Cleaners
 - 3.16.1 The licensee shall **ensure that the weight of all waste treated and/or used as fill at the facility is calculated or measured and recorded.**
 - 3.16.2 The licensee shall provide and maintain wheel cleaners **or wheel cleaning equipment** at the facility.
 - 3.16.3 The wheel cleaners shall be used by all vehicles leaving the facility as required to ensure that no trade effluent/storm water or waste is carried off-site. All water from the wheel cleaning area shall be **collected for appropriate treatment, reuse or disposal.**
 - 3.16.4 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 **treated or disposed of appropriately.**
- 3.17 Waste Handling and Processing Plant
 - 3.17.1 Items of plant deemed critical to the efficient and adequate processing of waste at the facility (including *inter alia* waste-loading vehicles and ejector trailers) shall be provided on the following basis:
 - (i) 100% duty capacity;
 - (ii) 20% standby capacity available on a routine basis; and
 - (iii) Provision of contingency arrangements and/or backup and spares in the case of breakdown of critical equipment
 - 3.17.2 The licensee shall maintain an inventory detailing the duty and standby capacity in tonnes per day of all waste handling equipment to be used at the facility. These capacities shall be based on the licensed waste intake, as per *Schedule A: Limitations* of this licence.
 - 3.17.3 The quantity of waste to be accepted at the facility on a daily basis shall not exceed the duty capacity of the equipment at the facility. Any exceedance of this intake shall be treated as an incident.
- 3.18 Waste Inspection and Quarantine Area
 - 3.18.1 A Waste Inspection Area and a Waste Quarantine Area shall be provided and maintained at the facility.

3.18.2 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection area and the waste quarantine area shall be clearly identified and segregated from each other

3.19 Dust/Odour Control

The licensee shall install and provide adequate measures for the control of odours and dust emissions, including fugitive dust emissions, from the facility.

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

Condition 4. Interpretation

4.1 Noise from the facility shall not give rise to sound pressure levels ($L_{Aeq, T}$) measured at the noise sensitive locations which exceed the limit values.

4.2 Dust and particulate matters from the activity shall not give rise to deposition levels which exceed the limit values.

Reason: To clarify the interpretation of limit values fixed under the licence.

Condition 5. Emissions

5.1 No specified emission from the facility shall exceed the emission limit values set out in *Schedule B: Emission Limits* of this licence. There shall be no other emissions of environmental significance.

5.2 No emissions, including odours, from the activities carried on at the site shall result in an impairment of, or an interference with amenities or the environment beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary.

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

5.4 **The exceedance of Environmental Quality Standards for marine water at monitoring points SW-A01, SW-A02 and SW-M01 shall be treated as an incident.**

5.5 The licensee shall ensure that all or any of the following:

- Vermin
- Birds
- Flies
- Mud
- Dust
- Litter

associated with the activity do not result in an impairment of, or an interference with, amenities or the environment at the facility or beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary. Any method used by the licensee to control or prevent any such impairment/interference shall not cause environmental pollution.

Reason: To provide for the protection of the environment by way of control and limitation of emissions.

Condition 6. Control and Monitoring

- 6.1 The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out below and as in accordance with *Schedule C: Control & Monitoring* of this licence.
- 6.1.1 Analyses shall be undertaken by competent staff in accordance with documented operating procedures.
- 6.1.2 Such procedures shall be assessed for their suitability for the test matrix and performance characteristics shall be determined.
- 6.1.3 Such procedures shall be subject to a programme of Analytical Quality Control using control standards with evaluation of test responses.
- 6.1.4 Where any analysis is sub-contracted it shall be to a competent laboratory.
- 6.2 The licensee shall ensure that:
- (i) sampling and analysis for all parameters listed in the Schedules to this licence; and
- (ii) any reference measurements for the calibration of automated measurement systems; shall be carried out in accordance with CEN-standards. If CEN standards are not available, ISO, national or international standards that will ensure the provision of data of an equivalent scientific quality shall apply.
- 6.3 All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on unless alternative sampling or monitoring has been agreed in writing by the Agency for a limited period. In the event of the malfunction of any continuous monitor, the licensee shall contact the Agency as soon as practicable, and alternative sampling and monitoring facilities shall be put in place. The use of alternative equipment, other than in emergency situations, shall be as agreed by the Agency.
- 6.4 Monitoring and analysis equipment shall be operated and maintained as necessary so that monitoring accurately reflects the emission/discharge (or ambient conditions where that is the monitoring objective).
- 6.5 All treatment/abatement and emission control equipment shall be calibrated and maintained in accordance with the instructions issued by the manufacturer/supplier or installer.
- 6.6 The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended with the agreement of the Agency following evaluation of test results.
- 6.7 **During construction works, the licensee shall prevent or, where this is not possible, minimise:**
- (i) **direct emissions (including treated and untreated sediment) into Bantry Harbour;**
- (ii) **noise and vibration emissions; and**
- (iii) **dust emissions.**
- 6.8 **The Perimeter Engineered Revetment Structure and the sheet pile system shall be properly maintained at all times and shall be inspected at a frequency to be specified in the EMP.**
- 6.9 Noise
- 6.9.1 The licensee shall carry out a noise survey of the site operations as required by the Agency, at the monitoring locations N-01, N-02 and N-03.

- 6.9.2 The survey programmes shall be undertaken in accordance with the methodology specified in the 'Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)' as published by the Agency.
- 6.9.3 **A suitably qualified Marine Mammal Observer shall be engaged to carry out monitoring before and during relevant noise-producing activities.**
- 6.9.4 **Noise-producing activities shall only take place during daylight hours where visibility provides for effective monitoring.**
- 6.9.5 **Noise-producing activities shall be ceased or reduced where required in order to protect the harbour porpoise. The licensee shall implement any recommendations of the Marine Mammal Observer in that regard.**
- 6.10 Dust and Odour Control
- 6.10.1 In dry weather, site roads and any other areas used by vehicles shall be sprayed with water as and when required to minimise airborne dust nuisance.
- 6.10.2 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.
- 6.10.3 The licensee shall undertake, as required by the Agency, an odour assessment which shall include as a minimum the identification and quantification of all significant odour sources and an assessment of the suitability and adequacy of the odour abatement system(s) to deal with these emissions. Any recommendations arising from such an odour assessment shall be implemented.
- 6.11 Pollutant Release and Transfer Register (PRTR)
- The licensee shall prepare and report a PRTR for the site. The substance and/or wastes to be included in the PRTR shall be as agreed by the Agency each year by reference to EC Regulations No. 166/2006 concerning the establishment of the European Pollutant Release and Transfer Register. The PRTR shall be prepared in accordance with any relevant guidelines issued by the Agency and shall be submitted electronically in specified format and as part of the AER.
- 6.12 The licensee shall, within six months of the date of grant of this licence, develop and establish a Data Management System for collation, archiving, assessing and graphically presenting the monitoring data generated as a result of this licence.
- 6.13 Operational Controls
- There shall be no unauthorised public access to the facility.
- 6.14 Nuisance Monitoring
- The licensee shall, on a daily basis, inspect the facility and its immediate surrounds for nuisances caused by litter, vermin, birds, flies, mud, dust and odours. The licensee shall maintain a record of all nuisance inspections.

Reason: *To provide for the protection of the environment by way of treatment and monitoring of emissions.*

Condition 7. Resource Use and Energy Efficiency

- 7.1 The licensee shall identify opportunities for reduction in the quantity of material resources, energy and water used on site during construction works including renewable energy, recycling and reuse initiatives, wherever possible. Reductions in material resources, energy and water usage shall be incorporated into the Schedule of Environmental Objectives and Targets

Reason: *To provide for the efficient use of resources and energy in all site operations.*

Condition 8. Materials Handling

- 8.1 The licensee shall, prior to commencement of waste activities, establish criteria to demonstrate on an ongoing basis that coarse-grained sediment proposed for direct use as fill is not contaminated. These criteria shall include at least the following parameters: mercury, lead and TBT.
- 8.2 No waste shall be accepted at the facility other than sediment which has been dredged from the Inner Bantry Harbour.
- 8.3 No hazardous waste shall be treated or deposited as fill at the facility.
- 8.4 Any waste accepted at the facility that, following analysis, is found to be hazardous waste shall be dispatched from the facility to an appropriate facility.
- 8.5 Any coarse-grained material accepted at the facility that, following analysis, is found to be contaminated according to criteria to be established under condition 8.1 shall be treated in accordance with this licence or dispatched from the facility to an appropriate facility.
- 8.6 The loading and unloading of materials shall be carried out in designated areas protected against spillage and leachate run-off.
- 8.7 The treatment of fine-grained dredge sediment for recovery and use as fill shall take place according to:
- waste treatment procedures to be established in accordance with Condition 2 of this licence;
 - treatment objectives to immobilise the contaminants and to render the waste useful as engineered fill; and
 - the measures set out in the EIS for the prevention and minimisation of dust emissions.
- 8.8 Dredge sediment, whether treated or untreated, that is recovered at the facility shall be used in construction activities only in accordance with the engineering and environmental criteria governing the use of recovered dredge sediment prepared in accordance with Condition 2 of this licence.
- 8.9 Leachate from treated waste shall not exceed the limit values specified in *Schedule B.6 Leachate Limits*.
- 8.10 Where leachate from treated waste exceeds the limit values specified in *Schedule B.6 Leachate Limits* in three consecutive samples, the treated waste shall be deemed unsuitable for fill and shall be excavated for re-treatment or removed off site for appropriate disposal.
- 8.11 Disposal or recovery of waste on-site shall only take place in accordance with the conditions of this licence and in accordance with the appropriate National and European legislation and protocols.
- 8.12 Waste sent off-site for recovery or disposal shall be transported only by an authorised waste contractor. The waste shall be transported from the site of the activity to the site of recovery/disposal only in a manner that will not adversely affect the environment and in accordance with the appropriate National and European legislation and protocols.
- 8.13 The licensee shall ensure that, in advance of transfer to another person, waste shall be classified, packaged and labelled in accordance with National, European and any other standards which are in force in relation to such labelling.
- 8.14 Waste shall be stored in designated areas, protected as may be appropriate against spillage and leachate run-off. The waste shall be clearly labelled and appropriately segregated.

- 8.15 No waste classified as green list waste in accordance with the EU Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended) shall be consigned for recovery without the agreement of the Agency.
- 8.16 Waste for disposal/recovery off-site shall be analysed in accordance with *Schedule C: Control & Monitoring*, of this licence.
- 8.17 Unless approved in writing, in advance, by the Agency the licensee is prohibited from mixing a hazardous waste of one category with a hazardous waste of another category or with any other non-hazardous waste.
- 8.18 The licensee shall neither import waste into the State nor export waste out of the State except in accordance with the relevant provisions of Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14th June 2006 on shipments of waste and associated national regulations.

Reason: *To provide for the appropriate handling of material and the protection of the environment.*

Condition 9. Accident Prevention and Emergency Response

- 9.1 The licensee shall, in advance of the commencement of the activity, ensure that a documented Accident Prevention Procedure is in place that addresses the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.2 The licensee shall, in advance of the date of commencement of the activity, ensure that a documented Emergency Response Procedure is in place that addresses any emergency situation which may originate on-site. This procedure shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.3 Incidents
- 9.3.1 In the event of an incident the licensee shall immediately:
- (i) carry out an investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
 - (ii) isolate the source of any such emission;
 - (iii) evaluate the environmental pollution, if any, caused by the incident;
 - (iv) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
 - (v) identify the date, time and place of the incident;
 - (vi) notify the Agency and other relevant authorities.
- 9.3.2 The licensee shall provide a proposal to the Agency for its agreement within one month of the incident occurring or as otherwise agreed by the Agency, to:
- (i) identify and put in place measures to avoid recurrence of the incident; and
 - (ii) identify and put in place any other appropriate remedial actions.

Reason: *To provide for the protection of the environment.*

Condition 10. Closure, Restoration and Aftercare Management

- 10.1 Following termination, or planned cessation for a period greater than six months, of use or involvement of all or part of the site in the licensed activity, the licensee shall, to the satisfaction of the Agency, decommission, render safe or remove for disposal/recovery any soil, subsoil, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution.
- 10.2 Closure, Restoration and Aftercare Management Plan (CRAMP)
- 10.2.1 The licensee shall **maintain** a fully detailed and costed plan for the decommissioning or closure of the site or part thereof.
- 10.2.2 The plan shall be reviewed annually and proposed amendments thereto notified to the Agency as part of the AER.
- 10.2.3 The licensee shall have regard to the Environmental Protection Agency's Guidance on Assessing and Costing Environmental Liabilities (2014) and, as appropriate, Guidance on Financial Provision for Environmental Liabilities (2015), when implementing Conditions 10.2.1 and 10.2.2 above.
- 10.3 The CRAMP shall include, as a minimum, the following:
- (i) a scope statement for the plan;
 - (ii) the criteria that define the successful decommissioning of the activity or part thereof, which ensures minimum impact on the environment;
 - (iii) a programme to achieve the stated criteria;
 - (iv) where relevant, a test programme to demonstrate the successful implementation of the decommissioning plan; and
 - (v) details of the costings for the plan and the financial provisions to underwrite those costs.
- 10.4 A final validation report to include a certificate of completion for the Closure, Restoration and Aftercare Management Plan, for all or part of the site as necessary, shall be submitted to the Agency within three months of execution of the plan. The licensee shall carry out such tests, investigations or submit certification, as requested by the Agency, to confirm that there is no continuing risk to the environment.

Reason: *To make provision for the proper closure of the activity ensuring protection of the environment.*

Condition 11. Notification, Records and Reports

- 11.1 The licensee shall notify the Agency, in writing, two weeks in advance of the intended date of commencement of the Scheduled Activities.
- 11.2 **The licensee shall notify the Agency of the date when the Scheduled Activities were completed and the maintenance and aftercare phase commenced.**
- 11.3 The licensee shall notify the Agency, in a format as may be specified by the Agency as soon as practicable after the occurrence of any of the following:
- (i) any release of environmental significance to atmosphere from any potential emissions point including bypasses;
 - (ii) any emission that does not comply with the requirements of this licence;
 - (iii) any malfunction or breakdown of key control equipment or monitoring equipment set out in *Schedule C: Control and Monitoring* of this licence which is likely to lead to loss of control of the abatement system; and

- (iv) any incident with the potential for environmental contamination of surface water or groundwater, or posing an environment threat to air or land, or requiring an emergency response by the Local Authority.

The licensee shall include as part of the notification, date and time of the incident, summary details of the occurrence, and where available, the steps taken to minimise any emissions.

- 11.4 The following shall be notified, as soon as practicable after the occurrence of any incident which relates to a discharge to water:
 - (i) Department of Agriculture, Food and the Marine in the case of discharges to receiving waters.
 - (ii) Marine Institute (MI), Sea Fisheries Protection Authority (SFPA), Food Safety Authority of Ireland (FSAI) and an Bord Iascaigh Mhara (BIM) in the case of discharges to or likely to impact a shellfish water.
- 11.5 The licensee shall make a record of any incident. This record shall include details of the nature, extent, and impact of, and circumstances giving rise to, the incident. The record shall include all corrective actions taken to manage the incident, minimise wastes generated and the effect on the environment, and avoid recurrence. The licensee shall, as soon as practicable following incident notification, submit to the Agency the incident record.
- 11.6 The licensee shall record all complaints of an environmental nature related to the operation of the activity. Each such record shall give details of the date and time of the complaint, the name of the complainant (if provided), and give details of the nature of the complaint. A record shall also be kept of the response made in the case of each complaint.
- 11.7 The licensee shall record all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the facility.
- 11.8 The licensee shall as a minimum ensure that the following documents are accessible at the site or an alternative location, including a website, as may be agreed by the Agency:
 - (i) the licences relating to the facility;
 - (ii) the current EMS for the facility;
 - (iii) the previous year's AER for the facility;
 - (iv) records of all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the facility;
 - (v) relevant correspondence with the Agency;
 - (vi) up-to-date site drawings/plans showing the location of key process and environmental infrastructure, including monitoring locations and emission points;
 - (vii) up-to-date Standard Operational Procedures for all processes, plant and equipment necessary to give effect to this licence or otherwise to ensure that standard operation of such processes, plant or equipment does not result in unauthorised emissions to the environment;
 - (viii) any elements of the licence application or EIS documentation referenced in this licence.

This documentation shall be available to the Agency for inspection at all reasonable times.

- 11.9 The licensee shall submit to the Agency, by the 31st March of each year, an AER covering the previous calendar year. This report, which shall be to the satisfaction of the Agency, shall include as a minimum the information specified in *Schedule D: Annual Environmental Report*, of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency.
- 11.10 A full record, which shall be open to inspection by authorised persons of the Agency at all times, shall be kept by the licensee on matters relating to the waste management operations and practices at this site. This record shall be maintained on a monthly basis and shall as a minimum contain details of the following:

- (i) the tonnages and LoW Code for the waste materials imported and/or sent off-site for disposal/recovery;
 - (ii) the names of the agent and carrier of the waste, and their waste collection permit details, if required (to include issuing authority and vehicle registration number);
 - (iii) details of the ultimate disposal/recovery destination facility for the waste and its appropriateness to accept the consigned waste stream, to include its permit/licence details and issuing authority, if required;
 - (iv) written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site;
 - (v) details of all waste consigned abroad for Recovery and classified as 'Green' in accordance with the EU Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended). The rationale for the classification must form part of the record;
 - (vi) details of any rejected consignments;
 - (vii) details of any approved waste mixing;
 - (viii) the results of any waste analyses required under *Schedule C: Control & Monitoring*, of this licence; and
 - (ix) the tonnage and LoW Code for the waste materials recovered/disposed on-site.
- 11.11 The licensee shall submit report(s) as required by the conditions of this licence to the Agency's Headquarters in Wexford, or to such other Agency office as may be specified by the Agency.
- 11.12 All reports shall be certified accurate and representative by the facility manager or a nominated, suitably qualified and experienced deputy.

Reason: *To provide for the collection and reporting of adequate information on the activity.*

Condition 12. Financial Charges and Provisions

12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of **€5,458**, or such sum as the Agency from time to time determines, having regard to variations in the extent of reporting, auditing, inspection, sampling and analysis or other functions carried out by the Agency, towards the cost of monitoring the activity as the Agency considers necessary for the performance of its functions under the Waste Management Act 1996 as amended. The first payment shall be a pro-rata amount for the period from the date of grant of this licence to the 31st day of December, and shall be paid to the Agency within one month from the date of grant of the licence. In subsequent years the licensee shall pay to the Agency such revised annual contribution as the Agency shall from time to time consider necessary to enable performance by the Agency of its relevant functions under the Waste Management Act 1996 as amended, and all such payments shall be made within one month of the date upon which demanded by the Agency.

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 defray its costs in regard to items not covered by the said annual contribution.

12.2 Environmental Liabilities

12.2.1 The licensee shall as part of the AER, provide an annual statement as to the measures taken or adopted at the site in relation to the prevention of environmental damage, and the financial provisions in place in relation to the underwriting of costs for

remedial actions following anticipated events (including closure) or accidents/incidents, as may be associated with the carrying on of the activity.

- 12.2.2 The licensee shall arrange for the completion, by an independent and appropriately qualified consultant, of a comprehensive and fully costed Environmental Liabilities Risk Assessment (ELRA) which addresses the liabilities from past and present activities. The assessment shall include those liabilities and costs identified in Condition 10 for execution of the CRAMP. A report on this assessment shall be submitted to the Agency for agreement within three months of date of grant of this licence. The ELRA shall be reviewed as necessary to reflect any significant change on site, and in any case every three years following initial agreement. Review results are to be notified as part of the AER.
- 12.2.3 As part of the measures identified in Condition 12.2.1, the licensee shall, to the satisfaction of the Agency and within three months of the date of grant of this licence, make financial provision to cover any liabilities associated with the operation (including closure, restoration and aftercare). The amount of indemnity held shall be reviewed and revised as necessary, but at least annually. Proof of renewal or revision of such financial indemnity shall be included in the annual 'Statement of Measures' report identified in Condition 12.2.1.
- 12.2.4 The licensee shall revise the cost of closure, restoration and aftercare annually and any adjustments shall be reflected in the financial provision made under Condition 12.2.3.
- 12.2.5 The licensee shall have regard to the Environmental Protection Agency Guidance on Assessing and Costing Environmental Liabilities (2014) and, as appropriate, Guidance on Financial Provision for Environmental Liabilities (2015) when implementing Conditions 12.2.2, 12.2.3 and 12.2.4 above.

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

SCHEDULE A: Limitations

A.1 Waste Processes

The following waste related processes are authorised:

- Storage of waste
- Stabilisation/solidification of contaminated waste dredge sediment
- Recovery of treated and untreated waste by infill within the facility

No additions to these processes are permitted unless agreed in advance with the Agency.

A.2 Waste Acceptance

Table A.2 Waste Categories and Quantities

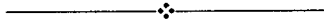
A.2 Waste Accepted

LoW Codes	Waste Type	Maximum (Lifetime recovery objective)
17 05 04 17 05 06	Dredge sediment	72,000 tonnes (45,000 m ³)
Total		72,000 tonnes (45,000 m³)

SCHEDULE B: Emission Limits

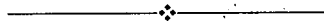
B.1 Emissions to Air

There shall be no emissions to air of environmental significance.



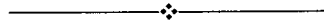
B.2 Emissions to Water

There shall be no emissions to water of environmental significance.



B.3 Emissions to Sewer

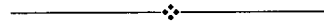
There shall be no process effluent emissions to sewer.



B.4 Noise Emissions

Daytime dB L _{Aeq,T} (30 minutes)	Evening time dB L _{Aeq,T} (30 minutes)	Night-time dB L _{Aeq,T} (15-30 minutes)
55	50	45 ^{Note 1}

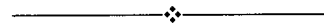
Note 1: There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise-sensitive location.



B.5 Dust Deposition Limits

Level (mg/m ² /day) ^{Note 1}
350

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



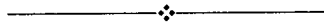
B.6 Leachate Limits

Parameter	Leachate limit (mg/l)
Arsenic	0.67
Cadmium	0.007
Chromium	0.50
Copper	0.17
Lead	0.043
Mercury	0.0017
Nickel	0.287
Zinc	1.30
Total of 17 PAHs	0.17
Tributyl tin	6.7×10^{-5}

SCHEDULE C: Control & Monitoring

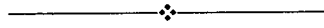
C.1.1. Control of Emissions to Air

There shall be no emissions to air of environmental significance.



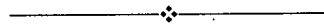
C.1.2. Monitoring of Emissions to Air

There shall be no emissions to air of environmental significance.



C.2.1. Control of Emissions to Water

There shall be no emissions to water of environmental significance.



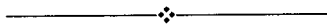
C.2.2. Marine Water Monitoring in Bantry Harbour

Monitoring Locations:	SW-A01	E98805; N48607
	SW-A02	E98269; N49547
	SW-M01	E98898; N48594

As per Drawing No. 16341-7011 Rev. B of the application

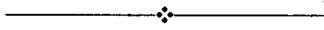
Control Parameter	Monitoring Frequency	Key Equipment/Technique
Automatic Monitoring (SW-A01 and SW-A02)		
Suspended Solids Turbidity	Continuous	Standard Methods
Manual Monitoring (SW-M01)		
Suspended Solids Turbidity Metals Arsenic Cadmium Chromium Copper Lead Mercury Nickel Zinc Tributyl tin Polyaromatic hydrocarbons (PAHs) Polychlorinated biphenyls (PCBs) Petroleum hydrocarbons ^{Note 1}	During construction works: • Daily After construction works: • Weekly for first month after completion • Monthly for subsequent 12 months • Annually thereafter	Standard Methods

Note 1: during construction works only



C.3.1. Control of Emissions to Sewer

There shall be no process effluent emissions to sewer.



C.3.2. Monitoring of Emissions to Sewer

There shall be no process effluent emissions to Sewer.

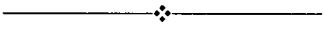


C.4 Waste Monitoring

Location: as per Drawing No. 16341-Fig. 11

Waste Class	Frequency	Parameter	Method
Dredged sediment	<ul style="list-style-type: none"> At least weekly and <ul style="list-style-type: none"> In any case every 1,000 m³ 	Fine-grained material: <ul style="list-style-type: none"> Hazardous or Non-hazardous Coarse-grained material: <ul style="list-style-type: none"> Contaminated or Not contaminated 	Standard Method
Treated dredge sediment (fine-grained material) (leachability)	<ul style="list-style-type: none"> After each change to the recipe for the treatment mix and <ul style="list-style-type: none"> In any case every 1,000 m³ Leachate samples will be tested at 1, 2, 4 and 9 days.	Arsenic Cadmium Chromium Copper Lead Mercury Nickel Zinc PAHs Tributyl tin	Standard Method
Other ^{Note 1}			

Note 1: Analytical requirements to be determined on a case by case basis.



C.5 Noise Monitoring

Location: N1 E99220; N48461
 N2 E99377; N48617
 N3 E99123; N48591

Period	Minimum Survey Duration
Daytime	A minimum of 3 sampling periods at each noise monitoring location ^{Note 2}
Evening-time	A minimum of 1 sampling period at each noise monitoring location.
Night-time ^{Note 1}	A minimum of 2 sampling periods at each noise monitoring location.

Note 1: Night-time measurements should be made between 2300hrs and 0400hrs, Sunday to Thursday, with 2300hrs being the preferred start time.

Note 2: Sampling period is to be the time period T stated within the relevant licence. Typically this will be either 15 minutes or 30 minutes in duration. This applies to day, evening and night time periods.

C.6 Ambient Monitoring

C.6.1 Dust Deposition

Location: AA-01 E99080; N48458
AA-02 E99119; N48581

Parameter	Monitoring Frequency	Analysis Method/Technique
Dust deposition	Monthly	Bergerhoff Method

SCHEDULE D: Annual Environmental Report

Annual Environmental Report Content ^{Note 1}
Emissions from the facility
Waste management record.
Resource consumption summary.
Complaints summary.
Schedule of Environmental Objectives and Targets.
Environmental management programme – report for previous year.
Environmental management programme – proposal for current year.
Pollutant Release and Transfer Register – report for previous year.
Pollutant Release and transfer Register – proposal for current year.
Noise monitoring report summary.
Ambient monitoring summary.
Tank and pipeline testing and inspection report.
Reported incidents summary.
Energy efficiency audit report summary.
Report on the assessment of the efficiency of use of raw materials in processes and the reduction in waste generated.
Report on progress made and proposals being developed to minimise water demand and the volume of trade effluent discharges.
Development/Infrastructural works summary (completed in previous year or prepared for current year).
Reports on financial provision made under this licence, management and staffing structure of the facility, and a programme for public information.
Review of Closure, restoration & aftercare management Plan.
Statement of measures in relation to prevention of environmental damage and remedial actions (Environmental Liabilities).
Environmental Liabilities Risk Assessment Review (every three years or more frequently as dictated by relevant on-site change including financial provisions).
Any other items specified by the Agency.

Note 1: Content may be revised subject to the agreement of the Agency.

Signed on behalf of the said Agency _____
On the xx day of xxxxx, 200X xxxxxxxxxxxx **Authorised Person**

