Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

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

# INDUSTRIAL EMISSIONS LICENCE

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| **Licence Register Number:** | **P0519-04** |
| **Company Register Number:** | **11815** |
| **Licensee:** | **Saint-Gobain Construction Products (Ireland) Limited** |
| **Location of Installation:** | **Mining Operation: Knocknacran, Magheracloone, Drummond, Derrynascobe, Derrynaglah, Ballycartlan, Enagh, Carrickmacross County Monaghan**<br><br>**Processing Operation: Lisnabow, Kilmainham, Kells County Meath** |

ENVIRONMENTAL PROTECTION AGENCY ACT 1992 AS AMENDED

# INDUSTRIAL EMISSIONS LICENCE

Decision of Agency, under Section 90(2) of the EPA Act 1992 as amended in respect of licence

Reference number in Register of licences: P0519-04

Further to notice dated 15/11/21, the Agency in exercise of the powers conferred on it by the Environmental Protection Agency Act 1992 as amended, for the reasons hereinafter set out, hereby grants an Industrial Emissions review licence to Saint-Gobain Construction Products (Ireland) Limited, Unit 4, Kilcarbery Business Park, Nangor Road, Dublin 22, CRO number 11815,

to carry on the following activities:

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| 1.3 | The extraction and processing (including size reduction, grading and heating) of minerals within the meaning of the Minerals Development Acts, 1940 to 1999, where an activity involves any other operation where either the level of extracted or processed minerals is greater than 200,000 tonnes per annum or the total operational yield is greater than 1,000,000 tonnes, and storage of related mineral waste |
| 11.1 | The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required. |
| 11.5 | Landfills, within the meaning of section 5 (amended by Regulation 11(1) of the Waste Management (Certification of Historic Unlicenced Waste Disposal and Recovery Activity) Regulations 2008 (S.I. No. 524 of 2008)) of the Act of 1996, receiving more than 10 tonnes of waste per day or with a total capacity exceeding 25,000 tonnes, other than landfills of inert waste. |

at the townlands of Lisnabow, Kilmainham, Kells, County Meath and in the townlands of Knocknacran, Magheracloone, Drummond, Derrynascobe, Derrynaglah, Ballycartlan, Enagh, Carrickmacross, County Monaghan subject to the conditions as set out.

GIVEN under the Seal of the Agency on this the 20th day of December 2021.

PRESENT when the seal of the Agency was affixed hereto:

Ray Cullinane

Ray Cullinane, Authorised Person

# *INTRODUCTION*

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

Saint-Gobain Construction Products (Ireland) Limited operates a gypsum mine near Carrickmacross, County Monaghan. The mine produces between 300,000 and 500,000 tonnes of gypsum (calcium sulphate dihydrate) per annum. Activities at the mine site include a crushing plant, lorry loading facilities, workshop, storage silos, office buildings and a water lagoon system. Extracted gypsum is processed into gypsum plaster and plasterboard at the company's processing site at Kilmainham, County Meath.

The mining activity falls under Class 1.3 of the EPA Act 1992 as amended. Activities at the mine and plasterboard production sites have been the subject of an IPC licence since 2002. A revised licence was issued in 2005 which itself was the subject of three subsequent technical amendments.

Until July 2009, the licensee operated a landfill which is a specified activity under Article 2(g) of the Landfill Directive (1999/31/EC). This is Category 5.4 of Annex I of the Industrial Emissions Directive. The landfill has been fully closed and restored since 2018 in accordance with the existing licence.

The revised licence provides for: an amendment in limit values for parameters in discharges to water in response to a change in management of mine water; an amendment to the installation boundary to facilitate the development of a sports facility and to clarify the extent of the licensable activities; and an update of licence conditions, inter alia, in response to amendments requested by the Office of Environmental Enforcement.

The licence sets out in detail the conditions under which Saint-Gobain Construction Products (Ireland) Limited, will operate and manage this installation. It authorises the importation of up to 18,000 tonnes per annum of waste plasterboard for recycling at the installation.

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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, unless otherwise defined in the glossary.

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| **Accident** | For the purpose of this licence an accident means an unplanned event that may result in pollution. |
| **Adequate lighting** | 20 lux measured at ground level. |
| **AER** | Annual Environmental Report. |
| **Approval** | Approval in writing/electronically. |
| **Annually** | All or part of a period of twelve consecutive months. |
| **Application** | The application by the licensee for this licence. |
| **Appropriate Facility** | A waste management facility or installation, 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. |
| **BAT conclusions** | A document containing the parts of a BAT reference document laying down the conclusions on best available techniques, their description, information to assess their applicability, the emission levels associated with the best available techniques, associated monitoring, associated consumption levels and, where appropriate, relevant site remediation measures. |
| **BAT reference document** | A document drawn up by the Commission of the European Union in accordance with Article 13 of the Industrial Emissions Directive, resulting from the exchange of information in accordance with that Article of that Directive and describing, in particular, applied techniques, present emissions and consumption levels, techniques considered for the determination of best available techniques as well as BAT conclusions and any emerging techniques. |
| **Biannually** | At approximately six – monthly intervals. |
| **Biennially** | Once every two years. |
| **BOD** | 5 day Biochemical Oxygen Demand (without nitrification suppression). |

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| **CEN** | Comité Européen De Normalisation – European Committee for Standardisation. |
| **COD** | Chemical Oxygen Demand. |
| **Compliance Point** | The point (location, depth) at which a compliance value should be met. Generally, it is represented by a borehole or monitoring well from which representative groundwater samples can be obtained. |
| **Characterisation of waste** | The sampling and analysis of waste to determine, amongst other things, its nature and composition, including the proportions of biodegradable, recyclable and other materials in the waste. |
| **Classification of waste** | The classification of waste as inert, non-hazardous or hazardous for the purpose of article 4 of Council Directive (1999/31/EC) on the landfill of waste. |
| **Construction and demolition (C&D) waste** | Wastes that arise from construction, renovation and demolition activities: Chapter 17 of the LoW or as otherwise may be agreed. |
| **Containment boom** | A boom that can contain spillages and prevent them from entering drains or watercourses or from further contaminating watercourses. |
| **CRAMP** | Closure, Restoration and Aftercare Management Plan. |
| **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** | 0700hrs to 1900hrs. |
| **dB(A)** | Decibels (A weighted). |
| **Diffuse Emissions** | Non-channelled emissions which can result from 'area' sources (e.g. tanks) or 'point' sources (e.g. pipe flanges). |
| **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 *Schedule B: Emission Limits,* of this licence. |

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| **EMP** | Environmental Management Programme. |
| **EMS** | Environment Management System. The aspect of the organisation's overall management structure that addresses immediate and long-term impacts of its products, services and processes on the environment. |
| **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 Directive (EU) 2016/802 of the European Parliament and of the Council of 11 May 2016 relating to a reduction in the sulphur content of certain liquid fuels. |
| **GC/MS** | Gas chromatography/mass spectroscopy. |
| **Groundwater** | Has the meaning assigned to it by Regulation 3 of the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010), as amended. |
| **ha** | Hectare. |
| **Hazardous Substances** | Substances or mixtures as defined in Article 3 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures. |
| **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. |
| **HFO** | Heavy Fuel Oil as defined in Council Directive 1999/32/EC and meeting the requirements of S.I. No. 119 of 2008. |
| **Hours of operation** | The hours during which the installation is authorised to be operational. |
| **Hours of waste acceptance** | The hours during which the installation is authorised to accept waste. |
| **ICP** | Inductively coupled plasma spectroscopy. |

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| **IE** | Industrial Emissions. |
| **Incident** | The following shall constitute an incident for the purposes of this licence:<br>(i) an emergency;<br>(ii) any emission which does not comply with the requirements of this licence;<br>(iii) any malfunction or breakdown of key environmental abatement, control or monitoring equipment;<br>(iv) any trigger level specified in this licence which is attained or exceeded;<br>(v) any compliance value specified in this licence which is attained or exceeded;<br>(vi) any indication that environmental pollution has, or may have, taken place;<br>(vii) an uncontrolled ingress of water into the mine; and<br>(viii) an unexpected mine event which may have an effect on the environment. |
| **Industrial Emissions Directive** | Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast). |
| **Industrial waste** | As defined in Section 5(1) of the Waste Management Act 1996 as amended. |
| **Installation** | A stationary technical unit or plant where the activity concerned referred to in the First Schedule of EPA Act 1992 as amended is or will be carried on, and shall be deemed to include any directly associated activity, which has a technical connection with the activity and is carried out on the site of the activity. |
| **Irish Water** | Irish Water, Colvill House, 24/26 Talbot Street, Dublin 1. |
| **K** | Kelvin. |
| **kPa** | Kilopascals. |
| **$L_{Aeq,T}$** | 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). |
| **Landfill Directive** | Council Directive 1999/31/EC. |
| **$L_{Ar,T}$** | 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. |

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| **Licensee** | Saint-Gobain Construction Products (Ireland) Limited, Unit 4, Kilcarbery Business Park, Nangor Road, Dublin 22, Dublin, CRO Number: 11815. |
| **Liquid waste** | Any waste in liquid form and containing less than 2% dry matter. |
| **Local Authority** | Monaghan County Council (Mining Operations).<br>Meath County Council (Process Operations). |
| **List of Wastes (LoW)** | A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2014/955/EU, as amended by any subsequent amendment published in the Official Journal of the European Community. |
| **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** | 2300hrs to 0700hrs. |
| **Noise-sensitive location (NSL)** | Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other installation or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels. |
| **Odour-sensitive location** | Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other premises or area of high amenity which for its proper enjoyment requires the absence of odour 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). |
| **Pollution Reduction Plan** | Plan established in accordance with Part V of the European Communities Environmental Objectives (Surface Waters) Regulations S.I No. 272 of 2009 for the reduction of pollution from priority substances or the ceasing or phasing out of emissions, discharges and losses of priority hazardous substances. |
| **PRTR** | Pollutant Release and Transfer Register. |
| **Quarterly** | All or part of a period of three consecutive months beginning on the first day of January, April, July or October. |
| **Relevant Hazardous Substances** | Those substances or mixtures defined within Article 3 of Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) which, as a result of their hazardousness, mobility, |

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| | persistence and biodegradability (as well as other characteristics), are capable of contaminating soil or groundwater and are used, produced and/or released by the installation. |
| **SAC** | Special Area of Conservation designated under the Habitats Directive, 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 installation toilet, washroom and canteen facilities. |
| **Soil** | The top layer of the Earth's crust situated between the bedrock and the surface. The soil is composed of mineral particles, organic matter, water, air and living organisms. |
| **SOP** | Standard operating procedure. |
| **Source segregated waste** | Waste which is separated at source; meaning that the waste is sorted at the point of generation into a recyclable fraction(s) for separate collection (e.g., paper, metal, glass, plastic, bulk dry recyclables, biodegradables, etc.,) and a residual fraction. The expression 'separate at source' shall be construed accordingly. |
| **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 *Schedule B: Emission Limits,* 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. |
| **Storage** | Includes holding of waste. |
| **Storm water** | Rain water run-off from roof and non-process areas. |
| **The Agency** | Environmental Protection Agency. |
| **TOC** | Total organic carbon. |
| **Trade effluent** | Trade effluent has the meaning given in the Water Services Act, 2007. |

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| **Trigger level** | A parameter value, the achievement or exceedance of which requires certain actions to be taken by the licensee. |
| **Waste** | Any substance or object which the holder discards or intends or is required to discard. |
| **Water Services Authority** | Monaghan County Council (Mining Operations).<br>Meath County Council (Process Operations). |
| **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. |
| **WWTP** | Waste water treatment plant. |

# *Decision and 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 activity will comply with and will not contravene any of the requirements of Section 83(5) of the Environmental Protection Agency Act 1992 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 this licence, will not have any adverse effect on the integrity of any of those sites.

The Agency has accordingly decided to grant a revised licence to Saint-Gobain Construction Products (Ireland) Limited to carry on the activities listed in *Part I, Schedule of Activities Licensed*, subject to the conditions set out in *Part III , Conditions;* such licence to take effect in lieu of Licence Register Number: P0519-03.

No objection having been received to the proposed determination, this licence is granted in accordance with the terms of the proposed determination.

In reaching this decision the Agency has considered the documentation relating to the existing licence, Register Number: P0519-03, the review application, Register Number: P0519-04 and the supporting documentation received from the applicant; submissions received; the Inspector's Report dated 7th October 2021 and has carried out an Environmental Impact Assessment (EIA) and an Appropriate Assessment of the likely significant effects of the 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 activities on the environment, and adequately and accurately identifies, describes and assesses those effects. The assessment as reported in this document is adopted as the assessment of the Agency. Having regard to this assessment, it is considered that the activities, if managed, operated and controlled in accordance with this licence will not result in the contravention of any relevant environmental quality standards or cause environmental pollution.

Having regard to the examination of environmental information in the Inspector's Report, and in particular to the content of the Environmental Impact Assessment Report (EIAR) and supplementary information provided by the licensee, and the submissions from the planning authorities, and any other third parties in the course of the application, it is considered that the potential significant direct and indirect effects of the activities on the environment are as follows:

- Discharge of mine water to watercourses;
- Noise and vibration emissions;
- Emissions to air and dust; and
- Potential for accidents including subsidence, spillages of contaminants to ground or groundwater and in turn watercourses.

Having assessed those potential effects, the Agency has concluded as follows:

- Mine water discharges to the River Bursk will be mitigated through imposing emission limit values to ensure compliance with environmental quality standards and protection of aquatic life;
- Noise and vibration emissions will be mitigated through: imposing vibration limits at specified noise sensitive locations and implementation of monitoring and control measures;
- Emissions to air will be mitigated through: imposing emission limit values to ensure compliance with air quality standards, and implementing monitoring and dust control measures; and
- Potential for accidents including subsidence, spillages of contaminants to ground or groundwater and in turn watercourses, which will be mitigated through: integrity assessment,

requirement for compliance with environmental quality standards, accident prevention measures and implementation of monitoring, maintenance and control measures.

Having regard to the effects (and interactions) identified, described and assessed throughout the Inspector's Report, it is considered that the monitoring, mitigation and preventative measures proposed will enable the activities to operate without causing environmental pollution, subject to compliance with the licence.

The conditions of this licence and the mitigation measures will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the 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: Killyconny Bog (Cloghbally) SAC (Site code 000006), Strabannan-Braganstown SPA (004091), Dundalk Bay SAC (000455), Dundalk Bay (004026).

The 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 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 activities was required, and for this reason determined to require the applicant to submit a Natura Impact Statement.

This determination has been made on the basis of the distance and hydrological connectivity to a number of European Sites and the potential effects such activities may have on European Sites and their qualifying interests.

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 activities, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in particular Killyconny Bog (Cloghbally) SAC (Site code 000006), Strabannan-Braganstown SPA (004091), Dundalk Bay SAC (000455), Dundalk Bay (004026), 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:

- Condition 5 states that emissions may be made from the specified emission points set out in *Schedule B: Emissions Limits*, of this licence subject to compliance with the Emission Limit Values specified in that Schedule.
- Air monitoring has demonstrated that the impact of air emissions and dust from the installation is not significantly impacting on air quality as a result of the activities.
- Assimilative capacity assessment on discharges to water and river data has demonstrated that the discharges will not cause an exceedance of water quality standards and will ensure that the water dependent qualifying interests will be protected.
- Emission limit values have been specified to meet water quality standards and air quality standards and to ensure that the activities will not significantly impact on the qualifying interests in the relevant European sites.
- Limitations and control on noise, vibration and air overpressure are specified in Conditions 4 and 5, and *Schedule B: Emissions Limits*, of this licence.
- While there is potential for accidents and unplanned releases from the installation, it is considered that the licensee has demonstrated satisfactory risk management measures and the conditions of the licence in relation to prevention of accidents, containment and the protection of surface water and groundwater, are sufficient to ensure that accidental emissions from the activities will not significantly impact on the qualifying interests of any of the European sites identified above, particularly in light of the nature of the potential accidental emissions.

The Agency is satisfied that no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of those European Sites.

# *Part I Schedule of Activities Licensed*

In pursuance of the powers conferred on it by the Environmental Protection Agency Act 1992 as amended, the Agency hereby grants this revised Industrial Emissions licence to:

Saint-Gobain Construction Products (Ireland) Limited, Unit 4, Kilcarbery Business Park, Nangor Road, Dublin 22, and CRO Number 11815

under Section 90(2) of the said Act to carry on the following activities:

Class 1.3 The extraction and processing (including size reduction, grading and heating) of minerals within the meaning of the Minerals Development Acts 1940 to 1999, where an activity involves -

any other operation where either the level of extracted or processed minerals is greater than 200,000 tonnes per annum or the total operational yield is greater than 1,000,000 tonnes, and storage of related mineral waste,

Class 11.1 The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required,

Class 11.5 Landfills, within the meaning of section 5 (amended by Regulation 11(1) of the Waste Management (Certification of Historic Unlicenced Waste Disposal and Recovery Activity) Regulations 2008 (S.I. No. 524 of 2008)) of the Act of 1996, receiving more than 10 tonnes of waste per day or with a total capacity exceeding 25,000 tonnes, other than landfills of inert waste,

in the townlands of Lisnabow, Kilmainham, Kells, County Meath and in, the townlands of Knocknacran, Magheracloone, Drummond, Derrynascobe, Derrynaglah, Ballycartlan, Enagh, Carrickmacross, County Monaghan subject to the following 12 Conditions, with the reasons therefor and associated schedules attached thereto.

# *Part II Schedule of Activities Refused*

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

# *Part III Conditions*

## Condition 1. Scope

1.1 Industrial Emissions Directive activities at this installation 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 1.5 of this licence and subject to the conditions of this licence.

1.2 The licensee shall carry on the licensed activities in accordance with the limitations set out in *Schedule A: Limitations* of this licence.

1.3 Any reference in this licence to 'installation' shall mean the areas (surface and underground) in the control of the licensee shown on Drawing No. 493a-24-21 (Mining operations) and Drawing No. 493c-24-21 (Process Operations) of the application as well as all underground workings, and lands occupied by process related groundwater pumping and monitoring stations, and surface water emission points as per this licence. The licensed activities shall be carried on only within the area outlined.

1.4 All activities which are directly associated with, and technically connected to the licensed activity, whether operated by the licensee or by another party, shall be subject to the conditions of this licence, and the licensee shall bear full responsibility for any breach of these conditions.

1.5 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 approval of, the Agency.

1.6 The installation 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.

1.7 This licence is for the purpose of licensing under the EPA Act 1992 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.

1.8 This licence shall have effect in lieu of the licence granted on 30th July 2015 (Register No P0519-03).

***Reason:*** ***To clarify the scope of this licence.***

# Condition 2. Management of the Installation

2.1 Installation Management

2.1.1 The licensee shall employ a suitably qualified and experienced installation manager who shall be designated as the person in charge. The installation manager or a nominated, suitably qualified and experienced deputy shall be present on the installation 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, maintain and implement an Environmental Management System (EMS), which shall incorporate energy efficiency management. The EMS shall be reviewed by senior management for suitability, adequacy and effectiveness and updated on an annual basis.

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

2.2.2.1 Commitment of management, including senior management.

2.2.2.2 An environmental policy, defined by Management, that includes a commitment to continuous improvement of the environmental performance of the installation.

2.2.2.3 Management and Reporting Structure and responsibility.

2.2.2.4 The necessary procedures, objectives and targets, in conjunction with financial planning and investment.

2.2.2.5 Procedures for ensuring compliance with environmental legislation.

2.2.2.6 Procedures that ensure employee involvement in ensuring compliance with environmental legislation.

2.2.2.7 A procedure for checking performance by sectoral benchmarking on a regular basis including energy efficiency.

2.2.2.8 Schedule of Environmental Objectives and Targets

The licensee shall maintain and implement a Schedule of Environmental Objectives and Targets. The schedule shall, as a minimum, provide for a review of all operations and processes, as referred to in the conditions of this licence, including an evaluation of practicable options for:

(i) energy and resource efficiency;

(ii) the reduction in water consumption;

(iii) process site drainage and segregation of clean stormwater;

(iv) the use of cleaner technology, cleaner production;

(v) dust and noise management;

(vi) ambient monitoring of particulates;

(vii) the prevention, reduction and minimisation of waste including waste reduction targets;

(viii) material and waste storage; and

(ix) the impacts from eventual decommissioning of the installation.

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.

2.2.2.9 Environmental Management Programme (EMP)

The licensee shall maintain and implement an EMP, including a time schedule, for achieving the Environmental Objectives and Targets prepared under Condition 2.2.2.8 above. The EMP shall include:

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

The EMP shall be reviewed annually.

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.

2.2.2.10 Documentation

(i) The licensee shall maintain and implement an environmental management documentation system.

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

2.2.2.11 Corrective and Preventative Action

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

(ii) Where a breach of one or more of the conditions of this licence occurs, the licensee shall without delay take measures to restore compliance with the conditions of this licence in the shortest possible time and initiate any feasible preventative actions to prevent recurrence of the breach.

(iii) All corrective and preventative actions shall be documented.

2.2.2.12 Internal Audits

The licensee shall maintain and implement a programme for independent internal audits of the EMS. Such audits shall be carried out at least once every three years. The audit programme shall determine whether or not the EMS is being implemented and maintained properly, and in accordance with the requirements of the licence. Audit reports and records of the resultant corrective and preventative actions shall be maintained as part of the EMS in accordance with Condition 2.2.2.9.

2.2.2.13 Awareness, Training and Competence

The licensee shall maintain and implement procedures for identifying training needs, and for providing appropriate training, for all personnel whose work can have a significant effect upon the environment to ensure awareness and competence in their work area. Appropriate records of training shall be maintained.

2.2.2.14 Public Awareness and Communications Programme

The licensee shall maintain and implement a Public Awareness and Communications Programme to ensure that members of the public are informed, and can obtain information at the installation, at all reasonable times, concerning the environmental performance of the installation. The Public Awareness and Communication Programme shall include a specific programme of outreach to interested local residents on matters relating to the

prevention of nuisance including dust, vibration, noise, rehabilitation of land including landscaping and geoheritage and other factors at the installation. The programme shall be agreed by the Agency and a report on the programme shall be prepared and submitted to the Agency annually.

The Public Awareness and Communication Programme shall as a minimum include the following:

(a) Maintainance of information at the installation as required in Condition 11.9 which shall be available for inspection at all reasonable times;

(b) Maintainance of a Residents Forum to faciltate regular meetings of that Forum at a frequency to be agreed between the residents and the licensee's Community Liaison Manager. The agenda shall be prepared and circulated in advance of each meeting. The licensee shall circulate a newsletter, which shall also be available on the company's website, at a frequency to be agreed with the residents, but no less than once per annum, which shall provide information of activities on-site and compliance with this licence.

2.2.2.15 Maintenance Programme

The licensee shall maintain and implement 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). The maintenance programme shall use appropriate techniques and measures to ensure the optimisation of energy efficiency in plant and equipment.

2.2.2.16 Efficient Process Control

The licensee shall maintain and implement 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 ensure, at all times after the grant of this licence that all infrastructure and all equipment required under this licence has been and is:

(i) installed;
(ii) commissioned;
(iii) present on site; and
(iv) maintained in full working order.

3.2 Where any condition of this licence specifies any later deadline for installation of any piece of infrastructure or equipment, condition 3.1 shall apply as and from the deadline specified.

3.3 The licensee shall establish and maintain, for each component of the installation, 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 installation and is not specified in the licence, shall be installed in accordance with the schedule submitted in the application.

3.4 The licensee shall have regard to the following when choosing and/or designing any new plant/infrastructure:

(i) Energy efficiency, and

(ii) The environmental impact of eventual decommissioning.

3.5 Installation Notice Board

(i) The licensee shall maintain an Installation Notice Board on the installation so that it is legible to persons outside the main entrance to the installation. The minimum dimensions of the board shall be 1200mm by 750mm. The notice board shall be maintained thereafter.

(ii) The board shall clearly show:

(i) the name and telephone number of the installation;
(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 installation can be obtained.

3.6 The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.

3.7 In the case of composite sampling of aqueous emissions from the operation of the installation, a separate composite sample or homogeneous sub-sample (of sufficient volume as advised) shall be refrigerated immediately after collection and retained as required for EPA use.

3.8 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.

3.9 Tank, Container and Drum Storage Areas

3.9.1 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).

3.9.2 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:

(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.

3.9.3 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 Condition 6.17.5.

3.9.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.

3.9.5 All tanks, containers and drums shall be labelled to clearly indicate their contents.

3.9.6 All bunds shall be uniquely identified and labelled at the bund.

3.9.7 The licensee shall apply a leak detection system in accordance with BAT to all storage tanks, container and drum storage areas that contain liquid material other than water.

3.10 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 installation. Once used, the absorbent material shall be disposed of at an appropriate facility.

3.11 Silt Traps and Oil Separators

The licensee shall, within six months of date of grant of this licence, install and maintain silt traps and oil separators at the installation/facility:

(i) Silt traps to ensure that all storm water discharges, other than from roofs, from the installation pass through a silt trap in advance of discharge;

(ii) An oil separator on the storm water discharge from yard areas. The separator shall be a Class I full retention.

The separator shall be in accordance with I.S. EN-858-2: 2003 (separator systems for light liquids).

3.12 The licensee shall maintain firewater retention facilities as determined by a firewater retention risk assessment approved by the Agency. The firewater retention risk assessment shall be carried out in accordance with any guidance published by the Agency.

3.13 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) from the date of grant of this licence.

3.14 The licensee shall ensure a minimum freeboard of not less than 1 metre be maintained in the final lagoon (Lagoon No. 4) at the process site during periods of tankering from the mine site to the process site.

3.15 The licensee shall maintain records of quantities of mine water transported to the process site. The records will be available for inspection by the Agency at all times.

3.16 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 diffuse emissions.

3.17 All wellheads at the installation shall be adequately protected to prevent contamination or physical damage.

3.18 The licensee shall, maintain 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.

3.19 The licensee shall provide and maintain a Wastewater Treatment plant at the installation for the treatment of sanitary effluent arising on-site. Any waste water treatment system and percolation area shall satisfy the criteria set out in the *Wastewater Treatment Manual- Treatment Systems for Small Communities, Business, Leisure Centers and Hotels 1999*, published by the Environmental Protection Agency.

3.20 The licensee shall maintain adequate written procedures for the de-sludging and maintenance of the on-site sanitary effluent treatment system, settlement ponds, holding tanks and leachate lagoons.

3.21 Specified Engineering Works (SEW)

(i) The licensee shall submit proposals for any Specified Engineering Works, as defined in *Schedule D: Specified Engineering Works*, of this licence, to the Agency for its agreement at least two months in advance of the intended date of commencement of any such works. No such works shall be carried out without the prior agreement by the Agency.

(ii) All specified engineering works shall be supervised by an appropriately qualified person, and that person, or persons, shall be present at all times during which relevant works are being undertaken.

(iii) Following the completion of any 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, as appropriate, include the following information:

(i) A description of the works;

(ii) As-built drawings of the works;

(iii) Records and results of all tests carried out (including failures);

(iv) Drawings and sections showing the location of all samples and tests carried out;

(v) Name(s) of contractor(s)/individual(s) responsible for undertaking the specified engineering works;

(vi) Records of any problems and the remedial works carried out to resolve those problems; and

(vii) Any other information requested in writing by the Agency.

3.22 Storage Areas for Waste Gypsum and Gypsum material intended for re-use

The licensee shall provide and maintain storage areas for waste gypsum and gypsum material for re-use at the processing site. This infrastructure shall at a minimum comprise the following:

(i) An impermeable concrete slab; and

(ii) Collection and disposal infrastructure for all runoff.

3.23 Waste Inspection and Quarantine Areas

(i) A Waste Inspection Area and a Waste Quarantine Area shall be provided and maintained at the processing site.

(ii) 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.

(iii) Drainage from these areas shall be directed to the settling lagoons.

3.24 Weighbridge

The licensee shall maintain a weighbridge at the processing site.

3.25 Natural gas, or biodiesel (meeting CEN standard EN14214) shall be used in the boilers on site. In the event of an interruption to the supply of natural gas or biodiesel, an alternative fuel such as gas oil may be used with the prior approval of the Agency.

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

# Condition 4. Interpretation

4.1 Emission limit values for emissions to atmosphere in this licence shall be interpreted in the following way:

4.1.1 Continuous Monitoring

(i) No 24 hour mean value shall exceed the emission limit value.

(ii) 97% of all 30-minute mean values taken continuously over an annual period shall not exceed 1.2 times the emission limit value.

(iii) No 30-minute mean value shall exceed twice the emission limit value.

4.1.2 Non-Continuous Monitoring

(i) For any parameter where, due to sampling/analytical limitations, a 30-minute sample is inappropriate, a suitable sampling period should be employed, and the value obtained therein shall not exceed the emission limit value.

(ii) For flow, no hourly or daily mean value, calculated on the basis of appropriate spot readings, shall exceed the relevant limit value.

(iii) For all other parameters, no 30-minute mean value shall exceed the emission limit value.

(iv) Mass flow thresholds refer to a rate of discharge expressed in units of kg/h, above which the concentration emission limit value applies. Mass flow threshold rates shall be determined on the basis of a single 30-minute measurement (i.e. the concentration determined as a 30-minute average shall be multiplied by an appropriate measurement of flow and the result shall be expressed in units of kg/h).

(v) Mass flow emissions shall be calculated on the basis of the concentration, determined as an average over the specified period, multiplied by an appropriate measurement of flow. No value, so determined, shall exceed the mass flow limit value.

4.2 The concentration and volume flow limits for emissions to atmosphere specified in this licence shall be achieved without the introduction of dilution air and shall be based on gas volumes under standard conditions of:

4.2.1 From non-combustion sources:

Temperature 273K, Pressure 101.3 kPa (no correction for oxygen or water content).

4.2.2 From combustion sources:

Temperature 273K, Pressure 101.3 kPa, dry gas; 3% oxygen for liquid and gas fuels, 6% oxygen for solid fuels.

4.3 Emission limit values for emissions to waters in this licence shall be achieved without the introduction of dilution, and shall be interpreted in the following way:

4.3.1 Continuous Monitoring:

(i) No flow value shall exceed the specific limit.

(ii) No pH value shall deviate from the specified range.

(iii) No temperature value shall exceed the limit value.

4.3.2 Non-Continuous Monitoring:

(i) No pH value shall deviate from the specified range.

(ii) No temperature value shall exceed the limit value.

(iii) For parameters other than pH, temperature and flow, eight out of ten consecutive composite results, based on flow proportional composite sampling, shall not exceed the emission limit value. No individual results, similarly calculated shall exceed 1.2 times the emission limit value.

4.3.3 Discrete Sampling

(i) For parameters other than pH, temperature and no grab sample value shall exceed 1.2 times the emission limit value.

4.4 Limit values for a point of compliance in the receiving water, CP-1, shall be interpreted in the following way:

4.4.1 Continuous Monitoring

(i) For sulphate and conductivity, 95% of daily average concentrations over a month, shall not exceed the limit value. No individual daily average shall exceed 1.5 times the limit value.

(ii) No annual average result shall exceed the limit value.

4.4.2 Non-Continuous Monitoring:

(i) For barium, no grab sample value shall exceed 1.2 times the limit value.

(ii) No monthly average result shall exceed the limit value.

4.5 Where the ability to measure a parameter is affected by mixing before emission, then, with agreement from the Agency, the parameter may be assessed before mixing takes place.

4.6 Noise

4.6.1 Off-site noise, vibration & air overpressure

(i) Noise from the installation shall not give rise to sound pressure levels (Leq, T) measured at noise sensitive locations of the installation which exceed the limit value(s).

(ii) Vibration levels measured at noise sensitive locations shall not exceed the specified limit values.

(iii) Air overpressure levels measured at noise sensitive locations shall not exceed the specified limit values.

4.7 Dust and Particulate Matter

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

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

# Condition 5. Emissions

5.1 Emissions may be made from the specified emission points set out in *Schedule B: Emission Limits,* of this licence subject to compliance with the Emission Limit Values specified in that Schedule.

5.1.1 Uncontaminated storm water may be discharged to surface water.

5.1.2 Uncontaminated storm water may be emitted to groundwater or to soil.

5.1.3 Minor, diffuse and potential emissions may be emitted to air as specified in the application, or as approved by the Agency under Condition 1 of this licence.

5.2 Notwithstanding the requirements of Condition 5.1, there shall be no other emissions from the installation.

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

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

5.5 There shall be no discharge of mine water at the mine site or of process water or leachate at the processing site to the sanitary effluent treatment system.

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

- Vermin
- Birds
- Flies
- Mud
- Litter

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

5.7 Trucks or other vehicles used for transport of excavated or crushed materials from the installation shall be covered to prevent the creation of nuisance on public roads.

5.8 No blast or combination of simultaneous blasts shall give rise to a vibration level at any noise sensitive location which exceeds a peak particle velocity of 7.5 mm/second, as measured in three mutually orthogonal directions about a fixed point.

5.9 No blast or combination of simultaneous blasts shall give rise to an air-overpressure level at any noise sensitive location which exceeds 125 dB (lin) max peak.

5.10 There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise sensitive location other than when blasting occurs or when a siren is used to give blast warnings.

5.11 There shall be no blasting on Sundays and public holidays and outside the hours 09.00 to 18.00 except in the case of an emergency. The following records shall be maintained at the facility:

(i) date and time of any blasting,

(ii) location of the charges,

(iii) amount and type of explosive used,

(iv) maximum instantaneous charge,

(v) air overpressure and vibration monitoring results,

and reported to the Agency quarterly. A summary table of the quantity of explosive used and blast monitoring results shall be submitted on an annual basis to the Agency.

5.12 The licensee shall establish and maintain a documented blast design system to provide for the control of blast impact on noise sensitive locations.

5.13 Vibration and air overpressure monitoring

5.13.1 The licensee shall maintain air overpressure and vibration monitoring facilities at the currently agreed locations at the installation and at any additional location as may be required the Agency.

5.13.2 Monitoring of air overpressure and vibration shall take place during each blast.

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

# Condition 6. Control and Monitoring

6.1 Test Programme

6.1.1 The licensee shall prepare a test programme for abatement equipment installed to abate emissions.

6.1.2 The programme shall be completed within three months of the commencement of operation of the abatement equipment.

6.1.3 The criteria for the operation of the abatement equipment as determined by the test programme, shall be incorporated into the standard operating procedures.

6.1.4 The test programme shall as a minimum:

(i) establish all criteria for operation, control and management of the abatement equipment to ensure compliance with the emission limit values specified in this licence;

(ii) assess the performance of any monitors on the abatement system and establish a maintenance and calibration programme for each monitor.

6.1.5 A report on the test programme shall be submitted to the Agency within one month of completion.

6.2 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 and Monitoring,* of this licence.

6.2.1 Sampling and analysis shall be undertaken by competent staff in accordance with documented operating procedures. Unless otherwise approved by the Agency, sampling and analysis of emissions to atmosphere shall be carried out by ISO 17025 accredited persons/organisations, with accreditation for the relevant scope of sampling and analysis, and in accordance with the Agency's air monitoring policy.

6.2.2 Such procedures shall be assessed for their suitability for the test matrix and performance characteristics shall be determined.

6.2.3 Such procedures shall be subject to a programme of Analytical Quality Control using appropriate control standards with evaluation of test responses.

6.2.4 Where any analysis is sub-contracted it shall be outsourced to a competent laboratory.

6.3 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, which will ensure the provision of data of an equivalent scientific quality, shall apply.

6.4 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 approved 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 approved by the Agency.

6.5 Monitoring and analysis equipment shall be installed, operated and maintained as necessary so that all monitoring results accurately reflect any emission, discharge or parameter specified in this licence.

6.6 The licensee shall ensure that groundwater monitoring well sampling equipment is available or installed on-site at the installation and is fit for purpose at all times. The sampling equipment shall be to Agency specifications.

6.7 All treatment/abatement and emission control equipment shall be calibrated and maintained in accordance with the instructions issued by the manufacturer/supplier or installer.

6.8 The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended as required or approved by the Agency following evaluation of test results.

6.9 The licensee shall prepare and implement a programme, to the satisfaction of the Agency, for the identification and reduction of fugitive emissions using an appropriate combination of best available techniques. This programme shall be included in the Environmental Management Programme.

6.10 The licensee shall maintain and implement a Water Management Plan to the satisfaction of the Agency. The plan shall address the following:

(i) the sources and volumes of water at the mine site;
(ii) existing water management system;
(iii) methods to manage the volumes of water;
(iv) methods to treat the water to reduce sulphate in the final discharge;
(v) options for the temporary storage of water at the mine site;
(vi) assessment of the discharge; and
(vii) monitoring measures.

The plan shall be reviewed annually, and any amendments or updates thereto shall be agreed by the Agency. The requirements of Condition 3.14 and Condition 3.15 shall form part of the plan.

6.11 The integrity and water tightness of all tanks, bunding structures, containers and underground pipes and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. This testing shall be carried out in accordance with any guidance published by the Agency. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.

6.12 The storm water drainage system (i.e., gullies, manholes, any visible drainage conduits and such other aspects as may be required by the Agency), bunds, silt traps and oil separators shall be inspected weekly, desludged as necessary, and properly maintained at all times. All sludge and drainage from these operations shall be collected for safe disposal. The licensee shall maintain a drainage map on site. The drainage map shall be reviewed annually and updated as necessary.

6.13 Process Effluent

6.13.1 The acute toxicity of the undiluted final effluent to at least four aquatic species from different trophic levels shall be determined by standardised and internationally accepted procedures and carried out by a competent laboratory.

6.13.2 Having identified the most sensitive species outlined in Condition 6.13.1, subsequent compliance toxicity monitoring shall be carried out on the two most sensitive species.

6.13.3 A representative sample of effluent shall be screened for the presence of organic compounds. Such screening shall be repeated at intervals as requested by the Agency thereafter.

6.14 An inspection system for the detection of leaks on all flanges and valves on over-ground pipes used to transport materials other than water shall be developed and maintained.

6.15 Emissions to water

6.15.1 Receiving surface water shall be monitored as set out in *Schedule C.6 Receiving Water Monitoring* of this licence. Results of the monitoring shall be submitted quarterly for the mine site and biannually for the processing site. A summary of river monitoring results shall be submitted as part of the AER.

6.15.2 The licensee shall carry out an annual biological impact assessment in relation to discharges from the installation. A report on this assessment shall be included in the AER.

6.15.3 The licensee shall maintain to the satisfaction of the Agency a quality control system to ensure that the empirical relationship established between conductivity and sulphate levels in water is valid on an on-going basis. The quality control system shall include a response programme for exceedances of warning and action limits.

6.16 The licensee shall review the Pollution Reduction Plan for the river basin district and shall, where appropriate, implement applicable measures or controls in order to reduce emissions of priority substances and/or cease or phase out emissions, discharges and losses of priority hazardous substances. The licensee shall submit a report on such measures as part of the Annual Environmental Report (AER).

6.17 Storm Water

6.17.1 A visual examination of the storm water discharges shall be carried out daily. A log of such inspections shall be maintained.

6.17.2 Visual inspection of lagoon no.4 freeboard shall be carried out daily during times of tankering of mine water to the process site. A log of such inspections shall be maintained.

6.17.3 No environmentally polluting substance or matter shall be permitted to discharge to off-site surface waters or off-site storm water drains.

6.17.4 The licensee shall maintain the programme for reduction of sulphate levels in storm water discharges at the processing site.

6.17.5 The licensee shall maintain suitable trigger and action levels for contamination of storm water with sulphate and ammonia. The licensee shall have a response programme to address any exceedance of the trigger values such that storm waters exceeding these levels will be diverted for retention and suitable disposal. The licensee shall implement the current response programme when responding to exceedances of the sulphate trigger levels. The licensee shall have regard to the Environmental Protection Agency *"Guidance on the setting of trigger values for storm water discharges to off-site surface waters at EPA IPPC and Waste licensed facilities"* when establishing the suitable trigger levels.

6.18 Ground Water

6.18.1 Within eighteen months of the date of this licence, the licensee shall, in line with the criteria set out in the "*Guidance on the Authorisation of Discharges to Groundwater*", published by the Environmental Protection Agency, review the most relevant hydrogeological assessment report for the installation or where relevant, arrange for an assessment of the installation, by an appropriately qualified consultant/professional, to demonstrate compliance with the European Communities Environmental Objectives (Groundwater) Regulations 2010, S.I. No 9 of 2010. A report on the review or assessment report with recommendations shall be submitted to the Agency for approval. Further to the hydrogeological review or assessment, any actions (including the setting of groundwater compliance values, if appropriate) required to demonstrate compliance with the European Communities Environmental Objectives (Groundwater) Regulations 2010, shall be implemented within a period to be agreed by the Agency.

6.18.2 Where agreed by the Agency, the licensee may utilise existing groundwater monitoring boreholes and quality data in order to meet the requirements of Condition 6.18.1.

6.18.3 No environmentally polluting substance or matter shall be permitted to discharge to ground or groundwater under the installation.

6.18.4 All groundwater monitoring points shall be included in the installation's maintenance programme.

6.18.5 Groundwater monitoring boreholes arising from the conditions of this licence or otherwise required by the Agency shall be constructed to a standard and at locations to be agreed by the Agency.

6.18.6 All monitoring borehole wellheads at the installation shall be labelled for identification and adequately sealed to prevent surface contamination from entering the borehole.

6.18.7 The licensee shall ensure that groundwater monitoring well sampling equipment is available on-site and is fit for purpose at all times. The sampling equipment shall be to Agency specifications.

6.18.8 The licensee shall assess annually the impact of activities at the installation on groundwater both temporally and spatially by reviewing monitoring data. A report on this assessment shall be included in the AER.

6.18.9 The licensee shall, within three months of date of grant of this licence, submit a list of monitoring locations of all boreholes at the mine site and at the process site that have been agreed by the Agency.

6.19 The licensee shall review, when received, any groundwater or surface water monitoring data. In the event that any analyses or observations made on the quality or appearance of surface water runoff or groundwater should indicate that contamination has taken place, the licensee shall:

(i) Carry out an immediate investigation to identify and isolate the source of the contamination;

(ii) Put in place measures to prevent further contamination and to minimise the effects of any contamination on the environment; and,

(iii) Notify the Agency as soon as is practicable.

6.20 Noise

The licensee shall carry out a noise survey of the site operations annually. The survey programme 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.

6.21 Emissions to atmosphere

6.21.1 The licensee shall maintain nine dust deposition sampling stations at the currently agreed locations in the vicinity of the mine site and processing site and at any other location as may be required by the Agency.

6.21.2 The licensee shall maintain an on-going programme for improved containment of dusts in the externally-located material loading, storage and conveying systems at the installation. This programme shall be included in the EMP.

6.21.3 Dust emissions from exposed earthworks, on-site roads and other services shall be minimised. Mobile bowsers shall be employed to dampen such surfaces during dry weather conditions.

6.21.4 Machinery operating on-site shall be switched off when not in use. Where this is not possible, diesel engines shall be throttled down to minimise exhaust emissions.

6.22 Pollutant Release and Transfer Register (PRTR)

The licensee shall submit a PRTR data report for the site. The pollutants and/or wastes to be included in the PRTR shall be determined by reference to EC Regulations No. 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register. The PRTR shall be prepared in accordance with any relevant Agency guidance and shall be submitted electronically in the format specified by the Agency.

6.23 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.

6.24 Groundwater and Soil Monitoring

The licensee shall carry out monitoring for relevant hazardous substances in soil and groundwater at the site of the installation. The substances for monitoring shall be identified by the licensee by undertaking a risk-based assessment. The risk assessment, sampling and monitoring shall be carried out in accordance with any guidance published by the Agency. The licensee shall have regard to the '*Classification of Hazardous and Non-Hazardous Substances in Groundwater*' as published by the Agency

6.24.1 Groundwater monitoring shall be carried out in accordance with S*chedule C.5 Groundwater Monitoring* of this licence.

6.24.2 Soil monitoring shall be carried out at the site of the installation at least once every ten years. Monitoring shall be carried out in accordance with S*chedule C.7 Soil Monitoring* of this licence.

***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 carry out an audit of the energy efficiency of the site as required by the Agency. The audit shall be carried out in accordance with the guidance published by the Agency, *"Guidance Note on Energy Efficiency Auditing"*.

7.2 The audit shall identify all practicable opportunities for energy use reduction and efficiency and the recommendations of the audit will be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2 above.

7.3 The licensee shall identify opportunities for reduction in the quantity of water used on site including recycling and reuse initiatives, wherever possible. Reductions in water usage shall be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2 above.

7.4 The licensee shall undertake an assessment of the efficiency of use of raw materials in all processes, having particular regard to the reduction in waste generated. The assessment should take account of best international practice for this type of activity. Where improvements are identified, these shall be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2 above.

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

# Condition 8. Materials Handling

8.1 The licensee shall ensure that waste generated in the carrying on of the activity shall be prepared for re-use, recycling or recovery or, where that is not technically or economically possible, disposed of in a manner which will prevent or minimise any impact on the environment.

8.2 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.

8.3 Waste sent off-site for recovery or disposal

8.3.1 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.

8.3.2 Waste sent off-site for recovery or disposal shall be transferred only to an appropriate facility.

8.4 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.

8.5 The loading and unloading of materials shall be carried out in designated areas protected against spillage and leachate run-off.

8.6 Waste and materials shall be stored in designated areas, protected as may be appropriate against spillage and leachate run-off. The waste and materials shall be clearly labelled and appropriately segregated.

8.7 Waste for disposal/recovery off-site shall be analysed in accordance with *Schedule C: Control and Monitoring,* of this licence.

8.8 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.

8.9 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.

8.10 Extractive Waste Management Plan

8.10.1 The licensee shall draw up a Waste Management Plan (to be known as an Extractive Waste Management Plan) for the minimisation, treatment, recovery and disposal of extractive waste. This Plan shall, where appropriate, meet the requirements of Regulation 5 of the Waste Management (Management of Waste from the Extractive Industries) Regulations, 2009. The Plan shall be submitted for agreement by the Agency within six months of the date of grant of this licence. The Plan shall be reviewed at least once every five years thereafter in a manner agreeable to the Agency and amended where there are substantial changes to the operation of the waste facility or to the waste accumulated or deposited. Any amendments shall be notified to the Agency.

8.10.2 All extractive waste shall be managed in accordance with the Extractive Waste Management Plan. A report on the implementation of the Extractive Waste Management Plan shall be provided in the AER.

8.11 Excavation voids

8.11.1 Unless otherwise agreed by the Agency, only extractive waste shall be placed in excavation voids.

8.11.2 When placing extractive waste into excavation voids for rehabilitation and construction purposes, the licensee shall, in accordance with Regulations 10 and 13(5) of the Waste Management (Management of Waste from the Extractive Industries) Regulations, 2009, and the Extractive Waste Management Plan:

(i) Secure the stability of the waste;

(ii) Put in place measures to prevent pollution of soil, surface water and ground water; and,

(iii) Carry out monitoring of the extractive waste and excavation void.

8.12 Extractive Waste Facilities

(i) No new waste facility may be developed or an existing waste facility modified unless agreed by the Agency.

(ii) The licensee shall ensure that all existing waste facilities are managed and maintained to ensure their physical stability and to prevent pollution or contamination of soil, air, surface water or groundwater.

(iii) The licensee shall ensure that all new waste facilities are constructed, managed and maintained to ensure their physical stability and to prevent pollution or contamination of soil, air, surface water or groundwater.

(iv) Operational measures shall be continuously employed to prevent damage to waste facilities from personnel, plant or equipment.

(v) The licensee shall establish and maintain a system for regular monitoring and inspection of the waste facilities.

(vi) All records of monitoring and inspection of waste facilities, as required under the licence, shall be maintained on-site in order to ensure the appropriate handover of information in the event of a change of operator or relevant personnel.

8.13 Landfill

8.13.1 No waste shall be disposed of at the on-site landfill.

8.13.2 As part of the CRAMP the licensee shall set warning and action levels for the concentration of hydrogen sulphide, methane and carbon dioxide recorded in any monitoring point external to the landfilled wastes. The licensee shall immediately notify the Agency of any instance where an action level is exceeded. Such notification shall be accompanied by an investigative and/or remedial strategy to identify the source of, and resolve, the migration hazard.

8.13.3 No remedial pollution control/monitoring works other than those necessary in an emergency shall be effected on any part of the landfill unless agreed by the Agency.

8.13.4 Each landfill area shall have at least three points at which leachate head can be measured at the base of the cell.

8.13.5 Leachate generated in the landfill shall not be permitted by the licensee to result in significant environmental pollution as a consequence of controlled or uncontrolled migration.

8.13.6 The licensee shall divert all leachate-containing streams in the vicinity of the landfill away from surface water drains at the installation and into the settling lagoons.

8.13.7 The licensee shall submit annually a landfill status report to the Agency as part of the AER.

8.14 Waste Acceptance

8.14.1 Waste shall only be accepted at the processing site from local authority waste collection or transport vehicles or holders of valid waste collection permits, unless exempted or excluded, issued under the Waste Management Act 1996 as amended.

8.14.2 Within one month of the date of grant of this licence, the licensee shall establish and thereafter maintain detailed written procedures and criteria for:

(i) characterisation, compliance testing, acceptance, on-site verification and handling of all wastes arriving at the installation;

(ii) rejection of unacceptable incoming waste; and

(iii) ensuring adequate storage capacity exists in advance of waste acceptance.

8.14.3 Documentation relating to waste arriving at the processing site shall be checked at the point of entry to the licensed installation and subject to this verification, such waste shall be weighed and recorded. Waste that is deemed unsuitable for recovery at the processing site shall be directed to the waste quarantine area or returned directly to the supplier.

8.14.4 No hazardous wastes shall be accepted at the processing site.

8.14.5 The licensee shall ensure that any waste acceptance testing required by this licence shall be carried out by competent laboratories in accordance with CEN-standards. If CEN standards are not available, ISO, national or international standards or alternative methods shall apply with agreement by the Agency.

8.14.6 Waste shall be accepted at the installation only from known waste producers or new waste producers subject to initial waste profiling and waste characterisation off-site. The written records of this off-site waste profiling and characterisation shall be retained by the licensee for all active waste producers and for a two year period following termination of licensee/waste producer agreements.

***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, 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, 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 As part of the Accident Prevention Procedure and Emergency Response Procedure, the licensee shall operate, monitor and maintain a plan to mitigate against subsidence and uncontrolled ingress of water into the mine. An annual summary report on the operation of the plan (including incidents) shall be included in the AER.

9.4 Incidents

9.4.1 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; and

(vi) notify the Agency as required by Condition 11.3 of this licence.

9.4.2 Where an incident or accident that significantly affects the environment occurs, the licensee shall, without delay take measures to limit the environmental consequences of the incident or accident and to prevent further incident or accident.

***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. A final validation report to include a certificate of completion to demonstrate there is no continuing risk to the environment shall be submitted to the Agency within three months of termination or planned cessation of the activity.

10.2 Closure, Restoration and Aftercare Management Plan (CRAMP)

(i) The licensee shall maintain to the satisfaction of the Agency, a fully detailed and costed plan for the closure, restoration and long-term aftercare of the site or part thereof.

(ii) The plan shall be reviewed annually and proposed amendments thereto notified to the Agency for agreement. No amendments may be implemented without the agreement of the Agency.

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 closure and restoration and aftercare 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 plan;

(v) details of the long-term supervision, monitoring, control, maintenance and reporting requirements for the restored facility; and

(vi) details of the costings for the plan and the financial provisions to underwrite those costs.

10.4 The licensee shall, and to the satisfaction of the Agency, make financial provision to cover any liabilities associated with closure, restoration and aftercare identified in Condition 10.2. The amount of financial provision held shall be reviewed and revised as necessary.

10.5 The licensee shall have regard to the Environmental Protection Agency's "*Guidance on Assessing and Costing Environmental Liabilities (2014)*" and "*Guidance on Financial Provision for Environmental Liabilities (2015)*", as may be amended or replaced, when implementing Conditions 10.2, 10.3 and 10.4 above.

10.6 The licensee shall carry out closure, decommissioning and rehabilitation of the installation in accordance with the CRAMP. No deviation from the plan shall be allowed unless agreed by the Agency.

10.7 Subject to prior agreement by the Agency the licensee may use recovered materials for aftercare at the restored landfill.

10.8 The licensee shall carry out such tests, investigations or submit such certification, as may be requested by the Agency, to confirm that individual tasks of the plan are being progressed or have been completed.

10.9 A final validation report to include a certificate of completion for the CRAMP 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 submit the reports, proposals and submissions required by this licence by the deadlines specified. The licensee shall not be in compliance with the requirements of this condition unless and until it has submitted every report, proposal and submission, the deadline for which has passed.

11.2 The licensee shall carry out every action required by the Agency, and arising out of such reports, proposals or submission, by such deadline as the Agency may specify. The licensee shall not be in compliance with the requirements of this condition unless and until it has carried out every such action.

11.3 The licensee shall notify the Agency by both telephone and either email or webform, to the Agency's headquarters in Wexford, or to such other Agency office as may be specified by the Agency, as soon as practicable after the occurrence of any of the following:

(i) an incident or accident as defined by the glossary;

(ii) any breach of one or more of the conditions attached to this licence.

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. All details required to be communicated must be in accordance with any guidance provided by the Agency.

11.4 In the event of any incident which relates to discharges to sewer having taken place, the licensee shall notify Irish Water and the Local Authority in a manner prescribed by Irish Water, as soon as practicable after such an incident.

11.5 The following shall be notified, as soon as practicable after the occurrence of any incident which relates to a discharge to water:

(i) Inland Fisheries Ireland in the case of discharges to receiving waters.

(ii) Irish Water and /or Water Services Authority in the case of any incident where the discharge(s) have been identified as upstream of a drinking water abstraction point.

11.6 The licensee shall make a record of any notification made under Condition 11.3. This record shall include details of the nature, extent, and impact of, and circumstances giving rise to, the incident or accident. The record shall include all corrective actions taken to manage the incident or accident, minimise wastes generated and the effect on the environment, and avoid recurrence. In the case of a breach of a condition, the record shall include measures to restore compliance.

11.7 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.

11.8 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 installation.

11.9 The licensee shall as a minimum ensure that the following documents are accessible at the site:

(i) the licences relating to the installation;

(ii) the current EMS for the installation including all associated procedures, reports, records and other documents;

(iii) the previous year's AER for the installation;

(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 installation;

(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; and

(viii) any elements of the licence application or EIA documentation referenced in this licence.

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

11.10 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 E: Annual Environmental Report,* of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency.

11.11 Waste Gypsum Recovery Report

The licensee shall as part of the Annual Environmental Report for the installation submit a report on the recovery of waste gypsum at the processing site.

11.12 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 and Monitoring*, of this licence; and

(ix) the tonnage and LoW Code for the waste materials recovered/disposed on-site.

11.13 The licensee shall submit report(s) electronically as required by the conditions of this licence to the Agency.

11.14 All reports shall be certified accurate and representative by the installation manager or a nominated, suitably qualified and experienced deputy.

11.15 The licensee shall notify in writing the Agency and residents at noise sensitive locations of any change in the blasting regime associated with development and operation of the underground mine or the opencast mine. This notification shall be issued to the Agency and the residents of noise sensitive locations three weeks and two weeks respectively, prior to the planned change in blasting regime.

***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 €30,155, 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 Environmental Protection Agency Act 1992 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 this 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 Environmental Protection Agency Act 1992 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 arrange for the revision by an independent and appropriately qualified consultant, of a comprehensive and fully costed (revised) 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 for approval and agreement by the Agency. The ELRA shall be reviewed as

necessary to reflect any significant change on site, and in any case every three years following initial agreement.

12.2.2 The licensee shall to the satisfaction of the Agency, make financial provision to cover any liabilities associated with the operation (including closure, restoration and aftercare). The amount of financial provision held shall be reviewed and revised as necessary.

12.2.3 The licensee shall have regard to the Environmental Protection Agency's "*Guidance on Assessing and Costing Environmental Liabilities (2014)"* and "Guidance on Financial Provision for Environmental Liabilities (2015)", as may be amended or replaced, when implementing Conditions 12.2.1 and 12.2.2 above.

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

# SCHEDULE A: Limitations

## *A.1 Waste Activities*

The following waste activities are authorised:

1. Storage and recovery of non-hazardous waste gypsum-based construction materials including waste plasterboard.
2. Aftercare of the landfill.

No addition to these activities is permitted unless agreed in advance by the Agency.

## *A.2 Waste Acceptance*

***Table A.1 Waste Categories and Quantities***

| Waste Type (LoW Code 170802) | Maximum (Tonnes Per Annum) |
|---|---|
| Non-hazardous gypsum-based construction materials (EWC Code 17 08 02) Note 1 | 18,000 |

**Note 1:** Any proposals to accept other compatible non-hazardous waste types must be agreed in advance by the Agency.

# SCHEDULE B: Emission Limits

## *B.1 Emissions to Air*

**Emission Point Reference No:** AE-1
**Location:** Processing site
**Volume to be emitted:** Maximum in any one day: 3,240,000 $m^3$
Maximum rate per hour: 135,000 $m^3$

**Minimum discharge height:** 29m above ground

| Parameter | Emission Limit Value | |
|---|---|---|
| | $mg/m^3$ | Kg/hr |
| **Nitrogen oxides (as $NO_2$)** | 130 | 7.3 |
| **Particulates** | 50 | 2.8 |

**Emission Point Reference No:** AE-8
**Location:** Processing site: Kettle 6
**Volume to be emitted:** Maximum in any one day: 1,243,176 $m^3$
Maximum rate per hour: 51,799 $m^3$

**Minimum discharge height:** 27m above ground

| Parameter | Emission Limit Value |
|---|---|
| **Nitrogen oxides (as $NO_2$)** | 130 $mg/m^3$ |
| **Particulates** | 50 $mg/m^3$ |

**Emission Point Reference No:** AE-9
**Location:** Processing site: Raymond Mill 5
**Volume to be emitted:** Maximum in any one day: 765,216 $m^3$
Maximum rate per hour: 31,884 $m^3$

**Minimum discharge height:** 26m above ground

| Parameter | Emission Limit Value |
|---|---|
| **Nitrogen oxides (as $NO_2$)** | 130 $mg/m^3$ |
| **Particulates** | 50 $mg/m^3$ |

**Emission Point Reference No:** AE-10
**Location:** Processing site: Plaster Mill
**Volume to be emitted:** Maximum in any one day: 600,000 $m^3$
Maximum rate per hour: 25,000 $m^3$

**Minimum discharge height:** 21m above ground

| Parameter | Emission Limit Value |
|---|---|
| **Nitrogen oxides (as $NO_2$)** | 50 $mg/m^3$ |
| **Particulates** | 20 $mg/m^3$ |

**Emission Point Reference No:** BE-1
**Location:** Processing site: Board plant Dryer exhaust
**Volume to be emitted:** Maximum in any one day: 3,326,400 $m^3$
Maximum rate per hour: 138,600 $m^3$

**Minimum discharge height:** 14.5m above ground

| Parameter | Emission Limit Value |
|---|---|
| **Nitrogen oxides (as $NO_2$)** | 130 $mg/m^3$ |

**Emission Point Reference No:** BE-4, BE-5, BE-6
**Location:** Processing site: Plaster mill calciner exhausts
**Volume to be emitted:** Maximum in any one day: 141,600 $m^3$
Maximum rate per hour: 5,900 $m^3$

**Minimum discharge height:** BE-4: 22m above ground
BE-5: 22m above ground
BE-6: 24m above ground

| Parameter | Emission Limit Value [Note 1] |
|---|---|
| **Nitrogen oxides (as $NO_2$)** | 200 $mg/m^3$ |

**Note 1:** Emission limit value applies to each vent separately.

## *B.2 Emissions to Water*

**Emission Point Reference No:** MSE-1 (Mine site)
**Name of Receiving Waters:** River Bursk
**Location:** Discharge from final holding tank
Grid Reference: 281489E 299140N

**Volume to be emitted:** Maximum in any one day: 12,240 $m^3$
Maximum in any one hour: 510 $m^3$

| Parameter [Note 1] | Emission Limit Value |
|---|---|
| **Temperature** | 1.5 °C (max increase) [Note 2] |
| **pH** | 6 - 9 |
| | mg/l |
| **BOD** | 2.6 |
| **COD** | 40 |
| **Suspended Solids** | 25 |
| **Settleable solids** | 5 ml/l |
| **Total Ammonia (as N)** | 0.14 |
| **Molybdate Reactive Phosphorus (as P)** | 0.075 |
| **Total Phosphorus (as P)** | 0.062 |
| **Copper** | 0.03 |
| **Manganese** | 0.25 |
| **Chromium** | 0.0047 |
| **Nickel** | 0.02 |
| **Mineral oil** | 0.3 |
| **Chlorides** | 200 |

**Note 1:** In the case of metals the limit refers to the dissolved concentration (i.e. the dissolved fraction of a water sample obtained by filtration through a 0.45 µm filter or by any equivalent pre-treatment).
**Note 2:** Not greater than a 1.5°C rise in ambient temperature outside the mixing zone.

**Compliance Point Reference No:** CP1
**Location:** 70m downstream of discharge to River Bursk
Grid Reference: 282041E 298746N

| Parameter | Emission Limit Value | | | |
|---|---|---|---|---|
| | mg/l | | | |
| | Daily Average [Note1] | Monthly average[Note2] | Annual Average[Note3] | Monthly [Note 4] |
| **Conductivity** | 1370 µS/cm | - | - | - |
| **Sulphate (as $SO_4$)** | 625 | 500 | 400 | - |
| **Barium** | - | - | - | 0.1 |

**Note 1:** The ELV refers to a daily average of 24 hour continuous sampling of conductivity and empirical relationship with sulphate.
**Note 2:** The ELV refers to a rolling average of five consecutive discrete samples taken over 30 days.
**Note 3:** The ELV refers to a 365 rolling daily average.
**Note 4:** The ELV refers to a single discreet monthly grab sample.

**Emission Point Reference No:** S14 (Processing Site)
**Name of Receiving Waters:** Drainage channel and thence to River Glyde
**Location:** Grid Reference: 279012E 292474N

| Parameter | Emission Limit Value |
|---|---|
| **Temperature** | 25 °C Note 1 |
| **pH** | 6 - 9 |
| **Conductivity(µS/cm)** | 2000 |
| | mg/1 |
| **BOD** | 5 |
| **COD** | 30 |
| **Suspended Solids** | 25 |
| **Sulphate (as $SO_4$)** | 1500 |
| **Total sulphide (as S)** | 0.2 |
| **Total Ammonia (as N)** | 0.14 |
| **Molybdate Reactive Phosphorus (as P)** | 0.075 |
| **Total Phosphorus (as P)** | 0.3 |

**Note 1:** This limit applies to the effluent as discharged.

## *B.3 Emissions to Sewer*

There shall be no process effluent emissions to sewer.

## *B.4 Noise Limits* Note 1

| Daytime dB LAr, T (15 minutes) | Evening dB LAr, T (15 minutes) | Night-time dB LAeq, T (15 minutes) |
|---|---|---|
| 55 | 50 | 45 |

**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 Limit*

| Limit ($mg/m^2/day$) |
|---|
| 350 Note 1 |

**Note 1:** Applies to a 30 day composite sample with the results expressed as $mg/m^2/day$.

# SCHEDULE C: Control & Monitoring

## *C.1.1 Control of Emissions to Air*

**Emission Point Reference No:** AE-1
**Description of Treatment:** Bag filter

| Control Parameter | Monitoring | Key Equipment [Note 1] |
|---|---|---|
| HT Voltage | Continuous | Meter |
| Current | Continuous | Meter |
| Visual inspection of bag filter | Weekly (during operation) | N/A |

**Note 1:** The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.

**Emission Point Reference No:** AE-8
**Description of Treatment:** Bag filter

| Control Parameter | Monitoring | Key Equipment [Note 1] |
|---|---|---|
| HT Voltage | Continuous | Meter |
| Current | Continuous | Meter |

**Note 1:** The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.

**Emission Point Reference No:** AE-9
**Description of Treatment:** Bag filter

| Control Parameter | Monitoring | Key Equipment [Note 1] |
|---|---|---|
| HT Voltage | Continuous | Meter |
| Current | Continuous | Meter |

**Note 1:** The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.

**Emission Point Reference No:** AE-10
**Description of Treatment:** Bag filter

| Control Parameter | Monitoring | Key Equipment [Note 1] |
|---|---|---|
| HT Voltage | Continuous | Meter |
| Current | Continuous | Meter |

**Note 1:** The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.

## *C.1.2 Monitoring of Emissions to Air*

**Emission Point Reference No:** AE-1

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|---|---|---|
| **NOx (as $NO_2$)** | Annually | Flue gas analyser |
| **Particulate** | Continuous | Iso-kinetic/Gravimetric |
| **Visual assessment of plume** | Daily | Not applicable |

**Emission Point Reference No:** AE-8, AE-9, AE-10

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|---|---|---|
| **NOx (as $NO_2$)** | Annually | Flue gas analyser |
| **Particulate** | Annually | Iso-kinetic/Gravimetric |
| **Visual assessment of plume** | Daily | Not applicable |

**Emission Point Reference No:** BE-1

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|---|---|---|
| **NOx (as $NO_2$)** | Biannually | Flue gas analyser |
| **CO** | Biannually | Flue gas analyser |
| **Particulate** | Biannually | Iso-kinetic/Gravimetric |
| **Visual assessment of plume** | Daily | Not applicable |

**Emission Point Reference No:** BE-4, BE-5, BE-6

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|---|---|---|
| **NOx (as $NO_2$)** | Annually | Flue gas analyser |
| **Particulate** | Annually | Iso-kinetic/Gravimetric |
| **Visual assessment of plume** | Daily | Not applicable |

## *C.2.1 Control of Emissions to Water*

**Emission Point Reference No:** MSE-1 (Mine Site)
**Description of Treatment:** Settlement lagoon and holding tank

| Control Parameter | Monitoring | Key Equ te ipment No1 |
|---|---|---|
| **Water level** | Water level in lagoon and holding tank | Water level meter<br>High level alarm |

**Note 1:** The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.

**Emission Point Reference No:** S14 (Processing Site)
**Description of Treatment:** Settlement lagoon

| Control Parameter | Monitoring |
|---|---|
| **Water level** | Water level in lagoon - Weekly visual check |

## *C.2.2 Monitoring of Emissions to Water*

**Emission Point Reference No:** MSE-1 [Note 1]

| Control Parameter | Monitoring Frequency | Key Equipment/Technique |
|---|---|---|
| **Flow** | Continuous | On-line flow meter with recorder [Note 2] |
| **Temperature** | Monthly | Temperature probe |
| **pH** | Monthly | pH electrode/meter with recorder |
| **Conductivity** | Continuous | Conductivity meter with recorder |
| **Dissolved Oxygen** | 4 times per month | DO meter with recorder |
| **Biochemical Oxygen Demand** | Monthly | Standard Method |
| **Chemical Oxygen Demand** | Monthly | Standard Method |
| **Suspended Solids** | 4 times per month [Note 3] | Gravimetric |
| **Settleable Solids** | 4 times per month [Note 3] | Standard Method |
| **Sulphate** | Daily | Empirical relationship with conductivity |
| | Monthly | Standard Method |
| **Total Ammonia (as N)** | Monthly | Standard Method |
| **Nitrates (as N)** | Monthly | Standard Method |
| **MRP (as P)** | Monthly | Standard Method |
| **Total Phosphorus (as P)** | Monthly | Standard Method |
| **Copper** | Bi-annually | Standard Method |
| **Manganese** | Monthly | Standard Method |
| **Chromium** | Bi-annually | Standard Method |
| **Nickel** | Bi-annually | Standard Method |
| **Mineral oil** | Monthly | Standard Method |
| **Chlorides** | Monthly | Standard Method |
| **Total heavy metals** [Note 4] | Bi-annually | Atomic Absorption/ICP |
| **Toxicity** [Note 5] | As may be required | To be agreed by the Agency |

**Note 1:** The licensee shall maintain a composite sampler on the emission point. All samples shall be collected on a 24 hour flow proportional composite sampling basis.
**Note 2:** Total effluent discharged over the 24 hour period in which the composite sample is collected shall be recorded.
**Note 3:** There shall be no greater than 10 days and no less than 4 days between samples taken.
**Note 4:** The sum of antimony, arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, tellurium, thallium and tin.
**Note 5:** The number of toxic units (Tu) = 100/x hour $EC/LC_{50}$ in percentage vol/vol so that higher Tu values reflect greater levels of toxicity. For test regimes where species death is not easily detected, immobilisation is considered equivalent to death.

**Emission Point Reference No:** S14

| Control Parameter | Monitoring Frequency | Key Equipment/Technique |
|---|---|---|
| **Flow** | Continuous | On-line flow meter with recorder |
| **Temperature** | Monthly when discharge is occurring | On-line temperature probe with recorder |
| **pH** | Monthly when discharge is occurring | pH electrode/meter with recorder |
| **Conductivity** | Weekly when discharge is occurring | On-line TOC meter with recorder |
| **Biochemical Oxygen Demand** | Monthly when discharge is occurring | Standard Method |
| **Chemical Oxygen Demand** | Monthly when discharge is occurring | Standard Method |
| **Suspended Solids** | Weekly when discharge is occurring | Standard Method |
| **Settleable Solids** | Weekly when discharge is occurring | Gravimetric |
| **Sulphate (as $SO_4$)** | Monthly when discharge is occurring | Standard Method |
| **Total sulphide (as S)** | Monthly when discharge is occurring | Standard Method |
| **Ammonia (as N)** | Monthly when discharge is occurring | Standard Method |
| **Total Phosphorus (as P)** | Monthly when discharge is occurring | Standard Method |
| **MRP (as P)** | Monthly when discharge is occurring | Standard Method |
| **Mineral oil** | Monthly when discharge is occurring | Standard Method |
| **Copper** | Monthly when discharge is occurring | Standard Method |
| **Total Heavy Metals** Note 1 | Monthly when discharge is occurring | Atomic Absorption/ICP |
| **Oils, fats and greases** | Monthly when discharge is occurring | Standard Method |
| **Toxicity** Note 2 | As may be required | To be agreed by the Agency |

**Note 1:** The sum of antimony, arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, tellurium, thallium and tin

**Note 2:** The number of toxic units (Tu) = 100/x hour $EC/LC_{50}$ in percentage vol/vol so that higher Tu values reflect greater levels of toxicity. For test regimes where species death is not easily detected, immobilisation is considered equivalent to death.

## *C.3 Monitoring of Storm Water Emissions*

**Emission Point Reference No:** TA1 (process site)
Location to be agreed by the Agency

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|---|---|---|
| **pH** | Quarterly | pH electrode/meter |
| **Temperature** | Quarterly | Standard method |
| **BOD** | Quarterly | Standard method |
| **Calcium** | Quarterly | Standard method |
| **Sulphate** | Quarterly | Standard method |
| **Ammonia** | Quarterly | Standard method |
| **Total Phosphorous (as P)** | Quarterly | Standard method |
| **Total Nitrogen** | Quarterly | Standard method |
| **Conductivity** | Quarterly | Standard method |
| **Visual Inspection** | Weekly | Sample and examine for colour and odour |

## *C.4 Dust Deposition Monitoring*

**Monitoring Locations:** At all agreed locations and any additional locations as may be required by the Agency.

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|---|---|---|
| **Dust deposition** | Continuous | VDI 2119 (Bergerhoff method) |

## *C.5 Groundwater Monitoring*

**Monitoring Locations:** All boreholes at the mine site as agreed by the Agency and any additional boreholes as may be required by the Agency.

| Parameter | Monitoring Frequency [Note 1] | Analysis Method/Technique |
|---|---|---|
| **Water Level** | Biannually | Dip meter |
| **pH** | Biannually | pH electrode/meter |
| **Conductivity** | Biannually | Conductivity meter |
| **Calcium** | Biannually | Standard Method |
| **Sulphate** | Biannually | Standard Method |
| **Ammonia** | Biannually | Standard Method |
| **Nitrate** | Biannually | Standard Method |
| **Chloride** | Biannually | Standard Method |
| **Sodium** | Biannually | Standard Method |
| **Potassium** | Biannually | Standard Method |
| **Magnesium** | Biannually | Standard Method |
| **Alkalinity** | Biannually | Standard Method |
| **Total Petroleum Hydrocarbons** | Biannually | Standard Method |
| **Relevant Hazardous Substances**[Note 2] | Every Five Years | Standard Method |
| **Other** [Note 3] | To be agreed by the Agency | To be agreed by the Agency |

**Note 1:** The frequency may be amended as required by the Agency.
**Note 2:** Groundwater monitoring for relevant hazardous substances shall be in accordance with Condition 6.24 of this licence.
**Note 3:** Other parameters as may be agreed by the Agency.

**Monitoring Locations:** All boreholes at the processing site, as agreed by the Agency and any additional boreholes as may be required by the Agency.

| Parameter | Monitoring Frequency Note 1 | Analysis Method/Technique |
|---|---|---|
| **Water Level** | Quarterly | Dip Meter |
| **pH** | Quarterly | pH meter |
| **Conductivity** | Quarterly | Conductivity meter |
| **TOC** | Quarterly | Standard Method |
| **Calcium** | Quarterly | Standard Method |
| **Sulphate** | Quarterly | Standard Method |
| **Ammonia** | Quarterly | Standard Method |
| **Chloride** | Quarterly | Standard Method |
| **Manganese** | Quarterly | Standard Method |
| **Barium** | Quarterly | Standard Method |
| **Total Petroleum Hydrocarbons** | Annually | Standard Method |
| **Relevant Hazardous Substances**Note2 | Annually | Standard Method |
| **Other** Note 3 | Quarterly | To be agreed by the Agency |

**Note 1:** The frequency may be amended as required by the Agency.
**Note 2:** Groundwater monitoring for relevant hazardous substances shall be in accordance with Condition 6.24 of this licence.
**Note 3:** Other parameters as may be agreed by the Agency.

## *C.6 Receiving Water Monitoring*

**Monitoring Location:** Mine site: B (upstream of MSE-1)
Grid reference: 281991E 298912N

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|---|---|---|
| **Conductivity** | Monthly | Conductivity meter |
| **Nitrate** | Monthly | Standard Method |
| **Suspended solids** | Monthly | Standard Method |
| **Sulphate (as $SO_4$)** | Monthly | Standard Method |
| **BOD** | Annually | Standard Method |
| **Ammonia (as N)** | Annually | Standard Method |
| **MRP (as P)** | Annually | Standard Method |
| **Total Phosphorous (as P)** | Annually | Standard Method |
| **Heavy metals** Note 1 | Annually | Standard Method |

**Note 1:** The sum of antimony, arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, tellurium, thallium and tin.

**Monitoring Location:** Mine site: CP1 (downstream of MSE-1)
Grid reference: 282041E 298746N

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|---|---|---|
| **Conductivity** | Continuous | Conductivity meter and recorder |
| **Nitrate** | Monthly | Standard Method |
| **Suspended solids** | Monthly | Standard Method |
| **Sulphate (as $SO_4$)** | Continuous | Empirical relationship with Conductivity |
| | 5 times per month [Note 2] | Standard Method |
| | Annually | Empirical relationship with Conductivity |
| **Barium** | Monthly | Standard Method |
| **BOD** | Annually | Standard Method |
| **Ammonia (as N)** | Annually | Standard Method |
| **MRP (as P)** | Annually | Standard Method |
| **Total Phosphorous (as P)** | Annually | Standard Method |
| **Heavy metals** [Note 1] | Annually | Standard Method |

**Note 1:** The sum of antimony, arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, tellurium, thallium and tin.

**Note 2:** There shall be no greater than 8 days and no less than 3 days between samples taken.

**Monitoring Locations:** Processing site:
S5 (upstream of S14) Grid reference: 279109E 292084N
S3 (downstream of S14) Grid reference: 279007E 292506N

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|---|---|---|
| **pH** | Bi-annually | pH electrode/meter |
| **Conductivity** | Bi-annually | Conductivity meter |
| **Temperature** | Bi-annually | Thermometer |
| **DO** | Bi-annually | Standard Method |
| **BOD** | Bi-annually | Standard Method |
| **Suspended solids** | Bi-annually | Standard Method |
| **Nitrate** | Bi-annually | Standard Method |
| **Nitrite** | Bi-annually | Standard Method |
| **Ammonia (as N)** | Bi-annually | Standard Method |
| **MRP (as P)** | Bi-annually | Standard Method |
| **Total Phosphorous (as P)** | Bi-annually | Standard Method |
| **Sulphate** | Bi-annually | Standard Method |
| **Chloride** | Bi-annually | Ion selective chromatography |
| **Heavy metals** [Note 1] | Bi-annually | Standard Method |

**Note 1:** The sum of antimony, arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, tellurium, thallium and tin.

**Monitoring Locations:** Processing site:
S1 Grid reference: 27861E 29215N
S2 Grid reference: 27911E 29207N

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|---|---|---|
| **pH** | Annually | pH electrode/meter |
| **Conductivity** | Annually | Conductivity meter |
| **Temperature** | Annually | Thermometer |
| **DO** | Annually | Standard Method |
| **BOD** | Annually | Standard Method |
| **Suspended solids** | Annually | Standard Method |
| **Nitrate** | Annually | Standard Method |
| **Nitrite** | Annually | Standard Method |
| **Ammonia (as N)** | Annually | Standard Method |
| **MRP (as P)** | Annually | Standard Method |
| **Total Phosphorous (as P)** | Annually | Standard Method |
| **Sulphate** | Annually | Standard Method |
| **Chloride** | Annually | Ion selective chromatography |
| **Heavy metals** Note 1 | Annually | Standard Method |

**Note 1:** The sum of antimony, arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, tellurium, thallium and tin.

## *C.7 Soil Monitoring*

**Monitoring Location:** Monitoring location(s) from close to or beneath the footprint of the installation and as agreed by the Agency.

| Parameter | Monitoring Frequency | Analysis Method/Techniques |
|---|---|---|
| **Relevant hazardous Substances** Note 1 | Within twelve months from date of grant of licence and every ten years thereafter | Standard Method |

**Note 1:** Soil monitoring for relevant hazardous substances shall be in accordance with Condition 6.24 of this licence.

# SCHEDULE D: Specified Engineering Works

| Specified Engineering Works |
| --- |
| Construction of Waste Gypsum Storage Area. |
| Construction of Waste Inspection Area and Waste Quarantine Area. |
| Significant Infrastructural Works affecting site operations/licensed activites. |
| Aftercare of the landfill. |
| Any other works notified in writing by the Agency. |

# SCHEDULE E: Annual Environmental Report

| Annual Environmental Report Content [Note 1& 2] |
|---|
| Emissions from the installation. |
| 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. |
| Noise monitoring report summary. |
| Ambient Monitoring Summary. |
| Receiving water monitoring summary. |
| Biological impact assessment (annual). |
| Dust deposition monitoring summary. |
| Bund integrity testing report. |
| Tank and pipeline testing and inspection report. |
| Reported incidents summary. |
| Energy efficiency audit report summary. |
| Water Management Plan. |
| Subsidence Mitigation Plan. |
| Blast size and vibration and overpressure monitoring summary. |
| Landfill status report. |
| Waste gypsum recovery report. |
| Report on the assessment of the efficiency of use of raw materials and the reduction in waste generated. |
| Report on progress made and proposals being developed to minimise water demand and the volume of effluent discharges. |
| Review of CRAMP. |
| Statement of measures in relation to prevention of environmental damage and remedial actions. |
| Environmental Liabilities Risk Assessment Review (every three years or more frequently as dictated by relevant on-site changes including financial provisions). |
| Any other items specified by the Agency. |

**Note 1:** Content may be revised subject to agreement by the Agency.
**Note 2:** The AER shall be completed in accordance with current Agency guidance

**Sealed by the seal of the Agency on this the 20th day of December 2021.**

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

Ray Cullinane

**Ray Cullinane, Authorised Person**