

## 4.7 Best Available Technology (BAT) Assessment

This document considers the application of Best Available Techniques (BAT) to the site operations in relation to the BAT hierarchy set out in the Draft BAT Guidance Note on Best Available Techniques for the Waste Sector: Waste transfer and Material Recovery, December 2011.

### Bat Hierarchy

The BAT hierarchy extracted from the guidance document is presented below and the emphasis of the BAT hierarchy is placed on pollution prevention techniques rather than treatment.

The IPPC Directive 2008/1/EC and the Environmental Protection Agency Acts 1992 to 2007 (Section 5(3)), require the determination of BAT to consider in particular the following, having regard to the likely costs and advantages of measures and to the principles of precaution and prevention:

- (i) the use of low-waste technology,
- (ii) the use of less hazardous substances,
- (iii) the furthering of recovery and recycling of substances generated and used in the process and of waste, where appropriate,
- (iv) comparable processes, facilities or methods of operation, which have been tried with success on an industrial scale,
- (v) technological advances and changes in scientific knowledge and understanding,
- (vi) the nature, effects and volume of the emissions concerned,
- (vii) the commissioning dates for new or existing activities,
- (viii) the length of time needed to introduce the best available techniques,
- (ix) the consumption and nature of raw materials (including water) used in the process and their energy efficiency,
- (x) the need to prevent or reduce to a minimum the overall impact of the emissions on the environment and the risks to it,
- (xi) the need to prevent accidents and to minimize the consequences for the environment, and
- (xii) the information published by the Commission of the European Communities pursuant to any exchange of information between Member States and the industries concerned on best available techniques, associated monitoring, and developments in them, or by international organisations, and such other matters as may be prescribed.

### BAT Undertaking

GCHL will endeavour to protect the environment and, as part of the Waste Licence Application process, will identify the potential waste arisings from its undertakings and identify how these will be managed through the use of Best Available Techniques (BAT).

The Company will aim to carry out activities in a manner that minimises waste production (volumes and mass) and will dispose of wastes arising in a manner which minimises their environmental impact.

### Waste Management

GCHL will implement the waste hierarchy and apply the following:

**Waste prevention:** GCHL will separate out any noncompliant wastes that inadvertently enter the site in soil and stones as soon as is reasonably practicable before it can become mixed with inert waste soil and stones already deposited.

**Waste minimisation:** GCHL will design its waste acceptance and management procedures to minimise the production of non-inert waste.

**Waste re-use:** GCHL will endeavour where reasonably practicable to utilise its waste to avoid waste production.

**Waste recycling:** GCHL will endeavour, where reasonably practicable, to recycle its waste.

**Volume reduction:** GCHL will endeavour, where reasonably practicable, to reduce the volume of waste requiring disposal.

**Waste disposal:** Off-site disposal of non-inert wastes to a permitted Landfill or recovery Site for each waste stream;

## BAT Considerations

The only activities to be licenced at the application Site are the acceptance and recovery of inert soil and stone and temporary storage of same pending final use. No hazardous waste will be accepted at the facility. There will be no processing of the incoming waste materials and any waste to be accepted at the facility for restoration of the lands will be either directly recovered and placed in the restoration area or temporarily stored pending final use.

The production of waste is considered to be low in respect of the recovery facility. Any wastes that inadvertently enter the site shall be segregated and placed in the quarantine area prior to offsite disposal or recovery at approved facilities. Any canteen waste arising from the site activities will be with segregated for recycling and disposal at appropriate facilities. There are limited considerations to apply Best Available Technology (BAT) with respect to the proposed recovery operations. The main consideration has been given to control and abatement measures to ensure the facility will continue to operate within accepted emission limit values for this type of operation to prevent and minimise the risks to the environment. The considerations given to compliance with the relevant BAT guidance is presented below:

- The facility will operate in accordance with the terms of the EPA Waste Licence. An Environmental Management System will be developed and implemented at the site.
- The facility will offer a licensed outlet for this inert waste stream for the region.
- The proposed activity is a low-technology, low-risk activity.
- The approach is well proven for the restoration of other quarries/voids as discussed in the Eastern Region Waste management Plan.
- There will be no emissions to surface water, groundwater or sewer. The activity will not generate landfill gas or leachate
- Incoming wastes will be non-putrescible therefore not create odours or attract vermin or birds nuisances.
- Potential noise and dust emissions will be controlled via prescribed mitigation measures, which will be incorporated into the site's Environmental Management System.
- Egressing vehicles will pass through a wheel-wash prior to exiting the facility to prevent dust generation. The facility will not be an intensive energy/water-user.
- The facility is low-risk in terms of environmental/pollution risk.
- There will be controlled fuel storage on site. Emergency response procedures will be incorporated into the site's Environmental Management System.
- A rigorous Waste Acceptance Procedure will be implemented. Input material will be tested, where required, prior to delivery to site.

- All material-in and material-out will be recorded and summary data reported to the Agency as part of Annual Environmental Reporting obligations.
- The facility will be managed by a competent management team, and with due regard for the public.
- An environmental monitoring programme will be implemented, in accordance with licence conditions.
- The site will be progressively restored, on a planned and phased basis, in accordance with the site restoration/phasing plan. Final cover and planting will be applied to completed phases as soon as practicable.

## Environmental Management System

GCHL are committed to preparing a robust environmental management system (EMS) in receipt of a Waste Licence. The aim of the EMS will be to identify, plan and establish the necessary procedures, objectives and targets in association with financial planning and investment to safeguard the environment. The EMS will identify within the company the structure and responsibility for environmental management, the levels of training, awareness and competence of individuals, stakeholder and community engagement, documentation and procedures and the Company's environmental management processes that assure compliance with environmental legislation. As part of the EMS, GCHL will ensure that its environmental responsibilities and risks are monitored and measured, that records are kept and maintained and actions implemented.

The EMS is proposed to be put in place with continued environmental monitoring of noise, dust, surface and groundwater on site and commitment to review of control and abatement measures employed. The measures proposed will ensure that emissions from the recovery activities will not result in the contravention of any relevant standard, including any standard for an environmental medium, or any relevant emission limit value.

## BAT Conclusions

It is considered that the proposed restoration project by GCHL will be operated in such a way that all appropriate measures are implemented to prevent pollution through the application of BAT as specified in the Draft BAT Guidance Note on Best Available Techniques for the Waste Sector: Waste transfer and Material Recovery, December 2011. It is considered that this will be achieved through the design and adherence to a robust environmental management system that is in accordance with the conditions of any Waste licence issued for the facility.