

## EMISSIONS TO GROUND – CONTROL MEASURES

This waste licence review application provides for the restoration of Huntstown South Quarry by backfilling it to former ground level using imported soil and stone waste generated by construction and demolition activity.

During the operational (backfilling) phase, there is potential for accidental spills or leaks of fuel, hydrocarbons or other hazardous substances being used or stored at the recovery facility to adversely impact land quality. The potential for uncontrolled emissions to ground exists at the permitted facility at Huntstown North Quarry present and is minimised by implementing a series of mitigation measures (outlined in section on groundwater impacts below) and adhering to the Environmental Management System (EMS). The EMS comprises, amongst other features, detailed systems and procedures to implement and monitor the effectiveness of the mitigation measures and provides for proper handling, storage, control and monitoring for all potentially hazardous substances.

Site based personnel at the existing licensed soil and stone waste recovery facility at Huntstown use shared toilet, hand washing and welfare facilities at existing site offices and the staff canteen located around the central infrastructure area within the quarry complex. Wastewater from these locations is collected and fed via a sewerage pipe to an on-site wastewater treatment plant (septic tank).

Staff will continue to use these facilities for the duration of backfilling and recovery activities at the South Quarry. No new or upgraded wastewater treatment facilities are required or proposed to service future waste recovery activities at the South Quarry.

Experience at the existing licensed facility to date is that management practices can serve to minimise and prevent any uncontrolled emissions to ground and any potentially adverse implications for land quality or ground contamination.

### Specific Control Measures (to Give Effect to EU Council Directives)

In order to minimise the risk of pollution to groundwater arising as a result of waste recovery and backfilling activities, a number of mitigation measures are implemented to protect groundwater, prevent accidental discharge of fuel or chemicals and detect / monitor potential adverse impacts.

These measures, give effect to the requirements of *Council Directive 80/68/EEC of 17 December 1979 on the Protection of Groundwater Against Risk of Pollution by Dangerous Substances* and the requirements of *Directive 2006/118/EC of 12 December 2006 on the protection of groundwater against pollution and deterioration*. They also give effect to the requirements of the national transposing legislation, specifically the *European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010)*. Measures are identified under a range of headings below.

#### *Inspection of Imported Material*

Consignments of imported soil and stone waste are screened and inspected in line with an approved waste acceptance plan to confirm they are inert prior to deposition at the facility. Additional precautionary measures associated with the acceptance and handling of inert soil waste are detailed in Attachment 4-8-1 of this application (Operational Report) and Chapter 2 (Project Description) of the Environmental Impact Assessment Report accompanying this waste licence application.

#### *Infiltration of Suspended Solids*

There are potential impacts on groundwater from increased mobilisation of soil fines in infiltrating rainfall / run-off.

In order to minimise soil erosion and transportation of fines in groundwater the following measures will be implemented:

- soils stockpiles / surfaces will be at a safe angle of repose and will be bladed off; and
- soil stockpiles / surfaces will be re-vegetated where they are / will be in place for a sufficient length of time to justify such a measure.
- surface water run-off containing suspended solids will be directed to a temporary holding area at the site where the water can infiltrate to the ground;

## *Fuel Storage / Refuelling*

- there is / will be no fuel storage within the backfill areas within the South Quarry. Fuel for plant and equipment will continue to be stored in existing fuel storage tanks at the central infrastructure and production area within the Huntstown quarry complex;
- fuel tanks are constructed on sealed concrete surfaces and bunded to provide a storage volume equivalent to 110% of the tank storage volume;
- regular visual inspection and testing is undertaken of the integrity of tanks, drums, bunded pallets and double skinned containers;
- plant and equipment undertaking the backfilling works at the South Quarry will be refuelled over concrete surfaced areas around existing bunded fuel storage tanks, from mobile, double skin fuel bowsers or fuel lorries on the quarry floor or hardstanding areas;
- any refuelling of mobile plant undertaken within the quarry void is only to be undertaken using drip trays to contain spillages;
- when refuelling directly from fuel trucks, drivers will be required to carry spill kits, to cut off delivery when fuel tanks are full and limit deliveries to a maximum of 200 litres;

## *Plant / Equipment Maintenance*

- all plant is regularly maintained and inspected daily for leaks of fuels, lubricating oil or other contaminating liquids / liquors;
- oil and lubricant changes and servicing of wheeled or tracked plant employed at the South Quarry will continue to be undertaken at the existing maintenance sheds;
- a small bunded area for waste oils is provided within the maintenance shed. Oil collected in tanks is emptied at intervals by a licensed waste contractor and disposed off-site at an authorised waste facility;
- a spill kit and drip trays will be kept on site and will be deployed if there is an accidental spillage from plant / machinery;
- plant operators will be briefed during 'toolbox' talks and site induction on where the spill kit is kept and how and when it is deployed;

## *Management of Potential Contaminated Waste*

- any imported waste which is accepted at the facility but subsequently suspected to be non-compliant with waste acceptance criteria for the facility will be re-loaded onto HGV trucks and transferred across the application site to a proposed covered waste inspection and quarantine facility for closer examination and/or testing;
- the waste inspection facility comprises a covered shed over a sealed concrete slab. Incident rainfall will not come into contact with consignments of suspected contaminated waste stored at the covered shed;

- should any subsequent inspection or testing of suspect soil waste at the inspection and quarantine facility identify any non-inert material which cannot be accepted or reused in the restoration of this site it will be segregated and temporarily stockpiled (quarantined) pending removal off site by permitted waste collectors to an authorised waste disposal or recovery facility;
- provision will also be made for temporary storage of any separated non-inert construction and demolition waste (including metal, timber, plastic etc.) in skips prior to removal off site to a licenced recovery facility;

### Traffic Movements

- to reduce the risk of an accidental vehicle collision, a site-specific traffic management system is in place to reduce potential conflicts between HGV's travelling to / from the existing weighbridges, the South Quarry recovery facility and the existing site access / egress along the R135 Regional Road;
- the internal speed limit within the quarry complex is enforced to further reduce the likelihood and significance of collisions between vehicles;

### Monitoring

- Groundwater monitoring measures have been implemented at the existing licensed recovery facility. These monitoring measures will continue at and be extended to include the waste recovery area around the South Quarry to monitor any potential impact of soil waste recovery operations on groundwater quality;
- The results of all groundwater monitoring undertaken will be recorded and submitted to Fingal County Council and/or the EPA in an Annual Environmental Report for their record and review;
- The groundwater monitoring regime will remain in place for the duration of the backfilling and restoration works at the South Quarry. Sampling and monitoring will continue for a short aftercare period following cessation of backfilling activities and completion of site restoration works thereafter.