

From: John Gibbons
Sent: 23 September 2014 09:23
To: Eve O'Sullivan
Subject: RE: W0021-02 Derrinumbera Landfill

Derrinumbera Landfill,
Newport Road,
Co. Mayo.
30/6/14

Helen Boyce,
Office of Environmental Enforcement,
Environmental Protection Agency,
Regional Inspectorate,
John Moore Road,
Castlebar,
Co. Mayo.

RE: W0021-02 -Technical Amendment request - Emissions from gas utilisation plant.

Dear Ms Boyce,

Further to your letter of 6/5/14, via EDEN, in relation to power generation at this facility. As the agency is aware there has been a landfill gas flare on-site since 2001 and emission limits and a stack monitoring regime for this flare were included in an amendment to the original licence ref:21-1/AK07 of 28/3/01 which was complied with by Mayo County Council.

In 2009 the agency reviewed the original licence at its own discretion and emission limits and monitoring of the flare/utilisation plant were not contained in the reviewed licence. The reviewed licence did contain conditions 2.13 (iii) and 4.22.1 which specifically refer to landfill gas management/utilisation in order to recover energy from the gas and reduce reliance on fossil fuel generated electricity.

Mayo County Council has been engaged since 2011 in sourcing, by contract, a suitable gas utilisation plant and grid connection for the facility. This was a lengthy and difficult process, however both are now in place and the utilisation plant is ordered. The proposed gas utilisation plant will generate electricity by combustion of the majority of the landfill gas which is currently being flared and export this to the national grid. Although the utilisation plant and existing flare units could operate simultaneously it is intended that the flare will only operate for short periods when the gas plant is being serviced or breaks down i.e there will generally only be one emissions point at any one time.

As the gas plant will operate the majority of the time, the following emission limits are proposed,

NO _x	500mg/m ³
CO	1400mg/m ³
Total VOC's	1000mg/m ³
NMVOc's	75mg/m ³

- Reference period = hourly mean.
- Limits at 5% O₂ dry gas, normal operating conditions (temperature 273K, pressure 101.3kPA)
- Minimum discharge height = 5m.

These are the engine manufacturers design emissions which apply across Europe for engines manufactured in Europe. These emission limits also correspond to those set out in the EPA guidance document on landfill flare and engine management and monitoring (AG7).

It is proposed that these emissions would be monitored annually by stack testing using standard methods with an ISO17025 accredited laboratory/provider and the results submitted to the Agency.

Inlet gas to the engine will be monitored continuously as per the current flare for the following parameters,

- CH4
- CO2
- O2

There will be a local flow readout at the flare (using existing podimeter) and another local flow meter at the engine should both operate simultaneously.

As gas utilisation/flaring is implicit in the requirements of the current licence but emissions/monitoring from same are not, Mayo County Council request that such a technical omission which occurred during the Agency's review process be dealt with by a technical amendment to licence W0021-02.

Please contact me should you have any queries.

Yours sincerely,

Killian Farrell

Killian Farrell,

A/ Deputy Landfill Manager.

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