APPENDIX F

EPA CORRESPONDENCE

(RE. LANDFILL GAS FLARE)

01-8036410

An Ghníomhaireacht um Chaomhnú Comhshaoil

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County Secretary
Mayo County Council
Aras an Chontae
Castlebar
Co. Mayo

Date: 28/03/01

Our ref.: 21-1/AK07

Your ref.:

Dear Secretary

I refer to the information which was received by the Agency on 16/02/01, 21/03/01 and 28/03/01 in relation to the proposed landfill gas flare at the Derrinumera Landfill facility. The proposal for flaring of landfill gas (Condition 4.22.1) is agreed subject to the items listed below:

a) The flare shall be of an enclosed type design.
b) The location of the flare as shown on Drawing No. 002034/11/612 is to the satisfaction of the Agency.
c) The minimum discharge height above ground should be 6.15m.
d) Noise from the flare must be controlled such that it does not cause a nuisance.
e) After installation noise monitoring must be carried out to demonstrate that the noise emission limits specified in Schedule G.1 are being achieved.
f) The flare must be capable of achieving the following Emission Limit Values.

Emission Limit Values for Landfill Gas Flare at Derrinumera Landfill (21-1)

Parameter	Emission Limit Value Note 2
Nitrogen oxides as (NO_2)	150mg/m^3
CO	50mg/m^3
Particulates	130 mg/m^3
TA Luft Organics Class I Note 1	20 mg/m^3 (at mass flows > 0.1 kg/hr)
TA Luft Organics Class II Note 1	100 mg/m^3 (at mass flows > 2 kg/hr)
TA Luft Organics Class III Note 1	150 mg/m^3 (at mass flows > 3kg/hr)
Hydrogen Chloride	50 mg/m^3 (at mass flows > 0.3 kg/h)
Hydrogen Fluoride	5 mg/m^3 (at mass flows > 0.05 kg/h)
Hydrocarbons	10 mg/m^3

Note 1: In addition to the above individual limits, the sum of the concentrations of Class I, II and III shall not exceed the Class III limits.

Note 2: Dry gas referenced to 3% oxygen by volume.

g) Monitoring of the flare must be carried out as specified in the Table below. A report on the monitoring carried out must be submitted to the Agency on an annual basis.

Landfill Gas Flare Monitoring Frequency and Technique

Parameter Note 1	Frequency	Analysis Method Note 2/3 / Technique Note 2/3
Inlet		
Methane (CH_4) % v/v	Continuous Note 4	Infrared analyser/flame ionisation detector
Carbon dioxide (CO_2)%v/v	Continuous Note 4	Infrared analyser
Oxygen (O_2) %v/v	Continuous Note 4	Electrochemical Cell
Outlet		
Volumetric Flow rate	Biannually	Pitot Tube Method
SO_2	Biannually	Flue gas analyser
NOx	Biannually	Flue gas analyser
CO	Continuous	Flue gas analyser
Particulates	Annually	Isokinetic/Gravimetric
TA Luft Class I, II, III organics	Annually	Adsorption/Desorption /GC /GCMS (Note 5)
Hydrocarbons	Annually	Adsorption/Desorption /GC /GCFID (Note 5)
Hydrochloric acid	Annually	Impinger / Ion Chromatography
Hydrogen fluoride	Annually	Impinger / Ion Chromatography

Note1: Monitoring locations to be installed and agreed prior to the commissioning of the enclosed Flare Unit
Note 2: All monitoring equipment used should be intrinsically safe.
Note 3 : Or other methods agreed in advance with the Agency.
Note 4: As specified in the information received by the Agency on 21/03/01.
Note 5: Test methods should be capable of detecting acetonitrile, dichloromethane, tetrachlorethylene and vinyl chloride as a minimum.

If you have any further queries, please contact Dr. Michael Henry at the Castlebar Regional Inspectorate.

Yours sincerely

M. Henry

Dr. Michael Henry
Environmental Management and Planning

cc. Mr. Joe Beirne, Co. Engineer; Mr. Kevin Cooke, Landfill Manager