

EPA Application Form

4. Activity and Capacity

4.3.1 - Storage of Waste and Other Materials - Attachment

Organisation Name: *

Indaver Ireland Ltd.

Application I.D.: *

LA001689

Amendments to this Application Form Attachment

Version No.	Date	Amendment since previous version	Reason
V.1.0	July 2017	N/A	Online application form attachment
V.1.0	March 2018	Identification of required fields	Assist correct completion of attachment

Storage of Waste and Other Materials

State the maximum amount of waste and other materials that will be stored on the site at any one time in the table below¹.

Waste/Other Material	Amount (tonnes) *
Waste accepted and in storage pending treatment (solid and liquid, hazardous and non-hazardous wastes):	8,250 T (includes 250 t of aqueous waste)
Other materials (Non-waste) accepted, including non-waste feedstocks:	264 T Lime (198 T CaO, 66 T CaOH) 73T Ammonia 49 T Activated Carbon 5 T Acids/Bases/Boiler Treatment Chemicals 50 T Fuel Oil for Burners Propane 0.250 T for burner pilot flame
Capacity of treatment vessels and chambers:	85 T (Solid Waste Capacity between the Hopper + Chute + Grate) Flue Gas Treatment Pathway (including boiler passes) 211,000 Nm ³ /hr (max annual average Flue Gas Flowrate)
Treated waste, whether classified as waste or not:	3,000 T Bottom Ash 80 T Fe/Non-Fe Metals 60 T Boiler Ash 312 T Flue Gas Cleaning Residues

¹ This should include waste and other materials in: (1) reception, inspection and quarantine areas; (2) storage pending treatment; (3) storage after treatment; and (4) vessels, chambers or tanks during treatment or processing.

* indicates required field

List any other feedstocks to the treatment process not classified as waste. State 'none' if none.*

Lime as CaO
Ammonia as 24.9% Ammonium Hydroxide Solution
Activated Carbon or Activated Carbon/Clay mixture
Hydrochloric Acid as 30% solution in water
Sodium Hydroxide as 50% solution in water
Sodium Phosphate for boiler feedwater treatment
Fuel Oil for burners for temperature control and start-up/shut-down.
LPG Cylinders (Propane) for burner pilot flame

Waste and material outputs from waste activities (i.e., those subject to Waste licensing or class 11 of the First Schedule of the EPA Act)

Describe the waste and material outputs from the installation resulting from the treatment of waste. If no treatment is carried out on the waste, the waste outputs will be the same as the inputs.

If waste is treated, describe the nature and quantity of the treated waste and its onward fate/destination, and in particular whether it is sent for onward recovery or disposal operations.

If waste is treated and a material is produced that is no longer a waste, provide the rationale for such classification. The requirements of Article 28 of the European Communities (Waste Directive) Regulations 2011 should be addressed in any such rationale. Include the response in this attachment.

Waste Inputs

The waste inputs to the facility are primarily non-hazardous residual municipal, commercial and industrial solid wastes. The total plant capacity is 240,000 tonnes per annum and 24,000 tonnes of this is for suitable, solid and liquid hazardous wastes. A full list of LoW codes has been provided in Attachment 4.11.1. Residues from the mechanical-biological treatment of waste, if these become available, will also be treated.

Waste Outputs

There will be three solid residues from the waste-to-energy facility, which are described in Section 4.13.1 to 4.13.4 of the EIS:

- Bottom Ash
- Boiler Ash
- Flue Gas Cleaning Residues

There will be no aqueous or trade effluent discharges from the facility.

Bottom Ash

Approximately 52,700 T of bottom ash will be produced annually and are the remnants from the solid waste combustion process on the grate furnace. It consists of primarily of silicates, minerals, metals and glass compounds. The bottom ash will be non-hazardous and will be sent for disposal to a suitably licensed landfill for non-hazardous waste. If a facility is built and licensed in Ireland for the treatment of bottom ashes from the waste incineration process, then it may be possible to send the bottom ash for recovery.

Boiler Ash

About 2,000 T of boiler ash will be produced annually. Carry over of vapours and particulates in the flue gases from the combustion process are captured in the boiler and removed to a storage silo. Boiler ash will be treated as hazardous waste and will be disposed of in a landfill for hazardous waste or exported for recovery in salt mines. As there is now a licensed facility for the recovery of this material in Ireland, it is likely that the boiler ash and flue gas cleaning residues will be recovered there.

Flue Gas Cleaning Residues

Just over 9,000 T of flue gas cleaning residues will be produced from the facility. These residues will contain any residual ash carry over from the boiler and also spent lime and activated carbon/clay injected for removal of pollutants from the flue gases. These residues will be collected in a bag house filter transported in a closed system to one of two silos. Flue gas cleaning residues will be treated as hazardous waste and will be disposed of in a landfill for hazardous waste or exported for recovery in salt mines.

For Soil Recovery Activities (only), please complete the following table:

All blank fields in the table are mandatory

Soil Recovery Activity Details	Input a value into ALL blank cells (where applicable)			
Volume of void to be filled and authorised by planning permission:	N/A		m ³	
Quantity of waste soil and stone that is required to fill the void:	N/A		tonnes	
Proposed annual intake of waste soil and stone:	N/A		tonnes per annum	
Proposed duration to complete the fill:	N/A		years	
Stage of fill: 'Not Commenced' OR 'Commenced':	N/A			
- If commenced: quantity of waste already deposited in the void: <u>(Enter a value in both cells)</u>	N/A	m ³	N/A	Tonnes
- Volume of void remaining:	N/A		m ³	
Period of previous fill: (<Year> to <Year>):	N/A			
Quantity of fill authorised by planning permission: <u>(Enter a value in both cells)</u>	N/A	m ³	N/A	Tonnes
Waste Licence, waste facility permit, or certificate of authorisation number: <u>(Attach copy in this document)</u>	N/A			