

Unit 15  
Melbourne Business Park  
Model Farm Road  
Cork



T: 021 434 5366  
E: info@ocallaghanmoran.com  
[www.ocallaghanmoran.com](http://www.ocallaghanmoran.com)

**OPERATIONAL REPORT**  
**ADVANCED ENVIRONMENTAL SOLUTIONS (IRELAND) LTD.**  
**NENAGH**  
**COUNTY TIPPERARY**  
**WASTE LICENCE REG. W0240-01**

**Prepared For: -**

Advanced Environmental Solutions (Ireland) Ltd,  
Nenagh,  
Co. Tipperary

**Prepared By: -**

O' Callaghan Moran & Associates,  
Unit 15,  
Melbourne Business Park,  
Model Farm Road,  
Cork. T12 WR89

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Project	Operational Report			
Client	Advanced Environmental Solutions (Ireland) Ltd.			
Report No	Date	Status	Prepared By	Reviewed By
	11/07/2018	Draft	Conor McGrath MSc	Jim O'Callaghan MSc, CEnv, MCIWM, IEMA
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## 1. INTRODUCTION

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Advanced Environmental Solutions (Ireland) Ltd (AES) is one of the largest waste management companies in the Eastern Midlands and Southern Waste Regions. It is part of the Bord na Mona group and operates waste management facilities at Lusk, Navan, Tullamore, Portlaoise, Nenagh and Rosslare.

The AES installation in Nenagh operates under a Waste Licence (Reg. No W0240-01) issued by the Environmental Protection Agency (Agency) which authorises the acceptance of 24,750 tonnes of non-hazardous waste annually. AES is applying to the Agency for a Licence Review to increase the amount of waste it can accept annually to 30,000 tonnes.

This Operational Report has been prepared in support of the licence review application. It describes the site layout, plant, methods, processes, ancillary processes, abatement, recovery and treatment systems, and operating procedures for the activity.

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## 2. OPERATIONS

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### 2.1 Site Layout

The facility encompasses 6,855m<sup>2</sup>. There are two entrances on the southern site boundary. The western one is for waste collection and transport vehicles and civic amenity area, while the eastern one is for customer access to the service support offices. There is a wall and security gates along the southern site boundary, and the wall extends along the eastern boundary, with a wire fence surrounding the western and northern boundaries.

The operational areas include – Main Processing Building (675m<sup>2</sup>), Garage (375m<sup>2</sup>), Administration Buildings (66m<sup>2</sup>), Civic Amenity Area, Quarantine Area, Fuelling Station, Vehicle/Bin Wash, and Weighbridge. There are two portakabin offices, one adjacent to the truck entrance and the second at the south-western corner of the Main Processing Building. The entire site, including the floors of the buildings and the open yard areas, is paved.

### 2.2 Operational Hours

The waste acceptance and operational hours are;

- Waste acceptance – 07:30 to 19.30 Monday to Saturday inclusive.
- Operation of the facility – 07:00 to 20:00 Monday to Saturday inclusive.

The facility does not normally open on Sundays or Public Holidays, but can do so subject to EPA approval.

### 2.3 Services

The facility obtains water from the mains supply provided by Irish Water. Electricity is supplied by a utility company. Rainwater run-off from the paved yards, weighbridge and building roofs is collected and directed through a silt trap and oil interceptor system (capacity 38.75m<sup>3</sup>) in the north-east corner of the site before being discharged to an open drain that starts at the north-east site boundary.

Process wastewater consists of wash water from the Vehicle/Bin Wash areas and small amounts of liquid present in the incoming wastes. The wash water is gravity fed into a 5,000 litre oil interceptor/silt trap located to the east of the Main Processing Building that outfalls to an underground pump sump from where it is pumped via a rising main to the Irish Water foul sewer located outside the site entrance.

The floor of the Main Processing Building is graded to a fall towards a central gully, which collects any liquids arising inside the building. The gully is connected to the oil interceptor located outside the building, which in turn connects to the underground pump sump. Sanitary

wastewater from the office connects to the outfall from the central foul water silt trap/oil interceptor and enters the pump sump.

The sump is fitted with two submersible float activated pumps, one duty and one standby, and the activation switches are in a control panel mounted on the external wall of the Main Processing Building.

## 2.4 Facility Management

### 2.4.1 Management Team

The facility is managed by a suitably qualified and experienced facility manager and all facility personnel are provided with appropriate training and have the requisite qualifications and experience to complete their assigned tasks.

### 2.4.2 Management Programmes

AES has prepared a documented Environmental Management Programme (EMP) which serves as a guidance document for site staff and describes the operational control and management practices that eliminates/minimises the environmental impacts of the facility activities. The EMP is a core element of the facility's ISO 14001 certified Environmental Management System.

AES has prepared and adopted an Accident Prevention Policy (APP) and Emergency Response Procedures (ERP). The APP addresses all potential hazards, with particular reference to the prevention of accidents that may cause damage to the environment. The ERP identifies all potential hazards that may cause damage to the environment and also specifies roles, responsibilities and actions required to deal quickly and efficiently with all foreseeable major incidents and to minimise environmental impacts.

## 2.5 Waste Types & Quantities

### 2.5.1 Current Waste Types and Quantities

The facility is licensed to accept a maximum of the following waste types and quantities, as specified in Schedule A. of the Licence: -

- Household (10,259 tonnes);
- Commercial (12,730);
- Construction & Demolition (1,491 tonnes).

No hazardous or liquid wastes are accepted.

## 2.5.2 Proposed Waste Types and Quantities

AES proposes to increase the amount of waste it accepts and processes from 24,750 tonnes/year to 30,000 tonnes. The existing buildings and ancillary infrastructure have the capacity to accommodate the additional waste volumes. There will be no change to the types of waste accepted.

## 2.6 Waste Acceptance Procedure

All commercial waste deliveries are weighed at the weighbridge and the relevant documentation (e.g. Waste Collection Permits) is checked. Any waste delivery vehicle that does not have the appropriate documentation is not accepted. After the weighbridge the vehicles are directed into the Main Processing Building where the wastes are off loaded and inspected.

## 2.7 Waste Processes

The key processes carried out are: -

- Segregation of recyclable materials (paper, cardboards, plastic, wood, metals, glass);
- Bulking of Municipal Solid Waste (MSW);
- Transfer of recovered and residual materials to appropriately licensed recycling, recovery and disposal outlets.

Any unsuitable materials, for example batteries, are immediately removed to the waste quarantine area, located at the northern side of the Garage where it is stored pending consignment to the producer or an appropriate treatment/disposal facility. AES maintain records of the waste type, quantity, and ultimate disposal/treatment facility.

On the floor of the Main Processing Building the potential recyclables are mechanically segregated using a large track machine with a hydraulic arm into individual waste groups such as dry recyclables, metals, inert (C&D waste) and biodegradable waste. These materials are stored inside the building pending consignment for further treatment/disposal. The mixed municipal solid wastes are bulked up for onward transfer.

## 2.8 Plant and Equipment

The infrastructure on site includes:

- 1 no. weighbridge
- Administration building & welfare facilities
- Maintenance shed
- no grab excavator
- 1 no. skidsteer

- 1 No. Road sweeper
- Bin Wash area
- Foul and stormwater drainage system including interceptors
- Site security fencing and gates

## 2.9 Oil and Chemical Storage and Handling

With the exception of the silt traps/oil interceptors and the wastewater pump sump, there are no underground storage tanks and all oils and chemicals are stored above ground. The types and volumes of materials typically stored on site at any one time are shown in Table 2.1.

**Table 2.1 Oil and Chemical Inventory**

Material	Litres
Diesel	41,000
Green Diesel	1,150
Disinfectant & Detergents	35
Engine Oil	850
Hydraulic Oil	700
Grease	120
Odour Block	75
Ad Blue	850
ATF	70

The diesel for the road vehicles is stored in a 56,000 litre tank in the refuelling station located in the northern section of the site at the rear of the Main Processing Building. The maximum volume of diesel in the tank at any one time is 41,000 litres. The tank is provided with a concrete bund, 110% of the tank's maximum volume. When not in use the dispensing pumps are locked. The bund is subject to regular integrity testing to confirm it remains fit for purpose.

The diesel for the on-site plant is stored in a bunded tank in the Garage. The engine and hydraulic oil are stored in bulk double skinned steel tanks in the Garage, with smaller containers on a bunded pallet also inside Garage. The Ad-blue is stored in an IBC in the Quarantine Area, which is provided with integral spill containment. The odour block is stored on a bund in the Garage. Detergents and disinfectants used in the Vehicle/Bin Wash are stored on a bund in the Garage. Waste oil is stored in a double skinned steel tank in the Garage.



## 2.10 Safety and Hazard Control

Access to the main site is restricted to employees, waste trucks and occasional visitors. Members of the public access the civic amenity area. All staff working at the site are familiar with the contents of the site specific Health and Safety Plan. AES has prepared an Accident Prevention Guide.

Health and safety practices are reviewed on an annual basis to ensure that they are in line with best practice in this sector. Regular safety audits are carried out on-site to ensure the safety of all personnel working there. Vehicular traffic movements within the site are restricted and monitored.

## 2.11 Emissions

Potential and actual emissions associated with the waste activities include, rainwater run-off, sanitary and process wastewater, dust, noise and odours. As referred to above, rainwater run-off from the paved yards, weighbridge and building roof discharges to an open drain that starts at the north-east site boundary. Process wastewater and sanitary wastewater is pumped to the Irish Water foul sewer.

The noise sources include waste offloading, waste handling and vehicle loading. The waste acceptance and processing are potential sources of odours, and vehicle movements are potential sources of dust.

Environmental monitoring is carried out in accordance with Condition 6 and Schedule C of the EPA Licence, which requires the following:

- Noise Quarterly
- Dust Deposition Three times per year
- Storm Water Weekly (Visual Inspection) & Quarterly (Monitoring)
- Tankered effluent Quarterly

The results of the monitoring and the assessment of the impacts are discussed in the following Chapters.

## 2.12 Emergencies

An emergency is an accident/incident that has the potential to result in environmental pollution and harm to human health & safety. The licence requires AES to ensure that a documented Accident Prevention Procedure is in place that addresses the hazards on-site, particularly in relation to the prevention of accidents that have a possible impact on the environment. The licence also requires AES to ensure that an Emergency Response Procedure is in place that addresses any emergency that may originate on-site.

AES has prepared an Accident Prevention Policy (APP) and Emergency Response Procedure (ERP). The APP specified the measures in place to minimise the risk of accidents and the ERP specifies response actions to deal quickly and efficiently with all foreseeable major incidents.

All facility personnel and visitors are obliged to comply with AES's safety guidelines regarding access to and from the facility and on-site traffic movement. All site personnel are provided with and are obliged to wear, personal protective equipment (PPE) appropriate for their particular functions. PPE includes facemasks, gloves, safety glasses, steel-toed footwear, overalls, reflective jackets and helmets.

In the event of a breakdown of equipment or any other occurrence which results in the closure of the facility, any waste arriving at or already present will be transferred directly to an appropriate waste management facility until such time as the Springfort Cross facility is returned to operational status.

### 2.13 Waste Generation

The wastes generated by site activities include sanitary wastewater; process wastewater and; small amounts of waste oils/ filters and batteries from emergency on-site plant and vehicle maintenance, and office and canteen waste. Waste oils and batteries are removed off-site for disposal/recovery at licensed treatment/recovery facilities. Office and canteen waste are sent to off-site treatment/disposal facilities.

### 2.14 Nuisance Control

Vermin and insects can potentially be a nuisance at waste management facilities. At the facility, all operations are carried out within a dedicated building. As a precautionary measure, AES retain a vermin control specialist to implement vermin control measures on site. The facility is regularly inspected and the required measures are taken if evidence of vermin is found on site. Regular litter patrols of the site perimeter are also undertaken.