

## **Attachment C.1: Site Management**

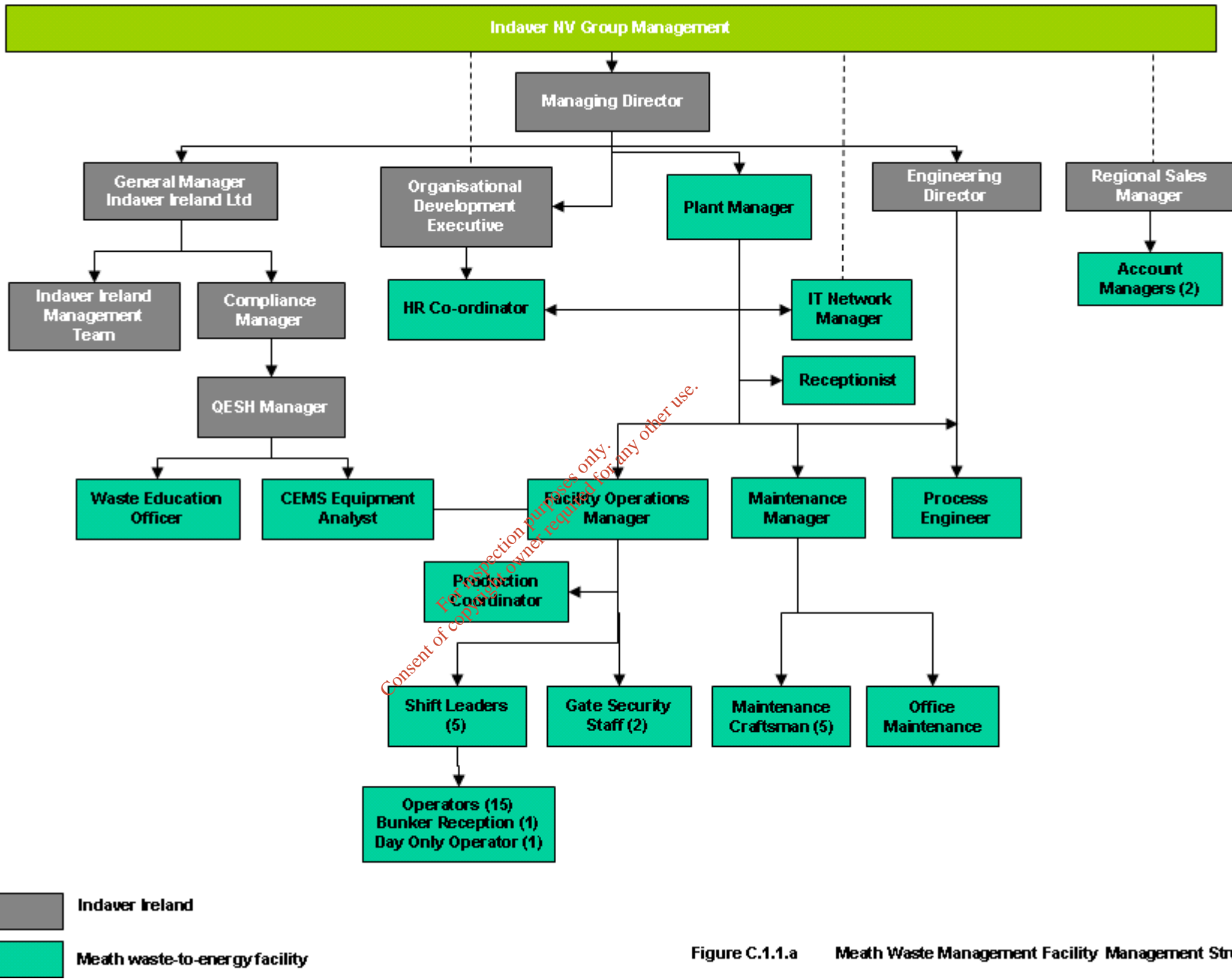
### ***C.1.1 Management structure***

Indaver Ireland will manage the Meath Waste Management Facility through its existing senior management structure with both existing and dedicated staff as shown in Figure C.1.1.a.

Specific responsibility to co-ordinate the environmental management programme will be assigned to the Compliance Manager in conjunction with the Plant Manager.

All managers, including team leaders, will also be actively involved in the implementation of the environmental management programme. Every manager and staff member in the organisation will be expected and required to accept responsibility for the protection of the environment and ensuring the safety of the area within his/her care. Responsibilities for environmental objectives and targets are clearly defined in the QESH Manual, the Indaver Improvement Plan and in all operational procedures (refer to Attachment C.2 below).

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Indaver Ireland  
 Meath waste-to-energy facility

Figure C.1.1.a Meath Waste Management Facility Management Structure

## C.1.2 Responsibilities, qualifications and training

### C.1.2.a Indaver Ireland Management

The key management roles at Indaver Ireland overseeing the facility's operations are outlined in Table C.1.a below.

Table C.1.a: Indaver Ireland Management

Name	Position	Duties and Responsibilities	Experience /Qualifications
John Ahern	Managing Director	The Managing Director is responsible for ensuring, in so far as is reasonably practicable, that personnel planning, and investment are adequate to meet the commitments of the QESH policies and the QESH management system, and to ensure, in so far as is reasonably practicable, adherence to the duties laid out in Section 8 of the Safety, Health and Welfare at Work Act 2005. He issues clear written guidance to each management team leader giving a description of their team member's responsibilities and targets for the year and ensure that adequate resources are available for the management, performance of work and verification activities.	John Ahern has a degree in chemical engineering from University College Dublin. Since 1995 John has worked in the waste industry, as managing director of MinChem and then of Indaver Ireland. During this time he has lead a team of professionals who have obtained planning permission for a hazardous waste transfer station, a hazardous waste solvent recovery facility, a non-hazardous waste incinerator and a hazardous waste incinerator. All of these facilities have also required an EIS.
Patricia Boyle	General Manager	The general manager has overall responsibility for all Indaver Ireland operations.	Patricia has a degree in chemical engineering also from University College Dublin. Patricia has 9 years experience in the waste industry with Indaver and has managed the quality, environmental and health & safety systems in Indaver since 1999 before taking on her duties as General Manager in 2007. Patricia is also director of Indaver Ireland Limited.

Ruth Robertson	Compliance Manager	The compliance manager of Indaver Ireland has a national responsibility for implementing and ensuring compliance with Waste / IPC Licences, the ISO9002 Quality Standard, the ISO 14001 Environmental Standard and the OSHAS 18001 Safety Standard. They will hold responsibility for all health and safety aspects of the Meath Waste to Energy facility, in conjunction with the Health and Safety Officer and the Meath QESH coordinator. This function reports to the general manager.	Ruth has a degree in environmental health, a masters environmental engineering and a diploma occupational health and safety. Ruth has 10 years experience in a compliance based EH&S role.
Conor Jones	Engineering Director	The engineering director is responsible for the development of all capital infrastructure projects in Ireland. Process improvements at the Meath waste to energy plant will also be a specific responsibility by close co-operation with the Plant Managers team.	Conor has a degree in Chemical Engineering from University College Dublin and has 10 years experience in the waste industry. Conor has been involved in the development of Indaver's incineration projects in Ireland since 2001.
Jackie Keaney	Commercial & Communications Director	The commercial director has responsibility for the development of sales activities in the Irish region for municipal solid waste for the Carranstown facility.	Jackie has a Masters Degree in Environmental Science from Trinity College in Dublin and has been working with Indaver since 1998. Jackie has worked on the planning, policy, environmental and communications aspects of the infrastructure projects for the past eight years.
Jenny Keenan	Organisational Development Executive	The OD Executive manages and develops HR procedures, company performance management systems, coordinates and plans training programmes, and administers training management systems amongst other things.	Jenny has a Masters degree in Occupational Psychology from Liverpool John Moores University. Jenny has worked for Indaver Ireland for 2 years in her role as OD Executive.

### **C.1.2.b Meath facility management**

When completed and fully operational, the Meath facility will employ approximately 50 permanent personnel. The plant operators will work in three 8-hour shifts. Staffing levels will ensure that the environmental performance of the facility is maintained and that the facility is continuously manned and operational 24 hours per day.

Initially, senior managerial staff will be sourced from experienced personnel either in Belgium or Ireland. Other staff will be recruited locally prior to start-up. The duties of key personnel at the Meath facility are outlined in Table C.1.b below.

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**Table C.1.b: Meath Facility Management**

Position	Duties and Responsibilities	Experience /Qualifications
Plant manager	<p>The plant manager will be the management representative with overall responsibility for the operation of the facility and will ensure the whole facility is run efficiently, safely and within all licence requirements. Specific responsibilities will include:</p> <ul style="list-style-type: none"> <li>• Ensuring the acceptance and processing of waste at the facility is carried out in accordance with environmental procedures and operating licence requirements.</li> <li>• Ensuring emissions from the facility are within the limits required by relevant legislation and the operating licence.</li> <li>• Monitoring compliance with the regulations covering the transport of waste.</li> <li>• Ensuring any incident or accident onsite is dealt with appropriately, including any reporting requirements.</li> <li>• Planning and implementing actions that lead to a continuous improvement of the installations.</li> <li>• Giving leadership and motivation to the teams.</li> <li>• Communication with unions, local authorities and local residents.</li> <li>• Ensuring the profitability of the facility and supported by the financial team.</li> </ul>	<p>The plant manager will have an engineering degree or similar qualification with a minimum 10 years management experience in a large industrial facility.</p> <p>Thorough knowledge of and wide experience in the process industry is required. In depth knowledge (theoretical and practical) of the chemical, physical and technical principles behind the installation. Good communication skills.</p> <p>The plant manager will receive training in Indaver's facilities in Belgium, which have similar operations to that proposed for the Meath facility.</p> <p>The plant manager will fulfil the role of Facility Manager for the first 2 years of operation of the plant.</p>
Facility Operations Manager	<p>Management, coordination, follow up and supervision of all the production activities in order to meet the production objectives. Consultation with the Process Engineers and the Maintenance Manager of the site will take place in order to have a safe, effective and efficient operations.</p> <p>The thermal treatment production objectives are defined by the plant manager.</p>	<p>The holder of this position will have an engineering degree with minimum 7 years of experience in a managerial role in a production or similar role.</p> <p>Very thorough and in depth knowledge of the processes of chemical installations, and the</p>

	<p>Activities connected with these duties and responsibilities can be divided into the following fields :</p> <ul style="list-style-type: none"> <li>- safety (developing and monitoring – supported by the QESH team)</li> <li>- environment (compliance with licence requirements – supported by the QESH team)</li> <li>- personnel (leadership)</li> <li>- production</li> <li>- quality (initiating and implementing - supported by the QESH team)</li> </ul>	<p>chemical, physical and technical principles behind the installations.</p> <p>Strong managerial skills required for team Leadership.</p> <p>The Operations Manager will fulfil the role of Deputy Facility Manager, but after the first 2 of years of operation will take over the role of Facility Manager.</p>
Production Co-ordinator	<p>Coordination and optimisation of the day-to-day production and maintenance activities; coordination of the day-to-day management of ROX and ash handling, in close cooperation with the production and maintenance personnel and with regard to safety, environment and quality rules. This involves:</p> <ul style="list-style-type: none"> <li>• following up and controlling the quality of the end products;</li> <li>• framing and developing proposals for continuous improvement in order to meet the INDAVER objectives with regard to safety, the environment and quality;</li> <li>• following up the production settings and reporting production data and controlling raw materials;</li> <li>• managing and keeping up to date the procedures and instructions;</li> <li>• liaising with maintenance;</li> <li>• co-ordination of the use of shared services and contractors.</li> </ul>	<p>The Production Co-ordinator will fill the role of Deputy Facility Manager after the first two years of operation.</p>

<p>Process Engineer</p>	<p>The purpose of this function is analysing and studying the processes and techniques of all the installations on the site, along with the peripheral utilities, in order to gain deeper insight and knowledge to be able to assist the operations manager to meet the operational objectives.</p> <ul style="list-style-type: none"> <li>- safety: advice on procedures/installations to ensure safe processing of new waste products</li> <li>- environment: analysing the parts of the installation that control the environmental parameters and drawing up proposals for optimisation</li> <li>- quality: drawing up and correcting procedures to ensure and continuously improve the quality of the processing facilities</li> </ul> <p>In addition, a conceptual preliminary study will be carried out of the improvement projects and of the strategic growth projects for the installations.</p>	<p>The engineer will be educated to a minimum of diploma or degree level in mechanical or process engineering.</p> <p>Advanced analytical abilities needed to acquire in-depth insight into complex processing processes. A high level of creativity to develop improvements and innovations.</p> <p>The process engineer will receive training in Indaver's facilities in Belgium, which have similar operations to that proposed for the Meath facility.</p>
<p>Maintenance Manager</p>	<p>The holder of this position is responsible for structuring, managing and optimising of the maintenance cycle for the assigned installations of the site with a view to maximising the availability of the installations.</p> <p>This relates to the following main domains:</p> <ul style="list-style-type: none"> <li>- curative maintenance</li> <li>- preventive and predictive maintenance and technical safety management</li> <li>- shutdown maintenance and servicing</li> <li>- developing maintenance expertise</li> </ul>	<p>Industrial engineer with at least 7 years of experience in a maintenance environment. Good knowledge of the structure and the process of productions facilities. In depth knowledge of the technical equipment and the maintenance techniques, knowledge of civil engineering work, electricity and instrumentation. Analytical and problem solving capabilities.</p>



### **C.1.2.c Employee training**

Indaver Ireland staff will be prepared for every stage of construction, commissioning and operation of the facility. Training will be managed by means of the Training and Staff Competence Procedure, an example of which is provided in Appendix C1.

Key operations staff will be recruited prior to the commissioning of the Meath Waste Management Facility. They will undergo extensive training by experienced personnel at a comparable waste-to-energy plant operated by Indaver in Belgium.

In addition, all plant personnel will undergo training in co-operation with the waste-to-energy plant manufacturer and equipment designers and suppliers. The contractors will also be involved in the commissioning and testing of the plant and will contribute to the smooth start up and running of the plant. As part of the contractual agreement, representatives from the contractor will be required to remain on-site until the facility has been fully commissioned and are required to be on call for 24 months after commissioning. This will enable the operators to become familiar with the equipment and train directly with the equipment's design engineers.

In addition, the contractor will have remote read only access to the plants central control system. Hence, operational difficulties may be resolved instantly with the contractor even after they are no longer required to be present on site.

### **C.1.2.d Environmental Awareness**

Awareness of the environment is instilled in all staff by means of the ISO 14001 Quality Standard including. Dedicated environmental awareness training will be carried out at all levels and will aim to develop in staff an understanding of:

- induction training, environmental management notice boards and environmental posters
- the key elements of ISO 14001 and the operating licence
- waste handling
- emergency response
- environmental auditing
- waste legislation
- safety issues
- the impacts that the company's activities could have on the environment.

All awareness training will be logged in the training record of the staff member.

### **C.1.2.e Quality Control**

The company's quality control system is managed through a single quality, environmental and health & safety management system, which is described in Attachment C.2.

### **C.1.3 Management Structure Modifications**

The principle modifications to the management structure approved in Waste Licence 167-1 are detailed in Table C.1.c below.

**Table C.1.c: Modifications to Management Structure**

<b>Aspect</b>	<b>Difference</b>
Organisational structure	Due to the expansion of the company, the organisational structure of Indaver Ireland has changed since the application for WL167-1 as shown in Figure C.1.1.a.
Names of key personnel	Due to the passing of time, personnel previously mentioned in positions for WL167-1 have been updated in this application.

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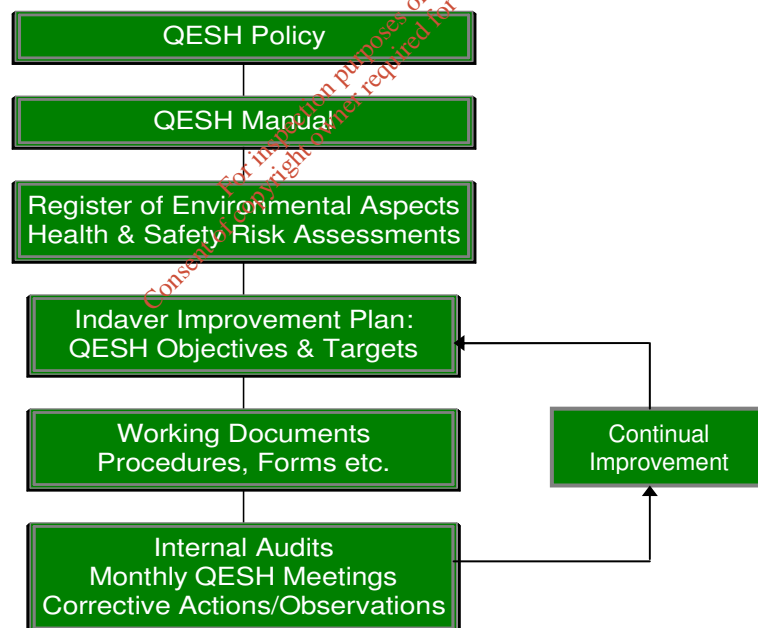
## Attachment C.2: Environmental Management Systems

### C.2.1 *Indaver's quality and environmental management policies*

Indaver Ireland conducts all its activities in accordance with its quality, environmental and health & safety (QESH) management system. The activities in the Meath waste management facility will be operated in accordance with this management system and the scope of the accreditations will be extended to incorporate this facility.

This system is computerised and can be accessed by all employees. It is accredited to the quality standard ISO 9001, the environmental standard ISO 14001 and the safety standard OHSAS 18001. The achievement of these accreditations demonstrates the company's commitment to conducting its activities in such a manner as to minimise or eliminate any potential adverse effects on the environment or on the health & safety of anyone who may be affected by the company's activities. Copies of the accreditation certificates for one of Indaver's existing facilities in Ireland is provided in Appendix C2.

The structure of the QESH management system is shown in Figure C.2.1.a below. To maintain and administer the QESH system and accreditation with ISO standards, Indaver Ireland has a dedicated Quality, Environmental, Safety and Health (QESH) department.



**Figure C.2.1.a: Structure of QESH Management System**

The QESH policy is the top-level document of the management systems and it defines Indaver's overall aims and objectives. A copy of Indaver's QESH policy is included in Appendix C3.

The Register of Environmental Aspects and the Health & Safety Risk Assessments review each of Indaver's activities in detail and identify any aspects that could pose an environmental or health & safety risk.

Any aspects deemed significant are detailed in the Indaver Improvement Plan. This document details the company's objectives and targets for the improvement of control over these aspects. Control can take many different forms, such as introducing additional safety equipment, conducting staff training or introducing a new operating procedure.

Indaver have over 130 operational procedures in place covering all aspects of its activities in Ireland. These procedures outline the important quality, environmental, health & safety issues in each area of operation and help to ensure compliance with relevant legislation as well as existing licences and permits. An index of Indaver's QESH management system procedures is provided in Appendix C4.

Internal and external audits are conducted to monitor the effectiveness of the QESH management systems. Audits are conducted internally against all procedures and an external accreditation body also audits the company every 6 months.

Issues raised as a result of these audits are dealt with through corrective actions and observations. This ensures that the company systems and operations are continually improved.

### **C.2.2 Environmental Management Modifications**

There are no modifications to the environmental management systems approved in Waste Licence 167-1.

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## Attachment C.3: Hours of Operation

### C.3.1: Hours of Operation

In line with Planning Permission PL17.219721, the facility will accept waste between 0800 and 1830 Monday to Friday inclusive and between 0800 and 1400 on Saturdays.

The waste-to-energy plant will operate 24 hours a day for, on average, 7,500 hours/annum, depending on the average calorific value of the waste. For example, a lower quantity of high calorific waste would be required to maintain the temperature of the furnace at a minimum of 850 °C. Under such circumstances the facility processes less waste per hour and may only reach the full 200,000 tpa capacity of the plant within, for example, 8,000 hours of operation.

Annual operating hours are also affected by planned and unplanned shutdowns. The capacity of the waste bunker will allow the acceptance of waste during shut downs for up to one week. From experience of operating similar plants in Belgium, non-scheduled events typically require a maximum shutdown of one-week per year. A scheduled shutdown for maintenance takes place once a year and is typically longer than one week, but less than three weeks. As these shutdowns are scheduled, it is possible to organise an alternative outlet for the waste, for example, another waste-to-energy plant or a landfill facility.

In line with planning permission PL 17.219721, site construction works will be confined to between 0700 and 1900, Monday to Saturday inclusive. No works will take place outside these hours or on Sundays or Bank or Public holidays unless otherwise agreed in writing with the planning authority.

### C.3.2 Hours of Operation Modifications

The principle modifications to the hours of operation approved in Waste Licence 167-1 are detailed in Table C.3.1 below.

**Table C.3.1: Modifications to hours of operation**

Aspect	Difference
Shutdown periods	Removal of reference to staggering shutdown periods as the facility now has only one incineration line
Hours of Construction	Hours for construction have been included in line with planning permission PL 17.219721