18. SITE MANAGEMENT AND CONTROL

18.1 General

This chapter describes the management structure, which will be in place at the Ringaskiddy waste management facility. Job descriptions, responsibilities, qualifications and training for the key personnel are described and a chart of the management organisation is provided. Employee training in general activities and in environmental awareness and Indaver's quality, environmental, health and safety management policies, which will be implemented at the facility, are described. The calibration and maintenance system is outlined. The provision, which will be put in place, at the facility for on-going assessment of the environmental performance and the waste control systems are described.

18.2 Job Descriptions, Responsibilities, Qualifications and Training for the Key Personnel

18.2.1 Indaver Ireland Management

The key management roles at Indaver Ireland are described below:

Indaver Ireland General Manager

The current general manager of Indaver Ireland is John Ahern.

John Ahern has a degree in chemical engineering. He worked in the gas industry for over 15 years where he gained experience in operations, sales and marketing activities, before joining MinChem as managing director in 1995. He is general manager of Indaver Ireland. The general manager has overall responsibility for all Indaver Ireland operations, including the Ringaskiddy Waste Management Facility.

Indaver Ireland Operations Manager

The operations manager of Indaver Ireland reports to the general manager. The current operations manager is Laura Burke.

Laura Burke has an honours degree in chemical engineering and previous experience in the sales of process equipment to the pharmaceutical and chemical industries in Ireland. Laura joined MinChem in 1995 and has been responsible for operation of the hazardous waste collection business and the construction of the MinChem Waste Transfer Station at Dublin Port. Laura is now responsible for design, planning and licensing applications and project communication with the regulatory authorities, local authorities, the media and local interest groups. Laura will be responsible for the construction and subsequent operation of the Ringaskiddy Waste Management Facility.

Indaver Ireland Compliance Manager

The compliance manager of Indaver Ireland reports to the general manager. The current compliance manager is Thomas Millar.

Thomas Millar has seven years experience in the hazardous waste industry with MinChem. He is responsible for the implementation of, and compliance of all MinChem and Indaver operations with, ISO 9002, ISO 14001, OHSAS 18001 and the movement of waste regulations. He is a fully trained quality and environmental auditor and a qualified trainer. Thomas will be responsible for compliance with all aspects of the operating licence and with ISO 9002, ISO 14001 and OHSAS 18001 for the Ringaskiddy facility.

Indaver Ireland QESH Manager (Quality, Environmental, Safety and Health)

The QESH manager reports to the compliance manager. The current QESH manager is Patricia McGrath.

Patricia McGrath has a degree in chemical engineering. Patricia has managed the quality and environmental systems in MinChem since 1998. In addition she has managed the waste licence for MinChem's waste transfer station in Dublin Port. She will have a national responsibility for implementing and ensuring compliance with:

- Waste / IPC Licence
- ISO 9002 Quality Standard
- ISO 14001 Environmental Standard
- OSHAS 18001 Safety Standard.

Patricia will also hold responsibility for all health and safety aspects of the Ringaskiddy facility, in conjunction with the Ringaskiddy QESH coordinator.

18.2.2 Ringaskiddy Facility Management

When completed and fully operational, the Ringaskiddy facility will employ in excess of 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.

Plant Manager

The plant manager of the Ringaskiddy Waste Management Facility will report to the Indaver Ireland operations manager.

The plant manager will have overall responsibility to ensure that the each component of the facility is run in an efficient and safe manner and in compliance with all regulatory requirements. The plant manager will have an engineering or similar qualification with previous experience in operating a large waste facility. The plant manager will receive training in Indaver's facilities in Belgium, which have similar operations to that proposed for Ringaskiddy.

Waste to Energy Plant Process Supervisors

Each shift will be lead by a process supervisor who will report to the plant manager. The responsibilities of the process supervisors will be to manage the operation of the plant in conjunction with 3 shift workers. The process supervisors will have experience in similar industry and will be educated to a minimum of Leaving Certificate standard. The process supervisors will receive training in Indaver's facilities in Belgium, which have similar operations to that proposed for Ringaskiddy.

Process Engineers

There will be up to 3 process engineers who will report to the plant manager. The responsibilities of the plant engineers will be to manage the maintenance of the plant. The plant engineers will have a team of four maintenance craftsmen. In addition, the engineers will be responsible for project work and minor process or plant improvements and modifications. The engineers will be educated to a minimum of diploma or degree level in mechanical or process engineering. The process engineers will receive training in Indaver's facilities in Belgium, which have similar operations to that proposed for Ringaskiddy.

Waste Transfer Station Manager

The manager of the waste transfer station will report to the Indaver Ireland operations manager. The manager of the waste transfer station will also be responsible for the operations of the Community Recycle Park. The waste transfer station manager will receive relevant training in the operations of the waste transfer station, including a training period at the MinChem waste transfer station in Dublin Port.

Ringaskiddy QESH Coordinator

The Ringaskiddy QESH co-ordinator will be located on site in Ringaskiddy but will report to the Indaver Ireland QESH Manager. The QESH coordinator will be responsible for compliance with the requirements of the operating licence, and the quality, safety and health systems.

Operations Staff and Maintenance Craftsmen

The operations staff will be responsible for routine maintenance and inspections, maintenance budget planning, procurement of services and materials, managing and supervising repairs and overhauls.

Major machinery repairs and plant overhauls such as shutdown, replacing brick liners etc., which cannot be done by the operations staff will be subcontracted out to either local contractors or to the plant's equipment suppliers. On such occasions the hiring of special expertise or specialised equipment will be required.

18.2.3 Environmental responsibilities of key personnel

All managers, including team leaders, will 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 environment of the area within his or her care. Responsibility for environmental objectives and targets will be clearly defined in the Schedule of Environmental Objectives and Targets refer to section 18.6 below.

Specific responsibility to coordinate the environmental management programme will be assigned to the QESH Manager in conjunction with the Plant Manager.

Plant Manager

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. The plant manager's specific responsibilities will be:

- Ensuring that the acceptance and processing of waste at the facility is carried out in accordance with environmental procedures and the operating licence requirements,
- ensuring that the emissions from the facility are within the limits required by relevant legislation and the operating licence
- monitoring compliance with the regulations covering the transport of waste
- ensuring any incidents or accidents onsite are dealt with appropriately, including any requirements for notification of statutory authorities.

QESH Manager

The QESH manager will be the management representative with responsibility for ensuring that the requirements of ISO 14001 and conditions of the operating licence are implemented and maintained. The main duties and responsibilities of the QESH Manager will be as follows:

- Dealing with all communications between the company and the accreditation body,

- ensuring that each department's responsibility for environmental probity is suitably documented,
- ensuring that adequate records are maintained for demonstration of conformance with environmental requirements,
- ensuring that internal audits of the Environmental Management System (EMS) are carried out to ensure continued adherence to documented requirements,
- monitoring non-conformances within the EMS,
- ensuring that adequate resources are available to maintain the EMS at its required level
- ensuring that queries and communications in matters relating to the environment are dealt with promptly and adequately,
- maintaining a library of environmental literature and documentation,
- assisting in internal dissemination of environmental information,
- reporting of environmental performance to the managing director/general manager and senior management team,
- compiling, distributing, amending and maintaining the Environmental Manual, i.e. the manual of standard environmental operating procedures
- maintaining the master copy of the EMS documentation and the minutes of the meetings held to review the objectives and targets of the EMS,
- maintaining the Environmental Complaints Register, that is the register of complaints received from third parties concerning operations of Indaver facilities
- coordinating and administering the environmental non compliance system,
- maintaining copies of environmental procedures and records for 7 years.

18.2.4 Management structure

The proposed management structure of Indaver Ireland and the Ringaskiddy Waste Management Facility is shown in figure 18.1.

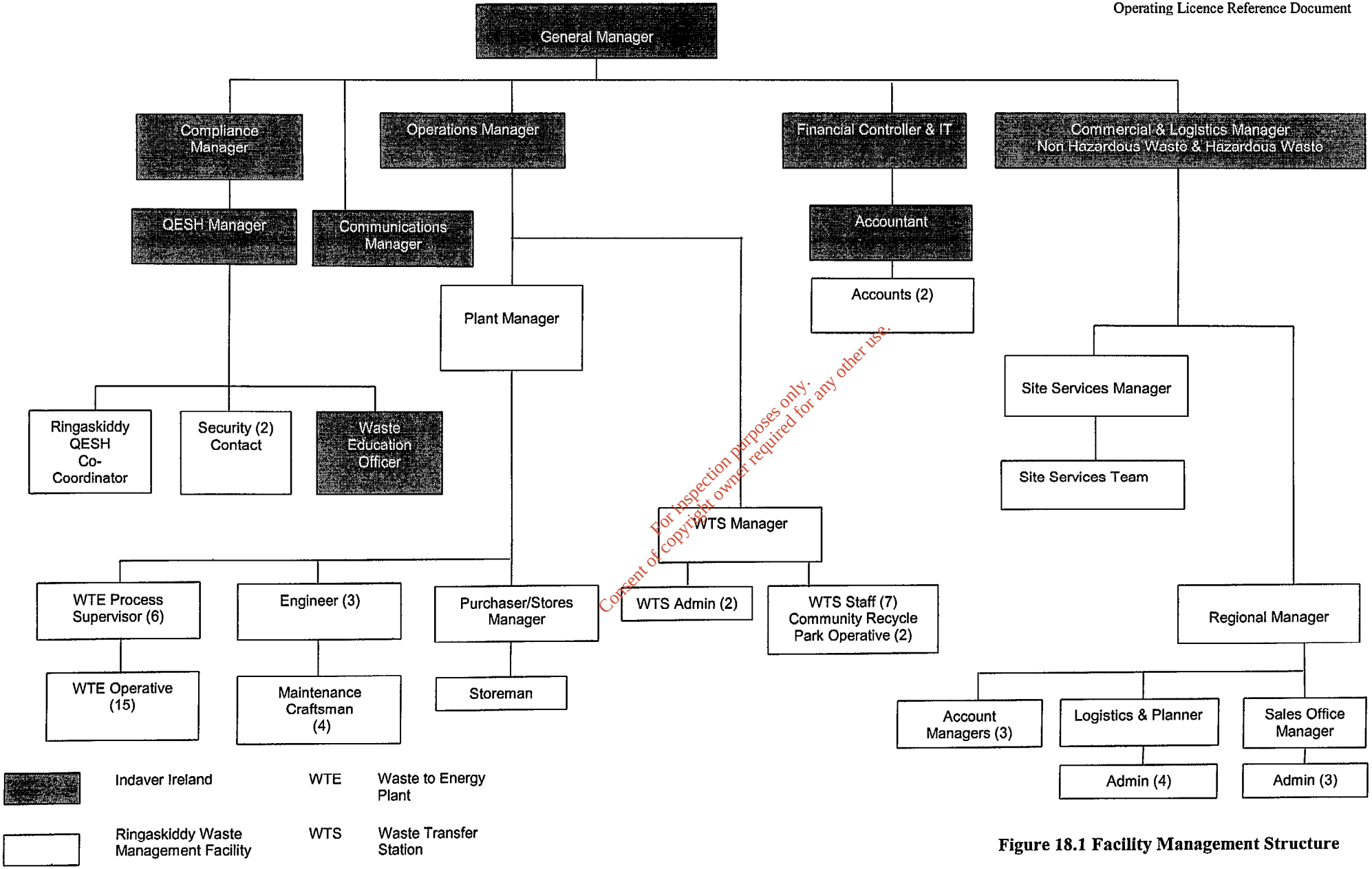


Figure 18.1 Facility Management Structure

18.3 Employee training

Key staff will be recruited prior to the commissioning of the Ringaskiddy Waste Management Facility. They will be trained at comparable existing Indaver plants. Training will also be carried out in cooperation with equipment designers and suppliers. Thus, the operators will be able to familiarise themselves with the equipment and learn first hand from the equipment design engineers. They will be involved in the commissioning and testing of the plant and will also contribute to the smooth start up and running of the plant.

The final training programme for the Indaver Ireland personnel will include training in technical and operating procedures and will take into account the previous experience and capabilities of the staff. The final training programme will be undertaken by the equipment turnkey contractors and their suppliers and Indaver Ireland.

Through careful preparation and training, Indaver Ireland staff will be prepared for every stage of construction, commissioning and operation of the facility. Initial and ongoing training of staff will be managed by means of the Training and Staff Competence Procedure and training matrix, which will form part of the Quality System.

18.4 Environmental Awareness

Extensive environmental awareness training will be carried out at senior management, middle management, supervisor and operator levels. Environmental awareness training will include an understanding of the key elements of ISO 14001 and of the requirements of the operating licence and an appreciation of the impacts, which the company could have on the environment. All awareness training will be logged in the training record of the staff member.

Awareness of the environment will also be instilled in company personnel by means of induction training, environmental management notice boards and environmental posters.

The environmental training to be undertaken by Ringaskiddy facility personnel will include the following:

- ISO 14001 and Environmental Awareness
- Waste Handling
- Emergency Response
- Environmental Auditing
- Waste Legislation
- Safety Training.

18.5 Calibration and Maintenance System

The maintenance program for the Ringaskiddy facility will be based on the system in use at Indaver's hazardous waste incineration facility in Antwerp, Belgium, but tailored to suit the particular needs and equipment on-site at the Ringaskiddy plant.

The maintenance programme in Antwerp is part of Indaver's software operating system. The operating system integrates different management aspects into the one system, e.g., finance, materials management, sales, quality management. The main features of the system are as follows:

- The maintenance programme assigns a unique identity number to each item of equipment when it is installed.

- A maintenance schedule is built up and can be programmed to run automatically. All maintenance orders are recorded.
- The programme has an automatic scheduler, which generates a list of maintenance or replacement tasks to be undertaken each week. For example, calibration and inspection tours are generated automatically by the system. The list contains work instructions designating the equipment, the maintenance task etc.
- The programme has controlled access at different levels. Generally 'read' authorisation is available but 'write' authorisation is limited to designated personnel.
- When a task is completed the maintenance staff notify the relevant process supervisor who verifies that the job is complete and signs off on it. This verification is then passed back to the appropriate group in the maintenance department, who are then able to indicate that the job is "technically completed". The programme updates the status of the item and the next due maintenance date is generated. The introduction of this aspect of the programme is ongoing.
- The programme automatically updates the inventory of spare parts and signals which items are out of stock. Indaver staff can then order the items as required. Parts are ordered according to the lead times for replacement and their level of importance to plant operation. All maintenance work carried out is linked back to the appropriate cost centre, so the performance trend of individual plant items can be monitored.

Standard maintenance checks are currently carried out at the Antwerp site on a weekly basis. The tasks are assigned to the maintenance operatives through the maintenance programme in the operating system. The types of checks carried out on a weekly basis are as follows:

- visual checks on plant and equipment
- visual checks on the most important pump gasket seals
- greasing of plant and equipment
- pressure and temperature checks on equipment
- discussions with plant operators to identify any problem areas.

Other maintenance tasks are executed less frequently such as:

- monthly checking of the circuitry of the electrical equipment
- 6-monthly pump overhaul (on the most important pumps). The frequency of this action could change depending on operating experience.
- 6-monthly checks on certain PLC controllers for plant operation
- annual maintenance of PLC systems for entire plant
- annual maintenance of safety instrumentation such as LEL detection
- annual corrosion detection on process pipe work using a hand-held ultrasonic device.

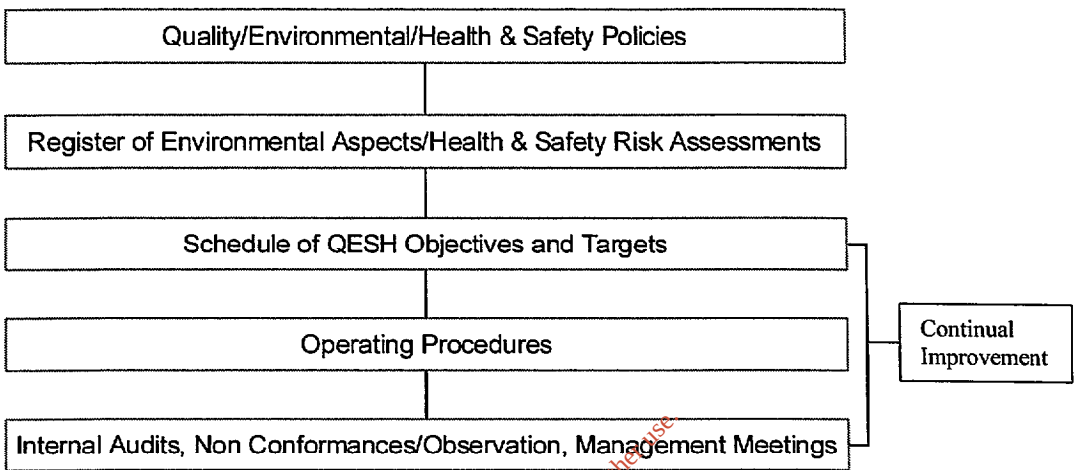
18.6 Indaver's Quality and Environmental Management Policies

Indaver Ireland and MinChem Environmental Services have received accreditation to the Quality Standard ISO 9002, the Environmental Standard ISO 14001 and the Occupational Health and Safety Assessment Series OHSAS 18001. A combined quality, environmental and health and safety management system will be developed for the Ringaskiddy facility, which will be very similar to the system in operation at the MinChem Waste Transfer Station at Dublin Port. The Ringaskiddy facility will seek accreditation to these standards also.

The main elements of the management systems are described below. The basic structure of the systems is shown diagrammatically:

The main elements of the management system are described below. The basic structure of the system is shown diagrammatically:

QESH Management System



Policies

The Quality, Environmental and Health and Safety policies are the top-level documents of each standard and they define MinChem and Indaver's policies and overall aims with respect to the provision of a quality service to customers, the provision of a quality workplace to employees, the control over the environmental and health and safety impacts of its activities respectively.

Register of Environmental Aspects, Health and Safety Risk Assessments

Below these are the Register of Environmental Aspects, which identifies MinChem and Indaver's environmental aspects (that is, the elements of activities that can interact with the environment) and the Health and Safety Risk Assessments which review the health & safety hazards associated with MinChem and Indaver's activities and identifies where controls are required.

Schedule of QESH Objectives and Targets

Once identified, these environmental aspects and health and safety hazards are controlled via the Schedule of QESH (Quality, Environmental, Safety and Health) Objectives and Targets, which details MinChem and Indaver's objectives, targets for achieving those objectives and specific actions being undertaken to achieve these targets.

Operating Procedures

MinChem and Indaver have put in place operational procedures covering all aspects of the different activities. The purpose of these procedures is to ensure that both MinChem and Indaver:

- maintain control over the environmental, quality and safety aspects of its activities
- meet the aims laid down in the Environmental, Quality and Health & Safety Policies
- remain compliant with all relevant operating licences, permits and legislative requirements.

Computerised QESH System

In March 2001, a computerised system was launched to manage the Quality, Environmental and Health & Safety management systems. This system has provided desktop access to all employees to procedures and controlled documents and has enhanced the ease with which we manage our QESH systems and has provided employees with the opportunity to suggest improvements to the system.

18.7 Provision for On-going Assessment of Environmental Performance

Monitoring of the effectiveness of the management systems is achieved through internal audits of the implementation of the operating procedures.

Audits are carried out as per a monthly audit schedule. Internal auditors are fully trained and independent of the area being audited. Issues raised as a result of these audits are dealt with through non-conformances and observations and are raised at management meetings and at reviews of the QESH objectives and targets.

18.8 Waste Control Systems

The waste arising from the operations on site will be controlled as part of the QESH management system described above. Operating procedures will be implemented for the handling and storage of wastes on site, and for the auditing of the waste contractors and the off-site waste recovery or disposal facilities.

The Schedule of QESH Objectives and Targets will include objectives and targets relating to waste issues. Targets will be set in relation to minimising the quantities of waste arising from the operations and in identifying reuse and recycling options for different waste streams. The targets will cover all aspects of the facility's operations.

The progress towards the waste control targets and the waste control procedures will be audited and reviewed as part of the regular audits and management reviews of the QESH management system.