

## Appendix C3 3a – Technical Standards

Due to the nature of the plant and the processes planned on being operated on this site, there are no detailed technical standards available. However, guidance note EPR 4.03 for the Inorganic Chemical Sector has been used as a baseline guide. The company has been manufacturing various chemical salts for numerous years and has a wealth of experience when running chemical plants. The company's Quality Assurance System is ISO 9001 accredited, but due to other customer requirements, the system is far more detailed than the ISO standard requires. As a requirement for the water industry, the company will be transitioning to ISO 9001:2015 accreditation in the coming months for this site. The site also has ISO14001:2015 accreditation, obtained in 2017. The new processes proposed in this variation, is to enable the eventual move from the Titan Works Site (DP3637SG), but also as an attempt to reduce the impact of company's fleet of lorries. Currently all of Process 5 & Process 6 product is delivered from the Runcorn facility in Cheshire. However, the majority of the water sites that use this product are located in either the South of England or the South-East. In constructing & operating processes closer to the customer, there will be a healthy reduction in the volume of fuel used by the fleet (reduction in CO2 emissions) and also as the power facility next door will be a DAA to the site & its processes, the steam, hot & chilled water, there will also be less demand for boilers to be in operation on site, which then reduces the energy demand from the national grid. The company's safety system is also in use at the site and will in the next few years go over to ISO45001:2018 (replacing the OHAS 18001).

### Operations and maintenance:

The relevant operational and maintenance systems for this installation are detailed in our QA System (ISO 9001.2008 soon to be ISO9001:2015) manual which is combined with our Environmental System (ISO 14001.2015) and Safety System (OHSAS 18001 soon to be ISO45001) manuals to form a seamless document, linking all of the management systems. This is a voluminous document, which may be inspected on request by any of the statutory consultees during normal working hours.

The company also operates an electronic maintenance system, which all staff have access to and it provides the ability track repairs & maintenance issue (if necessary)

### Competence and Training:

Full training, at all levels, in the safe operation of plant and/or equipment and/or procedures, personal and plant hygiene, "statutory obligations" (including the contents and meanings of PPC /EP permits) and incident control is provided during the early days of employment.

It is Company policy that all personnel are, when trained, fully conversant with all relevant aspects of production, process control, quality control and the health, safety and the environmental implications of their duties.

The formal training of newly recruited personnel is divided into two parts, firstly an Induction Course covering Company Structure, Welfare, Administration, Health, Safety and Environmental matters and Statutory Obligations. This training is carried out by the Health and Safety Manager or his deputy and is recorded on an Induction Training Record Sheet that is retained in the employee's personnel record file.

Job-specific training by appropriate skilled personnel, under the aegis of the head of department, follows induction training. Job-specific and sponsored vocational training is recorded in a training matrix that is retained, and maintained, by the head of department or site manager, who is also responsible for performance monitoring and ongoing training need assessments.

Only fully trained personnel are allowed to work without proper supervision. Plant operators are not allowed to work without supervision until their Shift Foreman is satisfied that they are competent and, similarly, any laboratory staff are not allowed to work without supervision until both the Laboratory Manager and the Chief Chemist are satisfied as to their competence.

#### "Key post" Skills and Competencies:

It is the responsibility of key personnel (those responsible for "decision making" and/or evaluating the skills and competencies of others) to ensure that their own skills and competencies are adequate. It is the nature of the business that these people will, due to necessity, spend time off site. At these times there is always another adequately competent person on site to deal with queries, emergencies etc and, all key personnel have mobile telephones. It is part of the function of the Directors and the Site/Departmental Manager to ensure that key post personnel and their deputies achieve and maintain adequate levels of personal skills and competencies.

#### Contractors:

Contractors are given such training as is necessary to ensure that they are conversant with site requirements and procedures for the areas in which they are to be employed. All contractors are fully vetted and questionnaires are completed and documents kept up to date to ensure that their staff are deemed competent to work on Industrial Chemicals sites.

#### Accidents, incidents and non-conformance:

Procedures for handling, investigating, communicating and reporting actual or potential non-compliances and environmental complaints are detailed in our environmental management system manual. These procedures are audited by an outside agency as required for ISO 14001 accreditation. ICL is currently introducing a new system for reporting of HS & E incidents, accidents, near-misses and Environmental incidents. This system is an electronic version and allows & enables all staff to fill in the documents electronically from control rooms, offices, labs, etc. This new system called 'Prime', has a series of prompts to enable the operators to

complete these forms with minimal ease, but with maximum information. However, the system is only as good as the staff using it – we have high hopes.

### Organisation:

Overall responsibility for plant and process management rests with the senior management of Industrial Chemicals. The Chief Chemist is responsible for ensuring, in co-operation with the Associate Director of Engineering, Associate Director of Operations, the Group SHE Manager, Health & Safety Manager and the Environmental Manager that all processes are intrinsically safe and present no threat to people and/or the environment. Key possible environmental impacts of each process are identified at the start of project planning by these Managers.

Environmental monitoring, auditing and reporting are the responsibility of the Environmental Manager. It is this manager's responsibility to report the results of all environmental monitoring to (amongst others) the Plant Manager, the Engineering Manager and the Chief Chemist. These managers along with the Associated Directors of Operations & Engineering form the nucleus of the team that will, in consultation with the Agency, compare these results to the targets and review plant procedures so that any improvements can be highlighted and made permanent.

It is the Environmental Manager's responsibility to carry out regular internal environmental audits and to organise and supervise any external audits that he/she and/or the Agency may deem useful. It is also the Environmental Manager's responsibility to prepare and issue such reports and environmental statements as are required by the Agency.

It is the responsibility of each Manager to ensure that his/her staff are conversant with the requirements of those parts of any and all EP/IPPC Permits that are of concern to them. It is the responsibility of each Senior Manager to ensure that line managers are aware of these responsibilities and that they discharge their responsibilities in a satisfactory manner.

The Associate Director of Engineering who is responsible along with the Engineering Manager for new plant design, specification, construction, commissioning, adaptation and modification and for ensuring that the whole installation functions as intended.

It is the responsibility of the Plant Manager to ensure that the installation continues to function as intended and to detect faults and unintended operations. To this end plants are fitted, where appropriate, with detectors and gauges, some of which (again, where appropriate) feed data to computers that monitor both functions and trends. Production control, plant maintenance, staffing and etc. are under the control of the Plant Manager who also has overall responsibility for the day-to-day work of the Engineering Support team. This manager also controls plant operations via Shift Foremen who are responsible for teams of Charge Hands, Operators and etc.

General services such as Welfare, Personnel matters, Sales, Purchasing, Transport and etc. are under the control of the HR Team and/or Sales Director and/or General Manager.

It is Company policy that specialist consultants are used in areas where it is felt that their particular expertise would be beneficial.

Slow changes in plant performance are detected both by monitoring data from detectors and gauges and by the chemical analysis of both "in process" and final product samples.

It is the joint responsibility of the Chief Chemist and the Plant Manager to monitor plant performance so as to detect slow changes in performance and to take such steps as are deemed necessary to prevent/correct faults or, to make permanent, improvements.

The formal training of newly recruited personnel is divided into two parts, firstly an Induction Course covering Company Structure, Welfare, Administration, Health, Safety and Environmental matters and Statutory Obligations. This training is carried out by appropriately qualified managers and is recorded on an Induction Training Record Sheet that is retained in the employee's personnel record file.

#### Staffing:

The Plant Manager is responsible for ensuring that staffing levels are adequate for daily production, plant maintenance and etc. He/she also supervises plant operations and is responsible for the day-to-day operation of the plant. Teams of operators, usually under the control of Charge Hands carry out production. Charge Hands report to Foremen who, in turn, report to the Plant Manager. Foremen may be responsibility for more than one plant or process.

The Chief Chemist is responsible for ensuring that laboratory staffing levels and competencies are adequate for quality control and assurance and for technical support to other departments. Teams of Shift Chemists give 24 hour, 7-day week cover providing technical support and information as required for this site.

At all times staffing levels are maintained so as to ensure both adequate control of the processes, including releases to the environment, and the quality of finished products.

#### Reporting Procedures:

Normal day-to-day reporting of routine matters follows established practice via the foreman's logbook, plant and laboratory day sheets and the final product log book. Much of the numerical data is now displayed, and can be manipulated, electronically.

The instrument team, ensure that emission reports are produced either daily or monthly depending on the EA reporting requirements.

Exceptional incidents, unplanned occurrences and etc. are reported as quickly as possible to the relevant Senior Manager who will liaise with the Environmental Manager & the Group SHE manager to determine the quickest route of reporting to the relevant body.

Reports to suppliers are made by the appropriate manager and Certificates of Analysis for approved product are issued by Shift Chemists, otherwise, all “extra-mural” reports are issued by a Senior Manager or other designated person.

Reporting procedures are properly documented and these documents are issued as “controlled documents” to appropriate personnel.

#### Document Control:

The Quality Control Manager is responsible for the design, maintenance, update and issue of quality control documents and the retention and safekeeping of documents emanating from quality audits. He/she is also responsible for ensuring that the documents for which the Environmental Manager, the Health and Safety manager and the Chief Chemist are responsible are written in the standard Company format.

Within departments, document control follows established (ISO 9001:2000) company practice with “production” documents such as batch sheets and plant maintenance sheets being directly controlled by the Plant Manager. The Chief Chemist controls laboratory documents such as laboratory day sheets and quality logs and the Environment Manager controls “environmental” documents.

The Environmental Manager is responsible for the design, maintenance and update of “environmental” documents and the retention and safekeeping of documents emanating from “environmental” audits. The Health and Safety manager is similarly responsible for “H&S” documents and the Chief Chemist is responsible for material safety data sheets and ensuring that these documents comply with current legislation.

#### Management Reviews:

Senior managers, the laboratory manager, and the duty foremen review the week-by-week performance of each plant and matters arising there from at weekly production meetings that are attended. Unplanned occurrences, excessive down-time, accidents complaints and customer communications are reported to these meeting together with the outcomes of investigations into these and other previously reported events. There are also the annual management review meetings which take place in December and these generate the programme of works for the year ahead.

#### Environment Issues – Incorporation:

Ongoing reviews of product quality and performance are the particular responsibility of the Chief Chemist who liaises with customers on their developing quality and performance requirements and with suppliers on the technical aspects of raw material development and improvement.

Relevant members of the Senior Management team review proposed changes to formulations, processes, working practices, maintenance routines and/or raw materials. Particular attention is paid to the effects that such changes may have on the quality of the finished product and on the quality and quantity of waste materials produced by the change.

Abatement procedures and devices are at all times installed as the best available (BAT) and are designed and constructed so as to ensure that plant effluent streams are comfortably within the limits proposed in relevant Chief Inspector's Guidance Notes. An ongoing awareness of developments in both pollution control and process refinement is maintained and both plant and abatement procedures and devices are upgraded as appropriate. This philosophy is maintained for all developments and expansions whether the processes, new or existing, are prescribed or not.

The disposal of waste off-site is minimised by the ongoing programme of improvement of process control standards and the development of new methods of reworking and/or recycling otherwise waste materials.

All procedures and processes connected with the use and/or production of all substances used or produced by the company are the subject of ongoing scrutiny. Proposed changes to procedures and/or raw materials are tested in trials and the results discussed with concerned parties (Technical, Environmental and Engineering personnel, Customers, EA, HSE, EHA, and etc.) and relevant necessary approvals obtained prior to implementation.

New Projects proposals are discussed by the Directors who then pass details of the project to the Technical, Environmental and Engineering managers (and other members of the senior management team). It is these managers who determine the feasibility of the project.

Environmental matters, including waste production, recovery and/or disposal are considered at this stage.

#### Complaints Handling Procedures:

Complaints from customers are passed to, and dealt with, by the appropriate manager who reports the outcome to the management meeting next following receipt of the complaint. This procedure is documented in our Quality Assurance manual.

Environmental complaints are passed to the Environmental Manager who is responsible for recording the complaint, conveying details of the complaint to the appropriate managers and co-ordinating the investigation into the complaint. It is also the Environmental Manager's responsibility to report the outcome of the investigation and corrective actions taken or to be taken to the relevant senior managers and appropriate outside authorities.

The Engineering and/or Plant Managers investigate complaints arising from plant failures. The Chief Chemist and/or Engineering and/or Technical Managers (as appropriate) investigate complaints arising from process failures. The Environmental and Plant Managers investigate environmental complaints arising from errors in the application of, or failure to apply, approved procedures.

#### Allocation of Resources:

The allocation of resources is discussed, in general, at senior level but the allocation of resources within a department is the responsibility of the manager of that department.

The planning and scheduling of plant construction, alteration, major repairs and major non-routine servicing is the responsibility of the Engineering Manager. The planning and scheduling of routine maintenance and servicing are the responsibility of the Plant Manager.

Planning and scheduling of production is the responsibility of the Plant Manager.

The Environmental, Technical, Engineering and Plant Managers have collective responsibility for ensuring that environmental impact reduction, minimisation and or elimination techniques are incorporated into normal operating procedures.

The Board decides purchasing policy and environmental and all other costs that can be allocated to a project are allocated, by the Board, to that project.