

## **TECHNICAL SUPPORT AND CHEMICAL MANAGEMENT SERVICES**

- **Turnkey storage and offloading facilities**

Chemical Initiatives can offer a full turnkey project management service to ensure that your chemical storage and offloading facility complies with the best engineering and safety standards required for your product. We can offer this service for the following products:

- Sulphuric acid and oleum
- Sulphur dioxide
- Ammonia, anhydrous and solution
- Hydrochloric acid
- Hydrofluoric acid
- Aluminium sulphate
- Nitric acid
- Phosphoric acid
- Caustic soda
- Lime and milk of lime

- **Hazard identifications**

Are you planning on modifying your production process or chemical storage facility? We can facilitate the following:

- **HAZOP Study** (Hazard and Operability) - used to check if the design is adequate to ensure a safer plant or storage facility. The HAZOP is used to systematically identify and address each aspect of the P&ID in terms of possible hazards and risks;
- **PHA** (Preliminary Hazard Assessment) - this is carried out in the design stages and identifies the hazardous chemicals present in the process and the quantities present;
- **SWIFT** (Structured What-If Checklist Technique) – similar to a HAZOP but is used for identifying operating errors, utility failures, process upsets and potential environmental releases. This is a systematic, multi-disciplinary team review technique to identify hazards;
- **FMEA** (Failure Modes, Effects and Analysis) – a systematic review of a mechanical system, to evaluate the effects of failures of individual components.

- **Statutory Inspections**

All pressure vessels are required by law to undergo scheduled statutory inspections. We offer a complete inspection, certifying and maintenance service to ensure that your pressure vessels are compliant and fit for purpose.

- **Product Upliftment**

Storage facilities require maintenance from time to time. What do you do with the residual product in your tank and how do you keep the downstream plant supplied with product during the maintenance period? Chemical Initiatives offers a complete planning, inspection, maintenance and temporary product storage service. Residues or sludge from the storage tanks are safely disposed of into certified waste management sites.

- **Annual maintenance inspections**

As a value added service, we carry out an annual inspection of the storage and offloading facilities of all of our clients. When dealing with potentially hazardous chemicals we strongly believe that prevention is better than cure. These inspections highlight potential problem areas and allow you to schedule your maintenance programme in advance.

- **Stockwatch**

Why worry about scheduling product deliveries when we can install a telemetry system linked to your storage tanks and monitored in your office and by Chemical Initiatives. Automatic re-order levels are agreed upon and we do the rest. Worried about stock levels when you're out of the office? Let us specify a "SMS" system as part of the telemetry package to keep you updated should the stocks reach critical levels.

- **Design, Build and/or Own and Operate**

Your non-core or potentially hazardous chemical facility is our core business. Let Chemical Initiatives design, build and operate that facility which is key to your business, but does not form part of your core expertise. We can manage the risk and the personnel, supplying your chemical requirements across the fence. Chemical Initiatives currently operates three sites on behalf of its customers.

- **Product Awareness**

We provide product awareness training to all of your personnel exposed to or working with potentially hazardous chemicals. Knowledge and information sharing is key to improving your safety statistics and protecting the lives of your personnel.

- **Technical Product Information**

As a supplier of quality chemicals and products we strive to set, improve and implement the latest standards and technology available. Chemical Initiatives can supply detailed product information in addition to the

material safety data sheets (MSDS) to assist you in managing your assets and handling the chemical risks.

- **Production Problems and Trouble-shooting**

Through our experience in the industry we have built strong relationships with various technology and engineering suppliers as well as a broad range of capabilities within the Company. We can offer workable solutions to any production, effluent or related problems which you might be experiencing.

- **Spares**

Chemical Initiatives can supply a vast variety of spares for chemical facilities such as pumps; pump spares; valves; all types of discharge hoses; relief valves, ammonia cracker spares; level transmitters etc.

- **Environmental applications**

All modifications to existing production facilities or new facilities require various stages of environmental applications and permits. Chemical Initiatives can assist your company in applying for exemption from an EIA or help in carrying out the full risk assessment and EIA (Environmental Impact Analysis) study to comply with the MHI (Major Hazard Installations) requirements as set out in the OHS Act.

- **Transporter audits**

As part of our Responsible Care philosophy, and in compliance with the National Road Traffic Act, we conduct regular audits of all of our transporters to ensure that the vehicles and tankers are fit for purpose. Only approved transporters are allowed to carry our products. This service can be extended to our customers to ensure that your transporters are operating within the law.