

Charles Taylor technical



Ethylene cracking furnaces in Africa

Petrochemical/Chemical Surveys

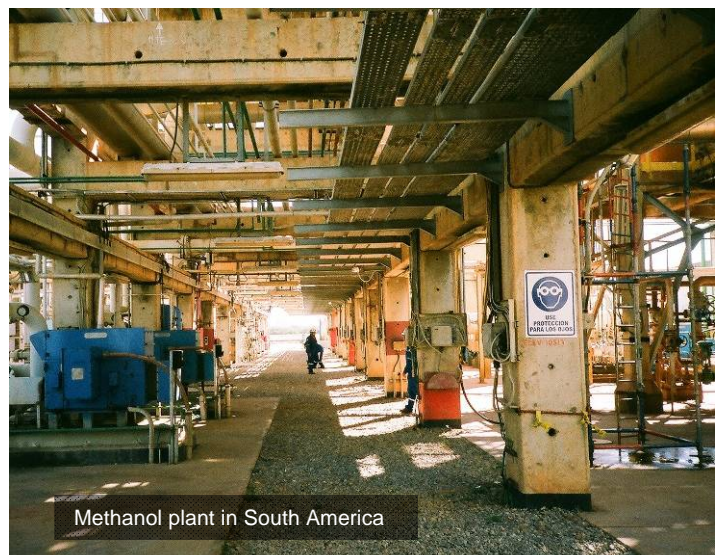
The petrochemical and chemical industries cover a vast range of technologies and hazards from large vapour cloud explosions in the petrochemical area to significant corrosive and toxic hazards in the chlor alkali and similar industries. Speciality chemical production may also involve widespread hazards involving unwanted chemical reactions and explosions.

Survey experience in worldwide locations covers all kinds of plant including:

- Petrochemicals
- Polymers
- Fertilizers
- Heavy industrial chemicals
- Speciality chemicals

Our assessments cover operation and management of the site as well as its physical condition.

The use of CTt's KRRIS risk ranking methodology ensures that all sites visited are ranked to a common standard, providing a consistent benchmark. CTt personnel have widespread experience in this area with numerous surveys covering property damage, machinery breakdown and business interruption.



Methanol plant in South America

Case Histories



Petrochemicals

Petrochemical plants are characterised by large hydrocarbon inventories at high temperatures and pressures with sophisticated equipment. The consequence of failure is severe in property damage and business interruption terms. CTt have surveyed numerous facilities, including Ethylene plants which frequently provide the raw material for much of the downstream production. Detailed assessment reports includes a loss estimate and recommendations for risk improvement. Our KRRIS methodology is used to allow benchmarking with other petrochemical plants surveyed.

Fertilizers

Much of the fertilizer industry is based on Ammonia as a raw material. Raw materials are explosive and processes often involve complex equipment at high temperatures and pressures. Ammonia is also a toxic hazard. CTt personnel have surveyed numerous Ammonia plants around the world and are familiar with the major hazards and machinery failure potential. Several surveys have additionally reviewed liability exposures to determine the toxic effects of a gas release or explosive effects of an Ammonium Nitrate detonation.



Plastics

Production of basic plastics often combines large volumes of liquefied gases at elevated temperatures and pressures. Process upsets can result in hazardous *runaway* reactions and failures of extruders and other complex equipment. These can result in expensive equipment damage and extended periods of downtime. CTt personnel have surveyed numerous plastics plants ranging from bulk polymer processing of PVC, Polypropylene and Polyethylene to for the production of plastic sheet and film in downstream facilities.



The technical team within Charles Taylor provides risk focussed technical expertise. Services include Technical investigations of failures, Risk Research, Risk Surveys, Loss Estimation and Benchmarking.

A worldwide capability is available drawing on the resources of the CTC Group.

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Key Risk Rating Indicator System
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