

**The Manderstam Group has over 75 years'  
experience in 26 countries**

**In**

**Process and Industrial Development  
in the Petrochemicals Industries**

**INTERNATIONAL CONCERNS GOVERNMENTS, NATIONAL  
AGENCIES AND INDUSTRY EMPLOY US BECAUSE:**

As independent consultants we identify ourselves unreservedly with the clients interests.

Our approach is professional scientific and unbiased.

Projects are dealt with by a team of competent engineers, technologists and economists.

We are investment conscious and can project the anticipated economics of an enterprise.

We place at the client's disposal the accumulated experience of over 75 years.

The client benefits by our know-how and knowledge of local conditions in more than 26 countries.

We keep ourselves informed of the latest developments and techniques and this knowledge is used exclusively in the interest of the client.

# Project Experience in Petrochemicals

The following is a representative list of the type of studies and industrial projects which we have carried out in alphabetical order of country.

## **Bahrain**

Production, storage and shipping of ammonia and urea

## **Bangladesh**

Study to establish the potential for the utilisation of natural gas resources

## **Brunei**

Manufacture of fertilizers based on the utilisation of natural gas

## **Canada**

Manufacture of urea and ammonium sulphate

The conversion of natural gas to easily transportable liquid fuels

## **China**

Production of pure terephthalic acid (PTA)

Production of oxo alcohols from olefins

## **Cyprus**

National industrial opportunity survey

## **Ethiopia**

Evaluation of refinery performance

Development of the petroleum refining industry

Evaluation of national distribution network

## **Egypt**

Production of 1000 tonnes per day of nitric acid and ammonium nitrate

## **Ghana**

Manufacture of nitrogenous fertilizers based on electrolytic production of hydrogen

## **Germany**

Production of low-density polyethylene (LDPE)

## **Greece**

Survey of petroleum refining, petrochemical, and fertilizer industries and their long term, planning on national scale

Market survey of plastics with special reference to PVC and of a range of sodium and chlorine based chemicals.

### **India**

Establishment of a fertilizer complex

### **Indonesia**

Feasibility study on the development of fertilizer and petrochemical industries from hydrocarbon gases

Study of the handling and shipping of liquid ammonia

Production of nitrogen fertilizers

Detailed feasibility study on the production of a range of petrochemicals from refinery gases in Sumatra

Design and construction of a floating fertilizer complex

Market investigation for polypropylene and propylene based fibres

Design and construction of field gas collection and compression pipeline system

Design of LPG storage and handling facilities

Financial and technical management of design. Procurement, erection and start-up of polypropylene plant for resin and fibre outlets

Design, erection and commissioning of de-ethaniser and of propane/propylene splitter

Design and construction of sulphur removal plant

### **Ireland**

Study for the development of a petroleum refinery

### **Italy**

Development of a petrochemical complex in Sardinia

### **Jamaica**

Study for the development of an export oriented petroleum refinery

### **Lithuania**

Design audit and due diligence for the expansion of ammonia production and storage facilities.

### **Nicaragua**

Regional study for the production of petrochemicals

## **Nigeria**

Production urea

## **Russia**

Review of project management, delay, disruption and preferential engineering for front end engineering design (FEED) and detail engineering, construction and commissioning (EPCC) for a 4,500 tonne per annum methanol Plant in Russia

## **Saudi Arabia**

Feasibility study on basic design of 300,000 tonne per annum polypropylene plant.

## **Spain**

Manufacture of ammonium sulphate using "off-gas" and fuel oil

## **Sweden**

Analysis of contaminated LPG feed to an ethylene cracker

## **United Kingdom**

Production of polyethylene terephthalate (PET)

Production of low-density polyethylene (LDPE)

Production of petrochemicals from naphtha

Production of toluene and xylene sodium sulphonates

Production of sulphuric acid and oleum

Production of aromatic hydrocarbons based on crude BTX feedstocks

Production of hydrogen by steam reforming of naphtha

Production of caprolactam grade cyclohexane

Production of vinyl chloride and PVC

Production and storage of styrene monomer

Production of ammonia, Urea, ammonium nitrate, potassium nitrate, chlorine, vinyl chloride and PVC in an integrated complex

Investigation into the causes of explosion and fire at a petrochemical complex

Advice on process design of natural gas liquefaction plants

Determination of the impact on the environment in several areas in Scotland by construction of oil production platforms

Advice on pollution impact of a chemical plant

Prepared market report on the global supply and consumption of petroleum additive TEL

## **Vietnam**

Development of fertilizer production

## **Yugoslavia**

Environmental impact of proposed refinery