

## Environmental Management Services



# Engineering

a better tomorrow



**TCE Consulting Engineers Limited**

## Environmental Management Services

Over the years, TCE is proud to have been associated with several projects that involved effluent treatment, air pollution control, HAZOP and risk analysis, safety, health & environmental auditing, environmental due diligence & compliance audit, and environmental impact assessment for various clients, giving TCE a unique experience and distinct edge to address the challenges of the present and future.

## Environmental System Design

- Basic and detailed engineering of effluent treatment plant
- Air pollution control design
- Hazardous waste landfill design



▲ Effluent treatment facility for Swadeshi Polytex



▲ Detailed design and engineering of effluent treatment facilities for DMT plant of Bombay Dyeing & Manufacturing Company Limited

- ▼ Detailed engineering of effluent collection and treatment system for the breakfast cereal project, Kelloggs India Limited



## Waste water Management

- Zero discharge waste water management
- Start-up and commissioning assistance
- Water pollution dispersion analysis



- ▲ Detailed engineering of effluent and waste water treatment plant and recycle plants, Maruti Udyog Limited



- ▲ Design of effluent treatment and disposal facilities for Tyre and Tube plant of Modi Rubber Limited



- ▲ Technology evaluation and detailed engineering of flue gas de-sulphurisation system for 210 MW lignite based power plant, Neyveli Lignite Corporation



- ▲ Detailed design and engineering of effluent treatment facilities for Aluminium Fluoride Plant of Tamilnadu Fluorine and Allied Chemicals Limited

## Air Pollution Management

- Dispersion analysis
- Ambient air monitoring
- Stack monitoring
- Flare and vent design
- Flue gas de-sulphurisation
- Incineration system



- ▲ Detailed engineering of sea water scrubbing system for flue gas de-sulphurisation using Flakt process for Unit 5, Trombay thermal plant for Tata Power Company Limited

## Environment Management

- Environmental impact assessment study
- Air and water dispersion study
- Risk assessment, consequence analysis & HAZOP study
- Disaster management plan
- Environmental compliance audit
- Safety, health and environment / multi-media audit
- Environmental due diligence
- Assistance in implementation of EMS as per ISO 14001



▲ Environmental impact assessment for 2 x 210 MW coal based power plant of Tata Power Company Limited at Jojobera



▲ Hazop study for the waste water collection, treatment and marine outfall for Brihanmumbai Municipal Corporation



▲ Hazop study for food-grade hexane manufacturing plant (using sulpholane process) of Hindustan Petroleum Corporation Limited



▲ Risk analysis for fuel storage facility adjacent to 205 MW Combined Cycle Power Plant, Tata Power Company Limited



▲ Environmental due diligence report for India's first barge mounted 220 MW Combined Cycle Power Plant for PSEG India Private Limited



- ▲ Risk analysis for the naphtha storage facility at Trombay thermal plant
- ▲ Review of the quantitative risk assessment report for proposed multi-fuel jetty and facilities
- ▲ Review of the quantitative risk assessment report for LNG storage and regasification plant for Tata Power Company Limited



▲ Environmental due diligence report for 355 MW, Naphtha based Combined Cycle Power Plant for Kondapalli Power Corporation Limited

## Engineering a better tomorrow

TCE Consulting Engineers Limited (TCE), a wholly owned subsidiary of Tata Sons Limited, is a leading engineering consultant with over 3000 prestigious projects to its credit covering diverse realms of industry. With four decades of rich experience, TCE provides competent and comprehensive engineering consultancy solutions with global perspective. TCE's **ISO 9001** certified multi-disciplinary services have earned enormous goodwill from clients in India and overseas.

## Environmental Management Services

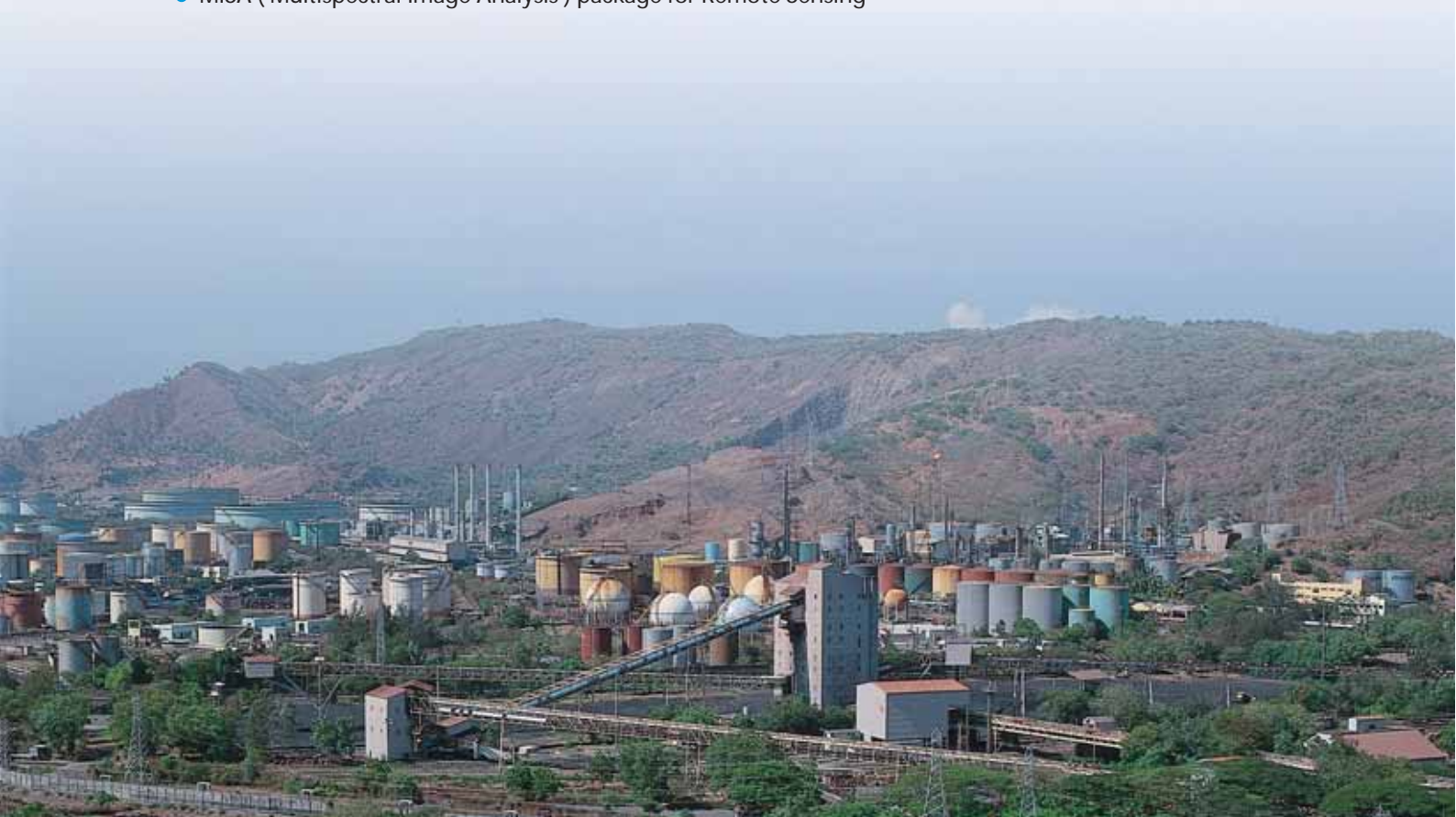
TCE has been in the forefront of meeting the challenges of environmental protection and management in all its design and engineering assignments. Incorporating latest technologies, TCE addresses complex environmental concerns with simple and practical solutions to improve the quality of the physical environment. Its comprehensive range of quality services, to meet the diverse demands of environment management in tune with global concerns and practices, include :

- Environmental System Design   ■ Waste water Management
- Air Pollution Management   ■ Environment Management

## State-of-the-art Computer Applications

TCE uses advanced computer programmes for environment management :

- Risk Assessment - PHAST ( Process Hazard Analysis Software Tool )
- Air Pollution Dispersion - ISCST ( Industrial Source Complex Short Term )
- CORMIX ( Cornell Mixing Zone Expert System )
- WRPRGM - inhouse software for Windrose Diagram
- MISA ( Multispectral Image Analysis ) package for Remote Sensing





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