TECHNICAL REFERENCES

References
TECHNICAL SERVICES

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Ethylene Project

Basic Engineering & Design

Client
Simon Storage
United Kingdom

Enduser
Simon Storage
United Kingdom

Project

Year of Award 2008
Contract Number 08004

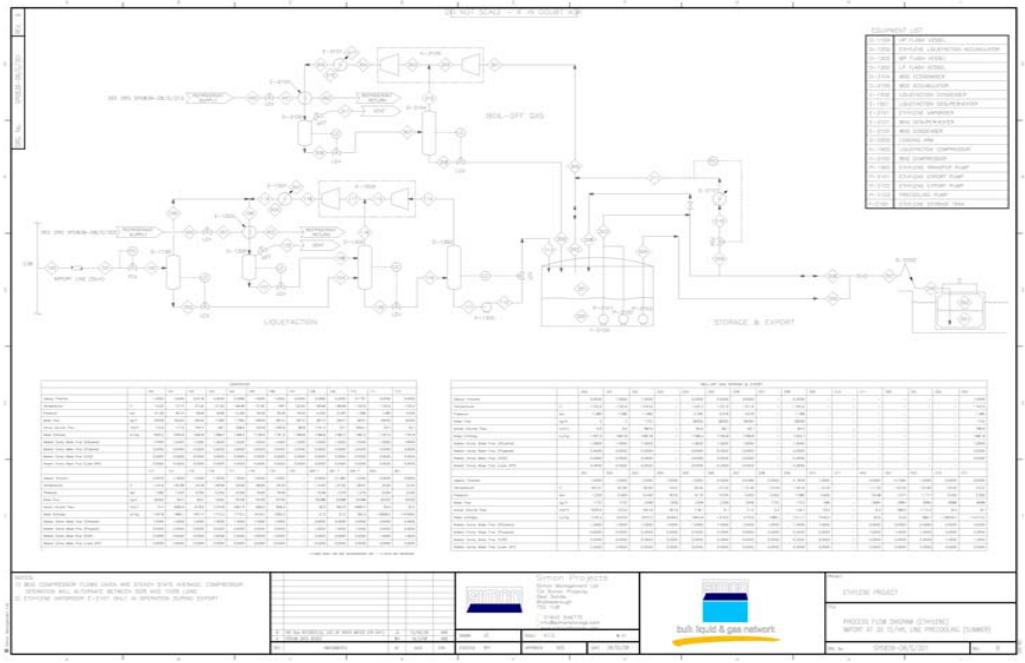
Weir LGE Process

Scope of Work

The intent of the work was to present a basic engineering package for the liquefaction, containment, handling and re-export of ethylene. The package was to a level where an estimate accuracy of +/- 10 % of the EPC price was achieved.

Facility Description

The new ethylene liquefaction & storage facility included the following principal components:
Super critical ethylene liquefaction system.
Liquefaction refrigerant system.
Ethylene export system.
Ethylene storage system.
Ethylene boil-off gas system.
Boil-off gas refrigerant system.
Marine loading arm.
Facility utilities system.
Flare system.



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Ethylene Storage Facility

De-bottlenecking Study

Client
Vopak China
Tianjin, China

Enduser
Vopak Ethylene Terminal Tianjin
Tianjin, China

Project	Year of Award	2006
	Contract Number	06069
Weir LGE Process	Scope of Work	Investigate terminal capacity increase to 300,000 mt/y Budget cost estimate to impliment changes

Facility Description

Cooldown system duty review .
Review of loading arm & jetty operation.
Export pumping system review.
Pump lifting system review.
Additional vaporiser duty requirements.
Modifications to pipework..
Utility & power requirements

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Ethylene Storage Tank

Tank Inspection & Commissioning Services

Client
Rompetrol Petrochemicals
Romania

Enduser
Rompetrol Petrochemicals
Romania

Project	Year of Award	2006
	Contract Number	06035
Weir LGE Process	Scope of Work	Inspection of an out of use ethylene tank Provision of technical advice to reuse the existing facilities for ethylene storage.

Facility Description

The scope was to allow Rompetrol to extend the operational life of the tank to continue importing ethylene from both ship and road tankers.
Based on the investigations undertaken, the ethylene tank should be capable of the extended life, provided Rompetrol follows the proposed recommendations.

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LPG Storage Terminal

Design and Engineering

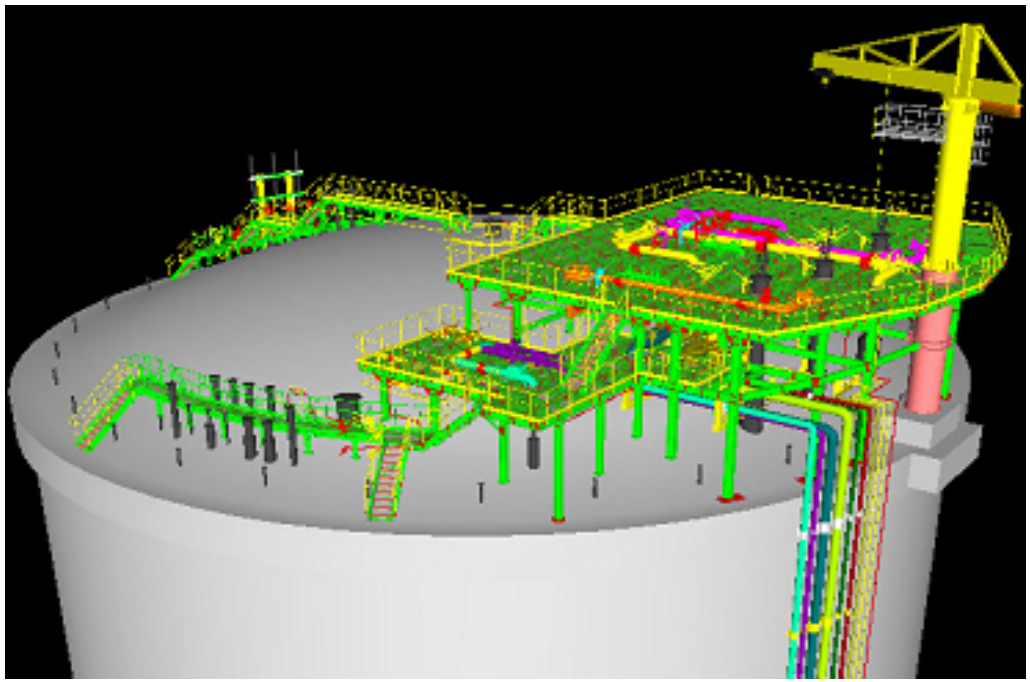
Client
Thermo Design Engineering
Canada

Enduser
Iran Offshore Oil Company
Sirri Island, Iran

Project	Year of Award	2004
	Contract Number	04064
Weir LGE Process	Scope of Work	The intent of the work was to present to the client a basic engineering package for the marine handling and storage of propane, butane, pentane and condensate arising from a NGL splitter located at Sirri Island in Iran

Facility Description

The new facility included the following principal components:
Refrigerated propane storage (40,000 m^3)
Refrigerated butane storage (20,000 m^3)
Ambient pentane storage (10,000 m^3)
Ambient condensate storage (10,000 m^3)
Vapour recovery and pressure maintenance system for propane & butane storage
Product export to marine loading arms at the jetty
Flare for equipment located at the jetty



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Ethylene Terminal

De-commissioning

Client
Dow Chemicals
Spain

Enduser
Dow Chemicals
Tarragona Spain

Project	Year of Award	2004
	Contract Number	04024
Weir LGE Process	Scope of Work	Tank de-commissioning, inspection and re-commissioning

Facility Description

Liquid ethylene storage tank at the Tarragona Marine Facility was taken out of service in order to carry out an internal inspection and remedial work followed by re-commissioning.
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Propylene Project

Process feasibility Study

Client
Confidential
South Africa

Enduser
Confidential
South Africa

Project

Year of Award 1997
Contract Number L9712

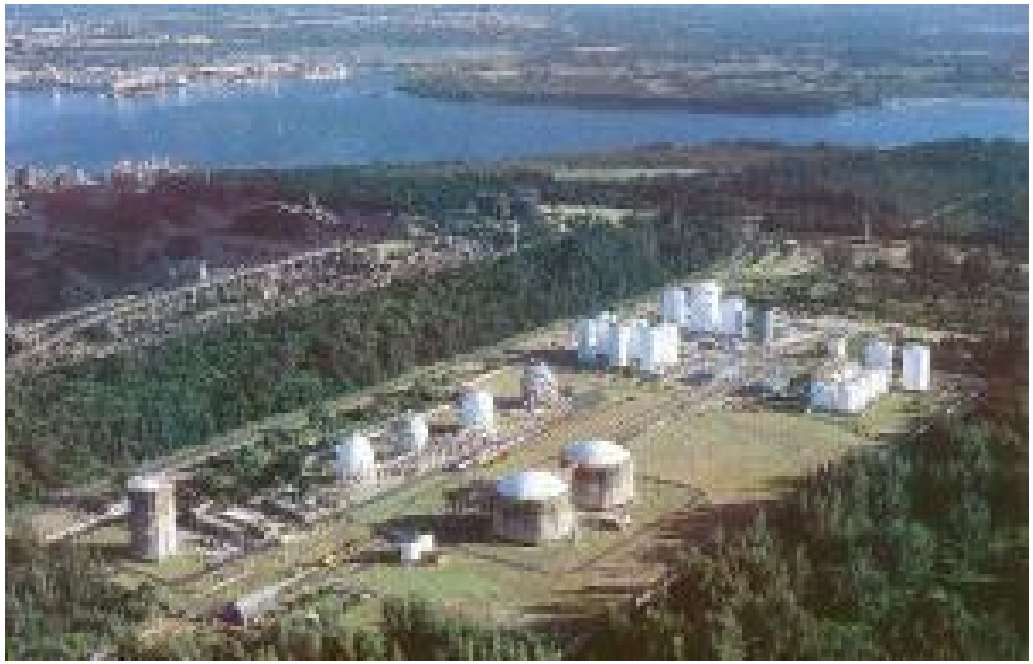
Weir LGE Process

Scope of Work

Contract to investigate the technical feasibility of converting an existing refinery grade propylene facility in South Africa to accommodate the export of polymer grade propylene.

Facility Description

Phase 1
Propose facility modifications to allow earliest possible propylene export.
Phase 2
Identify further modifications and develop Cost estimates to enhance the facility export Rate.
Phase 3
Upgrade the existing LPG storage facility
Phase 4
Investigate the use of the existing ammonia facilities



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