

Basic Engineering, Detail Engineering, Procurement Assistance, and Construction and Start Up Management for a new Chlor/Alkali Plant to produce 120.000 MTY of Chlorine Gas, 134.000 MTY of Caustic Soda and 32.000 MTY of Hydrochloric Acid (32% by weight), using Oxytech membrane technology, to replace the existing plant operating with mercury cells technology plant.

- Integrated team with the client at site, which facilitate and to expedite the decision making process.
- A special MP strategy, which include training, wage improvement and extension of site time schedule, was implemented, to compensate the lack of qualified personnel.
- Implementation of a detailed subcontracting scheme to split responsibilities to reduce cost and schedule risks.
- Incorporation of technology advisors at site in a permanent basis, in order to support construction activities.
- Implementation of and special site support plant from vendors and equipment suppliers at site.

EXECUTIVE SUMMARY

THE CLIENT

PEQUIVEN:
Petroquímica de Venezuela S.A. (Pequiven) is a Venezuelan state petrochemical company engaged in the production and sale of petrochemical products, including fertilizers, industrial chemical products, olefins and plastic resins. Pequiven was founded in 1977 as independent corporate subsidiary of state oil firm PDVSA and operates under the authority of the country's energy and mines ministry.



SOLUTIONS

CHALLENGES

- At the time of construction, the plant was the largest Chlorine Alkali Plant in the world using the electrolysis membranes technology
- The project was develop in parallel with several other projects as part of a huge upgrading plan for the petrochemical complex, which implied several challenges with the MP availability.
- The project was develop using spaces of the existing plant under operation and using the existing storage area and facilities. This situation requires to demolishing some existing facilities and relocating others like storage tanks, to obtain the required space for the new plant.
- The project requires several kind of specials materials for its construction (Titanium, Monel, Kynar, stainless steel, ABS, Polypropylene, Polyethylene, FRP, acid bricks, vitrified clay pipes, etc.) and special design considerations regarding safety because the products handled
- State of the art for the Chlorine ton containers handling system replace the existing plant operating with mercury cells technology plant.



Chlorine Soda Plant

EPCM Venezuela