

Project Title: Chlorine/Alkali Plant Project

Date: 1988 –1990

Scope of Work: EPC

To perform the Basic and Detail Engineering, Procurement Assistance, Construction and Start-Up Management, in accordance with international standards and practices, and general, accepted engineering and project management principles.

Executive Summary:

A new chlorine alkali plant using membrane cell technology for 120,000 Mt/y of chlorine and 134,000 Mt/y of caustic soda (the largest of its kind, in the world).

Location:

El Tablazo Petrochemical Complex Venezuela (presently the Ana Maria Campos Complex), Los Puertos de Altigracia, Miranda, Zulia State, Venezuela

Client:

PETROQUÍMICA DE VENEZUELA, S.A. (PEQUIVEN).

Petroquímica de Venezuela S.A. (Pequiven) is a state owned Venezuelan company, associated with the Ministry of Popular Power for Petroleum and Mining, the shares of which are the exclusive property of the Bolivarian Republic of Venezuela.

The company promotes and develops petrochemical activities along the North - Coastal Axis, specifically in the states of Zulia, Carabobo and Anzoátegui, producing nitrogen and phosphate fertilizers, olefins and plastics, as well as chemical products destined to satisfy the requirements for these items on the national market, to guarantee food sovereignty and industrial and technological development.

Challenges:

Specifications for all types of special materials, from alloys to FRP, at that time requiring new design and construction methods.

To carry out the plant's construction, taking special measures considering that all the work was to be carried out whilst the existing plant was in operation, requiring

permanent use of protective masks and constant monitoring for mercury contamination.

At the time of the project's execution, this was the biggest Chlorine plant using membrane processes in the world.

The unique Automatic Filling, Storage and Dispatching system for the Cylinders and Ton Containers.

Vepica Solutions:

A consortium was created with the Oxytech Company, owner of the know-how to carry out this project.

To simplify the work process, multi-office mode was implemented. The Basic Engineering and Procurement Assistance for Long Lead Items was carried out in Houston, U.S.A.; Detail Engineering and Procurement Assistance in Caracas, Venezuela; Construction and Start-Up Management at the construction site in El Tablazo Petrochemical Complex Venezuela (presently the Ana Maria Campos Complex).

A plastic 3D model of the plant was constructed for use during the development of the detail engineering for the optimization of the design, interference verification, constructability study, construction planning and subsequent construction work support.