

## ON 11410 PTT Phenol Plant (Utility Buildings)

Eastern Industrial Estate, Map ta phut, Rayong, Thailand, 2007-2008



Client: PTT Phenol Co.,Ltd.  
Project Management : Foster Wheeler (Thailand) Ltd.  
Designed by : CTCI (Thailand) Co.,Ltd.  
Construction By : Christiani & Nielsen (Thai) Pcl.



Technical Data: Construction of 9 numbers of utility buildings (Civil, Architectural, Sanitary, Fire fighting, Electrical, Communication and HVAC systems are included) comprise of

- Substation Building; 2,050 m<sup>2</sup> two storey RC structure with 13 transformers and 2 generators.
- Central Control Building; 720 m<sup>2</sup> single storey which is designed for blast resistance RC structure using 400 - 300 mm thickness of walls and roof slab. Precision HVAC system with temperature and humidity controlled was used in this building.
- Laboratory Building; 600 m<sup>2</sup> single storey RC structure. Precision HVAC system with temperature and humidity controlled was used in this building.
- Waste Water Treatment Control Building; 205 m<sup>2</sup> two storey RC structure. Precision HVAC system with temperature and humidity controlled was used in this building.
- Fire Pump House; 226 m<sup>2</sup> steel structure with metal sheet roof and cladding.
- Foam tank House; 32 m<sup>2</sup> steel structure with metal sheet roof and cladding.
- IA/PA house; 126 m<sup>2</sup> single storey RC structure with Steel Roof Structure.
- Refrigerator House; 156 m<sup>2</sup> single storey RC structure with Steel Roof Structure.
- Compressor House; 220 m<sup>2</sup> single storey RC structure with Steel Roof Structure.

Introduction: This is a 200,000 tons per annum plant that will be the Thailand's first Phenol and Acetone production facilities which will serve to reduce the country's dependency on both Phenol and Acetone import at an estimated value of over 5 Billion Baht per annum. Furthermore, this first Phenol plant will be a stepping stone for the PTT Group in entering into the higher value added, Engineering Plastic business in Bisphenol-A and Polycarbonate.



CHRISTIANI & NIELSEN

Polycarbonate is a specialty plastic that is prevalently used in the automotive industry, as component of electrical appliances, and more commonly in the manufacturing process of DVD, VCD, and CD. The utility buildings that are hearts of this plant have been sublet from CTCI (Thailand) Co.,Ltd., the EPC contractor, to Christiani and Nielsen to construct which there are many interfacing works that

need to cooperate with other subcontractors during the construction stage. The works foresaw a 11 months construction time were completed on December 2007 in order to achieve the completion of the entire plant by July 2008.



Start: December 2007

Finish: July 2008