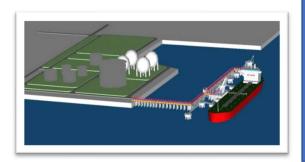


PROJECT: PTT TANK TERMINAL



Name of Project: PTT Tank Terminal

Location: Map Ta Phut Industrial Port

Client: PTT Tank Terminal Co., Ltd.

Duration: 2010-2012



This terminal is in Map Ta Phut Industrial Port, Rayong Province, Thailand. Our engineers had participated in the design and construction supervision work of the project. There are 2 berths to service various types of petrol-chemical tankers of 10,000 – 60,000 DWT capacity. Berth No.1 can handle up to 223 m LOA tanker. Berth No.2 can handle up to 102 m LOA tanker. The water depth is suitable for 10.4 – 11.4 m max. draft.



PROJECT: MTT TERMINAL EXPANSION



Name of Project: MTT Terminal Expansion

Location: Map Ta Phut Tank Terminal Co., Ltd.

Client: SCG Chemicals Public Company

Duration: 2006-2007



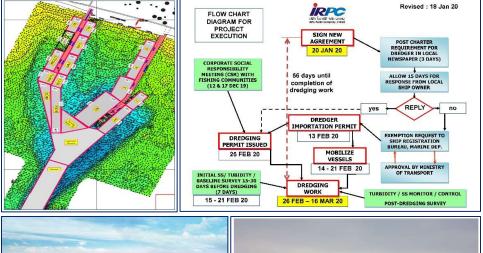
This terminal is in Map Ta Phut Industrial Port, Rayong Province, Thailand. Our engineers had participated in the design and construction supervision of the expansion work. The expansion parts of the terminal are Jetty No. 3 and No.4. Jetty No.3 can handle up to 220 m LOA tanker with 80,000 DWT size. The allowable draft is 10.10 m. Jetty No.4 can handle up to 115 m LOA tanker with 10,000 DWT size. The allowable draft is 7.7 m.



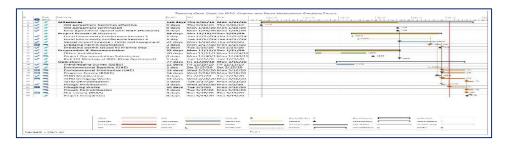
PROJECT: PMC FOR IRPC DREDGING WORK

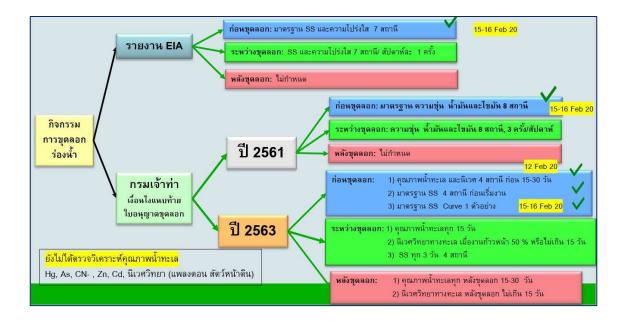


Name of Project: PMC for IRPC Dredging Work Location: IRPC Terminal, Rayong Province Client: IRPC Public Company Limited Duration: 2019-2020





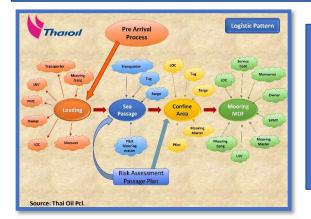




Navis Consult L.P. was appointed as the Project Management Consultant (PMC) for the maintenance dredging work at IRPC Terminal which consists of both multipurpose and petrochemical terminal. The tasks include preparation of TOR, Bidding Documents, Contract Documents, and project supervision. Dredging work was done for 16 berth boxes, 1 turning basin and approach channel. The dredging depths of water below Lowest Astronomical Water Level are between 5 to 19 m. Total amount of dredged material is about 400,000 cu. m. Dredging was carried out by a large hopper suction dredger and a small-shallow draft dredger. All activities were strictly controlled and monitored in order to be conformed to the laws and regulations related to environment protection. Dumping of dredged material was done offshore.



PROJECT: THAI OIL MARINE LOGISTICS



Name of Project: Thai Oil CFP marine logistics Location: Thai Oil MOF Terminal, Sriracha Client: Thai Oil / Petrofac / Saipem / Samsung Duration: 2021-2023



Transport of heavy – large modules from various ports to Marine Offloading Facility (MOF) at Thai Oil Refinery Complex



Heavy Module offloading at MOF



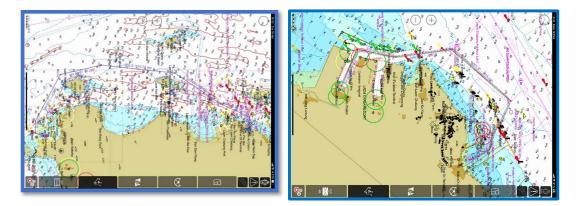
Waterfront area at Thai Oil Refinery Complex

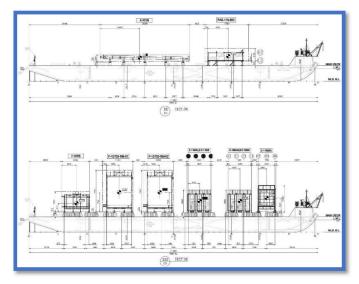


Waterfront area at Ao Udom, Sriracha



Location of ports for loading and unloading of modules





Loading configuration and passage plan between Sattahip Port,

Laem Chabang Port and MOF

Our Technical Advisor from Navis Consult L.P. was appointed as the Project Manager for Sriracha Marine Co., Ltd. who provided the marine movement using numbers of tugboats and large flat-top barges to transport heavy cargoes and modules for the new Clean Fuel Refinery carried out by Thai Oil Pcl. There are about 336 units of modules to be transported by sea from Laem Chabang, Kerry Siam Sea Port and Sattahip Port to Marine Offloading Facility. The main tasks are to ensure smooth & safe movement until completion.



PROJECT: THAI OIL MARINE LOGISTICS



Name of Project: Thai Oil CFP marine logistics Location: Thai Oil MOF Terminal, Sriracha

Client: Thai Oil / Petrofac / Saipem / Samsung

Duration: 2023



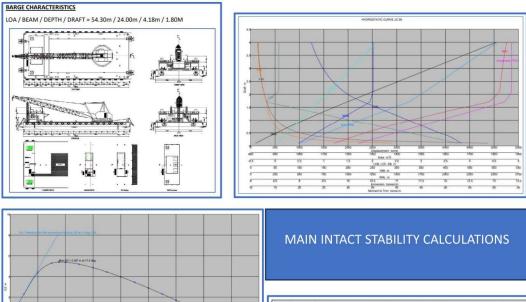


Transport of 4 Loading Arms from Kerry Siam Sea Port to Thai Oil Jetty 7 & 8



9th December 2023

MARINE NEWS NO. 2 – Transportation and Installation of Marine Loading Arms Four sets of Marine Loading Arms (MLA) were transported on land from a storage yard in Sriracha to Siam Kerry Sea Port (KSSP) for further shipment by a large barge to Thai Oil Jetty for installation. The maximum weight of each MLA is 33 metric ton, and the overall length is about 29 m. To satisfy the project requirement as well as the formal guarantee condition, work method statement, various technical calculations and related tug boats and barges inspection had to be approved by Marine Warrantee Surveyor (MWS). Navis assigned the Chief Naval Architect to participate in the project during Sep – Nov 23. The output included crane barges stability calculations, bollard pull estimate for tug boats, mooring load calculation at various conditions. The task for lifting the MLA's and installation on the Thai Oil Jetty No.7 & No.8 were done as per project requirements



	Code	Criteria	Value	Units	Actual	Status
1 F	loodable	Margin line immersion	0.000	m		Not Analysed
2 F	loodable	Deck edge immersion	0.000	m		Not Analysed
3 F	loodable	Maximum trim	10.0	deg		Not Analysed
4 F	loodable	Minimum GMt	0.200	m		Not Analysed
		8.2.3.1: Range of residual positive st	15.0	deg	73.6	Pass
6 5	IOLAS, II-1	8.2.3.2: Area under residual GZ curv	0.859	m.deg	84.986	Pass
7 5	OLAS, II-1	8.2.3.3: Maximum residual GZ	0.100	m	5.397	Pass
8 5	IOLAS, II-1	8.6.1 Residual GM with symmetrical	0.050	m	26.821	Pass
		8.6.2: Heel angle at equilibrium for u	7.0	deg		Not Analysed
10 5	OLAS II-1	8.6.3: Margin line immersion	0.000	m	-	Not Analysed

