



NGHI SON REFINERY & PETROCHEMICAL COMPLEX

SIKA@WORK

SIKA LIMITED (VIETNAM)

BUILDING TRUST



NGHI SON REFINERY & PETROCHEMICAL COMPLEX



I. PROJECT INTRODUCTION

Location: Nghi Son Economic Zone, Tinh Gia District, Thanh Hoa Province, Vietnam

Description: Nghi Son Refinery & PetroChemical Complex is a joint-venture project sponsored by 4 corporations: Vietnam Oil and Gas Group (PetroVietnam), Kuwait Petroleum Europe B.V. (KPE) from Kuwait, Idemitsu Kosan Co., Ltd and Mitsui Chemical, Inc. from Japan. This project has estimated total investment cost is approximately \$9 billion, of which sponsor contribution is about \$4 billion. The refinery has capacity to process 200,000 barrels of crude oil imported from Kuwait per day (equivalent to 10 million tons per year). Type of fuel that accounts for biggest portion of products is premium diesel (2,204 kt/year), following by regular diesel (1,470 kt/year), RON 92, RON 95 (1,153 kt/year), LPG, jet fuel and numerous petrochemical products.

Owner: Nghi Son Refinery and Petrochemical Limited Liability Company

Consultant (Engineer): Foster Wheelers

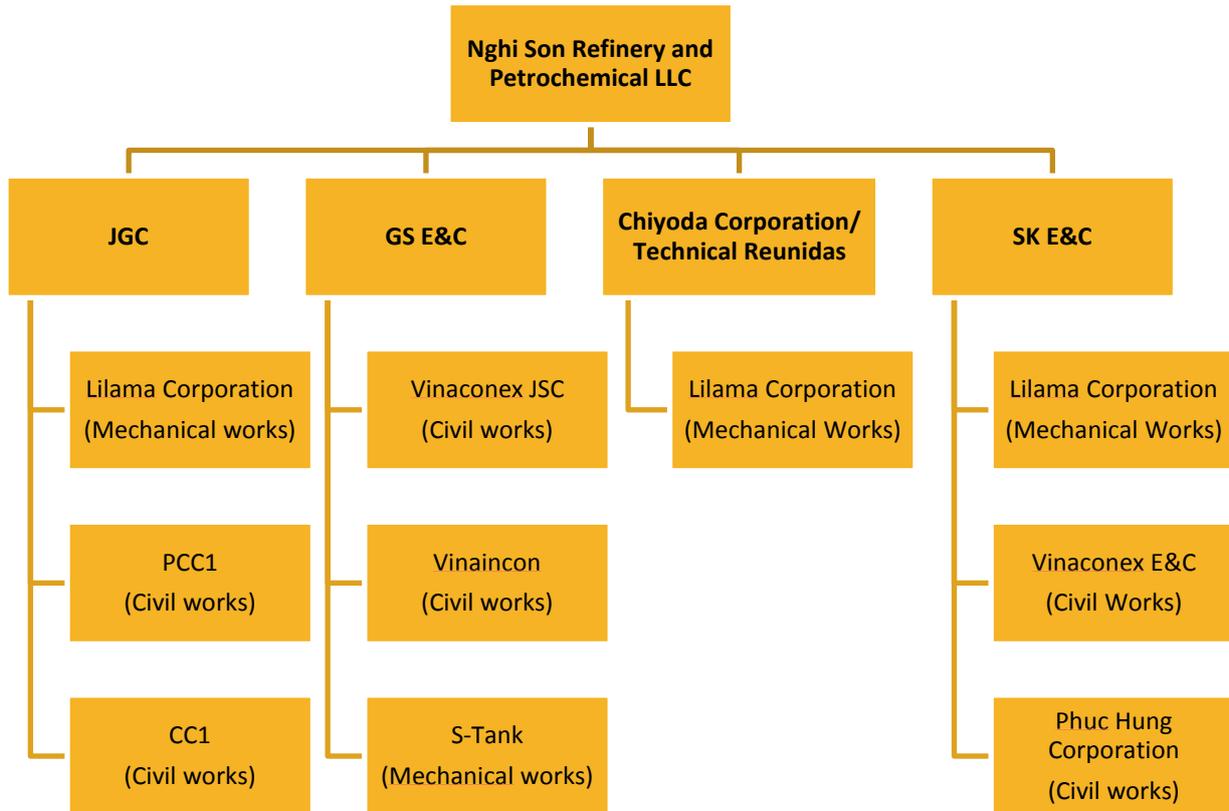
Investment capital: 9.0 billion USD

Main Contractor: JGC Vietnam Co.,Ltd; Technical Reunidas; Chiyoda Corporation;
SK Engineering & Construction Co., Ltd; GS Engineering & Construction Corporation.

Start date construction: 4th Quarter 2013 **End date construction:** 4th Quarter 2017

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Organization Chart



II. PROJECT REQUEST AND SIKA SOLUTION

TM	Project Request	Application Position	Sika Solution	Area / Volume
Concrete	80MPa	PHC Pile	Sika Viscocrete-8700M Sika Viscocrete-8200 Sika Viscocrete SP-1000	202,000 liters
	35MPa/16MPa	All Structural Concrete / Non-structural Concrete below ground	Sikaplast-257	1,396,600 liters
	35MPa	Concrete for Roads and Paving (air content 5.5% ± 1.5% at the time of placing)	Sikaplast-257M	305,000 liters
	40MPa	Marine Structure	Sika Viscocrete-3000-20M Sikacrete PP1	234,925 liters 122,700 kg

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TM	Project Request	Application Position	Sika Solution	Area / Volume
Waterproofing	Joint Waterproofing	Water Tanks	Sika Waterbar	10,100 m
		GRP Pipe Penetration	Sika Hydrotite CJ-Type	5,710 m
	Buildings	Toilets/Bathrooms	Sikatop Seal-107	10,000 kg
Flooring	Floor paint (150microns)	Dustproof paint for plant rooms	Sikafloor-2530W New	14,210 kg
	Warehouse Area	Metallic Hardener	Sikafloor-2 SynTop	6,350 kg
		Non-metallic Hardener	Sikafloor Chapdur	500,000 kg
Refurbishment	Non-shrink Cement-based Grout	RFCC Reactor & Regenerator / RHDS reactor/ Crude Distillation Column/ Catalyst Hopper/ Boiler Foundation/ Pipe rack structure / Spherical Tanks Foundation/ Pipe bloc-out/ etc.	Sikagrout-214-11HS Sikagrout NS Sikagrout-214-11 Sikagrout GP	2,950,000 kg
	Non-shrink Epoxy-based Grout	Rotating Equipment Foundation	Sikadur-42MP	45,000 kg
Sealing and Bonding	Joint sealant	Water tanks	Sikaflex Pro-3WF	10,000 ssgs
		Wall joint sealant for buildings	Sikaflex Construction AP	40,000 ssgs
Other Products Supplied	Separol, Antisol, Rugasol F/C, Sika Monotop R/615HB/610, Sikadur 732/752/731, Sika Latex, Sika Latex TH, Sika Refit 2000, Sikaproof Membrane, Sika Anchorfix 2			

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III. PHOTO REFERENCES



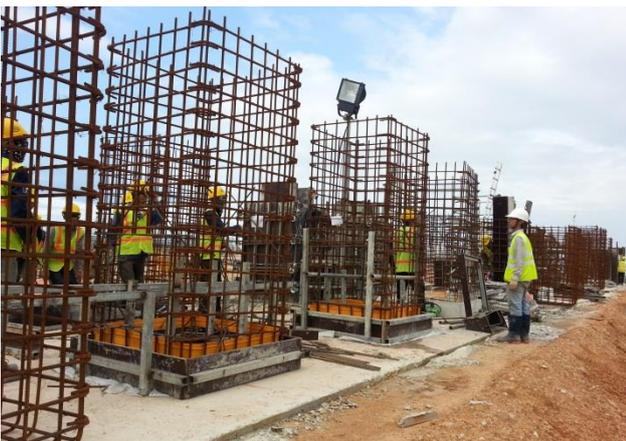
Zone 1 & 2_Process Area



Zone 3_Tank Farm



Zone 4_Port Area



Sika Waterbar



Sikadur-42 MP and Sikafloor-2530