

세계 정제시설 신·증설 현황

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국명 회사/소재지	프로 젝트	신설규모(b/d)	진행현황	완공(예정)일	시공계약자 및 형태	비고
아부다비						
Abu Dhabi National Oil Co.-Ruwais	Crude	160,000	Planned			Expansion.
알제리						
Total-Arzew	MTBE	9,300		1995	Lummus Crest-Lic.	\$400MM.
아르헨티나						
YPF S.A.-Campo Duran Plant, Salta	*Cat. reformer/	.....	Under constr.	3Qtr. 1995	ABB Randall Corp.- Engr./PD/DD/PE/CS UOP-Lic.	Hydrotreater. Relocation. Contr. will also provide refurbishing.
La Plata	*Coker	19,000		1Qtr. 1996		Naphtha.
	*Isomerization	3,380		2Qtr. 1996		
Lujan de Cuyo	*Alkylation	1,950		2Qtr. 1996		New. Hydrofluoric acid.
	*Isomerization	3,380		2Qtr. 1996		New. C ₃ /C ₆ .
	*MTBE	1,100		1Qtr. 1996		New.
호주						
Ampol Refineries Ltd.-Brisbane	*Crude	8,000		2Qtr. 1995	Davy John Brown-Contr.	Expansion.
BP Oil Co.-Bulwer Island	*Crude	.....	Planned	Jan. 1996	Davy John Brown-PD	Distillation revamp. A\$10MM.
Kwinana	CCR	21,000	Under constr.	Oct. 1995	Davy John Brown-DD/PE/CS UOP-Lic.	New. A\$150MM.
Mobil Oil Australia-Adelaide	*Isomerization	14,900		1996		New. C ₃ /C ₆ feed.
Altona	Isomerization	9,500				C ₃ /C ₆ feed.
	*FCC	23,000 b/sd	Engineering	1997	Toyo Engineering-Engr./PD/DD/PE/CS Kellogg-Lic.	New. Residual.
	Refinery	.....				Upgrade. A\$1,000MM.
바레인						
Bahrain Petroleum Co. BSC-Sitra	Alkylation	4,600		End 1995		Platformer.
	Cat. reformer	18,000		End 1995		Replace four existing crude units.
	Crude	180,000		End 1995		Phase 1 of modernization program. \$600MM.
	Hydrotreater	26,000		End 1995		Upgraded to 95% desulfurization.
	MTBE	750		End 1995		
브라질						
Petroleo Brasileiro SA-						
Araucária-Parana	Hydrotreater	31,450	Planned	1999		Diesel. \$261MM.
	MTBE	1,836	Process dsgn.	1997		\$10MM.
Canoas. RGS	FCC	18,870	Planned	1999	Petrobras-PD	\$125MM.
	Hydrotreater	25,160	Process dsgn.	1998	Petrobras-PD	Diesel. \$230MM.
Capuava	Propylene	120 ty	Under study		Petrobras-Lic.	Recovery.
Cubatao	Hydrotreater	31,450	Under constr.	1996	Petrobras-Lic.	Diesel. \$267MM.
	MTBE	1,698	Process dsgn.	1997	IFP/Petrobras-PD/Lic.	\$12MM.
Duque de Caxias	Coker	15,725	Planned	2000	Petrobras-Lic.	Delayed. \$100MM.
	Crude	37,740	Planned	1997	Petrobras-Lic.	Revamp. \$100MM.
	FCC	15,000	Planned	1997	Petrobras-Lic.	Revamp. \$48MM.
	Hydrotreater	31,450	Planned	2000	Petrobras-Lic.	Diesel.
	MTBE	1,395	Process dsgn.	1995	Promon/CBI Lic. -Contr.	\$11MM.
Fortaleza	Lubes	1,128	Planned	1997	Petrobras-Lic.	New.
Mataripe	Crude	170,000	Under constr.	1996	Petrobras-PD	\$138MM.
	FCC	37,740	Planned	2000	Petrobras-Lic.	\$225MM.
	Hydrotreater	18,900	Planned	1997		Diesel.
	Lubes	1,353	Planned	2000	Petrobras-Lic.	Wax.
	MTBE	837	Process dsgn.	1997	Petrobras-Lic.	\$8MM.

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Paulinia	Coker	31,450	Process dsgn.	1997	Petrobras-PD/Lic.	Delayed. \$165MM Diesel. \$252MM \$15MM.
	Hydrotreater	31,450	Process dsgn.	1997	IFP/Petrobras-Contr.	
	MTBE	2,209	Process dsgn.	1995	Promon/CBI Lic.-Contr.	
San Jose dos Campos	MTBE	1,511	Process dsgn.	1995	Petrobras-Lic. Promon/CBI Lic.-Contr. Petrobras-Lic.	

캐나다

Newfoundland

Newfoundland Processing Ltd.-
Come By Chance

*Hydrocracker	10,000					Expansion. Distillate upgrading. New. Membrane Expansion. Kerosene Expansion
*Hydrogen	25 MMcfd			4Qtr. 1995		
*Hydrotreater	5,000			4Qtr. 1995		
*Visbreaker	6,000			4Qtr. 1995		

Ontario

Petro-Canada Lubricants-
Mississauga

*Hydrowaxer	8,000			1996	Fluor Daniel-Engr. Chevron-Lic.	Hydrofinisher. New.
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Petro-Canada Products Inc.-Oakville

*Crude	Engineering		1995	Stone & Webster-Engr.	Distillation expansion.
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칠레

Petrox S.A. Refineria de Petroleo-
Concepcion

*Hydrocracker	9,000	Under constr.		1996	Foster Wheeler-Engr. Unocal-Lic.	New. Residual upgrade.
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Refineria de Petroleo Concon SA-
Concon

Cat. reformer	10,000	Under constr.		1995	Foster Wheeler-Engr./CS UOP-Lic.	New. Semiregenerative \$31MM.
Crude	15,725	Under constr.		1995	Foster Wheeler-Engr./Lic.	Expansion. \$10.4MM.
*Crude	6,290	Planned		1996		Expansion. Unit II \$13MM.
*FCC	6,900	Under constr.		1996	Foster Wheeler-Engr./CS UOP-Lic.	Expansion. \$22.5MM.
*Isomerization	5,400	Planned		1997		New. C ₅ /C ₆ feed. \$14MM.

중국

China National Offshore Oil Corp./
Royal Dutch Shell-
Huizhou, Guangdong

Refinery	100,000	Under study		1995		
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Hohbond International Petrochemical
Ltd.-Hainan Island
Sinopec-Shenzhen, Guangdong

*Refinery	125,000	Engineering		2Qtr. 1995	Parsons-PD	New. Ten process units. New. JV with Yukong/ Sunkyong/Shenzhen. \$1,500MM.
Refinery	110,000	Planned		1998		

콜롬비아

Ecopetrol-Barrancabermeja

Crude	25,000			2Qtr. 1995		Expansion.
FCC	35,000	Under constr.		1995	TPL-Engr./PD/DD/Constr. UOP-Lic.	Expansion.
Visbreaker	11,000			2Qtr. 1995	IFP-Engr.	Expansion.

C.I.S.

벨로루시

Mozyr Refinery-Mozyr

*Amine	225 cm/h			1997	Snamprogetti/Tecnicas Reunidas-Engr. Tecnicas Reunidas-Lic.	
*FCC	46,620			1996	Snamprogetti-Engr./CS	New.
*Hydrogen	20 MMcfd	Engineering		1995	Linde AG-DD/CS	New. PSA.
Vacuum	74,520			1997	Snamprogetti/Tecnicas Reunidas-Engr. Tecnicas Reunidas-Lic.	Turnkey.

Novopolotsk Refinery-Novopolotsk

Refinery	66,000			Late 1997	Delfino-Foki-Contr. Delfino-Foki-Contr.	Grassroots. \$650MM. Turnkey.
Vacuum	.....				

카자흐스탄

Atyrau Refinery-Atyrau

Cat. reformer	22,000	Planned			Hydrocarbon Engineering-Contr.	Total cost for project. \$1,200MM. Vacuum distillation. See note above.
Desalter	56,000	Planned			Hydrocarbon Engineering-Contr.	
FCC	36,000	Planned			Hydrocarbon Engineering-Contr.	VGO. See note above.
Hydrotreater	22,000	Planned			Hydrocarbon Engineering-Contr.	Naphtha. See note above.
MTBE/TAME	3,372	Planned			Hydrocarbon Engineering-Contr.	See note above.

Kazakhstan-Chimkent
Mangyshlak Peninsula

Crude	60,000	Planned				Expansion.
Refinery	60,000			1999		Grassroots. JV of Mitsui & Co./Mit- subishi Corp./Toyo Engr. Corp. \$1,500MM.

러시아

Unavailable-

*FCC	1,500,000 t/y	Engineering			Parsons-Engr./PE	
*Isomerization	150,000 t/y	Engineering			Parsons-Engr./PE/CS	C3/C4.
*Merox	750,000 t/y	Engineering			Parsons-Engr./PE/CS	Gasoline.
*Merox	150,000 t/y	Engineering			Parsons-Engr./PE/CS	LPG.
*Vacuum		Engineering			Parsons-Engr./PE/CS	Revamp.

Achinsk Refinery-Achinsk

*Coker	11,390			1996		New. Delayed.
*FCC	20,717			1998		New.
*Hydrogen	35 MMcfd			1998		New. Steam methane reforming.

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Khabarovsk Oil Refinery-Khabarovsk	*Hydrotreater	31,076		1998		New. Cat. cracker feed pretreatment.
	*MTBE	510		1998		New.
	*Vacuum CCR	18,223 18,000	Engineering Engineering	1995 1998	Chiyoda Corp.-DD/PE/CS	Expansion. Platformer with naphtha hydrotreater.
Kirishinefteorgsintez-Kirishi	Hydrocracker	60,000	Engineering	1998	Chevron/Lummus Crest-Dsgn./Lic. John Brown-Conr.	Expansion. Upgrade. Total cost of project. \$700MM.
	*Hydrogen	....	Planned	1998	John Brown-Conr.	See note above.
	*Vacuum	....	Planned	1998	John Brown-Conr.	See note above.
	*Visbreaker CCR	....	Planned	1998	John Brown-Conr. Litwin-Engr. UOP-Process	See note above. \$100MM.
Lukoil Volgogradneftepererabotka-Volgograd	Refinery	175,000	Process dsgn.	1998	SNC-Lavalin-Engr./PD/DD/PE/CS	Modernization. \$4MM.
	Refinery	240,000				\$1,500MM.
Novo-Ulinsk Refinery-Ufa Novo-Ulinsk Refinery-Ufa Novo-Ulinsk Refinery-Ufa	*Hydrogen	25 MMcfd	Engineering	1995	Linde AG-DD/CS	New. PSA.
	Crude	120,360			Technip-Conr.	Expansion and modernization.
	Cat. reformer	33,000			Technip-Conr.	
	Crude	120,000			Technip-Conr.	Includes vacuum distillation.
	Hydrorefiner	38,500			Technip-Conr.	Gas oil desulfurization.
	Isomerization	7,000			Technip-Conr.	Light gasoline.
	Refinery	4,000		Wint. 1995		Modular unit.
Permneft-Perm Ryazan Refinery-Ryazan	FCC	12,700	Engineering	1996	John Brown-Engr./DD/PE/CS	Expansion. \$50MM.
	Refinery	....				Modernization. \$500MM.
Saratov Refinery-Saratov Stavropolnefteorgsintez-Neftekumsk Surgut/Gasprom-Surgut	*Hydrocracker	1 MM t/y	Engineering	4Qtr. 1998	Intecs Uhde Industrial-Engr.	Revamp. Mild.
	Refinery	40,164	Planned			
	*Zeoforring	50,000 t/y	Engineering	1996	KTI-Engr.	New.
	Refinery	120,000				JV with Vostochnaya Kompaniya.
Tyumen province-W. Siberia Yaroslavnefteorgsintez-Yaroslav	Refinery	80,000	Planned		Teknogaz-CS	\$200MM.
	Cat. reformer	....			Thyssen Rheinstahl GmbH/Mitsui & Co.-CS	
투르크메니스탄						
Chardzhou Refinery-Chardzhou	Refinery	....				Revamp.
Krasnovodsk Refinery-Krasnovodsk	Refinery	....				Revamp.
Ukraine						
Drogobytch Refinery-Drogobytch	Cat. reformer	713,000 t/y	Engineering	1997	CTIP SpA-Engr./DD/PE/CS	New.
	Crude	3,400,000 t/y	Engineering	1997	IFP-Engr.	
	Hydrotreater	866,000 t/y	Engineering	1997	CTIP SpA-Engr./DD/PE/CS	New.
	Isomerization	258,000 t/y	Engineering	1997	IFP-Engr.	New. Naphtha.
	Vacuum	1,600,000 t/y	Engineering	1997	CTIP SpA-Engr./DD/PE/CS	New. C ₅ /C ₆ .
Kremenchug Oil Refinery-Kremenchug	Alkylation	3,643		2000		
	FCC	....	Engineering	1997	Stone & Webster-Engr./PE/CS/Lic.	Expansion.
	Hydrocracker	38,356		2000		Distillate upgrade.
	Hydrogen	43 MMcfd		2000		
	Hydrotreater	87,260		1995		Expansion. Straight run distillate.
	Hydrotreater	8,246		1997		Expansion. Lube oil polishing.
	Lubes	8,081		1997		Expansion.
	MTBE	581		2000		
	Vacuum	122,162		1997		Expansion.
	Visbreaker	28,191		1997		
	Cat. cracker	....			Thiemar-CS	Reconstruction.
우즈베키스탄						
Marubeni Corp.-Bukhara	Refinery	100,000		1996	Technip-Conr.	JV with China National Petroleum Corp. \$1,000MM.
코스타리카						
Refinadora Costarricense de Petroleo SA-Limon	Crude	10,000	Engineering	3Qtr. 1996	Intecs Uhde Industrial/Dragos-Engr./PE/CS	Expansion. Revamp.
	*HDS	....	Engineering	3Qtr. 1996	Intecs Uhde Industrial-Engr./PE/CS	Expansion.
	*Thermal	....	Engineering	3Qtr. 1996	Intecs Uhde Industrial-Engr./PE/CS	Expansion.
크로아티아						
Ina-d.d. Zagreb Rafinerija Rijeka-Rijeka	Hydrocracker	13,500		1996	Foster Wheeler Italiana-Conr. KT/Mannesmann-Conr.	Mild.
	Hydrotreater	22,000		1996	Foster Wheeler Italiana-Conr. KT/Mannesmann-Conr.	Straight run distillate.
Ina-Industrija Nafta D.D. Zagreb-Sisak	*Vacuum	6,500		1996		Reconstruction and expansion.
	FCC	5,000		4Qtr. 1995		Reconstruction and expansion.
	MTBE	580		4Qtr. 1995		

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키프로스

Cyprus Petroleum Refinery Ltd.- Larnaca	Crude	Planned			Debottleneck distillation. Debottleneck.
	Hydrotreater	Planned			

체코

Kaucuk sp.-Kralupy	RCC	25,000		1996		
Paramo A.S.-Pardubice	*Hydrogen	1.4 MMcfd	Engineering	1996	KTI-Engr./PE/CS	New. New.
	*Hydrorefiner	5,297		1996		

덴마크

AS Dansk Shell-Fredencia	*HDS	20,400		Oct. 1995	Lummus Crest-Engr.	New. Gas oil Expansion. Distillate. Expansion. Seven units.
Kuwait Petroleum Refining-Gulthaven	*Hydrotreater	.....	Engineering	1995	Stone & Webster-Engr.
Statolil AS-Kalundborg	*Refinery	35,000	Under constr.	2Qtr. 1995	Parsons-Engr./DD/PE/CS	

에콰도르

Petroecuador-Amazonas Esmeraldas La Libertad	Crude	10,000			Kellogg Panamerican Corp.-Contr.	Expansion. \$24MM. Expansion.
	Crude	20,000		1996		
	Crude	10,000		1997		
	Crude	.....				Revamp. Distillation columns. Expansion.
Petroindustrial-Shushufindi	*FCC	10,000	Under constr.	1995	Bufete-Engr./Contr. Kellogg-Lic.	

이집트

Alexandria Petroleum Co.-Alexandria	Lube	100,000 ty	Engineering	1997	Foster Wheeler CEE-PD	Expansion. Grassroots.
	*Refinery	100,000	Engineering	1998	Fluor Daniel-Engr.	
Cairo Petroleum Refining Co.- Mostorod	Isomerization	15,000	Engineering	1997	UOP-Lic.	C ₅ /C ₆ feed.
Egyptian General Petroleum Corp.- Mediterranean coast South of Suez	Refinery	.....	Planned			Grassroots. Grassroots.
	Refinery	.....	Planned			

프랑스

Elf France-Donges	Hydrotreater	57,000		1995	IFP-Engr.	Gas oil.
Feyzin	Hydrotreater	57,000		1995	IFP-Engr.	Gas oil.
Esso SAF-Port Jerome	Refinery	.....	Under constr.		TPL-Engr./PD	Revamp. \$15MM.
Mobil Oil Francaise-Notre Dame de Gravenchon	Isomerization	7,000				C ₅ /C ₆ .
Ste. Francaise des Petroles BP- Lavera	Hydrotreater	.....	Engineering	1996	Technip-Contr.	Distillate revamp.
Shell Chimie-Reichstett	HDS	.....	Under constr.		Foster Wheeler CEE-Engr./DD	Revamp.
Total-La Mede	HDS	.....	Engineering		Foster Wheeler CEE-Engr./DD/PE	Revamp.
	Splitter	.....	Under constr.	1995	Sofresid-Engr./DD/PE/CS	Addition of propane/propylene unit. \$18MM.

독일

Beta Raffineriegesellschaft- Wilhelmshaven	Isomerization	12,000		2Qtr. 1997		Expansion. C ₅ /C ₆ feed. Gasification.
	Thermal	30,000		4Qtr. 1996		
	Vacuum	70,000		4Qtr. 1996		
DEA Mineraloel AG-Wesseling	Hydrorefiner	26,000	Engineering	4Qtr. 1995		Expansion. Mid distillate.
Deutsche Shell AG-Harburg	HDS	29,000		Aug. 1995		Gas oil.
Elf-Leuna	CCR	36,000		1995	Technip-Engr. IFP-Contr.	
	Hydrocracker	27,300		1995	Technip-Engr. IFP-Contr.	Vacuum gas oil.
	Hydrotreater	36,000		1995	Technip-Engr. IFP-Contr.	Naphtha.
	Hydrotreater	64,000		1995	Technip-Engr. IFP-Contr.	Gas oil.
	Visbreaker	26,400			Lummus Crest-Engr./Dsgn. Shell/Lummus Crest-Lic.	
Erdoelraffinerie Neustadt-Neustadt Leuna-Werke-Leuna	Hydrorefiner	17,800		2Qtr. 1995		Expansion. Mid distillate. Modernization.
OMV AG-Karlsruhe	Refinery	.....			
	Hydrogen	76 MMcfd	Engineering	1995	KTI-Lic.	
	HDS	.....	Engineering	1995	Edeleanu-Engr./PD/DD/PE/CS	Gas oil.
PCK Schwedt AG-Schwedt	*Crude/	.....	Engineering	1996	Lurgi OI Gas Chemie- Engr./PD/DD/PE/CS	Vacuum. Revamp. Four units.
	*FCC	10,000		2Qtr. 1995	Toyo Engineering-Contr.	Expansion.
	Hydrorefiner	40,000		2Qtr. 1995	Edeleanu-Contr.	Expansion. Mid distillate.
	Isomerization	15,000	Engineering	2Qtr. 1995	Edeleanu-Engr./DD/PE/CS UOP-Process	Butane.
Refinery 2000 Investition GmbH (RIG)-Leuna	Refinery	.....				Modernization. \$445MM.
	*Alkylation	6,100	Engineering	1997	Lurgi OI Gas Chemie-Engr./DD Stratco-Lic.	New.
	*FCC	45,000	Engineering	1997	Lurgi OI Gas Chemie-Engr./DD HOP-Lic.	New. Including merox, gas plant.

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Wintershall AG-Lingen	*Hydrotreater	49,900	Engineering	1997	Lurgi Oil Gas Chemie-Engr./DD HOP-Lic.	New.
	Refinery	175,000		1997		Grassroots.
	Hydrogen	50 MMcfd	Under constr.	Dec. 1995	Edeleanu-Contr. L'Air Liquide-Tech. Edeleanu-Contr.	New. Purification, cryogenic recovery. \$16.5MM. New. Mid distillate. \$40MM.

가 나

Ghanaian Italian Petroleum CL-Tema	Refinery	Under study			Modernization.
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그리스

Eko-Hellenic Refineries and Chemicals of Macedonia Industrial & Commercial Co. SA-Thessaloniki	*HDS	9,000	Engineering	July 1996	Techint-Contr.	New. Diesel oil.
Hellenic Aspropyrgos Refining-Aspropyrgos, Athens	HDS	17,000	Under constr.	4Qtr. 1995	TPL-Engr./PD/DD/PE/Constr. Unocal-Lic.	Gas oil. Straight run and crack 60-40.
Motor Oil Hellas-Aghii Theodoroi	Hydrotreater	1,050	Under constr.	June 1995	TPL-Engr./PD/DD/PE/Lic./Constr.	Revamp of desulfurization.

인 도

Bharat Shell Ltd.-Taloja, Maharashtra	*Lubes	60,000 t/y	Engineering	June 1996	Davy Powergas India Ltd.-Engr./PE/CS	New. Blending. \$25MM.
Castrol India Ltd.-Silvassa	*Lubes	50,000 t/y	Engineering	Feb. 1996	Davy Powergas India Ltd.-Engr./PE/CS	New. Blending. \$13MM.
Cochin Refineries Ltd.-Ambalamugal	Crude	62,200		1995	Engineers India Ltd.-Contr.	Expansion.
	FCC	7,700		1995	Engineers India Ltd.-Contr.	Expansion.
	Vacuum	29,700		1995	Engineers India Ltd.-Contr.	Expansion.
	Refinery	180,000	Approved			Grassroots. \$1,350MM.
Essar Oil-Vadinar	Hydrogen	0.9 MMcfd	Engineering		KTi-Contr.	Turnkey.
Hindustan Petroleum Corp.-Bombay	Refinery	120,000	Planned			Two refineries. JV with Oman Refinery Co./Bharat Oil.
Site uncertain						\$750MM.
IBP Co. Ltd.-Numaligarh, Golaghat	Refinery	60,000	Planned	1997	Engineers India Ltd.-Dsgn.	
Indian Oil Corp.-Barauni	Cat.-reformer	7,400		1Qtr. 1996		
Daitari, Orissa	Refinery	120,000	Planned			JV with Gulf Oil/Trading Corp.
Digboi	Hydrotreater	1,260		1995	IFP/Total-Engr.	Wax.
Karnal	Hydrotreater	36,000		1995	IFP-Engr.	Naphtha.
Mathura	CCR	12,300	Engineering	1Qtr. 1996	IFP-Contr.	
Panipat	*FCC	.....	Under constr.	1996	Stone & Webster-PD/Lic./Tech.	
Madras Refineries Ltd.-Karnal	Refinery	120,000			Chevron/UOP/IFP-Tech.	\$853MM.
Madras	*HDS	21,700		1998		New. Heavy gas oil.
	*Visbreaker	3,446		1998	EIL-Contr.	Expansion.
Manali	Lubes	301				Additives plant. JV with Chevron.
Thanjavur district	Crude	10,000				Will handle gas and crude from Cauvery basin.
Mangalore Refinery & Petrochemicals Ltd.-Mangalore	CCR	9,500			UOP-Lic.	Platformer.
	Hydrocracker	20,695	Engineering	1995	Davy Powergas India-Engr./PD/CS	
	Hydrogen	45.0 MMcfd	Engineering	1995	UOP/Unocal-Lic.	
	Merox	2,270	Engineering	1995	KTi-Contr.	LPG.
				1995	Davy Powergas India-Engr./CS	
					UOP-Lic.	
	Merox	16,700	Engineering	1995	Davy Powergas India-Engr./CS	Kerosene.
					UOP-Lic.	
	Refinery	60,250	Under constr.		Toyo Engineering-DD/CS	
Reliance Industries Ltd.-Hazira, Gujarat	*Aromatics	.....	Engineering	1996	Stone & Webster-Engr./PE	New complex. Project includes toluene disproportionation.
Site uncertain	Refinery	120,000	Approved			JV with C. Itoh, Japan.

인도네시아

BP Asia Pacific-Bintan Island	Refinery	120,000				JV with C. Itoh, Japan. \$600MM.
Pertamina-Balikpapan	Crude	25,000				Expansion.
	Crude	4,500				Expansion.

이 란

National Iranian Oil Co.-Bandar Abbas	Crude	104,400	Under constr.	1996	Snamprogetti/Chiyoda-PD/DD/PE/CS	New atmospheric distillation unit.
	*Hydrocracker	25,200		1996	Snamprogetti/UOP-Engr.	New.
					UOP-Lic.	
	*Hydrogen	50 MMcfd		1996	Snamprogetti/Foster Wheeler Italiana-Engr.	New.
	*Visbreaker	27,900		1996	Foster Wheeler Italiana-Lic. Lummus Crest/Snamprogetti-Engr. Lummus Crest/Shell-Lic.	

이스라엘

Paz Fuel Co.-Ashdod	Refinery	100,000	Planned			\$500MM.
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국명 회사/소재지	프로젝트	신설규모 (b/d)	진행현황	완공 (예정)일	시공계약자 및 형태	비고	
이탈리아							
Agip Raffinazione SpA-Sannazzaro de Burgondi	*SRU	Under constr.	1995	Tecnimont-DD/PE/PM	Offgas treatment. Revamp. Total capacity will be 140,000 t/y. Gas/LPG revamp. Total capacity will be 260,000 t/y.	
	*Sweetener	.....	Under constr.	1995	Tecnimont-DD/PE/PM	
Agip SpA-Milazzo Porto Marghera	*Hydrogen	48 MMcfd	Engineering	1996	KTI-Engr./CS	New. Revamp. Gas oil. Total capacity will be 456,000 t/y. Revamp. Gas oil. Total capacity will be 835,000 t/y.	
	*HDS	.....	Under constr.	1996	Tecnimont-DD/PE/CS	
	*HDS	.....	Under constr.	1996	Tecnimont-DD/PE/CS	
Api-Raffineria di Ancona SpA-Ancona	*HDS	21,000	Engineering	Apr. 1996	TPL-Engr./PD/DD/PE/Constr.	New. \$20MM.	
	*Hydrogen	7.2 MMcfd	Engineering	Apr. 1996	TPL-Engr./PD/DD/PE/Constr.		New. \$10MM.
	*Thermal	6,800	Under constr.	June 1995	Tecnimont-Constr.		Expansion. \$10MM.
Esso Sarpom-Trecale Isab-Priolo Gargallo	HDS	15,000	Engineering	2Qtr. 1995	Foster Wheeler Italiana-Engr./CS	Tail gas treating. New. Solvent.	
	Deasphalting	33,000	Engineering	1997	CTIP SpA-PD		
	ROSE	33,000	Engineering	1997	Kellogg-Engr.		
	Visbreaker	45,000	Engineering	1996	CTIP SpA-PD		
Praoil SpA-Gela Saras SpA-Sarroch Tamoi-Cremona	*Coker	38,700	1996	Snamprogetti-Engr./CS	New. Revamp. Expansion. Delayed. C ₆ /C ₈ feed. Gas oil.	
	Isomerization	15,000	Planned	1995-96	.....	
	HDS	18,000	Engineering	1996	Foster Wheeler Italiana-Engr.		

일본						
Cosmo Oil Co. Ltd.-Sakai Fuji Oil Co. Ltd.-Chiba Idemitsu Kosan-Aichi	*Hydrotreater	25,000	Planned	Nov. 1996	New. Straight run distillate. New hydrodesulfurization unit. New. Gas oil.
	*VGO	.....	Under constr.	Dec. 1995	Toyo Engineering-Engr./PD/DD/PE
	*HDS	30,000	Engineering	Oct. 1996	Mitsui Engr. & Shipbuilding-Engr./Constr./DD/PE/CS	
Himeji, Hyogo Hokkaido	Crude	20,000	Topping capacity. New. Gas oil.
	*HDS	25,000	Engineering	Aug. 1996	Mitsui Engr. & Shipbuilding-Engr./Constr./DD/PE/CS	
Ichihara, Chiba	MTBE	100,000 t/y	Toyo Engineering-Engr. CD Tech-Lic.
Tokuyama, Yamaguchi Japan Energy Co. Ltd.-Chita	Crude	30,000	Topping capacity. New. Gas oil.
	*HDS	27,000	Engineering	June 1996	Mitsui Engr. & Shipbuilding-Engr./Constr./PD/DD/CS	
Mizushima	*Hydrogen	Engineering	June 1996	Mitsui Engr. & Shipbuilding-Engr./Constr./DD/PE/CS	New. Steam naphtha reforming.
Kashima Oil Co.-Kashima	FCC	2,000	Planned	Expansion.
	MTBE	60,000 t/y	Under constr.	.....	Kashima-Engr. IFP-Constr.
Koa Oil-Osaka	Alkylation	2,000	Planned	Expansion. Topping capacity. Expansion.
	Crude	24,000	.....	.....	.....
	FCC	1,500	Planned	.....	.....
Kyokuto Petroleum Industries Ltd.-Chiba	FCC	20,000	Under constr.	Spr. 1995	Toyo Engineering-Engr./Constr. Kellogg-Lic.	Residual.
	Hydrocracker	5,000	.....	3Qtr. 1995	.....
	Vacuum	10,000	.....	3Qtr. 1995	.....
Mitsubishi Petroleum Co. Ltd.-Mizushima	*Hydrogen	18 MMcfd	3Qtr. 1996	Expansion. Steam naphtha reforming.
	*Hydrorefiner	40,000	.....	3Qtr. 1996	.....
Nihonkai Oil-Toyama	Crude	14,000	Expansion. Mid distillate. Topping capacity. New distillation plant.
	Crude	1,205	Under constr.	.....	Niigata Engr. Co.-Engr./PD/DD/PE/CS
	Hydrogen	147.0 MMcfd	Under constr.	.....	Niigata Engr. Co.-Engr./PD/DD/PE/CS
Okinawa Sekiyu Seisei-Okinawa Showa Shell Sekiyu KK-Kawasaki Showa Yokkaichi Sekiyu Co. Ltd.-Yokkaichi	Crude	20,000	Steam methane reforming. Topping capacity. Gas oil.
	HDS	24,000	.....	1995	.....
	Alkylation	8,000	Under constr.	1996	Mitsubishi Heavy Industries Ltd.-Constr.	
	*Cat. cracker	50,000	.....	1996	.....
	*CCR	32,000	.....	1996	.....
Taiyo Oil Co. Ltd.-Kikuma Tohoku Oil Co.-Sendai	*HDS	40,000	1996	Residual. Topping capacity. Topping capacity.
	Crude	10,000	.....	.....	.....
	Crude	12,000	.....	.....	.....
	Crude	12,000	.....	.....	.....

요르단						
Jordan Petroleum Refinery-Zerka	Cat. reformer	3,925	Engineering	1997	UOP-Lic.	Expansion. Semiregenerative. Expansion. Distillate upgrade. Expansion. Cat. reformer feed pre-treatment. Expansion. New. \$8MM.
	Hydrocracker	1,200	Engineering	1997	Jordan Petroleum-Constr. UOP-Lic.	
	Hydrotreater	4,800	Engineering	1997	Jordan Petroleum-Constr. UOP-Lic.	
	Vacuum	5,600	Engineering	1997	Jordan Petroleum-Constr. UOP-Lic.	
	Visbreaker	10,200	Engineering	1997	Jordan Petroleum-Constr.	

쿠웨이트						
Kuwait National Petroleum Co.-Mina Al-Ahmedi	Alkylation	4,100 b/sd	Engineering	Aug. 1997	Mitsui Engr. & Shipbuilding-Engr./Constr./DD/PE/CS Stratco-Lic.	New. Sulfuric acid.

국명 회사/소재지	프로젝트	신설규모 (b/d)	진행현황	완공 (예정)일	시공계약자 및 형태	비고
Mina-Ah-Ahmadi	FCC	40,000 b/d	Engineering	Aug. 1997	Mitsui Engr. & Shipbuilding-Engr./Contr./DD/PE/CS UOP-Lic.	Expansion.
Mina Ah-Ahmadi	MTBE	7,415 b/d	Engineering	Aug. 1997	Mitsui Engr. & Shipbuilding-Engr./Contr./DD/PE/CS IFP-Lic.	New.
레바논						
Tripoli Oil Installations-Tripoli	Crude	30,000				Reconstruction and expansion.
리비아						
National Oil Corp.-Sebha	Cat. reformer	4,500	Engineering	1997	CTIP SpA-PD	New.
	Crude	20,000	Engineering	1997	CTIP SpA-PD	New.
	Hydrotreater	6,200	Engineering	1997	CTIP SpA-PD	New. Naphtha.
Tobruk	CCR	3,300	Engineering	1997	IFP-Contr.	New.
	Hydrotreater	5,600	Engineering	1997	CTIP SpA-PE IFP-Contr. CTIP SpA-PE	New. Naphtha.
리투아니아						
Mazheikiai State Oil Refinery-Mazheikiai	Alkylation	190,000 t/y		2Qtr. 1995	Foster Wheeler/Hydrocarbon Tech.-Engr.	Sulfuric acid. \$50MM.
말레이시아						
BHP Petroleum Pty.-Bintulu	Refinery	150,000	Planned	June 1996		JV with Chinese Pet. Corp.-45%/Petronas-10%. \$1,260MM.
Eso Malaysia Bhd.-Port Dickson	Crude	16,800	Planned.	1995		Expansion.
Malaysian Refining Co.-Melaka	Crude	100,000	Under study	1997		Sour crude unit. JV of Petronas/Conoco.
Pertamina-Melaka	Amine	....	Engineering	1998	Foster Wheeler-Engr./PD	New. Treater.
	Cat. reformer	....	Engineering	1998	Foster Wheeler-Engr./PD	New.
	Coker	....	Engineering	1998	Foster Wheeler-Engr./PD	New. Delayed.
	Crude	....	Engineering	1998	Foster Wheeler-Engr./PD	Distillation. New.
	Hydrocracker	....	Engineering	1998	Foster Wheeler-Engr./PD	New.
	Hydrogen	....	Engineering	1998	Foster Wheeler-Engr./PD	New.
	Hydrotreater	....	Engineering	1998	Foster Wheeler-Engr./PD	New. Naphtha.
	Hydrotreater	....	Engineering	1998	Foster Wheeler-Engr./PD	New. Distillate.
	Isomerization	....	Engineering	1998	Foster Wheeler-Engr./PD	C ₆ . New.
	LPG	....	Engineering	1998	Foster Wheeler-Engr./PD	New. Sweetener.
	Sat gas	....	Engineering	1998	Foster Wheeler-Engr./PD	New. Recovery.
	Vacuum	....	Engineering	1998	Foster Wheeler-Engr./PD	Distillation. New.
멕시코						
Petroleos Mexicanos-Cadereyta	Alkylation	6,000	Under constr.	Dec. 1995	Instituto Mexicano del Petroleo-Engr./DD/PE/CS	\$34MM.
	Isomerization	15,000	Under constr.			C ₂ /C ₆ .
	*MTBE	30,000 t/y	Under constr.			
Coatzacoalcos	*Isomerization	19,148	Engineering	Nov. 1995	UOP Equitec Services-Lic. Howe-Baker-Engr./PE/DD	New. C ₄ .
Minatitlan, Ver. Salamanca, Gto.	Isomerization	15,000	Under constr.			C ₂ /C ₆ .
	*Alkylation	3,400	Under constr.	Nov. 1995	Instituto Mexicano del Petroleo-Engr./DD/PE/CS	\$20MM.
	*Isomerization	10,300	Under constr.			C ₂ /C ₆ .
Salina Cruz, Oax.	*Isomerization	13,500	Under constr.	Mar. 1996	Instituto Mexicano del Petroleo-Engr./PD/DD/PE/CS	C ₂ /C ₆ . \$25MM.
Tula, Hidalgo	*Alkylation	7,700	Under constr.			Residual.
	*Hydrotreater	50,000	Under constr.			C ₂ /C ₆ . \$21MM.
	*Isomerization	13,700	Under constr.	Mar. 1996	Instituto Mexicano del Petroleo-Engr./DD/PE/CS	
	*MTBE	90,000 t/y	Under constr.			
	*TAME	90,000 t/y	Under constr.			
네덜란드						
Shell Nederland Raffinaderij BV-Pernis	*Gasification	9,000		Mid 1997		Residual.
	Hydrocracker	50,000		Mid 1997	Lummus Crest B.V.-Engr.	
	Refinery	....		1997		Upgrade.
(네) 안틸레스						
Coastal Aruba Refining Co. NV-San Nicholas	Coker	23,000		4Qtr. 1995		Delayed. \$100MM.
Refineria Isla-Curacao	Cat. cracker	14,000				Pretreatment feed.
	Cat. reformer	3,000				Debottleneck.
나이지리아						
Nigeria National Petroleum Corp.-Bonny Island	Refinery	10,000				Portable. JV with Gulf-Petro Trading Co. Inc.

국명 회사/소재지	프로 젝트	신설규모(b/d)	진행현황	완공(예정)일	시공계약자 및 형태	비고
Port Harcourt	*Hydrotreater		Under constr.	1995	Kellogg/Chiyoda-Engr./Contr. IFP-Lic.	
노르웨이						
AS Norske Shell-Sola	*HDS	13,200		Oct. 1995		Revamp.
Statoil-Mongstad	*Hydrotreater	17,100		1996	Badger-Contr.	New.
오만						
Oman Refinery Co.-Mina Al Fahal	*Isomerization	4,000	Planned			New. C ₅ /C ₆ feed.
파키스탄						
Attock Refinery Ltd.-Rawalpindi	Cat. reformer	5,000	Planned	1996-97		New. Semiregenerative.
	Crude	12,500	Planned	1997-98		Expansion.
	*Hydrotreater	6,000	Planned	1996-97		New. Cat. reformer feed pretreatment.
National Iranian Oil Co.-Khalifa Point	*Vacuum Refinery	3,500	Planned	1997-98		JV with Perac. \$1,300MM.
National Refinery Ltd.-Karachi	Isomerization	120,000	Planned	1998-99		New. C ₅ /C ₆ feed.
Pakistan Refining Ltd.-Karachi	Hydrocracker	5,000	Under study	1998	UOP-Contr.	Upgrade residual fuel. JV with Crescent.
	Hydrocracker	28,000				
파나마						
Refineria Panama SA-Las Minas	*Cat. reformer	11,000	Under constr.	July 1995	Litwin-Contr.	Expansion.
	*LPG recovery	2,500	Under constr.	July 1995	Litwin-Contr.	Expansion.
	*Sweetener	5,500	Under constr.	July 1995	Litwin-Contr.	New. Light gasoline.
	*Sweetener	2,800	Under constr.	July 1995	Litwin-Contr.	New. LPG.
	Visbreaker	27,000	Under constr.	July 1995	Litwin-Contr.	Expansion and upgrade. \$80MM.
파푸아뉴기니						
PNG Oil Refining Co. Pty. Ltd.-Kopi	Refinery	20,000	Planned	1996		Galveston-Houston Co. \$75MM.
PNG Refinery Pty. Ltd.-Port Moresby Harbor	Refinery	30,000	Planned	1996		JV of CMPS&F/PetroFac Inc./Petimex/Curtain Bros. PNG. \$160-190MM.
필리핀						
Caltex Philippines Inc.-San Pascual, Batangas	*Crude	1,500		2Qtr. 1995		Expansion.
폴란드						
Petrochemia-Plock	*Hydrocracker	2,600,000 t/y		1997	Snamprogetti/UOP-Engr. Unocal/UOP-Lic.	New.
	*Hydrogen Crude	100 MMcfd	Engineering	1997	KTI-Engr.	New.
Petroleum Refinery Gdansk-Gdansk	Crude	70,000	Planned			Expansion.
푸에르토리코						
Caribbean Petroleum Corp.-Bayamon	Refinery	42,000				Modernization. \$25MM.
Phillips Puerto Rico-Guayama	Aromatics			May 1995	Fluor Daniel/Williams Brothers-Engr./PE Caribbean Engrs. & Architects-DD. H.B. Zachry-Constr.	Upgrade.
루마니아						
Petromidia SA-Constanta	*MTBE	800	Under constr.	2Qtr. 1995	TMUCB, Romania-Contr.	New.
Petrolul SA-Ploiesti	*MTBE	510		Dec. 1995		New.
Raflo SA-Onesti	*Cat. reformer			1995-96		Modernization.
	*Desalter			1995		Revamp unit.
	*FCC			1995-96		Modernization.
Steaua SA-Cimpina	Lubes	278	Planned	2000	IPIP Ploiesti-Contr.	Expansion.
사우디아라비아						
Petromin-Al Jubail	*Hydrogen	3.7 MMcfd	Engineering	1996	KTI-Engr./PE/Constr.	New.
Saudi Arabian Oil Co.-Jeddah	CCR	29,000		1995		Expansion.
	Hydrotreater	21,000				Expansion. Diesel desulfurization.
	Hydrotreater	24,000		1995		Expansion. Naphtha desulfurization.
	Isomerization	4,500		1995		C ₅ /C ₆ Expansion.
	Polymer	1,500		1995		Expansion.
	Visbreaker	17,000		1995		Expansion.
Ras Tanura	CCR	38,800	Engineering	1998	JGC-Engr./PD/DD/PE/CS UOP-Lic.	New. Platformer.
	Hydrocracker	44,000	Engineering	June 1998	Bechtel-Contr./DD UOP/Unocal-Lic.	New. Residual upgrade. \$400MM.
	Hydrogen	62 MMcfd		2Qtr. 1998	Linde-Lic.	New. Steam naphtha reforming.
	Hydrotreater	14,000	Engineering	1Qtr. 1998	JGC-Engr./PD/DD/PE/CS UOP-Lic.	New. Naphtha desulfurization.
	Hydrotreater	38,800		1Qtr. 1998	UOP-Lic.	Cat. reformer feed pretreatment.
	Visbreaker	60,000	Engineering	June 1998	Bechtel-Contr./DD Lummus Crest-Lic.	New. \$50MM.

국명 회사/소재지	프로젝트	신설규모 (b/d)	진행현황	완공 (예정)일	시공계약자 및 형태	비고
Riyadh	CCR	23,000		1995		Expansion.
	Hydrotreater	32,000				Expansion. Diesel desulfurization.
Yanbu	Hydrotreater	38,000		1995		Expansion. Naphtha desulfurization.
	Isomerization	8,500		1995		Expansion. C ₅ /C ₆ .
	Alkylation	17,000		1995		Expansion.
	CCR	55,000		1995		Expansion.
	Crude	130,000		1995		Expansion.
	FCC	55,000		1995		Expansion.
	Hydrocracker	40,000				
	Hydrotreater	70,000		1995		Expansion. Distillate desulfurization.
	Hydrotreater	15,200				Kerosene.
	Hydrotreater	83,000		1995		Expansion. Naphtha desulfurization.
	Isomerization	27,000		1995		Expansion. C ₅ /C ₆ .
	Isomerization	7,000				C ₄ .
	Vacuum	130,000		1995		Expansion. Distillation unit.
	Visbreaker	49,000		1995		Expansion.
Saudi Petrochemical Co.-Al Jubail	*MTBE/ETBE	700,000 t/y	Engr. stage	1996	Kellogg-Engr./Contr. CD Tech-Lic.	
싱가포르						
Agip Petroli SpA-Jurong Port	Lubes	612			CTIP SpA-Engr.	Blending.
Esso Singapore Pty. Ltd.-Chawan	Hydrogen	15 MMcfd		1995	Foster Wheeler Italiana-Contr.	PSA.
	MEA	.....		1995	Foster Wheeler Italiana-Contr.	Regeneration.
	Processor	15,000		1995	Foster Wheeler Italiana-Contr.	
Petrochemical Corp. of Singapore Pte. Ltd.-Merbau	*Aromatics	360,000 t/y	Engineering	June 1996	Mitsui Engr. & Shipbuilding- Engr./Contr./DD/PE/CS	New.
	*MTBE	51,000 t/y	Engineering	Mar 1997	Mitsui Engr. & Shipbuilding- Engr./Contr./DD/PE/CS	New.
Singapore Refining Co. Ltd.- Pulau Merlimau	Alkylation	4,200		3Qtr 1995	JGC Corp.-Contr.	Sulfuric acid.
	Crude	57,000		3Qtr 1995	JGC Corp.-Contr.	Expansion.
	Dimerization	4,100		3Qtr 1995	JGC Corp.-Contr.	New.
	FCC	31,000	Under constr.	1995	JGC Corp.-Contr. CTICI-CS. Stone & Webster-Lic./PD	New. Residual.
	Hydrogen	17 MMcfd		3Qtr 1995	JGC Corp.-Contr.	Expansion. Steam naphtha reforming.
	Hydrorefiner	38,000		3Qtr 1995	JGC Corp.-Contr.	Mid distillate.
	*MTBE	1,400		3Qtr 1995	JGC Corp.-Contr.	New unit.
	*Spent acid	45 t/d	Under constr.	June 1995	JGC Corp.-Contr. Simon-Carves-DD/CS	New regen. unit.
남아프리카						
BP-Shell-Durban	Crude	45,000		1996		Expansion
Caltex-Capetown	Crude	40,000		1996		Expansion.
National Petroleum Refiners of South Africa PL-Sasolburg	Crude	10,000		1996		Expansion
스페인						
BP Oil Espana SA-Castellon	*Hydrorefiner	16,000 t/y	Engineering	July 1996	Foster Wheeler Iberia-DD/PE	Expansion Gas oil. \$20MM.
Ertol SA-Huelva	Crude	20,000	Engineering	1995	Tecnicas Reunidas- Engr./PD/DD/PE	Expansion. \$15MM.
	Hydrotreater	25,000	Engineering	1996	Unocal-Lic.	New. Straight run distillate. \$40MM.
	Hydrotreater	3,000	Engineering	1995		Expansion. Cat cracker feed pre-treatment.
Indian Additives Ltd.-Manali	Lube plant	301				JV of Madras Refineries Ltd Chevron Chemical Co
Panoco Asturiana SA-Gijon	Hydrotreater	16,000	Engineering		Tecnicas Reunidas-Engr./DD/PE	
Repsol Petroleo-La Coruna	Refinery	.....	Planned	End 1996		\$1,600MM.
	*Hydrogen	11 MMcfd	Engineering	1996	Foster Wheeler Iberia-DD/PE KTI-PE	New.
Puertollano Tarragona	*Hydrogen	43 t/d	Engineering	1996	Tecnicas Reunidas-Engr./DD/PE	
	MTBE	160,000 t/y	Under constr.	1995	Foster Wheeler Iberia-DD/PE	New. \$14MM.
스리랑카						
Ceylon Petroleum Corp.- Sapugaskanda	Vacuum	1,100		1995/96		Expansion.
	Cat. reformer	1,125		1997		Expansion. Semiregenerative.
수리남						
Staatsolie Maatschappij Suriname NV- Suriname	Hydrocracker	.....				Phase II.
스웨덴						
Norsk Hydro-Lysekil	MTBE	40,000 t/y				\$50MM.
OK Raffinaderi AB-Gothenburg	*HDS	6,500		4Qtr 1996	Lummus Crest-Contr.	New. Heavy gas oil.
	*Hydrotreater	37,000		4Qtr 1996	Lummus Crest-Contr.	New. distillates.
Skandinaviska Raffinaderi AB-Lysekil	*FCC	.....	Under constr.	1995	Kellogg-Lic.	Revamp.
	*Isomerization	.....	Under constr.	1995	Kellogg-Engr./Contr. UOP-Lic.	

국명 회사/소재지	프로 젝트	신설규모 (b/d)	진행현황	완공 (예정)일	시공계약자 및 형태	비고	
태국							
Esso Standard Thailand Ltd.-Sriracha Petroleum Authority of Thailand- Bangkok	Crude	82,000		Mid 1995	Foster Wheeler-Engr./Contr.	\$900MM.	
	Crude	20,000			Chiyoda Corp.-Contr.	Modernization of distillation unit. 40,000 total capacity. \$80MM.	
Rayong Refinery Co. Ltd.- Map Ta Phut	Refinery	145,000	Engineering	1996	Raytheon Engrs. & Const./Fluor Daniel-Contr.	Grassroots. JV of Royal Dutch Shell-64%/Pet. Auth. of Thai- land-36%.	
Star Petroleum Refining Co.- Map Ta Phut	Cat. reformer	15,000	Engineering	1996	JGC Corp.-Engr./DD/PE/CS	Residual. Diesel. Vacuum gas oil. Grassroots. JV of Caltex-64%/Pet. Auth. of Thailand-36%.	
	FCC	37,000	Under constr.	1996	JGC Corp.-Engr./DD/PE/CS Stone & Webster-Engr./Lic.		
	Hydrotreater	56,200	Engineering	1996	JGC Corp.-Engr./DD/PE/CS		
	Hydrotreater	28,000	Engineering	1996	JGC Corp.-Engr./DD/PE/CS		
	Refinery	130,000 b/sd	Under constr.	1996	JGC Corp.-Engr./DD/PE/CS Kellogg-Engr./Lic.		
Thai Oil Co. Ltd.-Sriracha	Vacuum	57,000	Engineering	1996	JGC Corp.-Engr./DD/PE/CS	Distillate.	
	*Hydrocracker *Vacuum	21,200 34,500		Aug. 1996 Aug. 1996			
Thai Petrochemical Industry Co. Ltd.- Rayong	*Cat. cracker	.....	Engineering	1997	Stone & Webster- Engr./PE/CS/Lic./Tech.	New.
트리니다드							
Trinidad & Tobago Oil Co. Ltd.- Pointe a Pierre	FCC	3,600		1Qtr. 1996	SNC Lavalin-DD/PE/CS UOP-Lic. Kellogg-PM	Expansion.	
	Hydrocracker	49,500		3Qtr. 1995	Wimpey-Engr./PE/Constr. Kellogg-PM	New.	
	Hydrogen	30 MMcfd		2Qtr. 1995	Kellogg-Engr./Lic. Foster Wheeler/Wimpey-Contr.	New. Steam methane reforming.	
	*Hydrogen	30 MMcfd		2Qtr. 1995	Wimpey-Engr./PE/Constr.	New. Pressure swing adsorption.	
	*Hydrogen	14 MMcfd		2Qtr. 1995	Wimpey-Engr./PE/Constr. Kellogg-PM. Foster Wheeler-Lic.	New. Membrane.	
	*MTBE	910		2Qtr. 1996		New.	
	Visbreaker	28,800	Under constr.	4Qtr. 1995	SNC Lavalin-DD/PE/CS Lummus Crest-Lic. Kellogg-PM	New.	
튀니지							
Ste. Tunisienne Industries des Raffinage-Bizerte	Crude	30,000	Planned				
터키							
Turkish Petroleum Refineries Corp.-Izmir	*CCR	18,900	Planned	2000		New.	
	*Isomerization	8,800	Planned	2000		New.	
	Izmit	CCR	14,000	Under constr.	Aug. 1996	Snamprogetti/Tekfen-Contr. UOP-Lic. Snamprogetti-Engr.	Revamp.
	Crude	119,500	Engineering	1997	Litwin/Pakpas Pak-Contr. Parsons/Litwin-Engr.	Distillation revamp.	
	Hydrocracker	23,000	Under constr.	Nov. 1996	Snamprogetti/Tekfen-Contr. Unocal-Lic. UOP-PD. Snamprogetti-DD.	New. Upgrade.	
	Hydrogen	50 MMcfd	Under constr.	Nov. 1996	Snamprogetti/Tekfen-Contr. Foster Wheeler/Unocal-Lic.	New. Steam methane/naphtha reforming. Pressure swing adsorp- tion recovery.	
	*Isomerization	8,800	Planned	2000	Snamprogetti-Engr.	New.	
	*Vacuum	64,200	Engineering	1997	Litwin/Pakpas Pak-Contr. Parsons/Litwin-Engr.	Revamp.	
	Kirikkale	Isomerization	9,000	Engineering	2000	Heurtey-Alsim/Alarko-Contr. UOP-Engr./Lic.	New.
영국							
잉글랜드							
Esso Petroleum Co. Ltd.-Fawley	*Revamp		70% complete	4Qtr. 1995	Parsons-Engr./DD/PE/CS	Various projects.	
Phillips-Imperial Petroleum Ltd.- Port Clarence	*Hydrotreater	17,500		3Qtr. 1995	Fluor Daniel-Contr.	New. Straight run distillate.	
스코틀랜드							
BP Oil Grangemouth Refinery Ltd.- Grangemouth	Hydrotreater	33,000	Under constr.	1Qtr. 1996	AMEC Process & Energy-DD/PE/CS	New. Mid distillate. £\$65MM.	
Exxon Chemical Co.-Mossmorran	*Hydrotreater	432,000 ty	Under constr.	1995	Kellogg-Engr. IFP-Lic.		
웨일즈							
Elf Oil UK Ltd.-Milford Haven	*Hydrorefiner	35,000	Under constr.	3Qtr. 1996	AMEC Process & Energy- Engr./DD/PE/CS	New. Mid distillate. £\$65MM.	
Gulf Oil Refining Ltd.-Milford Haven	*Isomerization	4,500		3Qtr. 1996		New. C4 feed.	
	*Hydrotreater	.....	Engineering	1996	Stone & Webster-Engr./PE/CS	Distillate.
	*Vacuum	10,000		3Qtr. 1995		Expansion.	

국명 회사/소재지	프로 젝트	신설규모 (b/d)	진행현황	완공 (예정)일	시공계약자 및 형태	비고
미 국						
Air Products-Martinez, Calif. Wilmington, Calif.	*Hydrogen	90 MMcf	Engineering	1995	KTI-PE/Constr.	New.
American International Refinery Inc.- Lake Charles, La.	*Hydrogen	80 MMcf	Engineering	1996	KTI-Engr./PE/Constr.	New.
	*Cat. reformer	8,500		1995		New.
	*Hydrotreater	8,500		1995		New. Cat. reformer feed pretreat- ment.
Amoco Oil Co.-Texas City, Tex. Salt Lake City, Utah	*FCC	....	Under constr.	1995	Stone & Webster-Engr./PE	Expansion.
	*Crude	....	Engineering	1995	Stone & Webster-Engr./DD	Expansion.
	*FCC	....	Engineering	1995	Stone & Webster-Engr./DD	Expansion.
Arco Products Co.- Los Angeles, Calif.	Alkylation	....	Engineering	1Qtr. 1996	Brown & Root-Engr. Cherne-Const.	Sulfuric acid modification.
	Hydrogen	35 MMcf	Engineering	1Qtr. 1996	KTI-Engr./CS	
	Hydrotreater	....	Engineering	1Qtr. 1996	Bechtel-Engr. Brown & Root-Const.	Naphtha feed modification.
Ashland Oil Inc.-Canton, Ohio	*FCC	....	Engineering	1995	Kellogg-Engr. RPS-Lic.	Revamp.
Chevron-EI Segundo, Calif. Richmond, Calif.	Alkylation	20,000	Under constr.	Mar. 1996	Bechtel-Engr./Constr./DD	Expansion.
	Hydrotreater	15,000	Under constr.	Apr. 1995	Bechtel-Engr./Constr./DD	New sulfuric acid unit.
	Alkylation	13,000	Under constr.	4Qtr. 1995	Parsons-Engr./PE	
	FCC	8,000	Under constr.	4Qtr. 1995	Jacobs-Engr./PD/CS	Modernization. \$290MM.
	TAME	2,500	Under constr.	4Qtr. 1995		
Citgo Petroleum Corp.- Lake Charles, La.	*FCC	....	Engineering	1996	Stone & Webster-PD/Lic./Tech.	Expansion.
	*Hydrogen	70 MMcf	Engineering	Nov. 1996	Howe-Baker-PD/DD/PE Liquid Carbonic-Engr.	New. Steam methane reforming. HB also will provide fabrication.
Clark Oil & Refining-Blue Island, Ill. Hartford, Ill.	Hydrotreater	4,000				Other distillates.
	*Revamp	....	Engineering	1995	Pritchard-Engr./DD	Several projects.
Conoco-Lake Charles, La.	CCR	34,000	Design	1996	UOP-Lic.	New. Platformer.
	Hydrotreater	15,000	Dsgn. stage	1996	IFP-Lic.	Naphtha desulfurization.
Billings, Mont.	*Revamp	....	Engineering	Jan. 1997	Pritchard-Engr./DD/PE/CS	Several projects.
Diamond Shamrock-Sunray, Tex. Three Rivers, Tex.	TAME	2,000	Under constr.	June 1995	Diamond Shamrock-Engr./Constr. C.D. Tech-Lic.	New.
	*Hydrogen	6 MMcf	Planned	4Qtr. 1995		Plant relocation. Steam methane reforming.
Ergon Refining Co.-Vicksburg, Miss.	*Hydrotreater	6,000	Planned	1Qtr. 1996		Plant relocation. Gas oil.
	Asphalt	7,100		1995		Expansion.
	Crude	10,000		1995		Expansion.
	Vacuum	8,000		1995		Expansion.
Excel Paralubes-Lake Charles, La.	Amine regen.	180 t/d		1997	Excel Paralubes-Lic.	New.
	Crude	70,000		1997	Excel Paralubes-Lic.	New. JV of Conoco/Pennzoil.
	Hydrocracker	28,000		1997	Brown & Root-Engr. UOP/Unocal-Lic.	New. Lube oil. \$500MM.
	Hydrowaxer/ hydrofinisher	20,000		1997	Brown & Root-Engr. Chevron-Lic.	New.
	Sat gas recovery	....		1997	Brown & Root-Engr. Excell Paralubes-Lic.	New.
Exxon Co.-Benicia, Calif.	*Benzene	....	Engineering	Apr. 1995	Parsons-Engr./DD/PE/CS	Saturation.
	*Fractionation	....	Engineering	Apr. 1995	Parsons-Engr./DD/PE/CS	Mogas.
	*Hydrotreater	....	Engineering	Apr. 1995	Parsons-Engr./DD/PE/CS	Naphtha.
Farmland Industries, Inc.- Coffeyville, Kan.	Crude	62,500		1995		Expansion.
Finca Oil & Chemical Co.- Port Arthur, Tex.	Solvent	7,000	Engineering	1996		Extraction.
Indian Refining LP-Lawrenceville, Ill.	Crude	18,000				Expansion. \$57MM.
	*Hydrotreater	12,000	Engineering	Nov. 1996	Howe-Baker-Engr./PD	Expansion. Distillate.
Koch Refining Co.-Corpus Christi, Tex.	Vacuum	....			Badger-Engr.	
Lyondell-Citgo Refining- Houston, Tex.	Coker	45,000	Engineering	4Qtr. 1996	Foster Wheeler-DD/PE/CS/Lic.	Delayed. New.
	Crude	20,000	Under constr.	4Qtr. 1996	Bechtel-DD KBC-Lic.	New. \$150MM.
	Hydrotreater	45,000	Under constr.	Dec. 1995	Bechtel-DD UOP-Lic.	New. Gas oil. \$40MM.
	Hydrotreater	7,600	Engineering	4Qtr. 1996	Kellogg-DD/PE Criterion/Lummus Crest-Lic.	Revamp. Syn Sat process for diesel feed.
	Vacuum	26,000	Engineering	Dec. 1996	Bechtel-DD/PE KBC-Lic.	New.
Mapco Petroleum Inc.- Memphis, Tenn.	*Crude	10,000	Engineering	1996	Jacobs Engineering-Engr./DD/PE MPEC-PD	Expansion.
	*FCC	8,000	Engineering	Aug. 1995	Stone & Webster-Engr./DD/PE/Lic.	Expansion and revamp. Total cost of project. \$10MM.
	*Treater	20,000	Engineering	Oct. 1995	Jacobs Engineering-DD/PE MPEC-PD. Merichem-Lic./Engr.	Crude revamp. Jet fuels. \$6MM.
Mobil Oil Corp.-Chalmette, La. Paramount Petroleum Corp.- Paramount, Calif.	*Hydrogen	60 MMcf	Engineering	2Qtr. 1995	Air Products & Chemicals-PD/Constr.	New.
	*Hydrotreater	3,000		1Qtr. 1996		Expansion. Naphtha desulfurization.
	*Isomerization	6,000	Engineering	1Qtr. 1996	Howe-Baker-Engr./DD/PE/CS	New.
Pennzoil Products Co.-Shreveport, La.	*Alkylation	....		Late 1996	Jacobs Engineering-Engr./	New. Sulfuric acid.

국명 회사/소재지	프로 젝트	신설규모 (b/d)	진행현황	완공 (예정)일	시공계약자 및 형태	비고
	*FCC	.....		Late 1996	PD/DD/PE/CS Jacobs Engineering-Engr./ PD/DD/PE/CS	New.
Phibro Refining Co.-Houston, Tex. Texas City, Tex.	Resid fuel *Desalter Resid fuel ROSE	80,000 b/sd	Engineering	1Qtr. 1996 July 1995 1Qtr. 1996 1Qtr. 1996	Howe-Baker-Engr./DD/PE	Upgrade. Expansion. Upgrade. New.
Placid Refining Co.-Port Allen, La. San Joaquin Refining Co. Ltd.- Bakersfield, Calif.	*FCC *Hydrogen	..... 3.5 MMcfd	Engineering	..... Dec. 1995	Stone & Webster-Engr./Lic./Tech. Howe-Baker-PD/DD/PE	Expansion. New. Contr. will also provide fabri- cation.
Shell Oil Co.-Martinez, Calif. Deer Park, Tex.	Coker Refinery Coker FCC	..... ..... 50,000	Under constr. Under constr.	..... 1996 Feb. 1997 July 1995	Foster Wheeler-Engr./PE/Dsgn. Bechtel-Engr./Contr./DD Foster Wheeler-Engr./Dsgn.	Delayed. Clean fuels program. \$1,000MM. Delayed. Modernization.
Star Enterprise-Delaware City, Del. Convent, La. Port Arthur, Tex.	Hydrotreater FCC FCC Hydrotreater	32,000	Under constr. Engineering	..... ..... ..... July 1995 1995	Foster Wheeler-Engr./Dsgn. Stone & Webster-PD/DD/PE/CS/Lic. Texaco-Lic. Stone & Webster-PD/Lic. Litwin-DD/PE/CS Star Enterprise-Contr. Texaco-Lic. Star Enterprise-Contr.	Gas oil. Revamp. Revamp. Revamp. Revamp. Expansion.
Sun Refining & Marketing Co.- Marcus Hook, Pa. Tesoro Petroleum Corp.-Kenai, Alas. Tosco Refining Corp.-Martinez, Calif.	*Hydrotreater *FCC Deisobutanizer FCC MTBE	..... ..... 5,000 2,000	Engineering	..... ..... ..... ..... .....	1995 Kellogg-Engr./Contr. Kellogg-Engr. KCI-Contr. Jacobs-Engr. CD Tech-Lic.	Revamp. Upgrade. \$5MM. Revamp. \$35MM.
Ultramar Corp.-Wilmington, Calif.	*Hydrogen Hydrorefiner	80 MMcfd 40,000	Engineering	4Qtr. 1995 3Qtr. 1996	Air Products/KTI-Engr./PD/Constr. Fluor Daniel-Engr./PE Jacobs Engineering-CS	New. Gas oil. \$60MM.
Unocal-Rodeo, Calif. Wilmington, Calif.	*Hydrogen *Isomerization *Refinery *Hydrogen *Isomerization *Refinery	24 MMcfd 10,500 35 MMcfd 11,500	Under constr. Under constr. Under constr. Under constr. Under constr.	4Qtr. 1995 4Qtr. 1995 1995 2Qtr. 1995 2Qtr. 1995	Howe-Baker-Engr./PD/PE/CS Jacobs Engineering-Engr./PE UOP-Lic. Jacobs Engineering-Engr./PD/PE/CS Howe-Baker-Engr./PD/PE/CS Fluor Daniel-Engr./PD/PE/CS UOP-Lic. Fluor Daniel/Litwin/Martech- Engr./PD/PE Fluor Daniel/PDM/EM Belmont-CS PCI-Contr.	New. Expansion. C ₂ /C ₆ . Clean fuels program. New. New. C ₂ /C ₆ . Clean fuels program.
Wyoming Refining Co.-Newcastle, Wyo.	*Hydrotreater	2,970		2Qtr. 1995	Fluor Daniel/PDM/EM Belmont-CS PCI-Contr.	
베네주엘라						
Corpoven SA-EI Palito Puerto la Cruz Lagoven SA-Judibana Maraven SA-Cardon	MTBE/TAME Isomerization Isomerization Aromatics CCR Coker Coker Hydrogen Hydrotreater Isomerization	670 17,500 14,000 15,000 45,000 60,000 3,000 30 MMcfd 50,000 15,000	Engineering	1Qtr. 1997 1Qtr. 1997 Dec. 1996 1996 1996 Nov. 1995 1998	Bechtel-Engr./Contr. Foster Wheeler-Engr./PE/CS UOP-Engr./Lic. Foster Wheeler-Engr. Bechtel-Contr./DD Foster Wheeler-Engr./PE/CS UOP-Engr./Lic.	Expansion. C ₂ /C ₆ feed. C ₅ feed. New. \$100MM. Platformer. \$110MM. Delayed. \$108MM. New. \$400MM. C ₅ . \$52MM.
베트남						
Government- Petrovietnam-Vung Tau	Refinery Refinery	60,000 130,000	Under study		Engineers India Ltd.-Engr.	Grassroots. JV with Total-30%/Chi- nese Pet. Corp.-30%/Chung Chia-10%. \$1,200MM.
예멘						
Aden Refining Co.-Little Aden Yemen-Mukalla	Crude Refinery	70,000 100,000	Planned			Expansion. Phase I. \$150MM. Grassroots. \$300MM.
유고						
Rafinerija Nafte Pancevo-Pancevo	CCR Hydrotreater	17,800 25,500		2000 2000	UOP-Lic. UOP-Lic.	New. Expansion.