APPENDIX O

DETAILED MATRIX OF THE SCAQMD REFINERIES
CARFG2 AND RELATED CLEAN FUELS REFINERY MODIFICATIONS

South Coast Refiners Project Description	ARCO (Carson)		CHEVRON (El Segundo)		MOBIL (Torrance)		TEXACO (Wilmington)		ULTRAMAR (Carson & Wilmington)		UNOCAL (Carson & Wilmington)	
	New	Mod.	New	Mod.	New	Mod.	New	Mod.	New	Mod.	New	Mod.
Air compressor	X											
Air Separation Unit									X			
Alkylation Plant	X		X			X		X		X		X
Amine Regeneration Unit										X		
Aromatic Extraction Unit		X										
Benzene Reduction (Saturation) Unit								X	X			X
Boilers	X				X					?		
Butamer Plant										X	X	
Butane Isomerization Unit	X						X					
Butane/Butlyene Selective Hydrogenation Unit							X					
C5 Treater	X											
Catalytic Hydrodesulfurization (HDS)					X							
Catalytic Light End Fractionation Unit												X
Catalytic Reforming Unit				X				X				
CO2 Recovery System									X			
Cogeneration Plant			X						X		X	
Continuous Catalyst Regeneration Reforming Unit												
Cooling Tower	X									X	X	
Crude Distillation Unit						X						
Debutanizer		X										
Dehexanizer	X											
Deisobutanizer Column									X			
Depentanizer		X										
Diesel Aromatic Saturation Unit									X			
Distillation Unit									X			
FCC Feed Hydrotreater						X						
FCC Gasoline Merox Unit										X		
FCC Hydrodesulfurization Unit		X										
Flare System	X									X	X	
Fluid Catalytic Cracking Unit (FCCU)		X				X		X		X		
Gas Oil Hydrotreater									X			
Hydrocracker		X				X		X				X

South Coast Refiners Project Description	ARCO (Carson)		CHEVRON (El Segundo)		MOBIL (Torrance)		TEXACO (Wilmington)		ULTRAMAR (Carson & Wilmington)		UNOCAL (Carson & Wilmington)	
	New	Mod.	New	Mod.	New	Mod.	New	Mod.	New	Mod.	New	Mod.
Hydrogen Plant	X		X			X		X	X		X	
Isomax Naptha Hydrotreater				X								
Isomerization Unit												X
LPG Merox Unit						X				X		
LPG Sphere									X			
Mid-Barrel Treater		X										X
MTBE Unit							X			X		
Naptha Hydrodesulfurization Unit	X						X					
Naptha Hydrotreater				X					X		X	
Naptha Isomerization Unit	X											
Naptha Prefractionator Unit			X									
Naptha Pretreater						X						
Naptha Splitter		X							X			
Olefin Treater										X		
Penex Isomerization Unit				X								
Pentane/Pentlyene Selective Hydrogenation Unit							X					
Pentlyene Skeletal Isomerization Unit							X					
Process Wastewater System		X								X		X
Reformers		X									X	
Saturate Gas Plant						X						
Selective Catalytic Reduction (SCR)					X					X		
Storage Tanks	X				X		X		X		X	
Sulfur Plant										X		X
Tertiary Amyl Methyl Ether (TAME) Plant				X			X		X			
Unsaturate Gas Plant						X						