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CHAPTER 2

PROJECT DESCRIPTION

PROJECT BACKGROUND AND INTRODUCTION

The proposed project (described in detail beginning on page 2-5) involves changes to the Alkylation Unit at the Ultramar Inc. - Valero Wilmington Refinery to eliminate the use of concentrated hydrofluoric acid (HF) as a catalyst for the production of alkylate, a high octane blend stock highly important to the production of state and federally mandated reformulated gasoline. HF can volatize in the event of an accidental release and is a toxic air contaminant. The hazards and health impacts associated with the use of HF have been well documented (U.S. EPA, 1993). Due to the high vapor pressure and low boiling point of HF, a release of liquid HF into the atmosphere will volatilize into the gas phase at typical ambient temperatures and pressures. A newly released cloud of HF has a vapor density approximately twice that of air and tends to spread as a ground-hugging cloud. Thus, an accidental release of HF would create a dense plume that would move in a passive mode with the prevailing winds in both direction and speed. An accidental release of HF could migrate off the Refinery property and expose individuals in the surrounding community.

On February 12, 2003, the Ultramar Inc. - Valero Wilmington Refinery (Refinery) and the South Coast Air Quality Management District (SCAQMD) entered into a Memorandum of Understanding (MOU) requiring the termination of the transport, storage and use of concentrated hydrofluoric acid at the Wilmington Refinery. The Refinery agreed to adopt a modified alkylation process that eliminates the use of concentrated HF catalyst and substituting it with the proprietary Reduced Volatility Alkylation Process (ReVAP). ReVAP incorporates a suppressant in the HF that reduces volatility in the event of an accidental release with a concurrent reduction in safety risks (i.e., distance that the HF could travel and number of persons exposed) in the surrounding area. Use of this modified process meets the SCAQMD's objectives with respect to elimination of concentrated HF.

Incorporation of ReVAP requires substantial improvements to the Alkylation Unit and related units and systems of the Refinery. The MOU recognizes that these improvements must be viewed in light of the objectives of both the California's Phase 3 Reformulated Gasoline (RFG 3) requirements and the Governor's executive order directing elimination of methyl tertiary butyl ether (MTBE) as an oxygenate and octane enhancer in California gasoline. Both these actions can result in the loss of gasoline production. The Refinery will incorporate alkylation efficiency improvements and design capacity enhancements to help offset any such losses. Although the proposed project will increase alkylate production capacity, the improvements will not increase annual crude throughput of the refinery.

The proposed project consists of the following principal components:

- Modify the existing Alkylation Unit to incorporate the ReVAP process, and enhance the alkylate production capacity to 20,000 barrels per day (bpd).
- Increase the existing Butamer Unit capacity to 17,000 bpd to provide sufficient feed for the enhanced Alkylation Unit with the ReVAP process. Modifications to the Liquified Petroleum Gas (LPG) Merox Treating Unit, Light Ends Units, and Naphtha Hydrotreater Unit, and installation of a new fuel gas treating system.
- Upgrade Refinery utility systems to support the improvements, including a new steam boiler with selective catalytic reduction (SCR), a new hot oil heater with SCR, modifications to an existing hot oil heater, a new cooling tower as well as modifications to an existing cooling tower, a new butane storage sphere, a new propane storage bullet, a new flare system, a new aqueous ammonia storage tank, and a relocation of existing storage tanks.

The MOU establishes a schedule for the project with enforceable deadlines. The MOU establishes a target of December 31, 2005 for commencing operation of the modified Alkylation Unit.

PROJECT OBJECTIVES

The objectives of the proposed project are as follows:

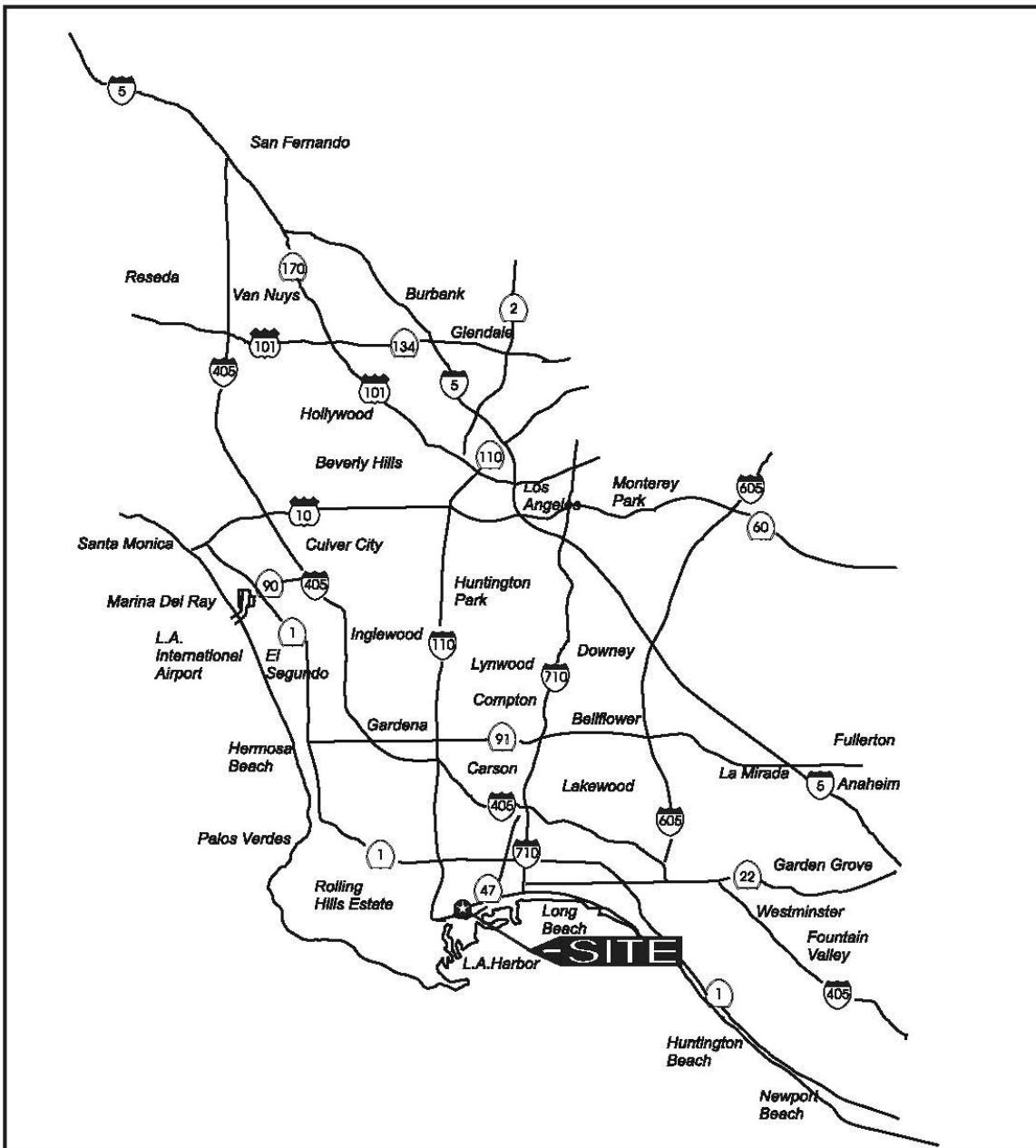
- Implementation of SCAQMD Environmental Justice Program Enhancements for FY 2002-03 that eliminate the transport, storage and use of concentrated HF at the Wilmington Refinery and the reduction of related potential consequences in the event of a release.
- Incorporate alkylation efficiency improvements and design capacity enhancements to help offset losses associated with the installation of the ReVAP process and CARB Phase 3 requirements including the elimination of MTBE.

PROJECT LOCATION

The proposed project will occur at the Wilmington Refinery, which is located at 2402 East Anaheim Street, in the Wilmington district of the City of Los Angeles in the southern portion of Los Angeles County (see Figure 2-1). The proposed modifications are entirely within the confines of this existing facility.

The Refinery is bounded to the north by Anaheim Street and industrial uses. Also northward of Anaheim Street is another major refinery complex. The Refinery is bounded on the south by an area used previously for oil field production facilities and which is now developed for marine cargo transport and storage facilities and other Port of Long Beach related uses. A Hydrogen Plant is located adjacent to and immediately west of the Refinery (west of the Dominguez Channel) on

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REGIONAL MAP



Project No. 2185
N:12185|Regional Map

Figure 2-1

Henry Ford Avenue. To the west of Henry Ford Avenue are additional industrial and commercial uses and the Port of Los Angeles. To the east are automobile storage yards, a cogeneration plant and a petroleum coke calcining plant. The Terminal Island Freeway (State Route 103) runs through the Refinery boundaries. The closest residential area is about one-half mile northwest of the Refinery in Wilmington.

LAND USE AND ZONING

The Refinery is located in the Wilmington District of the City of Los Angeles within southern Los Angeles County. The community of Wilmington is generally urbanized and includes a substantial amount of industrial and port-related development. The Ports of Los Angeles and Long Beach are located along the coastal boundary of Wilmington.

The Wilmington area is bordered by the Harbor Freeway (Interstate 110) on the west, the Long Beach Freeway (Interstate 710) on the east, the San Diego Freeway (Interstate 405) on the north and the Pacific Ocean on the south. The Dominguez Channel runs adjacent to the Refinery from the north to the south. Railroad tracks service the area along the western boundary of the Refinery and along Alameda Street.

The proposed project is consistent with the heavy industrial zoning for the Refinery (M3-1) and with the Wilmington-Harbor City Plan (City of Los Angeles, 1993). All proposed modifications would occur within the confines of the existing Refinery.

The Refinery is located within the Coastal Zone, as defined by the California Coastal Act. The proposed project will require approval by the California Coastal Commission to assure that the project complies with the California Coastal Act.

EXISTING REFINERY CONFIGURATION AND OPERATION

The locations of the existing Refinery units are shown in Figure 2-2. Crude oils and distillates (both of which are also referred to as feedstocks), used to produce gasoline and other petroleum products, are delivered to marine terminals in the Port of Los Angeles/Port of Long Beach by ship. Feedstocks are delivered to the Refinery by pipelines. Crude oil is processed in the crude unit where it is heated and distilled into components, most of which are processed in downstream Refinery units. The heavy residual oil leaving the crude unit is further distilled in the vacuum unit to yield additional, lighter hydrocarbon products and the vacuum residuum. The lighter hydrocarbon components from the crude unit and vacuum unit are fed to other Refinery units for further processing, primarily the Fluid Catalytic Cracking Unit, gas oil hydrotreater, the Unibon, and the naphtha hydrotreater unit. The feedstocks are refined into the major Refinery products which include unleaded gasoline, diesel, jet fuels, low sulfur distillates, other distillate fuels, petroleum coke, and sulfur. Elemental sulfur and petroleum coke are produced as by-products of the refining process. Major processing units at the Refinery include the crude and vacuum distillation, delayed coking, catalytic reforming, hydrotreating, fluid catalytic cracking, alkylation, sulfur recovery, and auxiliary systems. Under the existing Refinery configuration, about 78,000 bpd of crude oil, and about 50,000 bpd of distillates are purchased and processed. See Figure 2-3 for the existing Refinery flow diagram.

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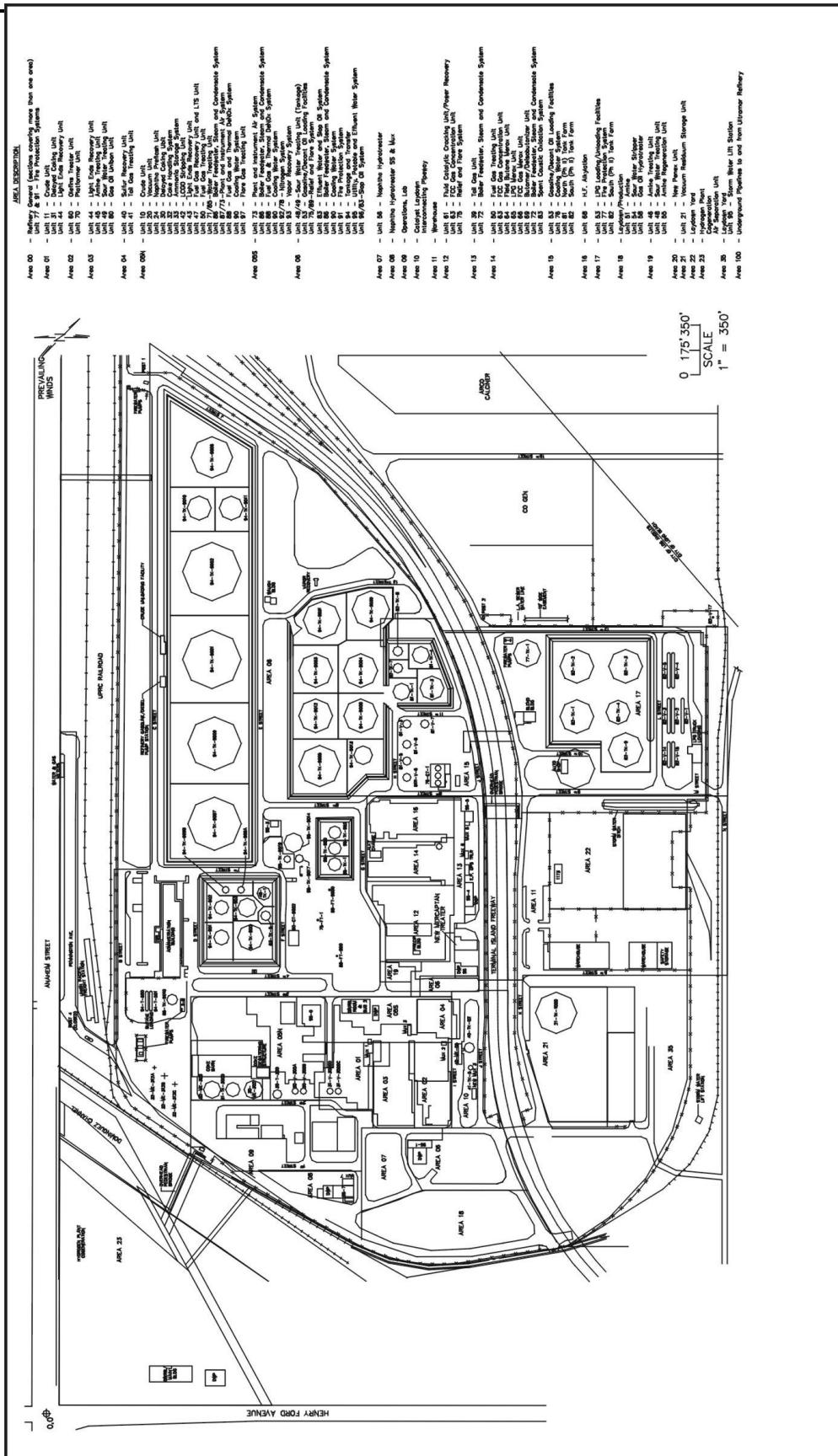
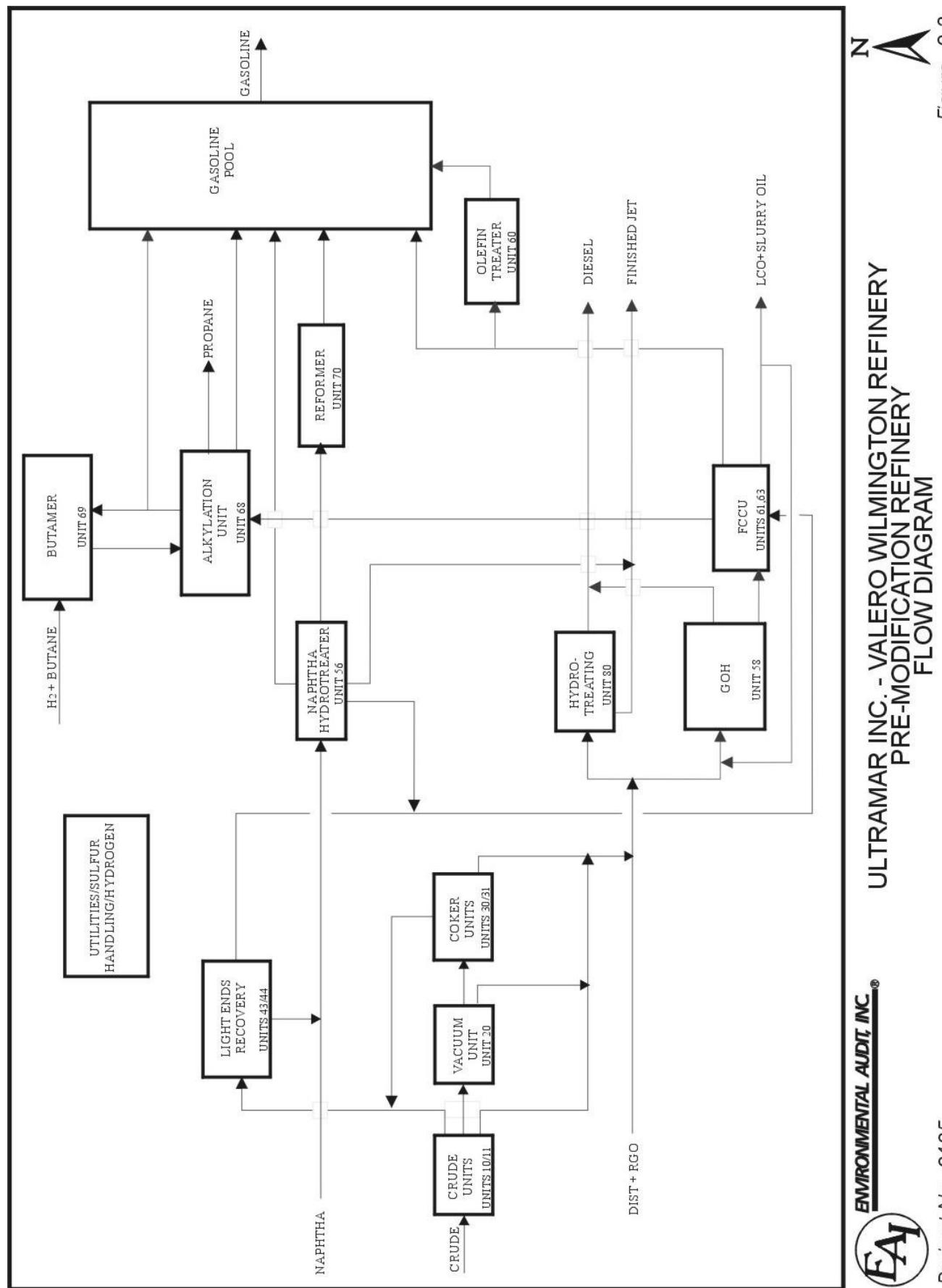


Figure 2-2

**ULTRAMAR INC. - VALERO WILMINGTON REFINERY
EXISTING REFINERY PLOT PLAN**

Environmental Audit, Inc.
EA

Project No. 2185
2-5
Alt. 2185 Prop. Refn. Mod.



PROPOSED PROJECT MODIFICATIONS TO THE REFINERY

The locations of the proposed new units and modified units are shown in Figure 2-4.

The Refinery proposes to adopt ReVAP, which is similar to conventional HF alkylation except the process is modified so that a proprietary vapor pressure suppression additive can be blended with the HF acid catalyst (referred to as modified HF). Because of its high vapor pressure and low boiling point, a release of conventional liquid HF into the atmosphere will volatilize into the gas phase at typical ambient temperatures and pressures. A newly released cloud of HF has a vapor density approximately twice that of air and tends to spread as a ground-hugging cloud. Thus, an accidental release of HF would create a dense plume that could move in a passive mode with the prevailing winds in both direction and speed and migrate off the Refinery property thus, potentially exposing individuals in the surrounding area.

The proprietary additive is a non-volatile, non-odorous, low toxicity material that is completely miscible in the acid phase. It has very limited affinity for other hydrocarbons, including the alkylate product and acid soluble oil (ASO) by-product, similar to the organic polymer produced in the current process. The unique physical properties of the additive substantially reduce the volatility of the acid at ambient conditions. This reduction in volatility proportionately reduces the amount of HF that can vaporize and subsequently disperse off-site from a given liquid release quantity. The modified HF catalyst reduces acid vapor pressure sufficiently to suppress the usual flash atomization process of hydrofluoric acid, causing most of the acid to fall to the ground as an easily controlled liquid and reduces the potential for off-site consequences of an accidental HF release.

A. Transport of Catalyst

HF is currently transported to the Refinery via truck. The proposed project will eliminate the current transport of HF resulting in the reduction of 25 trucks per year.

The Refinery will obtain the modified HF acid catalyst already blended by the supplier. An HF/additive blend (modified HF) with a minimum of six percent additive by weight is anticipated. The supplier will deliver the catalyst by tank truck. The Refinery estimates that about 44 trucks per year will be required for the transport of modified HF. An additional two trucks per year are expected to be required to transport the HF additive (i.e., the additive only with no HF) for a total of 46 trucks ($44 + 2$). The modified HF catalyst will be recovered on-site and sent back to the supplier for regeneration. It is assumed that the recovered additive will be sent back in one of the trucks that delivered the modified HF catalyst. Therefore, there will be a net increase of 21 trucks per year ($46 \text{ trucks} - 25 \text{ trucks}$) associated with the transport of modified HF. Please see page 2-14 for a discussion of the total truck traffic associated with the proposed project.

Ultramar Inc. - Valero Wilmington Refinery Proposed Alkylation Unit Improvement Project

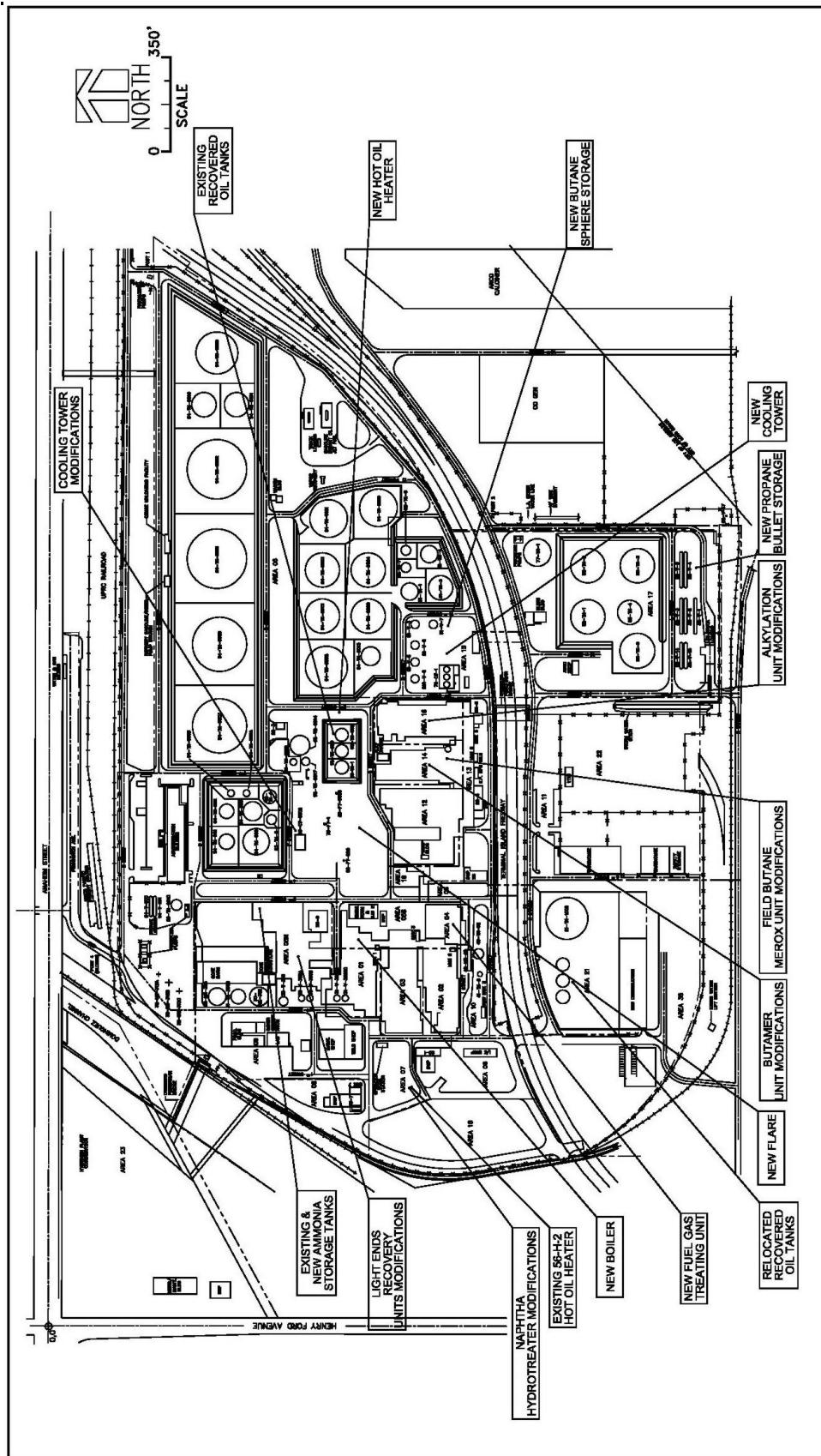


Figure 2-4

B. Modifications to the Existing Alkylation Unit

In order to incorporate ReVAP into the existing Alkylation Unit and to enhance the alkylate production capacity to 20,000 bpd, modifications are required to the individual sections of the unit as discussed below. Alkylate production will continue to follow the basic process flow with changes to the process and equipment described in the following paragraphs. *Since the circulation of the Draft EIR, additional project engineering has been completed resulting in minor changes to the proposed project. The Refinery is proposing to use the ConocoPhillips technology which has a slightly different reactor system than the system described in the Draft EIR and those changes are reflected below. The main change is that instead of installing two new alkylation reactors in addition to the two existing reactors (a total of four reactors), the system has been modified so that the two existing reactors will be replaced with two new and larger reactors (a total of two reactors). The modified project will not increase the capacity of the alkylation unit and the capacity of the two larger reactors is the same as the capacity of the four smaller reactors. This change has been re-evaluated in this Final EIR and will not alter the conclusions regarding the project impacts reached in the Draft EIR and are summarized in each appropriate subsection in Chapter 4.0 herein. The modifications to the proposed project will not result in any increase in the fugitive component counts, change the energy requirements of the unit, or result in any operational emission changes. The proposed project and related emissions (both during the construction and operational phases) evaluated in the Draft EIR are the same or similar as emissions expected from the currently proposed project. The potential hazards associated with the modified project are different than the previously proposed project as some of the components, e.g., the reactors and settlers, will be larger. Therefore, the hazard analysis has been revised herein (see Chapter 4, Subsection B – Hazards and Hazardous Materials and Appendix C). The results of the revised hazard analysis reached the same conclusion as the hazard analysis in the Draft EIR, i.e., that the hazards associated with HF in the modified Alkylation Unit will be reduced from the operation of the current Alkylation Unit, providing beneficial impacts on hazards (see Chapter 4 and Appendix C for further details). Therefore, based on a review of the proposed project modifications and review of the potential environmental impacts, the changes in the proposed project do not trigger any of the requirements of CEQA Guidelines §15088.5 that would require a recirculation of the Draft EIR. CEQA Guidelines Section §15088.5 indicates that recirculation of the Draft EIR is required when significant new information is added to the EIR after it was circulated to the public but before it is certified. Significant new information requiring recirculation includes:*

- (1) *A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented. (Revisions to the project will not result in a new environmental impact or require a new mitigation measure).*
- (2) *A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance. (Revisions to the proposed project will not result in a substantial increase in the severity of any environmental impact).*
- (3) *A feasible project alternative or mitigation measures considerably different from others previously analyzed would clearly lessen the significant environmental impacts*

of the project, but the project proponent's decline to adopt it. (No new alternatives or mitigation measures have been identified).

- (4) *The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an EIR. (Revisions to the EIR merely clarifies minor project revisions).*

As discussed above and as analyzed in the appropriate subsections of Chapter 4 – Environmental Impacts and Mitigation Measures, the proposed project modifications are not expected to alter the conclusions of the Draft EIR, require major revisions to the EIR, result in new significant environmental effects not previously evaluated, require new alternatives or mitigation measures. Therefore, there is no requirement to recirculate the EIR.

The proposed Alkylation Unit modifications are shown in Figure 2-5.

- Modifications to the HF Acid Storage, Replenishment and Injection Section

The existing Acid Storage Drum will be used to store the modified HF. A new recycle additive surge tank will provide sufficient surge volume for rapid additive concentration control in the reactor system acid. The new recycle additive surge tank will also serve as a storage vessel for the modified HF at times when the Alkylation Unit is shutdown for maintenance.

- Modifications to the Reaction and Settling Section

The ReVAP process requires a higher acid circulation rate than the existing process. The existing reaction and settling section consisting of two reactors and one settler will be replaced with two larger reactors, one larger settler, and four coolers. In addition, a rapid acid evacuation vessel will be installed to allow a rapid transfer and isolation of acid in the event of emergency. ~~larger reactors and a higher circulation rate than the present process. Two new alkylation reactors will be installed to operate in combination with the two existing alkylation reactors. The existing two acid circulation pumps will be replaced with two new larger capacity pumps.~~

- Modified Product Separation (Fractionation) Section

The Refinery is proposing to use the ConocoPhillips technology which has a slightly different reactor system than the system originally proposed in the Draft EIR. The new settler includes trays that replaces the function of the recontactor. Therefore, the recontactor that was proposed in the Draft EIR is no longer needed and has been eliminated from the proposed project. ~~A Recontactor will be added to reduce the fluoride content of the feed to the Fractionation Section and to remove excessive acid from the feed to the fractionators. After separation of acid and hydrocarbon phases in the Recontactor, the hydrocarbon phase enters the Fractionation Section and excess is pumped back to the reactor acid pump section.~~

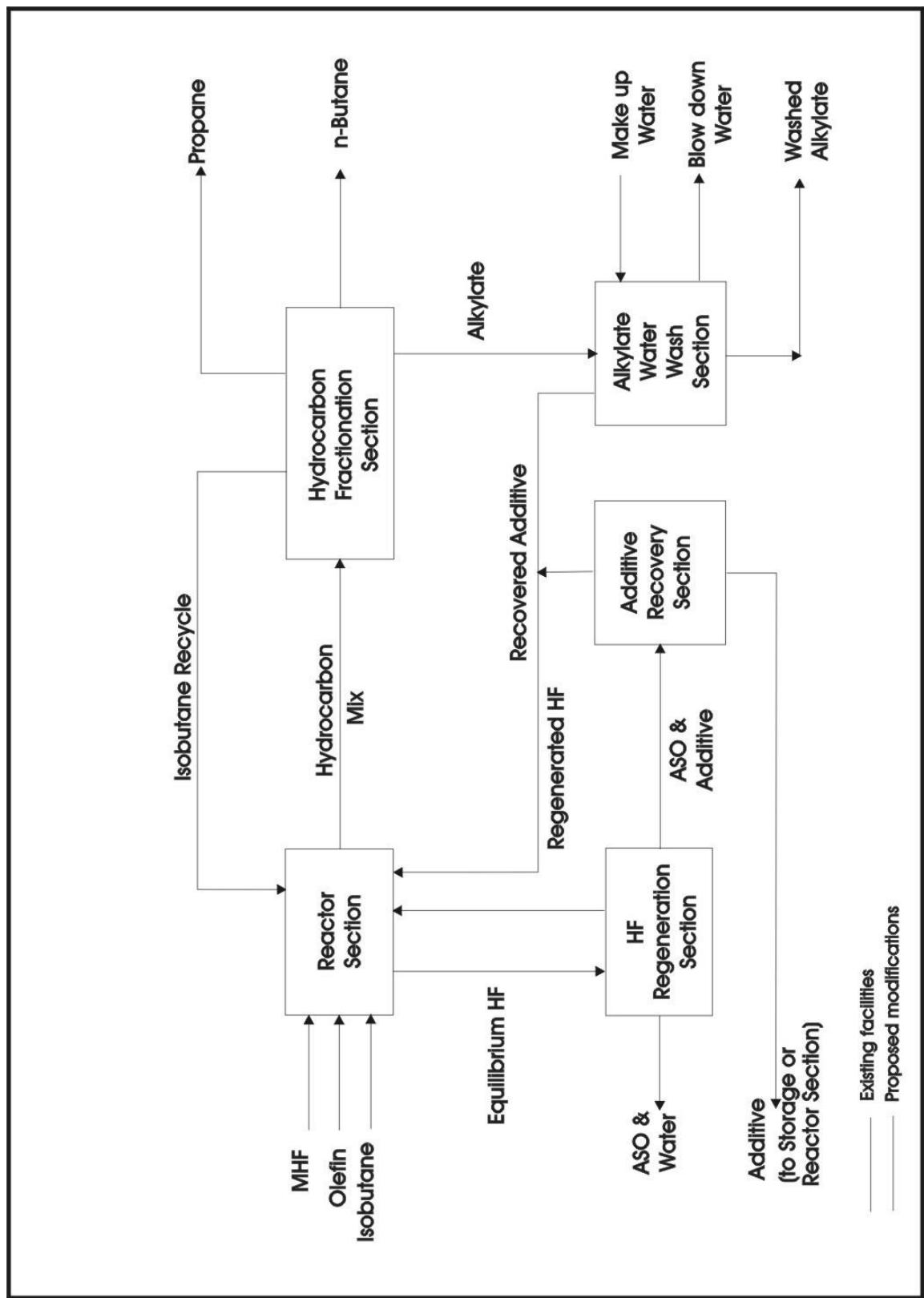


Figure 2-5

ULTRAMAR INC. - VALEO WILMINGTON REFINERY
ALKYLATION UNIT PROPOSED MODIFICATIONS



The narrower top section of the Depropanizer will be replaced with one having a larger diameter to handle incrementally larger amounts of propane in the Alkylation Unit feed.

- Modified HF Stripping Section

The existing butane alumina treaters and propane alumina treaters will be replaced with new treaters, and a new propane potassium hydroxide (KOH) treater will be installed and operated with the existing propane KOH treater to meet the enhanced Alkylation Unit operation requirements.

- New Additive Recovery from the Alkylate Product

Trace amounts of ReVAP additive in the Isostripper alkylate product will be removed by a water wash extraction process in a new water wash column. The dilute additive/water stream from the water wash column bottoms is fed to the new evaporator column, which is mounted on the evaporator column kettle reboiler. The evaporator column concentrates the additive in the bottoms product.

- Modified HF Regeneration Section

The existing acid regeneration system is undersized for the ASO that will be produced at the new alkylate production rates and will be replaced. A new rerun column will produce both a side draw stream for water removal and a bottoms product for ASO removal.

C. Modifications to the Existing Butamer Unit

In order to provide sufficient isobutane for enhanced alkylate, the Refinery proposes to upgrade the capacity of the Butamer Unit from 10,000 bpd to 17,000 bpd. To accomplish this will require a combination of new components and increasing the size (referred to as “debottlenecking”) of the Deisobutanizer (DIB) column and related equipment.

The principal changes will be in the DIB (fractionation) column. The DIB column is both a tall and a large diameter column. Fractionation of isobutane from normal butane requires a relatively large number of fractionation stages due to the narrow boiling point difference between the light and heavy components. In its current configuration, the DIB has two reboilers, one heated with process waste heat and the second heated with steam. For the enhancement project, a new steam reboiler operating in parallel with the existing boiler is proposed as a replacement for the waste heat reboiler, which will be used as a feed preheater. Other changes are proposed to improve the energy efficiency (steam requirements) of the unit.

D. Modifications to the Existing LPG Merox Treating Unit

Mercaptan sulfur and traces of hydrogen sulfide from butanes, which could poison the Butamer Unit catalyst and affect the alkylate product, are removed in LPG Merox Unit (Unit 64) by caustic

wash. The LPG Merox Unit capacity must be increased from 6,500 bpd of field butanes to treat 10,000 bpd. The only modification required is replacement of existing caustic prewash drum with a new larger vessel.

E. Modifications to the Existing Light Ends Recovery Unit

The light ends recovery unit processes naphtha and byproduct gases from various units. Minor modifications to this unit will allow more butane to be desulfurized in the Naphtha Hydrotreater for feed to the Butamer Unit. Principal modifications include a new depropanizer feed drum and feed pumps, replacement of depropanizer tower trays, vessel and reboiler tube replacement, and new heat exchangers.

F. Modifications to the Existing Naphtha Hydrotreater Unit

The Naphtha Hydrotreater removes organic sulfur, oxygen, nitrogen, metals and other compounds from hydrocarbon fractions. Minor modifications will be made to provide sufficient LPG feed for the modified alkylation process. Principal modifications include a new debutanizer complex and modifications to heat exchangers and pumps. The new debutanizer separates the butane and light straight runs. The butane will be routed to the Light End Recovery Unit 43 for the recovery of butane for the Butamer Unit.

G. Proposed New Fuel Gas Treating System

The Refinery will install a new fuel gas treating system to reduce the sulfur content of the additional fuel gas to be consumed as a result of the Alkylation Unit improvements. The process uses a fiber contactor system to treat fuel gas with a circulating stream of amine and caustic to remove hydrogen sulfide, carbonyl sulfide, and mercaptans.

H. Utilities and Auxiliary Facilities

The proposed conversion to ReVAP and enhanced operation of the Alkylation Unit will require additional steam, cooling, and flaring capability, and additional butane storage capacity.

New Steam Boiler: The Refinery steam demand is expected to increase by approximately 200,000 pounds per hour (lbs/hr) due to the Alkylation Unit modifications. A new 245 million British thermal units per hour (mmBtu/hour) boiler will be installed to produce 300 pounds per square inch steam. The boiler will be equipped with SCR control equipment in accordance with SCAQMD requirements.

New Hot Oil Heater: A new 350 million Btu/hour Hot Oil Heater system will be installed to provide the heat source required to reboil the Isostripper Tower and the DIB in the Butamer. An SCR will be installed on the new heater for nitrogen oxide (NOx) control.

Modification to Existing Heaters: The Refinery proposes to modify an existing fired heater, 56-H-2, to provide additional process heat for the Alkylation ReVAP modifications. This heater is currently rated at 200 million Btu/hour (high heating value) heat release and is used to heat a

circulating stream of desulfurized gas oil to provide process heat to the Naphtha Hydrotreater Unit. It shares an SCR system (for NOx emission control), induced draft fan, and exhaust stack with another fired heater, 56-H-1. The proposed modification would increase the rated capacity of 56-H-2 from 200 to 260 million Btu/hour, with the incremental heat being used for refinery processes to support the ReVAP modifications and Alkylation Unit expansion. No changes are proposed for 56-H-1.

New and Modified Cooling Towers: A new 5,000 gallons per minute (gpm) recirculating cooling tower is proposed to provide cooled water to the Alkylation Unit and to absorb the increased heat in the Reaction Section. The cooling water will then return to the cooling tower where it is distributed across the cooling tower and contacted with air to remove the absorbed heat by evaporative cooling. An existing cooling tower is proposed to be modified to increase the existing circulation rate of 9,500 gpm by 5,000 gpm for a total of 14,500 gpm to supply the necessary cooling water.

New Emergency Flare: A new 250,000 lb/hr flare will be installed to safely depressure process equipment during emergency situations. The new flare will operate in parallel with the existing flares, and will utilize the existing flare vapor recovery system. Emergency releases to the new flare system will flow into a new liquid blowdown drum to recover liquids. The vapors leaving the liquid blowdown drum will be routed to the existing flare vapor recovery system. Gases that cannot be recovered in the vapor recovery system will flow into a new knock out drum to recover any remaining liquids and then to the flare for combustion. The flare will be elevated, with a height of about 250 feet.

New Butane Storage Sphere: The increased flow of normal butane feed for the Butamer Unit will require a new 5,000 barrel pressurized Butane Storage Sphere. Butanes from the Refinery as well as purchased butanes will be stored in the new butane storage sphere. New butane transfer pumps will pump butane from this sphere to the Butamer Unit.

New Propane Storage Bullet: The modified Alkylation Unit will increase the production of propane product due to the increase in alkylation capacity. This will require a new 4,000 barrel Pressurized Propane Storage Bullet to store the added product. New propane transfer pumps will pump propane from this propane storage bullet to the existing truck loading facility.

New Aqueous Ammonia Tank: A new 15,000 gallon storage tank is proposed to store aqueous ammonia associated with the SCR Unit for the new Boiler.

Storage Tank Relocation: There are three storage tanks located immediately north of the Alkylation Unit and Butamer Unit, which will be removed to accommodate the improvements to the Alkylation Unit. Two of the tanks currently store emulsified oil/sour water and one tank currently stores wet slop oil/sour water. The tanks will be relocated to Area 21 in the Southwest corner of the refinery property, within the vicinity of TK 1000 and will store the same material.

All new and modified process components are required to conform to the SCAQMD's Best Available Control Technology (BACT) Guidelines. BACT, by definition, is the cleanest commercially available control equipment or technique. The use of BACT controls emissions to the

greatest extent feasible for the new and modified emission sources. BACT specific to the proposed project is discussed in Chapter 4, Section A – Air Quality of this document (see page 4-10).

CONSTRUCTION OF THE PROPOSED PROJECT

Construction Schedule

Construction of the Alkylation Improvement project is expected to begin in the third quarter of 2004 and be completed by fourth quarter 2005. Project construction workers are expected to be at the site from approximately 6:30 a.m. to 5:30 p.m., Monday through Friday. Construction equipment is assumed to operate eight hours per day, to adjust for time for lunch and breaks, organization meetings, and so forth.

Labor Force

Construction of the Alkylation Improvement Project is expected to employ a maximum of about 350 workers during the construction phase and about 727 workers during the Refinery turnaround (about September 2005) when the modified equipment is tied into and incorporated into the Refinery operation. Proposed parking for the construction workers is expected to be within the existing Refinery and workers will be transported via bus to project site locations.

OPERATION OF THE PROPOSED PROJECT

The permanent work force at the Refinery is not expected to increase as a result of this project and operation-related traffic is expected to be minimal. An estimated 4,700 additional truck trips per year, or an average of 16 truck trips per day, is expected in connection with operation of the proposed project. The content of these trucks vary and include modified HF, the HF additive, KOH, alumina, aqueous ammonia, butane, and propane.

PERMITS AND APPROVALS

The Refinery's proposed project will require approvals from a variety of federal, state, and local agencies (see Table 2-1). Examples of general permits and approvals required for the Refinery are summarized below. The following discussion summarizes representative permits required for the Refinery but is not necessarily exhaustive. Many of these permits are not expected to require modifications due to the proposed project.

Federal Approvals

No federal agency approvals for the proposed project are expected to be required. Many of the U.S. EPA regulations and requirements are implemented by state or local agencies. The Spill Prevention Control and Countermeasure (SPCC) Plan may require modifications to assure that all new and modified Refinery units are included in the Plan. It should be noted that Table 2-1 identifies the environmental permits required for the existing Refinery operations.

State Approvals

The Refinery is located in the coastal zone; therefore, approval of the proposed project is required from the California Coastal Commission. Construction-related permits may be required from the California Occupational Safety and Health Administration (CalOSHA) for demolition, construction, excavation, and tower and crane erection. Any transport of heavy construction equipment, which requires the use of oversized transport vehicles on state highways, will require a Caltrans transportation permit. The project may require a Notice of Intent and preparation of a Stormwater Pollution Prevention Plan (Construction) under the statewide general storm water National Pollutant Discharge Elimination System (NPDES) permit.

Local Approvals

The SCAQMD has responsibility as lead agency for the CEQA process and for certification of the EIR because it has primary approval authority over the proposed project (CEQA Guidelines §15051(b)). Permits to Construct/Operate for new equipment and modifications to existing units will be required. Certain components of the proposed project would also be subject to existing SCAQMD rules and regulations. Permits or plan approvals also may be required by SCAQMD Rule 1166 for soil remediation activities and demolition activities.

The Los Angeles County Sanitation Districts (LACSD) has responsibility for issuance of industrial wastewater discharge permits which are required for discharges into public sewers.

The City of Los Angeles Fire Department is responsible for issuing permits for storage tanks and for review and approval of Risk Management Plans which will be required as part of the proposed project. The Fire Department also is responsible for assuring that the City fire codes are implemented. Building and grading permits for the proposed project will be required from the City of Los Angeles to assure that the project complies with the Uniform Building Code.

TABLE 2-1
FEDERAL, STATE AND LOCAL AGENCY PERMITS AND APPLICATIONS

Agency Permit or Approval	Requirement	Applicability to Project
Federal		
U.S. EPA	<p>Spill Prevention Control and Countermeasure Plan (40 CFR Part 112)</p> <p>Title III of the federal Clean Air Act Amendments of 1990, including development of an Accidental Release Program.</p> <p>Title III of the Superfund Amendments and Reauthorization Act of 1986, including Section 313 – Annual Release Reporting (Form R)</p> <p>Prevention of Significant Deterioration</p>	<p>Modifications to Refinery facilities that affect the potential for oil or flammable materials discharge into navigable waters.</p> <p>Modifications to Refinery facilities/ operations involving listed air toxics or use of extremely hazardous substances. Requires the preparation of an RMP.</p> <p>Modifications to Refinery facilities/ operations involving use or storage of extremely hazardous substances or other regulated hazardous materials.</p> <p>SCAQMD Regulation XVII: Requirements for modifications to stationary sources in attainment areas.</p>
Occupational Safety and Health Administration	Compliance with 29 CFR 1920, including preparation of an Emergency Response Plan, a Fire Prevention Plan, Process Hazards Safety Review, and employee training.	Modifications to Refinery facilities involving materials that are acutely toxic, flammable, or explosive.
U.S. Department of Transportation	Compliance with DOT regulations regarding transportation of hazardous substances (40 CFR Part 172)	Project-related transportation (import/ export) of hazardous substances.
State		
California Environmental Protection Agency, Dept. of Toxic Substances Control (DTSC)	<p>On-site hazardous waste generation.</p> <p>Proposition 65 – California's Safe Drinking Water and Toxic Enforcement Act of 1986</p>	<p>Project-related modifications to applicable hazardous materials and hazardous waste generation and handling at the Refinery.</p> <p>Project-related exposure of the public to listed carcinogens or reproductive toxins due to proposed modifications. Public notification is required under certain specified conditions</p>

TABLE 2-1 (Cont.)

Agency Permit or Approval	Requirement	Applicability to Project
State (cont.)		
State Water Resources Control Board (SWRCB)	National Pollutant Discharge Elimination System (NPDES) Permit/Waste Discharge reqt.	Project-related modifications to applicable stormwater runoff plans.
Caltrans	Transportation Permit (CCR 21, Division 2, et.seq.)	Project-related application to transport overweight, oversize, and wide loads on state highways.
CalOSHA	Process Safety Management (PSM) Program (40 CFR Part 1910). Construction-related permits (CCR Title 8, Division 1, Chapter 4)	PSM program may require updating due to project revisions including written process safety information, hazardous operation (hazop) analysis, development of operating procedures, training procedures, and pre-start safety review. Excavation, construction, demolition and tower and crane erection permit.
	Written Hazard Communication Standard Compliance Program	Project-related modifications to Refinery facilities/operations involving hazardous materials (including needed modifications to employee training programs).
California Coastal Commission	Coastal Development Permit	Required for project-related modifications within the coastal zone.
Local		
South Coast Air Quality Management District (SCAQMD)	Permits to Construct and Title V of the 1990 Clean Air Act. Permits to Operate California Environmental Quality Act (CEQA) Review	SCAQMD Rule 201: Permit to Construct and Regulation XXX: Title V Permits. Applications are required to construct, operate or modify air emission sources. SCAQMD Rule 203: Permit to Operate. Applications are required to operate air emissions sources. The SCAQMD is the lead agency for preparation of the environmental document (Public Resources Code §21067).

TABLE 2-1 (Cont.)

Agency Permit or Approval	Requirement	Applicability to Project
Local (cont.)	<p>Standards for Approving Permits</p> <p>VOC Emissions from Fugitive Components</p> <p>VOC Emissions from Storage Tanks</p> <p>BACT and Modeling</p> <p>T-BACT and Risk Assessment</p> <p>Asbestos Emissions</p> <p>Soil Contamination</p>	<p>SCAQMD Rule 212: Standards for Approving Permits. Permits cannot be issued if air contaminants create a public nuisance or exceed capacity limits. Also requires public notification of significant project.</p> <p>SCAQMD Rule 1173: Fugitive Emissions of Volatile Organic Compounds. Controls VOC leaks from various fugitive components including valves, fittings, pumps, pressure relief devices, and compressors.</p> <p>SCAQMD Rule 1178: Further Reductions of VOC Emissions from Storage Tanks. Requires emission reduction from storage tanks at specified petroleum facilities.</p> <p>SCAQMD Regulation XX and Regulation XIII: New Source Review. New or modified permit units must apply BACT, obtain offsets and perform modeling of new emissions increases. Pursuant to Rule 1304, the proposed project is exempt from offsets because it is being required under state law.</p> <p>SCAQMD Rule 1401: NSR of Toxic Air Contaminants. New or modified permit units must comply with maximum allowed risk levels .</p> <p>SCAQMD Rule 1403: Asbestos Emissions from Demolition/Renovation Activities. Controls emissions from certain demolition and renovation activities.</p> <p>SCAQMD Rule 1166: VOC Emissions from Decontamination of Soil. Requires the control of VOC emissions from soil remediation activities.</p>

TABLE 2-1 (Concluded)

Agency Permit or Approval	Requirement	Applicability to Project
City of Los Angeles	<p>Building Permit</p> <p>Grading Permit</p> <p>Plumbing and electrical permit</p> <p>Hazardous Materials Business Plan</p> <p>Franchise Permit Acutely Hazardous Material Registration/Risk Management Plan</p> <p>Above ground storage of hazardous/flammable materials (Uniform Fire Code, Article 80)</p>	<p>Required for project-related foundations and buildings to assure compliance with UBC, etc.</p> <p>Required prior to grading.</p> <p>General construction permit.</p> <p>Storage of project-related hazardous materials.</p> <p>Required for pipeline construction. Project-related use/storage of acutely hazardous materials.</p> <p>Project-related storage of regulated materials.</p>
County Sanitation Districts of Los Angeles	Industrial Wastewater Discharge Permit (CA Health & Safety Code, Division 6, Chapter 4, Article 1, Section 6521)	Project-related modifications to the Refinery's industrial wastewater discharge to the sewer if it affects the quantity, quality, or method of industrial wastewater disposal.