

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

**Final Negative Declaration for:
ConocoPhillips Los Angeles Refinery
Carson Plant SCR Unit Project**

February, 2004

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PREFACE

This document constitutes the Final Negative Declaration (ND) for the ConocoPhillips Los Angeles Refinery Selective Catalytic Reduction Project. The Draft ND was released for a 30-day public review and comment period from on January 14, 2004. A 10-day extension of the comment period was granted at the request of the public to February 25, 2004. Two comment letters were received from the public. The comment letters and responses are in Appendix C of this document. Minor modifications have been made to the Draft such that it is now a Final ND. Additions to the text of the ND are denoted using italics and deletions from the document are denoted by ~~strikethrough~~.

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CHAPTER 1.0

PROJECT DESCRIPTION

1.1 INTRODUCTION

The ConocoPhillips Los Angeles Refinery is proposing to install a selective catalytic reduction unit (SCR) and new aqueous ammonia tank at its Los Angeles Refinery Carson Plant to reduce emissions of nitrogen oxide (NO_x) from an existing boiler.

1.2 AGENCY AUTHORITY

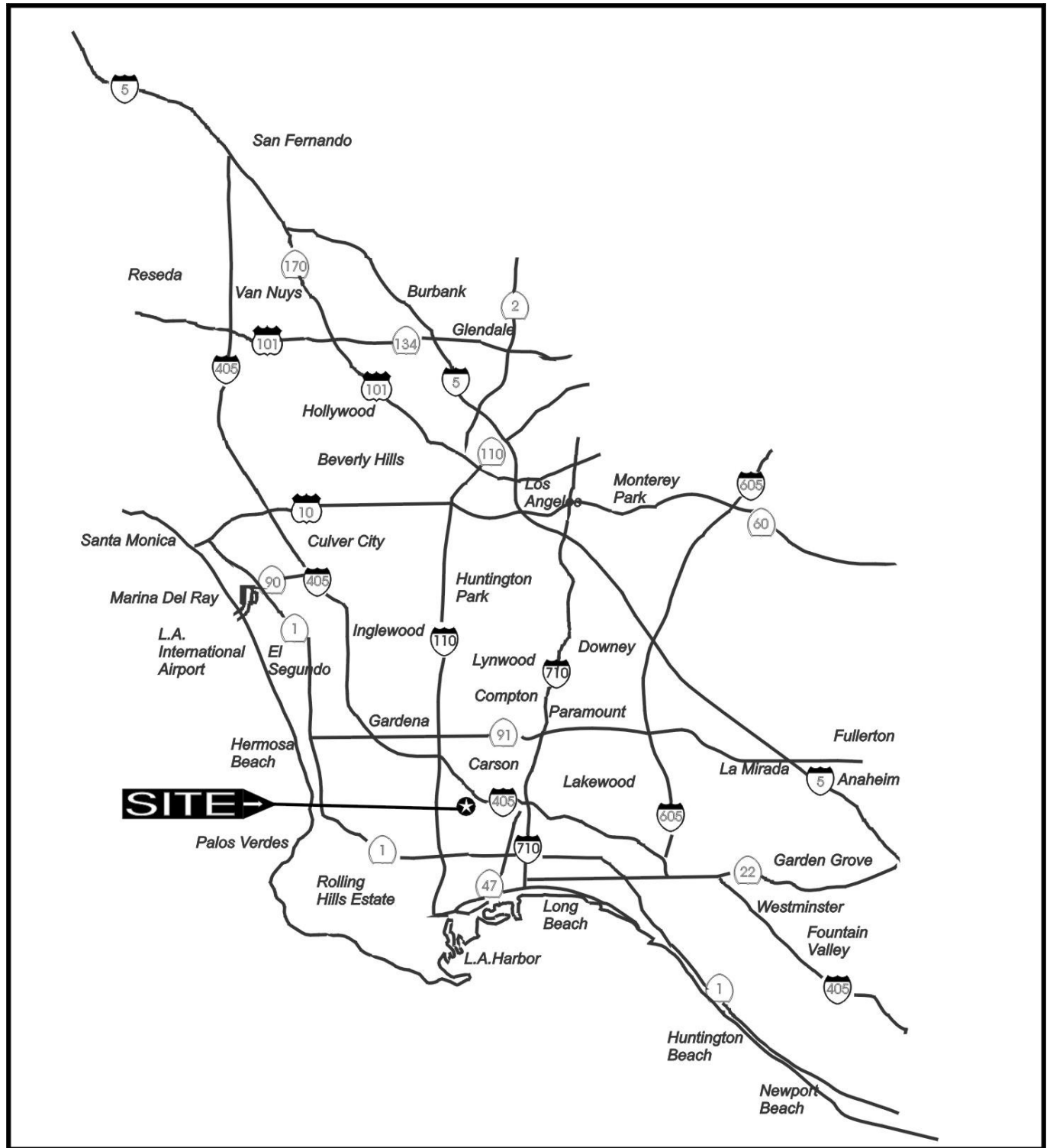
The California Environmental Quality Act (CEQA), Public Resources Code Section 21000 *et seq.*, requires that the environmental impacts of proposed “projects” be evaluated and that feasible methods to reduce, avoid or eliminate significant adverse impacts of these projects be identified and implemented. The proposed modifications constitute a “project” as defined by CEQA. To fulfill the purpose and intent of CEQA, the SCAQMD is the “lead agency” for this project and has prepared this Negative Declaration to address the potential adverse environmental impacts associated with the proposed project at the ConocoPhillips Carson Plant.

The lead agency is the public agency that has the principal responsibility for carrying out or approving a project that may have a significant adverse effect upon the environment (Public Resources Code §21067). Since the proposed project requires discretionary approval from the SCAQMD and the SCAQMD has the greatest responsibility for supervising or approving the project as a whole, it was determined that the SCAQMD would be the most appropriate public agency to act as lead agency (CEQA Guidelines §15051(b)).

To fulfill the purpose and intent of CEQA, the SCAQMD has prepared this Negative Declaration to address the potential adverse environmental impacts associated with the proposed project. A Negative Declaration for a project subject to CEQA is prepared when an environmental analysis of the project shows that there is no substantial evidence that the project may have a significant effect on the environment (CEQA Guidelines §15070(a)).

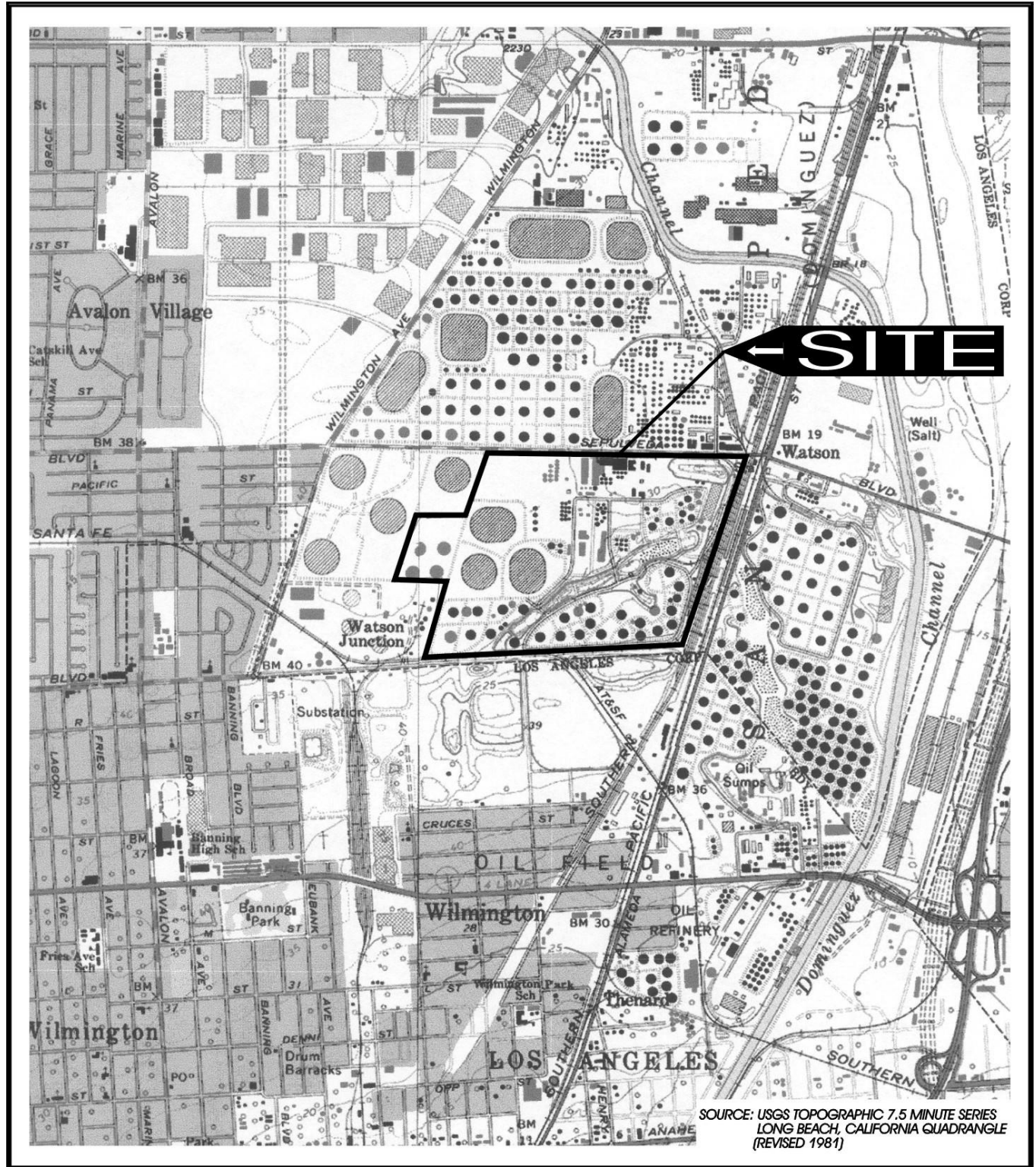
1.3 PROJECT LOCATION

ConocoPhillips Los Angeles Refinery operates at two different sites in the South Coast Air Basin which is a sub-area of the SCAQMD’s area of jurisdiction. One of the sites is located in the City of Carson (Carson Plant) and the other site is in the City of Los Angeles in the Wilmington community (Wilmington Plant). The proposed project includes physical modifications primarily to process facilities at the Carson Plant. The ConocoPhillips Carson Plant is located at 1520 East Sepulveda Boulevard, Carson, California (see Figures 1 and 2). The Carson Plant is bounded on the north by Sepulveda Boulevard, on the west by Wilmington Avenue; on the south by a branch of the Atchison, Topeka and Santa Fe Railroad; and on the east by Alameda Boulevard.



REGIONAL MAP
ConocoPhillips Carson Plant





Environmental Audit, Inc.

SITE LOCATION MAP
CARSON PLANT
Carson, CA



Property to the north of the Carson Plant is occupied by the British Petroleum (former ARCO) Los Angeles Refinery. The western boundary of the plant borders a shipping and container storage facility; further south is the Wilmington Boulevard property. Property across Wilmington Boulevard includes a residential neighborhood to the northwest and commercial uses to the southwest. Land uses to the south of the Carson Plant are heavy industrial. Land south of Lomita Avenue is dominated by port-related activities. Land east of Alameda Street is occupied by a storage tank farm and the Shell (formerly Equilon/Texaco) Refinery.

1.4 OVERVIEW OF CURRENT OPERATIONS

Crude oil is a mixture of hydrocarbon compounds and relatively small amounts of other materials, such as oxygen, nitrogen, sulfur, salt, and water. Petroleum refining is a coordinated arrangement of manufacturing processes designed to produce physical and chemical changes in the crude oil to remove most of the non-hydrocarbon substances, break the crude oil into its various components, and blend them into various useful products. The overall refining process uses four kinds of techniques: (1) separation, including distilling hydrocarbon liquids into gases, gasoline, diesel fuel, fuel oil, and heavier residual materials; (2) cracking, or breaking, large hydrocarbon molecules into smaller ones by thermal or catalytic processes; (3) reforming, using heat and catalysts to rearrange the chemical structure of a particular oil stream to improve its quality; and (4) chemically combining two or more hydrocarbons to produce high-grade gasoline.

The ConocoPhillips Los Angeles Refinery (which includes both the Carson and Wilmington Plants), produces a variety of products including gasoline, jet fuel, diesel fuel, petroleum gases, sulfuric acid, and sulfur.

1.5 PROPOSED PROJECT

The ConocoPhillips Refinery Carson Plant currently operates Boiler 10, which is used to supply steam to refinery process units. ConocoPhillips is proposing to install an SCR Unit on Boiler 10 to reduce emissions of NO_x from the Boiler. Additional NO_x emission reductions are necessary to comply with ConocoPhillips's SCAQMD Rule 2009.1 Compliance Plan to meet NO_x RECLAIM allocation levels. Under the RECLAIM program, the SCAQMD issues facility-wide permits to sources which specify annual emission allocations for NO_x and sulfur oxide (SO_x). The allocations decline each year. RECLAIM sources must reduce their emissions each year to remain within their declining annual allocations, or must purchase emission credits (called RECLAIM Trading Credits) generated by other facilities in the RECLAIM program which have reduced emissions to levels below their required allocations. Each facility is given the flexibility to determine the best means of compliance through reducing emissions at the facility to remain within its declining allocations, or purchasing RECLAIM Trading Credits on the market to cover any emissions in excess of the annual allocation.

SCR Units are considered to be best available retrofit control technology (BARCT) for the control of NO_x from existing combustion sources. NO_x emissions are controlled by injecting aqueous ammonia into the exhaust gas stream upstream of a catalyst. The aqueous ammonia to be used in the SCR Unit will consist of 19 percent ammonia. NO_x , ammonia, and oxygen react on the surface of the catalyst to form nitrogen and water. The catalyst will be made from a noble metal with

ConocoPhillips Selective Catalytic Reduction Unit

control efficiencies expected to be approximately 90 percent or more. The NO_x concentration downstream from the SCR Unit is expected to be approximately nine parts per million.

The project also includes the installation of a 10,000 gallon pressurized ammonia storage tank to store aqueous ammonia. The location of the new ammonia storage tank and the new SCR Unit are shown in Figure 3. Aqueous ammonia will be supplied from a local vendor in the Los Angeles area, delivered to the Carson Plant for storage and use.

1.6 REQUIRED PERMITS

The proposed project will require Permits to Construct/Operate from the SCAQMD and will require building permits from the City of Carson. No other permits are expected to be required.

Chapter 1: Project Description

