

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Addendum to the Final Environmental Impact Report for the

**Los Angeles Department of Water and Power's Installation of a
Combined Cycle Generating Facility at the Valley Generating Station**

SCH No. 2001051035

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1.0 INTRODUCTION

To comply with the South Coast Air Quality Management District (SCAQMD) Regulation XX – Regional Clean Air Incentives Market (RECLAIM), and as part of a legally binding compliance agreement with the SCAQMD, the Los Angeles Department of Water and Power (LADWP) proposed modifications at its Valley Generating Station (VGS) in the Sun Valley area of the City of Los Angeles.

As lead agency, the South Coast Air Quality Management District (SCAQMD), prepared a Final Environmental Impact Report (FEIR) (SCH No. 2001051035), certified in January 2002, to evaluate the potential environmental impacts associated with the proposed modifications to the LADWP VGS. The objective of the proposed project in the 2002 FEIR was to install a new combined cycle generating facility (CCGF) to replace four existing utility boilers. The CCGF is comprised of two combustion turbine generators (CTGs), a new steam turbine generator (STG), two heat recovery steam generators (HRSGs) and associated selective catalytic reduction (SCR) control equipment, and a cooling tower.

Subsequent to certifying the 2002 FEIR, LADWP proposed changes to the approved project in 2003. SCAQMD staff reviewed the proposed modifications and determined that an Addendum was the appropriate document to be prepared in accordance with the California Environmental Quality Act (CEQA) because the project would not adversely affect any environmental areas. Subsequent to the certification of the 2002 FEIR, LADWP determined that an existing 171,000-barrel aboveground storage tank (AST) that was to be converted from fuel oil to ultra-low-sulfur distillate fuel service was in poor condition and not seismically sound. The project consisted of demolishing the existing 171,000 barrel AST instead of performing a change in service, and constructing a new 60,000 barrel AST in the same location. The new tank was to be used to store fuel for emergency backup purposes only. In addition, a typographical error in the 2002 FEIR was corrected (the FEIR incorrectly stated the capacity of the existing 171,000 barrel AST to be 20,000 gallons) and a discussion associated with the change in service of the existing 171,000 barrel AST was clarified. The change was evaluated and resulted in less than significant demolition, construction and operational emission increases to the 2002 FEIR. No other environmental areas were affected by the tank replacement. Since the replacement of the 171,000 barrel tank with a 60,000 barrel tank did not generate any significant new impacts or make existing significant impacts substantially worse, the 2003 Addendum was prepared and subsequently certified in October 2003.

The currently proposed project modifications involve changes to specific permit conditions associated with the CCFG project evaluated in the 2002 FEIR, and associated operational emissions. Since the CCFG has already been constructed, the currently proposed modifications do not include any construction activities which would affect in any way the previous analyses of construction air quality impacts. The proposed project modifications only affect operational emissions. The LADWP determined, based on information acquired subsequent to certification of the 2002 FEIR that the time required to startup the CTGs and the associated emissions will be different from those evaluated in the 2002 FEIR. In addition, operating modes have now been further classified to include cold startup, non-cold startup, normal operations, shutdown and diesel-fuel readiness testing. LADWP is proposing changes to existing permit conditions with respect to CTG startups and CTG shutdowns. The details of the proposed changes are explained in Section 5.3 and Table 5-2 of this Addendum.

SCAQMD staff have evaluated the proposed changes to the LADWP VGS (as detailed in Section 5.3 and Table 5-3) and determined that the currently proposed project modifications do not create any new significant adverse environmental impacts or make substantially worse any existing significant adverse environmental impacts and, as a result, only minor additions or changes would be necessary to make the previous 2002 FEIR adequate for the project as revised. Therefore, when considering the effects of the previous modifications to the original project analyzed in the 2003 Addendum and the currently proposed project modifications, SCAQMD staff have concluded that an Addendum is the appropriate document to be prepared in accordance with CEQA to evaluate potential environmental impacts associated with the currently proposed project modifications. The basis for this conclusion is described in Section 2.0.

2.0 BASIS FOR DECISION TO PREPARE AN ADDENDUM

The SCAQMD was the lead agency responsible for preparing the 2002 FEIR and is the public agency that has the primary responsibility for approving the currently proposed project modifications. Therefore, the SCAQMD is the appropriate lead agency to evaluate the potential environmental effects of the currently proposed project modifications that are the subject of this Addendum.

Based on the environmental analysis of the currently proposed project modifications, SCAQMD staff has concluded that the only environmental area affected by the currently proposed project modifications is operational air quality. Relative to operational impacts, it was concluded in the 2002 FEIR that CO and PM10 emissions exceeded the relevant significance thresholds and, therefore, were concluded to be significant. Operational emissions from the currently proposed project modifications were recalculated and compared to the operational emission estimates in the 2002 FEIR. It was concluded that with the availability of more recent and accurate emissions data for the CTGs, there would be a net reduction in anticipated operational emissions for CO, SO_x and PM10. NO_x emissions increased, but not substantially, that is, they did not increase in an amount that exceeded relevant operational significance thresholds. Since the CCFG has already been constructed, the currently proposed modifications will not affect in any way previous analyses of construction air quality impacts.

Subsequent to the certification of the 2002 FEIR, LADWP determined that an existing 171,000-barrel AST that was to be converted from fuel oil to ultra-low-sulfur distillate fuel service was in poor condition and not seismically sound. The project evaluated in the 2003 Addendum consisted of demolishing the existing 171,000 barrel AST instead of performing a change in service, and constructing a new 60,000 barrel AST in the same location. The new tank was to be used to store fuel for emergency backup purposes only. The 2003 Addendum also corrected a typographical error in the 2002 FEIR (the FEIR incorrectly stated the capacity of the existing 171,000 barrel AST to be 20,000 gallons) and clarified a discussion associated with the change in service of the existing 171,000 barrel AST. The project modifications associated with the 2003 Addendum to the 2002 FEIR included less than significant demolition, construction, post-construction and operational air quality emission changes and was not expected to affect other environmental areas. As a result, when comparing the impacts identified in the 2002 FEIR with the effects of both the project evaluated in the 2003 Addendum and the currently proposed project modifications, the results indicate that no new significant adverse impacts are expected, and that no existing impacts identified in the 2002 FEIR or the 2003 Addendum will be made worse (or are substantially greater).

Therefore, it can be concluded that the currently proposed project modifications do not create new significant adverse environmental effects or increase the severity of previously identified significant effects in the 2002 FEIR or 2003 Addendum. As a result, pursuant to CEQA Guidelines §15164(a) this document constitutes an Addendum to the 2002 FEIR for the LADWP VGS CCGF project. Section 6 of this Addendum further explains the basis for the determination to prepare an addendum.

CEQA Guidelines §15164(a) allows a lead agency to prepare an Addendum to a FEIR if all of the following conditions are met.

- Substantial changes with respect to the circumstances under which the project is undertaken do not require major revisions to the previous FEIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
- No new information becomes available which shows new significant effects, significant effects substantially more severe than previously discussed, or additional or modified mitigation measures.
- Only minor technical changes or additions are necessary to make the FEIR under consideration adequate under CEQA.
- The changes to the FEIR made by the Addendum do not raise important new issues about the significant effects on the environment.

3.0 BACKGROUND CEQA DOCUMENTS

The activities associated with the installation of a CCGF and ancillary equipment at the LADWP VGS have been evaluated sequentially in the following CEQA documents. A summary of each of the CEQA documents prepared for the proposed project is presented below.

Notice of Preparation/Initial Study (NOP/IS) of a Draft EIR for the proposed LADWP Combined Cycle Generating Facility Project at the Valley Generating Station, May 2001.

A NOP/IS was prepared for the Draft EIR for the LADWP's Installation of a CCGF at the VGS facility and released for a 30-day public review and comment period on May 7, 2001. The NOP/IS included a project description and an environmental checklist, which contained a preliminary analysis of the potential environmental effects that may result from implementing the proposed project. The NOP/IS concluded that an EIR evaluating impacts to the following environmental topics was necessary: air quality, geology and soils, hazards and hazardous materials, hydrology/water quality, noise, and transportation/traffic impacts. Topic areas that were found not to be potentially significant were: aesthetics, agricultural resources, biological resources, cultural resources, energy, land use and planning, mineral resources, population and housing, public services, recreation, and solid/hazardous waste.

Draft EIR for the proposed LADWP Combined Cycle Generating Facility Project at the Valley Generating Station, November 2001.

The Draft EIR for the LADWP's Installation of a CCGF at the VGS was released for a 45-day public review and comment period on November 29, 2001. The Draft EIR evaluated potential air quality, geology and soils, hazards and hazardous materials, hydrology/water quality, noise, and transportation/traffic impacts, and determined that only air quality (construction emissions, operational emissions of PM10 and CO), hazards and hazardous materials, and

transportation/traffic (increased traffic during construction) impacts were significant and could not be mitigated to insignificance.

Final EIR for the proposed LADWP Combined Cycle Generating Facility Project at the Valley Generating Station, January 2002.

The FEIR included applicable changes to the text of the Draft EIR and the responses to comments received during the public review and comment period. Six comment letters were received during the Draft EIR public review and comment period, and responses to these comments can be found in Appendix G of the 2002 FEIR. Based on the findings of significance (e.g. for air quality, hazards and hazardous materials and transportation/traffic), a Statement of Findings, a Statement of Overriding Considerations, and a Mitigation Monitoring Plan were prepared. The FEIR was certified on January 25, 2002 (SCH No. 2001051035).

Addendum to the FEIR, October 2003

Subsequent to the certification of the 2002 FEIR, LADWP determined that an existing 171,000-barrel AST that was to be converted from fuel oil to ultra-low-sulfur distillate fuel service was in poor condition and not seismically sound. As a result, a decision was made to demolish the existing 171,000 barrel AST instead of performing a change in service, and construct a new 60,000 barrel AST in the same location. The new AST would be used to store fuel for emergency backup purposes only. This modification was analyzed in an Addendum that was certified by the SCAQMD on October 31, 2003. The 2003 Addendum also corrected a typographical error in the FEIR (the FEIR incorrectly stated the capacity of the existing 171,000 barrel AST to be 20,000 gallons) and clarified a discussion associated with the change in service of the existing 171,000 barrel AST. The results of this analysis demonstrated that no new significant adverse impacts would be generated, nor would existing significant adverse impacts be made substantially worse.

4.0 PROJECT LOCATION

The LADWP VGS is an existing facility located at 11801 Sheldon Street located in the Sun Valley area of the City of Los Angeles. The facility is bounded by Glenoaks Boulevard to the northeast and San Fernando Road to the southwest. Union Pacific Railroad parallels San Fernando Road to the southwest of the site. The land use surrounding the facility is primarily commercial and industrial. All aspects of the currently proposed project modifications discussed in this Addendum will occur within the boundaries of this existing facility.

5.0 PROJECT DESCRIPTION

Section 5.0 presents a description of the projects evaluated in the 2002 FEIR and the 2003 Addendum, as well as a description of the currently proposed project modifications. Although the currently proposed project modifications affect only specific permit conditions related to operational emissions evaluated in the 2002 FEIR, a full description of the project analyzed in the 2002 FEIR is provided to present a clear understanding of the previously proposed project with the currently proposed project.

This section presents the initial project evaluated in the 2002 FEIR, the project analyzed in the 2003 Addendum and the currently proposed project modification to show the chronology of activities which have occurred, or are expected to occur, to comply with the SCAQMD Regulation XX – RECLAIM, as part of a legally binding compliance agreement with the SCAQMD, and to respond to the need for additional electrical power in California.

5.1 Project as Analyzed in 2002 FEIR

The 2002 FEIR evaluated the installation of the CCFG at LADWP's Valley Generating Station in order to comply with SCAQMD Regulation XX – RECLAIM, as well as a legally binding compliance agreement with the SCAQMD, and to respond to the need for additional electrical power in California. The CCFG replaces four existing utility boilers with two combustion turbine generators (CTGs), a new steam turbine generator (STG), two heat recovery steam generators (HRSGs) and associated SCR units, and a cooling tower. The 2002 FEIR also included an analysis of the construction of two new 20,000-gallon aqueous ammonia ASTs and conversion of an existing fuel oil AST to diesel/distillate service. Appendix A of this 2004 Addendum includes a copy of the Introduction and Executive Summary from the 2002 FEIR, which presents an overview of the project analyzed at that time. Table 5-1 provides an overview of the project modifications and equipment associated with the 2002 FEIR. The air quality analysis of operational emissions in the 2002 FEIR was based on permit conditions associated with new equipment such as the CTGs. The construction activities evaluated in the 2002 FEIR and outlined in Table 5-1 are complete and will not be affected by the currently proposed project modifications.

**Table 5-1
Project as Analyzed in 2002 FEIR**

Project Component	Equipment	Nature of Change
Construction	Two Combustion Turbines with Duct Burners	New Equipment
	One Steam Turbine Generator	New Equipment
	Two Heat Recovery Steam Generators	New Equipment
	Two SCR Units	New Equipment
	10-Cell Cooling Tower	New Equipment
	Two 20,000 Gallon Ammonia ASTs	New Equipment
Operation	Four Utility Boilers	Removed Equipment
	Two Combustion Turbines with Duct Burners	New Equipment
	One Steam Turbine Generator	New Equipment
	Two Heat Recovery Steam Generators	New Equipment
	Two SCR Units	New Equipment
	10-Cell Cooling Tower	New Equipment
	Two 20,000 Gallon Ammonia ASTs	New Equipment
	Existing 171,000 Barrel AST	Change in Service from Fuel Oil to Distillate

5.2 Project as Analyzed in 2003 Addendum

The 2003 Addendum project included three components: (1) the correction of a typographical error; (2) clarification of a discussion associated with the change in service of an existing 171,000 barrel AST; and the primary focus (3) demolition of a 171,000 barrel AST and construction of a new 60,000 barrel AST. These three components are summarized below.

- 1) The 2002 FEIR states that the “proposed project will also include a change in service of one existing 20,000 gallon AST which will be used to store distillate fuel.” (2002 FEIR, Page 2-2,

Section 2.4) This statement is incorrect in that the size of the existing AST which was identified for this change of service is actually 171,000 barrels.

- 2) The activities involved in the change of service of the existing 171,000 barrel AST described in the 2002 FEIR include a change to the product contents from fuel oil to ultra low sulfur diesel fuel and the installation of new pumps, valves, flanges and threaded connectors. These components are broken down into five pumps, 90 valves, and 314 flanges and threaded connectors. No construction equipment, or subsurface activities, would be required to replace these components, as all work to change the storage product would be performed manually and above ground. As indicated in the 2002 FEIR, no construction emissions were expected from the change in service of the 171,000 barrel AST.
- 3) Subsequent to the certification of the 2002 FEIR, it was determined that the existing 171,000 barrel AST was in poor condition and not seismically sound. As a result, a decision was made by LADWP to demolish the existing 171,000 barrel AST instead of performing a change in service, and construct a new 60,000 barrel AST in the same location. The new tank would be used to store fuel for emergency backup purposes only. The analysis in the 2003 Addendum assumes that the construction of the new 60,000 barrel AST will also require the installation of five pumps, 90 valves, and 314 flanges and threaded connectors. However, no construction equipment, or subsurface activities, would be required to install these components, as all work would be performed manually and above ground. Demolition and construction emissions specifically include those from construction equipment; worker commutes and tank coating. Other emissions would include tanker truck trips associated with the delivery and unloading of product into the AST. A maximum of 10 tanker truck trips (with a capacity of 9,000 gallons per truck) per day would be expected (10 round-trips at 40 miles per trip) until the tank is filled to working capacity (approximately 56,000 barrels), approximately 27 days. The initial filling of the 60,000-barrel tank with ultra low sulfur diesel fuel will occur once the tank is constructed and all coatings have been applied.

Construction and initial filling of the 60,000 barrel AST is complete. Therefore, emissions associated with the demolition, construction and post-construction for the project to replace the 171,000-barrel AST with a 60,000 barrel AST have occurred.

5.3 Currently Proposed Project Modifications

The currently proposed project modifications analyzed in this Addendum are comprised of the following two aspects of the project evaluated in the 2002 FEIR: (1) air quality permit conditions and operational emissions for CTG startups; and (2) operational emissions for CTG shutdowns. The currently proposed project modifications do not entail modifying other aspects of the project analyzed in the 2002 FEIR and in the 2003 Addendum and most importantly do not include construction activities or emissions. Specifically, there will be no changes to physical structures or equipment at the facility, the number of employees, or the number or frequency of aqueous ammonia deliveries. Therefore, no environmental issue areas other than operational air quality emissions would be affected by the currently proposed project modifications. Furthermore, these modifications do not affect demolition, construction, or post-construction emissions since these activities evaluated in the 2002 FEIR and 2003 Addendum are complete. SCAQMD staff has evaluated the proposed changes to LADWP's CCFG project at the VGS (as detailed in Table 5-2) and determined that the currently proposed project modifications do not create any new significant environmental impacts or make substantially worse any existing significant adverse environmental impacts identified in the 2002 FEIR or 2003 Addendum, as explained below.

The proposed project modifications related to CTG startups and shutdowns not only meet the objectives of the project evaluated in the 2002 FEIR, but also result in operational emission reductions of CO, SO_x and PM10. Table 5-2 outlines the differences between the 2002 FEIR project, the 2003 Addendum project and the currently proposed project modifications.

CTG Startups

The 2002 FEIR evaluated operational emissions associated with a four-hour duration CTG startup. Subsequent to certification of the FEIR and 2003 Addendum, LADWP requested a change in operating conditions during CTG startups. This change in operating conditions would replace the four-hour duration CTG startup with two types of startups: (1) a cold startup, with a duration of six hours, occurring when the STG has not operated for 72 hours or more; and (2) a non-cold startup, with a duration of three hours, occurring when the STG is already operating or when the STG has operated within the previous 72 hours. This change in startup operating conditions would apply for the entire year, except between 3 am and 7 am during the months of December and January. This permit condition is needed so that the project does not contribute to an exceedance of the one-hour NO₂ ambient air quality standard.

CTG Shutdowns

The 2002 FEIR did not analyze operational pollutant emissions during CTG shutdowns because emissions during CTG shutdowns were expected to be lower than during any other operating modes. Based on more recently available manufacturer's data, LADWP has determined that a turbine shutdown would require approximately 30 minutes and that nitrogen oxides (NO_x) emissions would be higher during this period than during 30 minutes of normal operation.

**Table 5-2
Comparison of Currently Proposed Project Modifications with the
2002 FEIR and 2003 Addendum**

Project Component	2002 FEIR Project	2003 Addendum Project	Currently Proposed Project Modifications
Demolition	No	Yes	No
Construction	Yes	Yes	No
Post-Construction	No	Yes	No
Operation – CTG permit conditions:			
4 hour startup duration	Yes	No	No
6 hour cold startup duration	No	No	Yes
3 hour non-cold startup duration	No	No	Yes
No startups between 3 am and 7 am in December and January	No	No	Yes
Shutdown emissions	No	No	Yes

6.0 IMPACT ANALYSIS

Section 6 presents a description of the impact analyses in the 2002 FEIR and the 2003 Addendum, as well as the impact analysis associated with the currently proposed project modifications. The

currently proposed project modifications affect only the permit conditions and operational emissions associated with operation of the CTGs as evaluated in the 2002 FEIR.

This section presents a summary of the initial project evaluated in the 2002 FEIR, the project analyzed in the 2003 Addendum and the currently proposed project modifications to show the chronology of project changes, the impact analyses and the result of each analysis. The 2002 FEIR and 2003 Addendum, as well as the currently proposed project modifications, comply with SCAQMD Regulation XX – RECLAIM, and the legally binding compliance agreement with the SCAQMD.

6.1 Summary of Impacts in 2002 FEIR

The NOP/IS for the 2002 FEIR project evaluated all 17 of the environmental topics in accordance with CEQA and determined that 11 of the 17 environmental topics would not be significantly adversely affected by the proposed project (aesthetics, agricultural resources, biological resources, cultural resources, energy, land use and planning, mineral resources, population and housing, public services, recreation, and solid/hazardous waste). No comments were received that disagreed with this conclusion. Six of the 17 environmental topics required further evaluation in an EIR. The 2002 FEIR concluded that three of the six environmental topics evaluated in the EIR would either not be significantly adversely affected by the proposed project or could be mitigated to a level of insignificance: geology and soils, hydrology/water quality and noise. Section 7 of this Addendum discusses the effects of the currently proposed project modifications on the environmental topics not found to be significant and the environmental topics mitigated to a level of insignificance as concluded in the 2002 FEIR.

The 2002 FEIR concluded that three environmental topic areas were adversely affected by the project analyzed in the 2002 FEIR, and remained significant even after mitigation: (1) air quality (construction emissions and operational emissions of CO and PM10) [Appendix B is a copy of the impact section from the 2002 FEIR which evaluates air quality impacts and recommends mitigation measures]; (2) hazards (risk of catastrophic failure of storage tanks, tank cars, and increased use of hazardous materials); and (3) transportation/traffic (construction-related traffic).

6.2 Summary of Impacts in 2003 Addendum

Subsequent to certification of the 2002 FEIR, LADWP determined that an existing 171,000 barrel AST that was to be converted from fuel-oil to ultra-low-sulfur distillate fuel service was in poor condition and not seismically sound. As a result, a decision was made to demolish the existing AST (instead of performing a change in service) and construct a new AST in the same location. The new AST was to be used to store fuel for emergency backup purposes only. In addition, a typographical error in the 2002 FEIR was corrected (the FEIR incorrectly stated the capacity of the existing 171,000 barrel AST to be 20,000 gallons) and the discussion associated with the change in service of the existing 171,000 barrel AST was clarified.

The environmental areas affected by the project modifications addressed in the 2003 Addendum were air quality and transportation/traffic. The 2003 Addendum project included demolition, construction, post-construction and operational emissions. The operational air quality impacts associated with the permit conditions for the CTGs as evaluated in the 2002 FEIR were not changed by the 2003 Addendum project. Furthermore, the modifications evaluated in the 2003 Addendum were specifically related to construction activities and do not affect the operational changes in the currently proposed project modifications. All construction activities associated with the 2003 Addendum are complete.

The 2003 Addendum concluded that increased CO, VOC, NO_x, SO_x and PM10 emissions would occur during construction activities associated with demolition of the existing 171,000 barrel AST, erection of the new 60,000 barrel AST, application of architectural coatings to the new AST, and during initial filling of the new AST. The 2003 Addendum concluded that these construction emissions would not cause new significant adverse air quality impacts or substantially worsen adverse air quality impacts evaluated in the 2002 FEIR. The 2003 Addendum also concluded that additional fugitive VOC emissions from working losses from the new AST would occur, but these additional emissions would not cause significant adverse air quality impacts when added to the VOC emissions evaluated in the 2002 FEIR.

Finally, the 2003 Addendum concluded that the project changes would not create any new significant impacts or substantially increase the severity of significant impacts identified in the 2002 FEIR on geology/soils, hazards/hazardous materials, hydrology/water quality, noise, or transportation/traffic.

6.3 Analysis of Impacts from the Currently Proposed Project Modifications

This Addendum evaluated all 17 of the environmental topic areas as required by CEQA, and concluded that three environmental topic areas were potentially significant: air quality, hazards/hazardous materials, and transportation/traffic. This section presents the results of the evaluation of potential impacts associated with the currently proposed project modifications. Section 7.3 presents the analysis of the remaining 14 environmental topic areas which were found not to be potentially significant.

6.3.1 Air Quality

Both construction and operational air quality impacts are typically analyzed for each project. Construction activities, and associated emissions, can be further divided into specific sub-phases, if applicable (e.g. demolition, site preparation, construction, post-construction).

The discussion of air quality impacts associated with the currently proposed project modifications will be organized in Section 6.3.1 as follows:

- Air Quality Significance Thresholds
- RECLAIM
- Construction Emissions: Demolition Phase
- Construction Emissions: Construction Phase
- Construction Emissions: Post-Construction Phase
- Operational Emissions
- Health Risks
- Localized Air Quality Impacts
- Summary of Air Quality Impacts

Air Quality Significance Thresholds

The SCAQMD has established air quality significance thresholds for mass daily construction and operational emissions, toxic air contaminants (TACs), odor and ambient air quality criteria pollutant concentrations (see Table 6-1). Air quality impacts (e.g. construction and operational emissions) that equal or exceed the significance thresholds identified in Table 6-1 are considered to be significant adverse air quality impacts. The air quality significance thresholds in Table 6-1 are the same thresholds of significance used in the 2002 FEIR.

Table 6-1

SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds		
Pollutant	Construction	Operational
NO _x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
SO _x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants and Odor Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk \geq 10 in 1 million Hazard Index \geq 1.0 (project increment) Hazard Index \geq 3.0 (facility-wide)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality for Criteria Pollutants		
NO ₂ 1-hour average annual average	20 $\mu\text{g}/\text{m}^3$ or 1.0 parts per hundred million 1 $\mu\text{g}/\text{m}^3$ or 0.05 parts per hundred million	
PM10 24-hour average annual geometric average	2.5 $\mu\text{g}/\text{m}^3$ 1.0 $\mu\text{g}/\text{m}^3$	
Sulfate 24-hour average	1 $\mu\text{g}/\text{m}^3$	
CO 1-hour average 8-hour average	1.1 mg/m^3 or 1.0 parts per million 0.50 mg/m^3 or 0.45 parts per million	
$\mu\text{g}/\text{m}^3$ = microgram per cubic meter; mg/m^3 = milligram per cubic meter; \geq greater than or equal to		

RECLAIM

Subsequent to the adoption of the SCAQMD CEQA Air Quality Handbook (SCAQMD, 1993), the SCAQMD adopted the RECLAIM program, fundamentally changing the framework of air quality rules and permits that apply to the largest NO_x and SO_x sources within the air district. The RECLAIM program is a pollution credit trading program for large sources of NO_x and SO_x emissions within the jurisdiction of the SCAQMD. Companies within the program are given an emissions allocation that reflects historical usage, but that decline yearly to reduce total emissions from the program. Facilities are allowed to buy and sell credits, reflecting the facilities emissions for the year. The emissions from the universe of RECLAIM sources were capped in 1994. The emissions cap declined each year from 1995 through 2003, and is now fixed at a level of approximately 78 percent below the initial levels. As implementation of the RECLAIM program proceeded, the SCAQMD realized that it needed to examine how to apply the CEQA significance thresholds to RECLAIM facilities, recognizing that CEQA case law directs that the existing environmental setting includes permits and approvals that entitle operators to conduct or continue certain activities. The SCAQMD determined that the baseline should be the RECLAIM initial allocation for each RECLAIM facility, and that a project would be considered significant if the proposed project would cause the facility's emissions to exceed the baseline plus the adopted significance threshold.

Under the RECLAIM program, the SCAQMD issues facility-wide permits to sources. The facility permits specify an initial allocation and annual emission allocations for NO_x and SO_x. The initial allocations were based on historical, reported emissions for the years immediately prior to implementation of the RECLAIM program. Annual allocations represent the number of RECLAIM Trading Credits or RTCs the facilities begin with each year. The allocations generally declined each year from 1994 through 2003. Operators of RECLAIM sources must not emit more than the total number of RECLAIM credits they possess, which include the annual allocation plus any credits bought and minus any credits sold. In this way, the RECLAIM permit process operates to reduce on an annual basis the overall emissions of NO_x and SO_x in the Basin, while providing flexibility at individual facilities to vary emissions up to the levels of the actual emissions as determined in 1994. Some facilities reduce emissions through a variety of ways including curtailing production and installing pollution control equipment, to remain below annual allocations. Facilities in the program can generate credits to sell by reducing their emissions beyond their annual allocation. Although the allocations for RECLAIM facilities have declined each year since 1994, the maximum annual emissions of NO_x and SO_x permitted from each facility remain at the 1994 limits – so long as that facility acquires additional allocations (“trading credits”) from another RECLAIM facility that has reduced its emissions below its current-year allocation.

Air quality impacts for a RECLAIM facility are considered to be significant if the incremental mass daily emissions of NO_x and SO_x from sources regulated under the RECLAIM permit, when added to the allocation for the year in which the project will commence operations, will be greater than the facility's 1994 allocation (including non-tradable credits) plus the increase established in the SCAQMD Air Quality Handbook for that pollutant (55 lbs/day for NO_x and 150 lbs/day for SO_x). In order to make this calculation, annual allocations as well as the project's incremental annual emissions are converted to a daily average by dividing by 365. Thus, the proposed project is considered significant if:

$$(A_1/365) + I < (P + A_2)/365$$

Where:

P = the annual emissions increase associated with the proposed project.

A₁ = 1994 initial annual allocation (including non-tradable credits).

A₂ = Annual allocation in the year the proposed project will commence operations.

I = Incremental emissions established as significant in the SCAQMD Air Quality Handbook (55 lb/day NO_x or 150 lb/day SO_x).

The above analysis provides a way of applying the standard CEQA significance thresholds to the facilities that have CEQA baselines that are determined by the unique permitting program of RECLAIM. The analysis ensures that the CEQA significance criteria are applied properly and fairly, taking into account the unique aspects of the RECLAIM permit program. For localized impacts associated with a physical modification, the RECLAIM regulations require modeling and establish thresholds that cannot be exceeded.

The CEQA significance thresholds for RECLAIM facilities apply only to operational emissions of NO_x and/or SO_x that would be included in the RECLAIM allocation and subject to the RECLAIM regulations. The RECLAIM CEQA significance thresholds do not apply to sources that would not be regulated by the RECLAIM regulations (i.e., indirect sources of emissions such as trucks, rail

cars, and marine vessels), construction emission sources, and to non-RECLAIM pollutants (i.e., VOC, CO, and PM10) for which the SCAQMD has established significance thresholds.

Construction Emissions: Demolition Phase

Demolition activities were not associated with the project in the 2002 FEIR and therefore were not evaluated in the 2002 FEIR. In the 2003 Addendum, demolition activities were associated with dismantling the existing 171,000 barrel AST and removing it from the site in sections. Demolition emissions included exhaust from off-road construction equipment, on-road mobile source emissions from worker commute trips, and on-road mobile source emissions from delivery/haul truck traffic and typically occur in a separate phase prior to construction. It was estimated that a total of 20 motor vehicle trips per day would be associated with demolition activities. This number included worker commute vehicles, light-duty trucks and heavy-heavy duty trucks. A portion of the truck trips during the demolition phase would have been associated with the delivery of materials to the site and the hauling of materials away for recycling. The 2003 Addendum concluded that emissions during the demolition phase were not significant (see Table 6-2).

Table 6-2
Peak Daily Demolition Phase Emissions in 2003 Addendum

Source	CO (lbs/day)	VOC (lbs/day)	NO _x (lbs/day)	SO _x (lbs/day)	PM10 (lbs/day)
Construction equipment	10.98	2.40	17.76	1.72	1.20
Fugitive dust (unpaved roads)	---	---	---	---	3.5
Fugitive dust (paved roads)	---	---	---	---	0.73
Motor vehicle emissions ^a	8.48	0.99	7.20	---	0.28
TOTALS	19.46	3.39	24.96	1.72	5.71
CEQA Significance Threshold	550	75	100	150	150
Significant (Yes/No)	No	No	No	No	No

Source: Table 6-3, 2003 Addendum.
^a Includes a combination of worker commute vehicles, light-duty trucks and heavy-heavy duty trucks.

The currently proposed project modifications include a change in CTG operating conditions and will not involve any demolition activities. Therefore, there are no demolition emissions associated with the currently proposed project modifications. Table 6-3 presents a comparison of the peak daily demolition phase emissions associated with the 2002 FEIR (i.e., zero demolition emissions), the 2003 Addendum, and the currently proposed project modifications (i.e., zero demolition emissions). As indicated in Table 6-3, total demolition phase emissions associated with the 2002 FEIR, the 2003 Addendum, and the currently proposed project modifications are not significant. In addition, Table 6-3 demonstrates that demolition emissions from the currently proposed project modifications alone, as well as from the currently proposed project modifications and the 2003 Addendum project together are not substantially greater than the peak daily demolition emissions in the 2002 FEIR, which were zero since demolition was not part of the project evaluated in the 2002 FEIR.

Since Table 6-3 demonstrates that demolition phase emissions from the currently proposed project modifications (i.e., zero demolition emissions) and the 2003 Addendum project together are not substantially greater than the peak daily demolition phase emissions in the 2002 FEIR (i.e., zero demolition emissions), the demolition phase emissions from the currently proposed project modifications (i.e., zero demolition emissions) do not create new significant adverse demolition-related air quality impacts, or make previously identified significant demolition-related air quality impacts substantially worse. This analysis of demolition-related air quality impacts associated with

the currently proposed project modifications contributes to the conclusion that an addendum is the appropriate CEQA document for the currently proposed project modifications.

**Table 6-3
Peak Daily Demolition Phase Emissions in the 2002 FEIR, the 2003 Addendum and the
Currently Proposed Project Modifications**

Source	CO (lbs/day)	VOC (lbs/day)	NO _x (lbs/day)	SO _x (lbs/day)	PM10 (lbs/day)
2002 FEIR	0.0	0.0	0.0	0.0	0.0
2003 Addendum ^a	19.46	3.39	24.96	1.72	5.71
Currently Proposed Project Modifications ^b	0.0	0.0	0.0	0.0	0.0
TOTALS	19.46	3.39	24.96	1.72	5.71
CEQA Significance Threshold	550	75	100	150	150
Significant (Yes/No)	No	No	No	No	No
Do currently proposed project modifications change a previously insignificant impact to significant? (Yes/No)	No	No	No	No	No
Do the currently proposed project modification and 2003 Addendum emissions together substantially increase demolition emissions above the 2002 FEIR? (Yes/No)	No	No	No	No	No
^a Source: Table 6-3, 2003 Addendum.					
^b The 2002 FEIR and currently proposed project modifications do not involve any demolition activities.					

Construction Emissions: Construction Phase

Construction phase activities were evaluated in the 2002 FEIR and designated as either onsite or offsite. Onsite emissions generated during construction are comprised of exhaust emissions (NO_x, SO_x, CO, VOC, and PM10) from heavy-duty diesel and gasoline powered construction equipment operation, fugitive dust (PM10) from disturbed soil, and evaporative VOC emissions from asphalt paving and equipment touch-up painting. Offsite emissions during the construction phase consist of exhaust emissions and entrained paved road dust (PM10) from worker commute trips, material delivery trips, and haul truck material removal trips to and from the construction site.

To estimate the “worst-case” peak daily emissions associated with the construction activities in the 2002 FEIR, the anticipated schedule, the types and number of construction equipment, the number of peak daily worker commuting trips and material delivery and removal trips for each of the construction activities were used. Construction-related activities were anticipated to occur six days per week, Monday through Saturday, from 6:00 am to 5:00 pm. Allowing time for shift changes and work breaks, construction equipment was assumed to operate 10 hours per day except light plants, which were assumed to operate two hours per day.

The analysis in the 2002 FEIR anticipated that the overall peak daily construction-related emissions would occur during simultaneous construction of foundations, paving and equipment installation. The overall “worst-case” peak daily construction emissions (mitigated) by type of source and a comparison of these emissions to the SCAQMD’s CEQA significance thresholds are presented in Table 6-4 (taken from the 2002 FEIR) to determine whether construction-related air quality impacts are significant. As shown in the table, the significance thresholds were anticipated to be exceeded for CO, VOC, NO_x, and PM10 construction-related emissions in the 2002 FEIR.

Table 6-4
Peak Daily Construction Phase Emissions in 2002 FEIR

Source	CO (lbs/day)	VOC (lbs/day)	NO _x (lbs/day)	SO _x (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive PM10 (lbs/day)	Total PM10 (lbs/day)
Onsite Construction Equipment Exhaust	306.5	50.4	403.8	33.7	23.0	--	23.0
Mitigation Reduction (%)	0%	5%	5%	5%	5%	--	--
Mitigation Reduction (lb/day)	0.0	-2.5	-20.2	-1.7	-1.1	--	-1.1
Remaining Emissions	306.5	47.9	383.6	32.0	21.8	--	21.8
Onsite Motor Vehicles	16.8	2.9	5.1	0.0	0.2	--	0.2
Mitigation Reduction (%)	0%	0%	0%	0%	0%	--	--
Mitigation Reduction (lb/day)	0.0	0.0	0.0	0.0	0.0	--	0.0
Remaining Emissions	16.8	2.9	5.1	0.0	0.2	--	0.2
Onsite Fugitive PM10	--	--	--	--	--	45.7	45.7
Mitigation Reduction (%)	--	--	--	--	--	16%	--
Mitigation Reduction (lb/day)	--	--	--	--	--	-7.3	-7.3
Remaining Emissions	--	--	--	--	--	38.4	38.4
Asphalt Paving	--	1.6	--	--	--	--	--
Mitigation Reduction (%)	--	0%	--	--	--	--	--
Mitigation Reduction (lb/day)	--	0.0	--	--	--	--	--
Remaining Emissions	--	1.6	--	--	--	--	--
Architectural Coating	--	21.0	--	--	--	--	--
Mitigation Reduction (%)	--	0%	--	--	--	--	--
Mitigation Reduction (lb/day)	--	0.0	--	--	--	--	--
Remaining Emissions	--	21.0	--	--	--	--	--
Total Onsite	321.8	72.7	386.8	32.0	21.9	38.4	60.3
Offsite Motor Vehicles	1,319.4	89.1	158.4	0.0	4.5	173.0	177.6
Mitigation Reduction (%)	0%	0%	0%	0%	0%	0%	
Mitigation Reduction (lb/day)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Remaining Emissions	1,319.4	89.1	158.4	0.0	4.5	173.0	177.6
Total Offsite	1,319.4	89.1	158.4	0.0	4.5	173.0	177.6
TOTAL	1,642.7	162.5	547.1	32.0	26.6	211.5	237.8
<i>CEQA Significance Level</i>	550	75	100	150	--	--	150
Significant? (Yes/No)	Yes	Yes	Yes	No	--	--	Yes

Source: Table 4.2-27, 2002 FEIR.
Note: Totals may not match sum of individual values because of rounding

Construction activities were evaluated in the 2003 Addendum associated with construction of the new 60,000 barrel AST. Construction emissions included exhaust from off-road construction equipment, on-road mobile source emissions from worker commute trips and truck traffic, and fugitive dust emissions. It was estimated that a total of 20 motor vehicle trips per day would be associated with construction activities. This number includes worker commute vehicles, light-duty trucks and heavy-heavy duty trucks. The majority of truck trips during construction would have been associated with the delivery of materials to the site. The 2003 Addendum concluded that construction emissions are not significant as shown in Table 6-5.

Table 6-5
Peak Daily Construction Phase Emissions in 2003 Addendum

Source	CO (lbs/day)	VOC (lbs/day)	NO _x (lbs/day)	SO _x (lbs/day)	PM10 (lbs/day)
Construction equipment	10.98	2.40	17.76	1.72	1.20
Fugitive dust (unpaved roads)	---	---	---	---	18.27
Fugitive dust (paved roads)	---	---	---	---	1.08
Motor vehicle emissions ^a	10.04	1.41	12.50	---	0.49

TOTALS	21.02	3.81	30.26	1.72	21.04
CEQA Significance Threshold	550	75	100	150	150
Significant (Yes/No)	No	No	No	No	No

Source: Table 6-4, 2003 Addendum.

^a Includes a combination of worker commute vehicles, light-duty trucks and heavy-heavy duty trucks.

The currently proposed project modifications include a change in CTG operating conditions and will not involve any construction activities. Therefore, there are no construction emissions associated with the currently proposed project modifications. Table 6-6 presents a comparison of the peak daily construction emissions associated with the 2002 FEIR, the 2003 Addendum, and the currently proposed project modifications. Table 6-6 demonstrates that construction emissions from the currently proposed project modifications alone, as well as from the currently proposed project modifications and the 2003 Addendum project together are not substantially greater than the peak daily construction emissions in the 2002 FEIR.

Since Table 6-6 demonstrates that construction emissions from the currently proposed project modifications and the 2003 Addendum project together are not substantially greater than the peak daily construction emissions in the 2002 FEIR, the construction emissions from the currently proposed project modifications do not create new significant adverse construction-related air quality impacts, or make previously identified significant construction-related air quality impacts substantially worse. This analysis of construction-related air quality impacts associated with the currently proposed project modifications contributes to the conclusion that an addendum is the appropriate CEQA document for the currently proposed project modifications.

**Table 6-6
Peak Daily Construction Phase Emissions in the 2002 FEIR, the 2003 Addendum and the
Currently Proposed Project Modifications**

Source	CO (lbs/day)	VOC (lbs/day)	NOx (lbs/day)	SOx (lbs/day)	PM10 (lbs/day)
2002 FEIR ^a	1,642.7	162.5	547.1	32	237.8
2003 Addendum ^a	21.02	3.81	30.26	1.72	21.04
Currently Proposed Project Modifications ^b	0.0	0.0	0.0	0.0	0.0
TOTALS	1,663.72	166.31	577.36	33.72	258.84
CEQA Significance Threshold	550	75	100	150	150
Significant (Yes/No)	Yes	Yes	Yes	No	Yes
Do the currently proposed project modifications change a previously insignificant impact to significant? (Yes/No)	No	No	No	No	No
Do the currently proposed project modification and 2003 Addendum emissions together substantially increase construction emissions above the 2002 FEIR? (Yes/No)	No	No	No	No	No
^a Source: Table 6-5, 2003 Addendum.					
^b The currently proposed project modifications do not involve any new construction activities.					

Construction Emissions: Post-Construction Phase

Post-construction activities were not associated with the project in the 2002 FEIR and therefore were not evaluated in the 2002 FEIR. Post-construction activities in the 2003 Addendum included two non-overlapping sub-phases: (1) applying architectural coatings to the interior and exterior of the new AST; and (2) performing the initial filling of the ultra low sulfur diesel into the new AST. The emission sources from these two sub-phases were from the architectural coatings and from the tanker truck emissions. Peak daily architectural coating emissions were calculated to be slightly more than 11 lbs/day of VOC which is less than the significance threshold of 55 lbs/day. The 2002 FEIR project and the currently proposed project modifications do not include post-construction architectural coating activities. Therefore, post-construction architectural coating emissions for the 2002 FEIR, the 2003 Addendum, and the currently proposed project modifications (individually or collectively) do not create a new significant impact, or make an existing significant adverse impact substantially worse.

Post-construction phase emissions from tanker trucks filling the 60,000 barrel AST were also calculated and are shown in Table 6-7. Emissions in Table 6-7 are based on a maximum of 10 tanker truck trips (with a capacity of 9,000 gallons per truck) per day (10 round-trips at 40 miles per round trip). As indicated in Table 6-7, emissions associated with post-construction emissions in the 2003 Addendum were not significant.

Table 6-7
Peak Daily Post-Construction Phase Emissions in 2003 Addendum

Source	CO (lbs/day)	VOC (lbs/day)	NOx (lbs/day)	SOx (lbs/day)	PM10 (lbs/day)
Tanker truck emissions	10.20	1.34	12.40	0.10	0.21
CEQA Significance Threshold	550	75	100	150	150
Significant (Yes/No)	No	No	No	No	No

Source: Table 6-7, 2003 Addendum.

The currently proposed project modifications include a change in CTG operating conditions and will not involve any post-construction activities. Therefore, there are no post-construction emissions associated with the currently proposed project modifications. Table 6-8 presents a comparison of the peak daily post-construction emissions associated with the 2002 FEIR (i.e., zero post-construction emissions), the 2003 Addendum, and the currently proposed project modifications (i.e., zero post-construction emissions). As indicated in Table 6-8, total post-construction emissions associated with the 2002 FEIR, the 2003 Addendum, and the currently proposed project modifications are not significant. In addition, Table 6-8 demonstrates that post-construction phase emissions from the currently proposed project modification alone, as well as from the currently proposed project modifications and the 2003 Addendum project together are not substantially greater than the peak daily post-construction emissions in the 2002 FEIR. All post-construction activities associated with the 2003 Addendum are complete.

Since Table 6-8 demonstrates that post-construction emissions from the currently proposed project modification and the 2003 Addendum project together are not substantially greater than the peak daily post-construction emissions in the 2002 FEIR, the post-construction emissions from the currently proposed project modifications do not create new significant adverse post-construction related air quality impacts, or make previously identified significant post-construction related air quality impacts substantially worse. This analysis of post-construction related air quality impacts associated with the currently proposed project modifications contributes to the conclusion that an addendum is the appropriate CEQA document for the currently proposed project modifications.

Table 6-8
Peak Daily Post-Construction Phase Emissions in the 2002 FEIR, the 2003 Addendum and
the Currently Proposed Project Modifications

Source	CO (lbs/day)	VOC (lbs/day)	NO _x (lbs/day)	SO _x (lbs/day)	PM10 (lbs/day)
2002 FEIR	0.0	0.0	0.0	0.0	0.0
2003 Addendum ^a	10.20	1.34	12.40	0.10	0.21
Currently Proposed Project Modifications ^b	0.0	0.0	0.0	0.0	0.0
TOTALS	10.20	1.34	12.40	0.10	0.21
CEQA Significance Threshold	550	75	100	150	150
Significant (Yes/No)	No	No	No	No	No
Do the currently proposed project modifications change a previously insignificant impact to significant? (Yes/No)	No	No	No	No	No
Do the currently proposed project and 2003 Addendum emissions together substantially increase construction emissions above the 2002 FEIR? (Yes/No)	No	No	No	No	No
^a Source: Table 6-7, 2003 Addendum.					
^b The 2002 FEIR project and the currently proposed project modifications do not involve any post-construction activities.					

Operational Emissions

Operational emissions associated with the 2002 FEIR are the difference between the emissions at the LADWP's Valley Generating Station (baseline), and the emissions after installation of the Combined Cycle Generating Facility, as evaluated in the 2002 FEIR. Direct sources of operational emissions occur during the operation of the CCGF, the CTGs and the cooling tower.

The 2002 FEIR estimated emissions of each criteria pollutant during CTG startup, normal operation, and diesel-fuel readiness testing. Various combinations of these operating modes that might occur during a day, or daily operating scenarios, were then defined and the total daily operational emissions of each criteria pollutant were calculated for each scenario. The scenario that would lead to the highest daily operational emissions for each pollutant was identified, and the peak daily operational emissions were compared with the operational daily mass thresholds to evaluate their significance. Tables 6-9 and 6-10 present the peak daily operational emissions (mitigated) from the 2002 FEIR for non-RECLAIM and RECLAIM pollutants, respectively.

The primary operational emissions from the 2002 FEIR project were attributed to the new CTGs. No feasible mitigation measures were identified to reduce CO and PM10 emissions from the CTGs to a level of insignificance. As a result, operational emissions in the 2002 FEIR exceeded the significance thresholds for CO and PM10, but operational emissions did not exceed the significance thresholds for VOC, SO_x and NO_x as shown in Tables 6-9 and 6-10. Further, Table 6-10 shows that project emissions would not exceed the allowable baseline established for this RECLAIM facility.

Table 6-9
Overall Peak Daily Operational Non-RECLAIM Emissions in 2002 FEIR

Source	CO (lbs/day)	VOC (lbs/day)	SO _x (lbs/day)	PM10 (lbs/day)
Combustion Turbines (CTG) ^a	1,778.8	256.3	198.7	790.3
Cooling Tower	---	---	---	71
Total	1,778.8	256.3	198.7	861.3
Indirect Emissions (Aqueous Ammonia Delivery Trucks)	0.0	0.0	0.0	0.0
Total Project	1,778.8	256.3	198.7	861.3
Average Daily Historical Emissions	(97.8)	(57.6)	(7.7)	(16.3)
Net Emissions Increase (Pre-Mitigation)	1,681	199	191	845
Emission Reduction Due to Mitigation	0	199	(95.6)	0
Net Emissions with Mitigation	1,681	0	95	845
CEQA Significance Threshold	550	55	150	150
Significant? (Yes/No)	Yes	No	No	Yes

Source: Table 4.2-29, 2002 FEIR.
^a Emissions for two CTGs.

Table 6-10
Project RECLAIM NO_x Peak Daily Operational Emissions in 2002 FEIR

Criteria	Emissions (lbs/day)
CTG NO _x Emissions	1,221
Average Daily Historical Emissions	(526)
Net Emissions Increase	695
2002 RECLAIM NO _x allocation ^a	271
Total	966
Baseline^b	1,487
CEQA Significance Threshold	55
Significant? (Yes/No)	No

Source: Table 4.2-21, 2002 FEIR.
^a The 2002 facility allocation for NO_x includes purchased RTCs and is converted to pounds per day. This value was taken from the facility Permit to Operate. The value from the column headed NO_x RTC Holding was selected.
^b Calculated as the facility's initial 1994 RECLAIM allocation plus nontradeable credits as listed in the facility's RECLAIM permit and converted to pounds per day.

Operational emissions associated with the 2003 Addendum are the difference between the emissions at the LADWP's Valley Generating Station (baseline), and the emissions after replacement of the 171,000 barrel AST with a 60,000-barrel AST, as evaluated in the 2003 Addendum. Emissions evaluated in the 2003 Addendum were associated with the 60,000 barrel distillate fuel AST and associated components, such as flanges and valves. Table 6-11 shows that the peak daily operational VOC emissions from the 2003 Addendum were below the significance threshold.

Table 6-11
Peak Daily Operational Non-RECLAIM Emissions in 2003 Addendum

Emission Source	VOC (lb/day)
Pumps, valves, flanges and threaded connectors	3.14
60,000 barrel AST	0.078
TOTAL	3.22
CEQA Significance Threshold	55
Significant (Yes/No)	No
Source: Table 6-8, 2003 Addendum.	

The currently proposed project modifications consist of changes to permit conditions for the operation of the CTGs. Direct sources of operational emissions occur during the operation of the CCGF and the CTGs. Operational emissions from the CTGs and cooling tower were analyzed in the 2002 FEIR as summarized in Tables 6-9 and 6-10, and emissions from the 60,000-barrel AST were analyzed in the 2003 Addendum as summarized in Table 6-11. The currently proposed project modification does not involve any changes to operating conditions for the cooling tower or the distillate fuel AST. Therefore, emissions from the cooling tower and the AST for the currently proposed project modifications would be the same as were analyzed in the 2002 FEIR (as shown in Tables 6-9 and 6-10) and in the 2003 Addendum (as shown in Table 6-11), respectively.

A CTG may operate in various modes during a day, including startup, normal operation, shutdown and diesel-fuel readiness testing. The changes in CTG operating conditions during startups in the currently proposed project modifications would cause changes in emissions during startups as analyzed in this Addendum. Additionally, as presented in Section 5.3, the 2002 FEIR did not analyze operational emissions during CTG shutdowns because emissions during a CTG shutdown were expected to be lower than during any other operating mode. The LADWP has subsequently determined that NO_x emissions would be higher during a shutdown than during the same period of normal operations, and these emissions are also analyzed in this Addendum.

Although the currently proposed project modifications does not involve a change in proposed CTG operating conditions during normal operations or during diesel-fuel readiness testing from the operating conditions analyzed in the 2002 FEIR, the LADWP subsequently determined that a lower SO_x emission factor is more appropriate for internal combustion engines firing natural gas in the South Coast Air Basin. This lower emission factor has been used to estimate SO_x emissions for all natural-gas fired operating modes for the currently proposed project modifications, including normal operations. This lower SO_x emission factor also reduces estimated PM₁₀ emissions during normal CTG operations.

Because of differences in CTG firing rate, fuel combustion characteristics, type of fuel used, and operation of emission controls, criteria pollutant emission rates differ among the various operating modes. Additionally, the differences in emission rates between operating modes are not the same for each criteria pollutant. Because of these differences in emission rates, total emissions of each criteria pollutant during a day would depend on the combinations of operating modes that occur during the day.

This Addendum estimated peak daily operational emissions for the currently proposed project modification using the methodology described in Appendix C. Emissions of each criteria pollutant during five operating modes are evaluated: (1) cold startup over six hours; (2) non-cold startup over three hours; (3) normal operation (operating time will depend on whether or not other activities are

occurring); (4) diesel fuel readiness testing over one hour; and (5) CTG shutdown over 0.5 hour. The combinations of 25 daily operating scenarios for the two CTGs that could occur during a day are described in Appendix C (see Table C-6 in Appendix C). Daily CTG emissions for CO, VOC, NO_x, SO_x and PM10 were calculated for each of these 25 potential daily combinations of operating modes, to identify the operating scenario that leads to the peak daily CTG emissions of each criteria pollutant (see Table C-7 in Appendix C). Four of the 25 scenarios result in peak daily CTG operating emissions for each criteria pollutant. These scenarios are described below and in Table 6-12:

Scenario 1: Twenty-four hours normal operation of both CTGs (peak daily for VOC);

Scenario 7: One hour diesel fuel readiness testing and 23 hours normal operation of both CTGs (peak daily for PM10 and SO_x);

Scenario 12: Cold startup of one CTG for six hours followed by 18 hours normal operation; non-cold startup of the other CTG for three hours after completion of the cold startup of the first CTG, followed by 15 hours normal operation (peak daily for CO); and

Scenario 24: Cold startup of one CTG for six hours followed by 17.5 hours normal operation and 0.5 hour shutdown; non-cold startup of the other CTG for three hours after completion of the cold startup of the first CTG, followed by 14.5 hours normal operation and 0.5 hour shutdown (peak daily for NO_x).

The remaining 21 scenarios did not result in peak daily emissions for any criteria pollutant (see Table C-7 in Appendix C) and therefore were not analyzed further. Emission calculations, assumptions, emission factors, etc., used to calculate operational emissions from the currently proposed modifications are located in Appendix C.

**Table 6-12
Daily Operating Scenarios with Peak CTG Criteria Pollutant Emissions**

Daily Operating Scenarios			Pollutants with Peak Daily Emissions
Scenario	First CTG	Second CTG	
1	24 Hours normal operation	24 Hours normal operation	VOC
7	One hour diesel fuel readiness testing and 23 hours normal operation	One hour diesel fuel readiness testing and 23 hours normal operation	SO _x and PM10
12	Cold startup for six hours followed by 18 hours normal operation	Non-cold startup for three hours followed by 15 hours normal operation	CO
24	Cold startup for six hours followed by 17.5 hours normal operation and 0.5 hour shutdown	Non-cold startup for three hours followed by 14.5 hours normal operation and 0.5 hour shutdown	NO _x

Peak-daily operational CTG emissions for each criteria pollutant are provided in Tables 6-13 and 6-14, respectively, for the non-RECLAIM pollutants (CO, VOC, SO_x and PM10) and the RECLAIM pollutant (NO_x). Total operational emissions associated with the currently proposed project modifications are also shown in Tables 6-13 (non-RECLAIM pollutants) and 6-14 (RECLAIM pollutant). LADWP's VGS is not a RECLAIM facility for SO_x. The project analyzed in the 2002 FEIR included decommissioning of existing electrical generating equipment at the VGS when the project was implemented. Since the project analyzed in the 2002 FEIR has already been

implemented, and the existing electrical generating equipment has already been decommissioned, the emission reductions associated with decommissioning the existing equipment are subtracted from the project-related emissions in the tables. This represents a "worst-case" emissions increase because the average daily historical emissions are subtracted from the maximum peak-daily project emissions. As shown in Tables 6-13 and 6-14, operational CO and PM10 emissions from the currently proposed project modifications would exceed the significance thresholds, while operational NO_x, VOC and SO_x emissions would be below the thresholds.

**Table 6-13
Peak Daily Operational Non-RECLAIM Emissions of
Currently Proposed Project Modifications**

Source	CO (lbs/day)	VOC (lbs/day)	SO_x^d (lbs/day)	PM10 (lbs/day)
Combustion Turbines (CTG) ^a	1,596.0	256.3	24.7	742.9
Cooling Tower	---	---	---	71.0
Distillate Fuel Storage Tank	---	3.2	---	---
Total	1,596.0	259.5	24.7	813.9
Indirect Emissions (Aqueous Ammonia Delivery Trucks)	0.0	0.0	0.0	0.0
Total Project	1,596.0	259.5	24.7	813.9
Average Daily Historical Emissions ^b	(97.8)	(57.6)	(7.7)	(16.3)
Net Emissions Increase (Pre-Mitigation)	1,498	202	17	798
Emission Reduction Due to Mitigation ^c	0	(199)	0	0
Net Emissions with Mitigation	1,498	3	17	798
CEQA Significance Threshold	550	55	150	150
Significant? (Yes/No)	Yes	No	No	Yes
^a Source: Table C-7 in Appendix C: CO (scenario 12); VOC (scenario 1); SO _x (scenario 7); and PM10 (scenario 7).				
^b Source: 2002 FEIR Table 4.2-20. Historical emissions constitute the baseline emissions and are, therefore, subtracted from the total project emissions.				
^c Mitigation measure AQ-5 from 2002 FEIR requires use of ultra-low sulfur distillate fuel. Reductions from this mitigation measure are included in the calculated SO _x emissions from diesel fuel readiness testing. Mitigation measure AQ-6 requires offsets for 199 lbs/day of VOC emissions.				
^d VGS is not a RECLAIM facility for SO _x .				

**Table 6-14
Peak Daily Operational RECLAIM (NO_x) Emissions of Currently Proposed Project
Modifications**

Criteria	Emissions (lbs/day)
CTG NO _x Emissions ^a	1,562
Average Daily Historical Emissions ^b	(526)
Net Emissions Increase	1,036
2002 RECLAIM NO _x Allocation ^c	271
Total	1,307
Baseline^d	1,487
CEQA Significance Threshold	55
Significant? (Yes/No)	No^e
^a Source: Table C-7 in Appendix C: NO _x (scenario 24). ^b Source: 2002 FEIR Table 4.2-21. ^c The 2002 facility allocation for NO _x includes purchased RTCs and is converted to pounds per day. This value was taken from the facility Permit to Operate. The value from the facility Permit to Operate column headed NO _x RTC Holding was selected. ^d Calculated as the facility's initial 1994 RECLAIM allocation plus nontradeable credits as listed in the facility's RECLAIM permit and converted to pounds per day. ^e Significance is based on whether or not the project's RECLAIM NO _x emissions equal or exceed the sum of the baseline and the CEQA significance threshold.	

Table 6-15 presents a comparison of the peak daily operational emissions associated with the 2002 FEIR, the 2003 Addendum, and the currently proposed project modifications. As shown in Table 6-15, CO, SO_x and PM₁₀ emissions associated with the currently proposed project modifications are less than those associated with the 2002 FEIR. VOC and NO_x emissions are greater than those associated with the project analyzed in the 2002 FEIR, but do not result in new significant impacts, or make substantially worse an existing significant adverse impact.

Peak daily operational NO_x emissions associated with the currently proposed project modifications are 1,307 lbs/day as shown in Table 6-14, and peak daily operational NO_x emissions associated with the 2002 FEIR project are 966 lbs/day as shown in Table 6-10. The 2003 Addendum project did not have NO_x RECLAIM emissions associated with it. Although NO_x RECLAIM emissions from the currently proposed project modifications are greater than the NO_x RECLAIM emissions from the 2002 FEIR project, in neither case do the NO_x RECLAIM emissions exceed the NO_x baseline for the facility of 1,487 lbs/day plus the applicable NO_x significance threshold of 55 lbs/day.

Table 6-15 demonstrates that operational emissions from the currently proposed project modification alone, as well as from the currently proposed project modifications and the 2003 Addendum project together are not substantially greater than the peak daily operational emissions in the 2002 FEIR. Since Table 6-15 demonstrates that operational emissions from the currently proposed project modification and the 2003 Addendum project together are not substantially greater than the peak daily operational emissions in the 2002 FEIR, the operational emissions from the currently proposed project modifications do not create new significant adverse operational related air quality impacts, or make previously identified significant operational related air quality impacts substantially worse. Furthermore, NO_x operational emissions from the currently proposed project modification and the 2003 Addendum project together do not exceed the NO_x baseline emissions or the sum of the NO_x baseline emissions and the NO_x significance threshold. This

analysis of operational related air quality impacts associated with the currently proposed project modifications contributes to the conclusion that an addendum is the appropriate CEQA document for the currently proposed project modifications.

**Table 6-15
Peak Daily Operational Non-RECLAIM Emissions Analyzed in the 2002 FEIR,
the 2003 Addendum and the Currently Proposed Project Modifications**

Evaluation	CO (lbs/day)	VOC (lbs/day)	SO_x (lbs/day)	PM10 (lbs/day)
2002 FEIR ^{a,b}	1,681	0	95	845
2003 Addendum ^{a,b}	0	3	0	0
Currently Proposed Project Modifications ^b	1,498	3	17	798
2003 Addendum and Currently Proposed Project Modifications ^b	1,498	3	17	798
Do the currently proposed project and 2003 Addendum emissions together significantly exceed the 2002 FEIR Peak Daily Operational Emissions?	No	No	No	No
The effect of the currently proposed project and the 2003 Addendum as compared to the 2002 FEIR (net emissions).	-183	3	-78	-47
^a Source: 2003 Addendum Table 6-9.				
^b Zero non-RECLAIM NO _x operational emissions associated with the project.				
(-) Negative numbers represent emission reductions.				

Health Risks

The 2002 FEIR evaluated emissions and potential resulting health risks from toxic air contaminants (TACs) emitted during operation of the CCGF. The ISCST3 model was used for the 2002 FEIR to calculate maximum long-term (annual) and short-term (hourly) concentrations of TACs emitted by the CCGF. The ACE2588 (Assessment of Chemical Exposure for AB2588) Risk Assessment Model (Version 93288) was then used to perform a health risk assessment (HRA) to evaluate potential carcinogenic and short-term (acute) and long-term (chronic) non-cancer risks posed by the resulting TAC concentrations. The results of the HRA indicated that the potential health risks would be below the significance thresholds listed in Table 6-1.

The maximum “worst-case” acute health risk evaluated in the 2002 FEIR was associated with operation of both CTGs at full load. The maximum “worst-case” carcinogenic and non-cancer chronic health risk evaluated in the 2002 FEIR was associated with operation of both CTGs at full load throughout the year and with 12 diesel-fuel readiness tests for each CTG during the year. The 2002 FEIR concluded that project-related TAC emissions would not cause significant adverse health risks.

Table 6-16 summarizes the health risks associated with the 2002 FEIR, the 2003 Addendum and the currently proposed project modifications. Health risks were not analyzed in the 2003 Addendum because the 2003 Addendum project changes did not increase TAC emissions during operations. As shown in Table 6-16, the 2003 Addendum project would not cause significant new health risks, or make existing health risks worse.

Health risks were not analyzed for the currently proposed project modifications because the modifications do not increase TAC emissions during operation of the CTGs since the maximum hourly and annual fuel usage rates do not increase compared to those analyzed for the project in the

2002 FEIR. As shown in Table 6-16, the currently proposed project modifications will not cause significant new health risks, or make existing health risks worse.

**Table 6-16
Summary of Health Risks from 2002 FEIR, 2003 Addendum and
Currently Proposed Project Modifications**

Analysis	Maximum Acute Hazard Index	Maximum Chronic Hazard Index	Cancer Risk, Maximum Exposed Individual (per million)
2002 FEIR ^a	0.23	0.06	0.69
2003 Addendum ^b	0.0	0.0	0.0
Currently Proposed Project Modifications ^b	0.0	0.0	0.0
Total	0.23	0.06	0.69
CEQA Significance Threshold	1.0	1.0	10
Significant? (Yes/No)	No	No	No
^a Source: 2002 FEIR Page 4-31.			
^b Health risks did not change from the 2002 FEIR.			

Localized Air Quality Impacts

Atmospheric dispersion modeling was conducted for the 2002 FEIR to analyze potential localized ambient air quality impacts associated with the proposed project. The 2002 FEIR analysis used the Industrial Source Complex Short Term 3 (ISCST3) dispersion model (Version 00101) (U.S. EPA 1999) to model CO, NO_x and SO_x emission impacts. The EPA approved CTSCREEN model (version number 94111) was used to perform a refined PM10 impact analysis in the complex terrain located northeast of the project site. The results of the air quality dispersion modeling concluded that there would be no significant impacts to ambient air quality. This conclusion is explained further in the following paragraphs.

To determine emission rates to be used for the dispersion modeling, the 2002 FEIR analyzed CO, NO_x, SO_x and PM10 emissions from combinations of operating modes that could occur during the averaging periods for the ambient air quality standards for CO, NO₂, SO₂ and PM10, respectively, to identify the highest emission rates during those averaging periods. Emissions were modeled with no adjustments made for the emission reductions associated with the removal of existing equipment at the facility, allowing for prediction of the “worst-case” impact to ambient air quality at the modeled receptors.

Air quality dispersion modeling for the 2002 FEIR was conducted to evaluate the potential impacts of the proposed project on ambient concentrations using one year of meteorological data (1981). The resulting CO and PM10 concentrations were compared to the significance thresholds as shown in Table 6-1. Since the South Coast Air Basin was, and still is, designated nonattainment for CO and PM10, the significance thresholds in Table 6-1 (derived from Table A-2 in Rule 1303) are the detectable change in concentration levels for these nonattainment pollutants. The modeled CO and PM10 concentrations did not exceed the significance thresholds in Table 6-1.

The resulting maximum SO₂ and NO₂ concentrations predicted to be caused by the project were added to the highest ambient concentrations measured from 1999 through late 2001 at the East San Fernando Valley monitoring station to estimate the maximum localized concentration that would exist in the vicinity of the proposed project to determine whether or not the proposed project would cause or contribute to an exceedance of any applicable ambient air quality standard. This

comparison was performed since the South Coast Air Basin was, and still is, designated attainment for SO₂ and NO₂. The resulting SO₂ and NO₂ concentrations, when added to the background concentrations, did not exceed the applicable ambient air quality standards.

The primary pollutant affected by the 2003 Addendum was VOC and modeling is not required for VOC emissions. The 2003 Addendum project did not change CO, NO_x, SO_x or PM₁₀ operational emissions. Therefore, the 2003 Addendum did not analyze ambient air quality impacts.

For the currently proposed project modifications, maximum CO, SO_x and PM₁₀ operational emissions (Table C-9 in Appendix C) do not exceed the amount presented in the 2002 FEIR (Table C-8 in Appendix C). Since CO, SO_x and PM₁₀ average hourly and annual emissions from the currently proposed project modifications were equal to or less than average hourly and annual emissions for these pollutants calculated in the 2002 FEIR, localized air quality impacts are equal to or less than those calculated in the 2002 FEIR. As a result, further modeling for CO, SO_x and PM₁₀ is not required, and the currently proposed project modifications would not cause significant adverse CO, SO_x or PM₁₀ ambient air quality impacts.

Maximum annual NO_x emissions do exceed the amount analyzed for the project in the 2002 FEIR. As a result, air quality dispersion modeling was performed for annual NO_x emissions associated with the currently proposed project modifications. Additionally, the potential impacts of NO_x emissions on one-hour NO₂ concentrations during a cold startup were also evaluated. This evaluation of NO₂ impacts during a cold startup was conducted because: (1) the peak hourly NO_x emissions during a cold startup (300 lb/hr) are close to the peak hourly NO_x emissions analyzed in the 2002 FEIR (313.3 lb/hr during diesel-fuel readiness testing of one CTG plus 19.3 lb/hr of normal operations for the second CTG for a total of 332.6 lb/hr); and (2) the CTG exhaust flow rate during a cold startup is lower than the flow rate during diesel-fuel readiness testing, which causes lower dispersion of the emissions, which could, in turn, lead to higher ground-level NO₂ concentrations.

Air quality dispersion modeling for this Addendum was conducted to evaluate the potential impacts of the currently proposed project modification on annual and peak hourly NO₂ concentrations, as described in Appendix C. The modeling approach was revised from the approach used for the 2002 FEIR to more accurately estimate the anticipated impacts of the revised proposed project. Air dispersion modeling for the current Addendum was performed using USEPA's Industrial Source Complex Short Term 3 Ozone Limiting Method (ISC3-OLM) model (version 96113). This model assumes that 10 percent of the NO_x emissions from combustion exhaust is emitted as NO₂ and the remaining as NO. This is a conservative assumption since it is generally accepted that only five percent of the exhaust is actually NO₂. The ISC3-OLM model then uses ozone concentration data collected at a nearby monitoring station and assumes that the remaining NO emissions react with the ozone to form NO₂. If there is an insufficient level of ozone to react with the emitted NO, then some of the emitted NO will not react to form NO₂.

Three years of meteorological and ozone data, from 1999, 2001 and 2002, were used for the dispersion modeling. These years were selected because the SCAQMD requires the use of the most recent three years with complete, available data when using the ozone-limiting method. Complete meteorological and ozone data were not available for 2000 or 2003.

The ISC3-OLM model was used to estimate annual-average NO₂ concentration increases caused by emissions from the proposed project for each of these three years. The NO_x emission rates used for the annual-average dispersion modeling were calculated for the most reasonably foreseeable annual operating scenario that would lead to the highest annual NO_x emissions. The highest modeled

annual-average NO₂ concentration increase caused by the proposed project during these three years was then added to the highest annual-average NO₂ concentration recorded at the East San Fernando Valley monitoring station during the years 2001 through 2003 (the most recent three years with complete NO₂ monitoring data) for comparison with the annual-average NO₂ ambient air quality standard.

Results of the annual-average NO₂ modeling are summarized in Table 6-17. The highest modeled annual-average NO₂ concentration increase caused by the proposed project during 1999, 2000 or 2002 was 0.9 µg/m³ during 1999. The highest annual-average NO₂ concentration recorded at the East San Fernando Valley monitoring station during the years 2001 through 2003 was 77.1 µg/m³ during 2001. The resulting total NO₂ concentration (modeled increase plus existing background) of 78.0 µg/m³ was below the significance threshold of 100 µg/m³. Therefore, the currently proposed project modifications would not cause adverse annual NO₂ air quality impacts.

Table 6-17
Results of Modeled Ambient Annual-Average NO₂ Impacts for
Currently Proposed Project Modifications

Maximum Predicted Impact (µg/m ³) ^a	Maximum Annual-Average Concentration at East San Fernando Valley Monitoring Station (µg/m ³) ^b	Total Concentration (µg/m ³)
0.9 (1999)	77.1 (2001)	78.0
^a Highest modeled annual-average concentration during 1999, 2000 or 2001 ^b Highest measured annual average concentration from 2001 through 2003		

For comparison with the one-hour NO₂ significance threshold, the ISC3-OLM model was used to estimate maximum hourly-average NO₂ concentrations during each month of 1999, 2001 and 2002 for a total of 36 modeling runs. For these modeling runs, the NO_x emission rate was set to the 300 lb/hour maximum emission rate during a cold startup. The highest one-hour average impact for each month was added to the highest one-hour average NO₂ concentration measured during the same month from 2001 through 2003 at the East San Fernando Valley monitoring station for comparison with the one-hour average NO₂ ambient air quality standard.

The modeling results for one-hour average impacts indicated that NO_x emissions from the proposed project modifications would cause or contribute to a violation of the state Ambient Air Quality Standard (AAQS) for NO₂ (470 µg/m³) in the months of January and December. In order to receive permitting approval for the proposed project modifications, the project must comply with SCAQMD Rule 1303 modeling requirements which do not allow approval of a project if modeling shows that the emissions from the project cause or contribute to an exceedance of any AAQS. To avoid violating SCAQMD Rule 1303, the SCAQMD will impose the following permit conditions, limit the cold startup operation to one gas turbine at a time and cold startups cannot occur during the four-hour period from 3 a.m. to 7 a.m. during the months of December and January. Under these limitations, air quality impacts from the proposed project modifications would comply with SCAQMD Rule 1303, i.e., would not cause or contribute to a violation of any NO₂ AAQS. LADWP has accepted these changes of permit conditions for startup operations.

NO₂ modeling was rerun incorporating the startup limitations. The highest one-hour average impact for each month from February to November was added to the highest one-hour average NO₂ concentration measured during the month from 2001 through 2003 at the East San Fernando Valley

monitoring station for comparison with the significance threshold. The highest one-hour average impact for each of December and January was added to the highest one-hour average NO₂ concentration measured during the month from 2001 through 2003 (except during the hours of 3 a.m. to 7 a.m.) at the East San Fernando Valley monitoring station. Modeled one-hour average NO₂ ambient air quality impacts for the currently proposed project modifications are summarized in Table 6-18.

Table 6-18
Results of Modeled Ambient One-Hour Average NO₂ Impacts for
Currently Proposed Project Modifications with Startup Limitations

Month	Maximum Predicted Impact (µg/m³)^a	Maximum Monthly One-Hour Average Concentration at East San Fernando Valley Monitoring Station (µg/m³)^b	Total Concentration (µg/m³)
January	114.0 (1999)	236.9 (2003)	350.9
February	109.1 (1999)	253.8 (2002)	362.9
March	114.4 (2001)	173.0 (2001)	287.4
April	108.8 (2001)	180.5 (2001)	289.3
May	118.3 (1999)	223.7 (2001)	342.0
June	107.4 (2001)	193.6 (2002)	301.0
July	107.3 (2002)	167.3 (2002)	274.6
August	116.3 (2002)	208.7 (2001)	325.0
September	113.6 (2002)	338.4 (2002)	452.0
October	129.0 (1999)	253.8 (2003)	382.8
November	83.6 (2002)	248.2 (2001)	331.8
December	126.5 (2001)	263.2 (2003)	389.7
Highest Total Concentration			452.0
^a Maximum modeled during the month for 1999, 2001 and 2002.			
^b Maximum measured during the month from 2001 through 2003; For December and January the data does not include the hours of 3 a.m. to 7 a.m.			

Modeled one-hour and annual average NO₂ impacts from the 2002 FEIR, 2003 Addendum and for the currently proposed project modifications are summarized in Table 6-19. As indicated in Table 6-19, ambient air quality impacts for the currently proposed project modifications do not lead to new ambient air quality standard violations. Ambient air quality impacts from the currently proposed project modifications are the same or less than those analyzed for the project in the 2002 FEIR.

Table 6-19
Summary of NO₂ Ambient Air Quality Impacts from 2002 FEIR, 2003 Addendum
and Currently Proposed Project Modifications

Analysis	Maximum Total NO ₂ Concentration ^a	
	One-Hour (µg/m ³)	Annual (µg/m ³)
2002 FEIR ^b	452.0	86.4
2003 Addendum ^c	452.0	86.4
Currently Proposed Project Modifications	452.0	78.0
Ambient Air Quality Standard	470	100
Significant? (Yes/No)	No	No

^a Maximum sum of modeled impact and background concentration.
^b Source: 2002 FEIR, Table 4.2-23.
^c Values from 2002 FEIR not affected or changed due to 2003 Addendum.

Summary of Air Quality Impacts

As discussed previously in this section, criteria pollutant mass emission rates from the currently proposed project modifications individually, or the currently proposed project modifications and the 2003 Addendum collectively, would not cause new significant adverse air quality impacts, nor would they substantially worsen adverse air quality impacts found to be significant in the 2002 FEIR. Specifically:

Table 6-3 demonstrates that demolition emissions from the currently proposed project modifications and the 2003 Addendum project collectively are not substantially greater than the peak daily demolition emissions in the 2002 FEIR and that demolition emissions from the currently proposed project modifications individually do not create new significant adverse demolition-related air quality impacts.

Table 6-6 demonstrates that construction emissions from the currently proposed project modifications and the 2003 Addendum project collectively are not substantially greater than the peak daily construction emissions in the 2002 FEIR, the construction emissions from the currently proposed project modifications individually do not create new significant adverse construction-related air quality impacts, or make previously identified significant construction-related air quality impacts substantially worse.

Table 6-8 demonstrates that post-construction emissions from the currently proposed project modifications and the 2003 Addendum project collectively are not substantially greater than the peak daily post-construction emissions in the 2002 FEIR, and the post-construction emissions from the currently proposed project modifications individually do not create new significant adverse post-construction related air quality impacts.

Table 6-15 demonstrates that CO, SO_x, VOC and PM₁₀ operational emissions from the currently proposed project modifications and the 2003 Addendum project collectively are not substantially greater than the peak daily operational emissions in the 2002 FEIR and the operational emissions from the currently proposed project modifications individually do not create new significant adverse operational related air quality impacts, or make previously identified significant operational related air quality impacts substantially worse. NO_x operational emissions from the currently proposed project modification and the 2003 Addendum project collectively do not exceed the NO_x baseline emissions or the sum of the NO_x baseline emissions and the NO_x significance threshold.

The analyses prepared in this Addendum demonstrates that the currently proposed project modifications will not cause significant adverse health risks and will not cause significant CO, NO₂, SO₂ or PM₁₀ adverse ambient air quality impacts. The information provided in Table 6-16 demonstrates that the currently proposed project modifications will not cause significant new health risks, or make existing health risks worse. Table 6-19 summarizes the ambient air quality impacts for the currently proposed project modifications and indicates that they do not lead to new ambient air quality standard violations. Ambient air quality impacts from the currently proposed project modifications are the same or less than those analyzed for the project in the 2002 FEIR. As a result, the analysis presented in this Addendum supports the conclusion that an Addendum is the appropriate document to be prepared for the currently proposed project modifications.

6.3.2 Hazards/Hazardous Materials

Hazards or risk of upset scenario impacts will be considered significant if any of the following criteria is met. These significance criteria are the same as were used in the 2002 FEIR.

- Noncompliance with any applicable design code or regulation;
- Nonconformance to National Fire Protection Association standards;
- Increased use of natural gas;
- Nonconformance to regulations or generally accepted industry practices related to operating policies and procedures concerning the design, construction, security, leak detection, spill containment, or fire protection;
- Increased risk of offsite fatality or serious injury;
- Substantial human exposure to a hazardous chemical; or
- Significant exceedance of the U.S. EPA risk management exposure endpoints offsite.

The 2002 FEIR included an evaluation of potential hazards and risk of upset scenarios, and the potential adverse effects on the community and environment if an upset were to occur. Although the 2002 FEIR evaluated several scenarios based on “worst-case” conditions, and included feasible mitigation measures, the 2002 FEIR concluded that increased risks associated with the aqueous ammonia storage tanks, tank cars, and increased use of hazardous materials remained significant.

The analysis in the 2003 Addendum concluded that the replacement of the existing 171,100-barrel AST with a new 60,000 barrel AST would not change the conclusions in the 2002 FEIR because the 2003 Addendum project did not involve the delivery, handling or storage of aqueous ammonia. Further, it was concluded in the 2003 Addendum that the new 60,000 barrel low sulfur diesel AST would be built and operated in accordance with applicable industry practices and procedures concerning the design, construction, security, leak detection, spill containment, and fire protection. As a result, no new significant adverse impacts were anticipated and existing significant adverse hazards impacts would not be made substantially worse.

The currently proposed project modifications to change permit conditions associated with CTG operations will not increase the risk beyond that outlined in the 2002 FEIR, or cause new hazards. The quantity of ammonia and the manner in which the ammonia is delivered, handled and stored will remain the same. For these reasons, the currently proposed project modifications are not expected to increase hazards at the facility or make existing hazards worse.

As a result, although the currently proposed project modifications do not create new hazards, or cause existing hazards to be made worse, the hazard risk at the facility remains significant, the same as concluded in the 2002 FEIR (even after mitigation).

6.3.3 Transportation/Traffic

Impacts to transportation/traffic will be considered significant if any of the following criteria is met. These significance criteria are the same as were used in the 2002 FEIR.

- For project impacts that would last between three and 12 months, Intersection Capacity Utilization (ICU) ratio increase greater than or equal to 0.04, if Level of Service (LOS) is E or worse.
- For project impacts longer than 12 months if ICU ratio increase greater or equal to 0.040 and LOS is C; ICU ratio increase greater than or equal to 0.020 and LOS is D; or ICU ratio increase greater than or equal to 0.010 and LOS is E or F.
- A major roadway or railroad is closed to all through traffic and no alternate route is available.
- The project will increase customer traffic to a facility by more than 700 trips per day.

The 2002 FEIR evaluated potential construction and operational transportation-related impacts and concluded that construction-related traffic was significant; however, operational traffic was not significant. The analysis was based on the anticipated construction effort of 600 workers per day during the peak construction period. This peak construction period was anticipated to last for six months and the traffic analysis used a 1.0 average vehicle ridership for the construction workers as a “worst-case.” Transportation/traffic impacts were found to be significant for construction during the afternoon peak period at one intersection.

The 2003 Addendum concluded that replacement of the 171,000 barrel fuel oil AST with a new 60,000 barrel AST would not cause any new significant adverse transportation/traffic impacts during either construction or operation. The transportation-related activities associated with the construction of the 2003 Addendum project were less than the construction evaluated in the 2002 FEIR. Even when the 2003 Addendum project assumed a “worst-case” scenario, construction-related transportation impacts did not exceed those identified in the 2002 FEIR, or make the existing significant impacts worse. This conclusion was based on the fact that demolition activities would require 20 vehicle trips per day for construction worker commute trips and truck trips to deliver materials. Since the project analyzed in the 2002 FEIR did not require demolition, total demolition phase vehicle trips for both projects was estimated to be 20 trips per day, which would not be expected to significantly adversely affect the level of service (LOS) of any nearby intersections. Further, vehicle trips during construction of the 60,000 barrel AST were estimated to be an additional 20 trips per day consisting of worker commute trips. Twenty additional trips per day when added to the 600 construction worker commute trips and 70 haul truck trips per day estimated in the 2002 FEIR is not considered to be a substantial increase in vehicle traffic since it would not be expected to appreciably affect the LOS of any nearby intersections. Finally, during the post-construction phase, the 2003 Addendum identified a maximum of 10 haul truck trips per day to fill the 60,000-barrel AST. This represents a net increase of 10 truck trips per day from both the 2002 FEIR and 2003 Addendum projects, which is not expected to significantly adversely affect the LOS of any nearby intersections.

The currently proposed project modifications consist of changing CTG permit conditions (and associated operational emissions), which do not involve any additional traffic which would be added to either construction or operation traffic evaluated in the 2002 FEIR and in the 2003 Addendum. As a result, transportation/traffic associated with the currently proposed project modifications do not create new significant impacts, or cause existing impacts to be made worse.

7.0 TOPIC AREAS FOUND NOT TO BE POTENTIALLY SIGNIFICANT

This section describes the environmental effects of the 2002 FEIR project, the 2003 Addendum project, and the currently proposed project modifications on the environmental topic areas that were eliminated from further analysis in the NOP/IS for the LADWP VGS project. Also described in this section are the environmental effects of the 2003 Addendum and the currently proposed project modifications on the environmental topic areas analyzed further in the 2002 FEIR, but the analysis concluded that environmental topic areas would not be significantly adversely affected by the LADWP VGS project. Subsection 7.1 summarizes the conclusions from the 2002 FEIR. Subsection 7.2 summarizes the conclusions from the 2003 Addendum. Subsection 7.3 discusses the environmental effects of the currently proposed project modifications.

7.1 2002 FEIR

A NOP/IS was prepared for the installation of a CCGF at LADWP's Valley Generating Station project, which evaluated the 17 environmental topics in accordance with CEQA. The NOP/IS eliminated 11 of the 17 topic areas from further consideration in the draft EIR. The 11 environmental topic areas eliminated by the NOP/IS are presented below along with a brief summary of why they were excluded from further consideration (e.g. found to not be potentially significant).

Aesthetics – The 2002 FEIR project occurred within the confines of the existing LADWP VGS facility which is located within an area of industrial and commercial mixed uses. As a result, the 2002 FEIR project was not expected to significantly adversely affect aesthetics or the existing character of the surrounding area.

Agriculture Resources - The 2002 FEIR project occurred within the confines of the existing LADWP VGS facility which is located within an area of industrial and commercial mixed uses. No agricultural resources are present or in close proximity to the site. Further, no conversion of farmland to non-agricultural uses was required. As a result, no significant adverse impacts to agricultural resources would occur.

Biological Resources - The 2002 FEIR project occurred within the confines of the existing LADWP VGS facility which is located within an area of industrial and commercial mixed uses. No biological resources are present and no special status plants, animals or natural communities are found in proximity to the LADWP VGS. As a result, no significant adverse impacts to biological resources would occur.

Cultural Resources – The 2002 FEIR project occurred within the confines of the existing LADWP VGS facility. According to a Phase I Archaeological Investigation of limited areas within the VGS, dated October 26, 2000, no historically significant sites were identified within the confines of the VGS facility. As a result, no significant adverse impacts to cultural resources would occur.

Energy – The 2002 FEIR project's overall intent was to comply with an Order of Abatement between the LADWP and the SCAQMD and to respond to the need for additional electrical power in California. As a result, the project is expected to support the effort to provide the energy necessary to meet increased electricity demands. As a result, no significant adverse impacts to local or regional energy supplies would occur.

Land Use and Planning - The 2002 FEIR project occurred within the confines of the existing LADWP VGS facility which is located within an area of industrial and commercial

mixed uses. Project activities would occur within the boundaries of the existing facility and would not divide an established community or conflict with any land use plans or zoning ordinances. As a result, no significant adverse impacts to land use and planning would occur.

Mineral Resources – The 2002 FEIR project occurred within the confines of the existing LADWP VGS facility which is located within an area of industrial and commercial mixed uses. There are no known mineral resources within the existing facility. As a result, no significant adverse impacts to mineral resources would occur.

Population and Housing - The 2002 FEIR project would not directly or indirectly induce population growth in the area of the facility. The proposed project would involve modifications to the existing facility located within commercial/industrial areas and will not displace substantial numbers of existing housing or require the construction of new housing. Because of the large population base within the greater Los Angeles area, it is expected that the existing labor pool would accommodate the labor requirements for both construction and operational activities in support of the proposed project. As a result, no significant adverse impacts to population/housing are expected as a result of the proposed project.

Public Services - The 2002 FEIR project occurred within the confines of the existing LADWP VGS facility which is located within an area of industrial and commercial mixed uses. The proposed project would not require additional fire, police or emergency services over and above those currently available to respond to the facility in the case of an emergency. As a result, no significant adverse impacts to public services would occur.

Recreation - The 2002 FEIR project occurred within the confines of the existing LADWP VGS facility which is located within an area of industrial and commercial mixed uses. No recreational facilities are located within the vicinity of the project site. Further, no recreational facilities would be required to be constructed or expanded as a result of the project because the project will not induce population growth. As a result, no significant adverse impacts to recreation would occur.

Solid/Hazardous Waste - The 2002 FEIR project occurred within the confines of the existing LADWP VGS facility. The project included activities within an existing industrial facility that currently generates non-hazardous solid waste which is typically disposed to an appropriate disposal facility, or recycled. The estimated capacity of the landfills within the Basin is expected to be adequate. The project would also generate small amounts of hazardous waste (spent catalyst from the SCR process). The three Class I landfills in California and permitted facilities outside California are considered to be adequate. As a result, no significant adverse solid/hazardous waste impacts would occur.

The 2002 FEIR evaluated the six remaining environmental topics as potential significant impacts and concluded that three of the six topic areas would not be significantly adversely affected by the proposed project or could be mitigated to a level of insignificance. The three environmental topic areas that would be adversely affected by the LADWP project, air quality, hazards/hazardous materials, and transportation/traffic, were discussed in Section 6. The other three environmental topic areas are listed below along with a summary as to why they were found not to be potentially significant.

Geology and Soils - The 2002 FEIR evaluated potential significant adverse impacts to geology and soils. The proposed project does not include activities, which would cause

significant topographic alterations, secondary seismic effects, soil expansion impacts, or erosion. Soil contamination was not expected at the project site. The project is also not expected to be affected by earthquake-induced ground rupture, ground shaking, liquefaction, or subsidence. A mitigation measure to set back the foundation elements a minimum of 200 feet from the pit walls was included to address the potential for seismically induced slope instability. As a result, no significant adverse impacts to geology and soils were expected to occur as a result of the 2002 FEIR project.

Hydrology and Water Quality - The 2002 FEIR evaluated potential significant adverse impacts to water supply and water quality. The proposed project does not include activities which would deplete groundwater resources/supplies or interfere with recharge activities during either construction or operational activities. In addition, the existing wastewater disposal system is adequate to meet the demand of the project. No changes to water quality are expected. Stormwater will be controlled, and neither surface water nor groundwater resources will be adversely affected. A Stormwater Pollution Prevention Plan for construction activities that includes BMPs would be developed and implemented. LADWP would also update and modify the existing SWPPP and Monitoring Plan for operations and the industrial wastewater permit, as necessary, prior to project startup. As a result, no significant adverse impacts to water quality were expected to occur as a result of the 2002 FEIR project.

Noise - The 2002 FEIR evaluated potential significant adverse impacts to noise. It was estimated that no measurable increase in noise above existing noise levels or above applicable local ordinances would be generated from the operation of the project, and no significant impacts from operational noise were anticipated. To prevent further degradation of the sound environment, the new and modified equipment would be specified and purchased with an equipment noise limit of 85 dBA measured at three feet from the equipment to the extent possible. As a result, no significant adverse impacts to noise were expected to occur as a result of the 2002 FEIR project.

7.2 2003 Addendum

The 2003 Addendum evaluated the 17 environmental topics in accordance with CEQA and eliminated 11 of the 17 topic areas from further consideration. The 11 topic areas found not to be significant in the NOP/IS were evaluated to determine the effect of the 2003 Addendum project on them. The 2003 Addendum concluded that these 11 environmental topic areas would not be significantly adversely affected by the 2003 Addendum project. A summary of the basis for finding these topics not significant is presented below.

Aesthetics - The 2003 Addendum project occurred within the confines of the existing LADWP VGS facility. In addition, the 2003 Addendum project modifications are expected to blend within the existing surroundings, and are not expected to affect scenic vistas or resources, or create new sources of substantial light or glare. As a result, the 2003 Addendum project was not expected to significantly adversely impact aesthetics or the existing character of the surrounding area.

Agriculture Resources - The 2003 Addendum project occurred within the confines of the existing LADWP VGS facility. No agricultural resources are present or in close proximity to the site. Further, no conversion of farmland to non-agricultural uses is required. As a result, no significant adverse impacts to agricultural resources would occur.

Biological Resources - The 2003 Addendum project occurred within the confines of the existing LADWP VGS facility. No biological resources are present and no special status plants, animals or natural communities are found in proximity to the LADWP VGS (May 2001 IS, p. 3-10). As a result, no significant adverse impacts to biological resources would occur.

Cultural Resources - The 2003 Addendum project occurred within the confines of the existing LADWP VGS facility. According to a Phase I Archaeological Investigation of limited areas within the VGS, dated October 26, 2000, no historically significant sites were identified within the confines of the VGS facility. As a result, no significant adverse impacts to cultural resources would occur.

Energy - The 2003 Addendum project would not change the purpose of the 2002 FEIR project to provide emergency back up fuel to run gas turbines which replaced inefficient boilers. The overall intent of the 2002 FEIR project is to comply with an Order of Abatement between the LADWP and the SCAQMD and to respond to the need for additional electrical power in California. As a result, the 2003 Addendum project is expected to support the effort to provide the energy necessary to meet increased electricity demands. Finally, no increase in the demand for energy resources was identified as being associated with the 2003 Addendum project. As a result, no significant adverse impacts to local or regional energy supplies would occur.

Land Use and Planning - The 2003 Addendum project occurred within the confines of the existing LADWP VGS facility which is located within an area of industrial and commercial mixed uses. Project activities are expected to occur within the boundaries of this existing facility and will not divide an established community or conflict with any land use plans or zoning ordinances. The 2003 Addendum project did not require changes in zoning or land use designations. As a result, no significant adverse impacts to land use and planning would occur.

Mineral Resources - The 2003 Addendum project occurred within the confines of the existing LADWP VGS facility. There are no known mineral resources within this existing facility. Thus, the 2003 Addendum project will not result in the loss of any mineral resources or increased demand for mineral resources. As a result, no significant adverse impacts to mineral resources would occur.

Population and Housing - The 2003 Addendum project occurred within the confines of the existing LADWP VGS facility which is located in a highly urbanized area. The 2003 Addendum project would not require additional permanent personnel, induce population growth, displace housing or people, or require the construction of new or replacement housing. As a result, no significant adverse impacts to population/housing are expected as a result of the proposed project.

Public Services - The 2003 Addendum project occurred within the confines of the existing LADWP VGS facility which is an existing industrial power generating facility. The 2003 Addendum project would not require additional fire, police or emergency services over and above those currently available to respond to the facility in the case of an emergency. Replacing a seismically unsafe AST with a new state-of-the-art AST will serve to reduce the potential for future emergency situations, thus, providing safety benefits. As a result, no significant adverse impacts to public services would occur.

Recreation - The 2003 Addendum project occurred within the confines of the existing LADWP VGS facility which is located in a highly urbanized area. No recreational facilities are located within the vicinity of the project site. Further, no recreational facilities will be required to be constructed or expanded as a result of the 2003 Addendum project because the project will not induce population growth. As a result, no significant adverse impacts to recreation would occur.

Solid/Hazardous Waste - The 2003 Addendum project occurred within an existing industrial facility that currently generates non-hazardous solid waste and small amounts of hazardous waste (spent catalyst from the SCR process). The 2003 Addendum project (the construction of a 60,000 barrel AST) would temporarily generate solid waste (e.g. construction debris) during construction, but was not expected to generate hazardous waste. Landfill capacity is expected to be adequate to accept the non-hazardous solid waste related to construction/demolition activities and would not present a significant impact. Materials from the existing tank to be demolished which can be recycled, would be salvaged appropriately. As a result, no significant adverse impacts to solid/hazardous waste would occur.

The 2003 Addendum evaluated the six remaining environmental topics as potential significant impacts and concluded that six of the six topic areas would not be adversely affected by the proposed project. These areas are listed below along with a summary as to why they were found not to be potentially significant.

Air Quality - The 2003 Addendum evaluated potential significant adverse impacts to air quality. Peak daily emissions associated with each of the following project related activities: demolition, construction, post-construction and operation were found to be below the levels estimated in the 2002 FEIR and also below the mass emission significance thresholds for criteria pollutants. As a result, no significant adverse impacts to air quality were expected to occur as a result of the 2003 Addendum project.

Geology and Soils - The 2003 Addendum evaluated potential significant adverse impacts to geology and soils. Construction of the 60,000 barrel AST would occur in the same location as the existing 171,000 barrel AST, on the existing concrete pad. In addition, the new 60,000 barrel AST would be constructed in accordance with the current structural and building code requirements for seismic safety and the current environmental requirements for construction of ASTs. As a result, no significant adverse impacts to geology and soils were expected to occur as a result of the 2003 Addendum project.

Hazards/Hazardous Materials - The 2003 Addendum evaluated potential significant adverse impacts to hazards/hazardous materials. The 60,000 barrel low sulfur diesel fuel AST would be built and operated in accordance with the applicable industry practices and procedures concerning the design, construction, security, leak detection, spill containment and fire protection. In addition, the 2003 Addendum project would not affect, change, or include any aspects which involve the delivery, handling or storage of aqueous ammonia. As a result, no significant adverse impacts to hazards/hazardous materials were expected to occur as a result of the 2003 Addendum project.

Hydrology and Water Quality - The 2003 Addendum evaluated potential significant adverse impacts to water supply and water quality. The 2003 Addendum project did not include subsurface construction activities or surface alterations, so no increases in impervious surface areas are anticipated. The project would not affect groundwater resources, require a

NPDES permit, cause wastewater increases at the facility, or increase surface flows in the project site because the project modifications do not increase the demand for water resources or produce additional wastewater streams. As a result, no significant adverse impacts to water quality were expected to occur as a result of the 2003 Addendum project.

Noise - The 2003 Addendum evaluated potential significant adverse impacts to noise. Sources expected to generate noise during demolition and construction could include a crane, forklift, generator, compressor and welding torch. None of these sources are expected to exceed 85 dBA at 50 feet. At the nearest residential receptor, approximately one-half mile from the project site, noise from construction equipment would be further attenuated to comply with the normally acceptable residential land use class of 60 to 65 dBA. In addition, noise levels would not exceed standards designed to address worker safety. The installation of pumps, valves and flanges to support the movement of product from the tank to the turbines during emergency situations are not expected to exceed noise standards as this work is being performed manually. Further, since the AST will store emergency backup fuel, it is not expected that substantial noise impacts will occur when the pumps are operational. As a result, no significant adverse impacts to noise were expected to occur as a result of the 2003 Addendum project.

Transportation/Traffic - The 2003 Addendum evaluated potential significant adverse impacts to transportation/traffic. Since the project will generate a different number of vehicle trips for each construction phase and operation, the transportation/traffic analysis was presented for each of the four phases: 1) demolition; 2) construction; 3) post-construction; and 4) operational.

Demolition

Although an increase in vehicular trips will occur at the project site temporarily during the demolition phase, it is not expected that these 20 additional trips will cause a significant adverse transportation impact or impact traffic circulation in the area of the existing VGS. Based on the number of trips generated during demolition, none of the significance criteria will be exceeded.

Construction

During the peak construction period there will be an estimated 20 additional daily passenger vehicle trips to the VGS facility from worker commutes (based on a 1.0 average vehicle ridership which is "worst-case" for construction workers). Although an increase in vehicular movements will occur at the project site during the construction phase, it is not expected that these 20 additional trips when added to the 600 trips identified in the 2002 FEIR will affect the LOS of any intersections in the area of the existing VGS. The number of trips identified during the construction phase does not exceed any transportation/traffic significance criteria.

Post-Construction

Once the construction of the tank is complete, and coatings have been applied, it is expected that 10 9,000 gallon tanker trucks per day will arrive at the site to fill the AST with product for approximately 27 days. Once the tank is filled no other tanker truck trips or tank filling activities are expected for at least 12 months. This AST will be used to store fuel to be used for the turbines on an emergency basis only. Ten additional vehicle trips per day will not exceed any of the transportation/traffic significance criteria.

Operational

Once operational, the new 60,000 barrel AST is not expected to generate any vehicle trips to the LADWP VGS facility.

As a result, no significant adverse impacts to transportation/traffic were expected to occur as a result of the 2003 Addendum project.

7.3 Currently Proposed Project Modifications

This Addendum evaluated the 17 environmental topics in accordance with CEQA and eliminated 14 of the 17 topic areas from further consideration. The three environmental topic areas that the 2002 FEIR concluded would be adversely affected by the LADWP VGS project, air quality, hazards/hazardous materials, and transportation/traffic, were previously evaluated in Section 6. The 14 topic areas found not to be significant along with a summary of the basis for finding these topics not significant is presented below.

Aesthetics - The currently proposed project modifications occur within the confines of the existing LADWP VGS facility which is located within an area of industrial and commercial mixed uses. The currently proposed project modifications are a change in permit conditions affecting CTG operations and do not involve the addition of new structures or equipment or alter existing structures or equipment within the facility. As a result, the currently proposed project modifications are not expected to significantly adversely impact aesthetics or the existing character of the surrounding area.

Agriculture Resources - The currently proposed project modifications occur within the confines of the existing LADWP VGS facility which is located within an area of industrial and commercial mixed uses. No agricultural resources are present or in close proximity to the site. Further, no conversion of farmland to non-agricultural uses is required. Since the currently proposed project modifications are a change in permit conditions affecting CTG operations, modifications would not include any physical alterations to the facility. Therefore, no significant adverse impacts to agricultural resources are expected to occur.

Biological Resources - The currently proposed project modifications occur within the confines of the existing LADWP VGS facility. No biological resources are present and no special status plants, animals or natural communities are found in proximity to the LADWP VGS. Since the currently proposed project modifications are a change in permit conditions affecting CTG operations and would not include any physical alterations to the facility, no significant adverse impacts to biological resources are expected to occur.

Cultural Resources - The currently proposed project modifications occur within the confines of the existing LADWP VGS facility. According to a Phase I Archaeological Investigation of limited areas within the VGS, dated October 26, 2000, no historically significant sites were identified within the confines of the VGS facility. Since the currently proposed project modifications are a change in permit conditions affecting CTG operations and will not include any physical alterations to the facility, no significant adverse impacts to cultural resources are expected to occur.

Energy – The currently proposed project modifications are a change in permit conditions affecting operations for running the gas turbines which replaced inefficient boilers. The overall intent of the project is to comply with an Order of Abatement between the LADWP and the SCAQMD and to respond to the need for additional electrical power in California.

As a result, the project is expected to support the effort to provide the energy necessary to meet increased demands. Finally, no increase in the demand for energy resources was identified as being associated with the currently proposed project modifications. As a result, no significant adverse impacts to local or regional energy supplies are expected to occur.

Geology and Soils - The currently proposed project modifications are a change in permit conditions affecting operations for running the gas turbines which replaced inefficient boilers. The currently proposed project modifications do not include any new structures or equipment or any alterations to structures and equipment as evaluated in the 2002 FEIR and the 2003 Addendum. As a result, no significant adverse impacts to geology and soils are expected to occur.

Hydrology and Water Quality - The currently proposed project modifications are a change in permit conditions affecting operations for running the gas turbines which replaced inefficient boilers. The currently proposed project modifications do not include any new subsurface construction activities or surface alterations, so no increases in impervious surface areas are anticipated. The currently proposed project modifications would not affect groundwater resources, require a NPDES permit, cause wastewater increases at the facility, or increase surface flows in the project site because the project modifications do not increase the demand for water resources or produce additional wastewater streams. As a result, no significant adverse impacts to hydrology and water quality are expected to occur.

Noise - The currently proposed project modifications are a change in permit conditions affecting operations for running the gas turbines which replaced inefficient boilers. The currently proposed project modifications would not include new construction, so there would not be additional noise produced by construction equipment. Additionally, the modifications would not alter noise levels produced by the equipment evaluated in the 2002 FEIR. As a result, no significant adverse impacts to noise are expected to occur.

Land Use and Planning - The currently proposed project modifications will occur within the confines of the existing LADWP VGS facility which is located within an area of industrial and commercial mixed uses. Project activities will not divide an established community or conflict with any land use plans or zoning ordinances. Since the currently proposed project modifications are a change in permit conditions affecting CTG operations, they will not require changes in zoning or land use designations and will not include any physical alterations to the facility. Therefore, no significant adverse impacts to land use and planning are expected to occur.

Mineral Resources - The currently proposed project modifications occur within the confines of the existing LADWP VGS facility. There are no known mineral resources within this existing facility. Thus, the currently proposed project modifications will not result in the loss of any mineral resources or increased demand for mineral resources. Since the currently proposed project modifications are a change in permit conditions affecting CTG operations, which will not include any physical alterations to the facility, no significant adverse impacts to mineral resources are expected to occur.

Population and Housing - The currently proposed project modifications are a change in permit conditions affecting CTG operations at the existing industrial power generating facility located in a highly urbanized area. The currently proposed project modifications will not require additional permanent personnel, induce population growth, displace

housing or people, or require the construction of new or replacement housing. Therefore, significant adverse impacts to population and housing are not expected to occur.

Public Services - The currently proposed project modifications are a change in permit conditions affecting CTG operations at an existing industrial power generating facility. The proposed project modifications will not require additional fire, police or emergency services over and above those currently available to respond to the facility in the case of an emergency. Therefore, significant adverse impacts on public services are not expected to occur.

Recreation - The currently proposed project modifications are a change in permit conditions affecting CTG operations at an existing industrial power generating facility located in a highly urbanized area. No recreational facilities are located within the vicinity of the project site. Further, no recreational facilities will be required to be constructed or expanded as a result of the currently proposed project modifications since the proposed project modifications will not induce population growth. Therefore, significant adverse impacts to recreation are not expected to occur.

Solid/Hazardous Waste - The currently proposed project modifications include activities within an existing industrial facility that currently generates non-hazardous solid waste and small amounts of hazardous waste (spent catalyst from the SCR process). The currently proposed project modifications are a change to CTG operating conditions, which will not generate additional solid waste. Therefore, significant adverse impacts associated with solid/hazardous waste are not expected to occur.

8.0 CONCLUSION

In 2004, LADWP proposed project modifications involving changes to specific permit restrictions associated with the CCFG project evaluated in the 2002 FEIR. Analysis of the currently proposed project modifications indicates that the modifications are not expected to create new significant adverse impacts in any environmental areas analyzed in the 2002 FEIR, or make substantially worse any existing significant adverse impacts. In fact, the analysis showed that the currently proposed project modification would produce CO, SO_x and PM₁₀ operational emission reductions compared to the proposed project analyzed in the 2002 FEIR. Based on the environmental analysis prepared for the currently proposed project modification, the SCAQMD has quantitatively and qualitatively demonstrated that the proposed project modification qualifies for an addendum to make the previously certified 2002 FEIR complete.

9.0 REFERENCES

- South Coast Air Quality Management District. 2001. Initial Study for the Draft Environmental Impact Report for the Los Angeles Department of Water and Power's Installation of a Combined Cycle Generating Facility at the Valley Generating Station, May.
- South Coast Air Quality Management District. 2001. Draft Environmental Impact Report for the Los Angeles Department of Water and Power's Installation of a Combined Cycle Generating Facility at the Valley Generating Station, November.
- South Coast Air Quality Management District. 2002. Final Environmental Impact Report for the Los Angeles Department of Water and Power's Installation of a Combined Cycle Generating Facility at the Valley Generating Station, January.
- South Coast Air Quality Management District. 2003a. General Instruction Book for the AQMD 2002-2003 Annual Emissions Reporting Program, Appendix B.
- South Coast Air Quality Management District. 2003b. Addendum to the Final Environmental Impact Report for the Los Angeles Department of Water and Power's Installation of a Combined Cycle Generating Facility at the Valley Generating Station, October.