

Final Environmental Impact  
Report for Hyperion Treatment  
Plant Digester Gas Utilization  
Project:  
Power and Steam Generation

Prepared for:  
**City of Los Angeles**  
Los Angeles, California

Prepared by:  
**ENVIRON International Corporation**  
Los Angeles, California

Date:  
**August 2013**  
**Revised October 2013**

Project Number:  
**05-23210E4**



Bureau of Engineering  
Environmental Management Group



City of Los Angeles

CITY OF LOS ANGELES



**SANITATION**  
DEPARTMENT OF  
**PUBLIC WORKS**

Bureau of Sanitation

# Contents

	<b>Page</b>
<b>Executive Summary</b>	<b>ES-1</b>
Introduction	ES-1
Response to Comments	ES-1
Draft EIR Modifications for the Final EIR	ES-1
<b>1 Introduction</b>	<b>1</b>
1.1 Project Location and Setting	1
1.2 Project Objectives	4
1.3 Summary of Proposed Project	4
1.4 Summary of Environmental Impacts	10
1.5 Summary of Alternatives Evaluated in the EIR	12
1.6 Summary of Alternatives Evaluation	14
1.7 Noticing and Availability of the Draft EIR	14
<b>2 Response to Comments</b>	<b>16</b>
2.1 Introduction	16
2.2 Response to Comments	16
<b>3 Draft EIR Modifications for the Final EIR</b>	<b>39</b>
3.1 Executive Summary	39
3.2 Introduction	40
3.3 Project Description	40
3.4 Environmental Setting, Impacts and Mitigation	43
3.5 Alternatives	47
3.6 Additional CEQA Considerations	50
3.7 References	50
3.8 List of Preparers	50
3.9 Appendices	50
 List of Tables	
Table 1-1 Proposed Project Equipment	5
Table 1-2 Preliminary Construction Schedule	9
Table 1-3 Comparison of Baseline, Project, and Alternatives Equipment and Associated Parameters	13
Table 1-4 Environmental Impacts of Alternatives as Compared to the Proposed Project	14
Table 3-7 Operational Emissions	43
Table 3-8. Maximum Incremental Ambient Air Quality Impacts	45
Table 3-19 Total Incremental Change in GHG Emissions from the Proposed Project Baseline	47
Table 3-13. Ambient Air Modeling Results Compared to CEQA Significance Thresholds	51
 List of Figures	
Figure 1-1. Proposed Project Location at the HTP Facility (12000 Vista Del Mar, Los Angeles, CA)	2
Figure 1-2. General Proposed Project Location (In Yellow)	3
Figure 1-3. Process Flow Diagram	6
Figure 1-4. Process Flow Diagram	7
Figure 2-3a. Process Flow Diagram	41

List of Appendices

- Appendix A: Notice of Availability and Notice of Completion
- Appendix B: Draft EIR Mailing List and Newspaper Notice
- Appendix C: Public Workshop Sign-in Sheets

## Preface

The Draft Environmental Impact Report (EIR) for the Hyperion Treatment Plant (HTP) Digester Gas Utilization Project (DGUP) was circulated for a 45-day public review and comment period from June 7, 2013, to July 22, 2013. Three public correspondences were received and responses to comments were included in the Final EIR. Based on comments received during the public comment period, revisions were made to the Draft EIR in order to prepare the Final EIR. The Final EIR was reviewed by the City of Los Angeles (City) Board of Public Works on September 11, 2013, at which time it was available for review by the public. Because of comments received after this time and because of refinements during the permitting process, additional revisions have been made to the Final EIR. Deletions and additions to the text in the Final EIR (August 2013) are denoted using ~~strikethrough~~ and underline, respectively; deletions and additions to the text in the Revised Final EIR (October 2013) are denoted using ~~double strikethrough~~ and double underline, respectively. Any conclusions and environmental determinations made in the Draft and Final EIRs are not substantially changed and there are no new significant impacts identified. No new information has been provided that constitutes significant new information that results in a new substantial adverse environmental impact or a feasible mitigation measure that the project proponent has declined to implement. Therefore, pursuant to CEQA Guidelines §15088.5, recirculation is not necessary.

## Executive Summary

The Executive Summary provides an overview of the information provided in detail in subsequent sections.

Under a current agreement between the City of Los Angeles (City) Bureau of Sanitation (BOS) and Los Angeles Department of Water and Power (LADWP), the Hyperion Treatment Plant (HTP) currently pipes its digester gas to Scattergood Generating Station (Scattergood or SGS), which utilizes the digester gas in combination with natural gas to generate electricity for the LADWP grid, and provides HTP with steam for plant use. HTP also requires 22 MW of imported electricity to operate. Due to regulatory requirements, Scattergood must shut down and re-power Units #1 and 2, which currently utilize the digester gas. The City BOS understands that, under a biogas power exchange agreement between Scattergood and HTP, digester gas from HTP will continue to be used at Scattergood through December 31, 2016, and that Scattergood Units #1 and 2 have a valid South Coast Air Quality Management District (AQMD or SCAQMD) permit through this time. However, the BOS must modify the HTP to beneficially use the renewable digester gas to (1) provide steam for digesters and provide electrical energy for current and future plant operations, or (2) provide a monetary benefit from the digester gas that can be used to offset the purchase of electricity for plant operations while minimizing flaring of the digester gas. BOS considered a range of equipment that would address utilization of the digester gas, plant electricity demand, and plant steam demand.

### Introduction

The Hyperion Treatment Plant (HTP) Digester Gas Utilization Project (DGUP) Final Environmental Impact Report (Final EIR) was prepared in accordance with the California Environmental Quality Act of 1970 (CEQA) statutes (Public Resources Code §21000 et seq.) and the State CEQA Guidelines (Title 14, California Code of Regulations, §15000 et seq.). The Introduction provides an overview of the project location and setting, as well as the project objectives. It also includes summaries of the following, which are discussed in more detail in the Draft EIR: (a) proposed project – construction and operation, (b) environmental impacts, (c) alternatives evaluated, (d) analyses used to evaluate the alternatives, and (e) noticing and availability of the Draft EIR.

### Response to Comments

The 45-day public comment period for the HTP DGUP Draft EIR began June 4, 2013 and closed on July 22, 2013. During the public review period, a public workshop was held at the El Segundo Library on June 19, 2013.

During the public comment period, a total of three (3) correspondences were received on the Draft EIR. This section contains a copy of each comment letter received and responses to the comments.

### Draft EIR Modifications for the Final EIR

This section of the Final EIR describes the modifications made to the Draft EIR based on minor corrections to formatting or grammar and on comments received from the public. No modifications have been made to the Draft EIR that would add a new significant unmitigated impact or a substantial increase in the severity of an impact already analyzed. This section is organized into subsections that correspond to the sections headings in the Draft EIR. Each subsection contains a list of the modifications (if any) that were made to the corresponding section.

# 1 Introduction

The Hyperion Treatment Plant (HTP) Digester Gas Utilization Project (DGUP) Final Environmental Impact Report (Final EIR) was prepared in accordance with the California Environmental Quality Act of 1970 (CEQA) statutes (Public Resources Code §21000 et seq.) and the State CEQA Guidelines (Title 14, California Code of Regulations, §15000 et seq.).

In accordance with CEQA, the Draft EIR and this Final EIR, together, comprise the Lead Agency's environmental analysis of the HTP DGUP Project. Numerous references are made throughout this Final EIR to the Draft EIR and to the Draft EIR appendices. These documents were circulated previously and are not being reproduced. Copies, however, are available for inspection at the Bureau of Engineering. The Draft EIR and supporting appendices (State Clearinghouse Number [SCH No.] 2011041032) together with this Final EIR are the CEQA documentation for the HTP DGUP Project.

The abbreviated format used for this Final EIR complies with State CEQA Guidelines (§15132). This Final EIR is organized as follows:

- Section 1.0 – Introduction
- Section 2.0 – Response to Comments
- Section 3.0 – Draft EIR Modifications for the Final EIR
- Appendices – The appendices are identified as follows and are additional to those already included in the Draft EIR.
  - Appendix A: Notice of Availability and Notice of Completion
  - Appendix B: Draft EIR Mailing List and Newspaper Notice
  - Appendix C: Public Workshop Sign-in Sheets

## 1.1 Project Location and Setting

The proposed project is located at the HTP, located at 12000 Vista del Mar, in Playa del Rey within the jurisdiction of the City of Los Angeles. The HTP is 144 acres in size and is approximately 500 feet from the ocean on a low bluff. HTP is owned and operated by the BOS of the LADPW.

The project will modify the interior of the existing HTP Energy Recovery Building (ERB) located near the northern boundary of the HTP facility and along Imperial Highway. The abandoned Hyperion Energy Recovery System (HERS) and sludge combustion equipment are currently located in the ERB. Most of the decommissioned equipment will be removed to create space for the new equipment. The ERB will not be demolished, but rather most of the proposed project will be constructed inside the ERB. The DGUP will also utilize space to the east and north of the ERB. The proposed project location is illustrated in Figures 1-1 and 1-2 below (Draft EIR Figures 2-1 and 2-2, respectively).

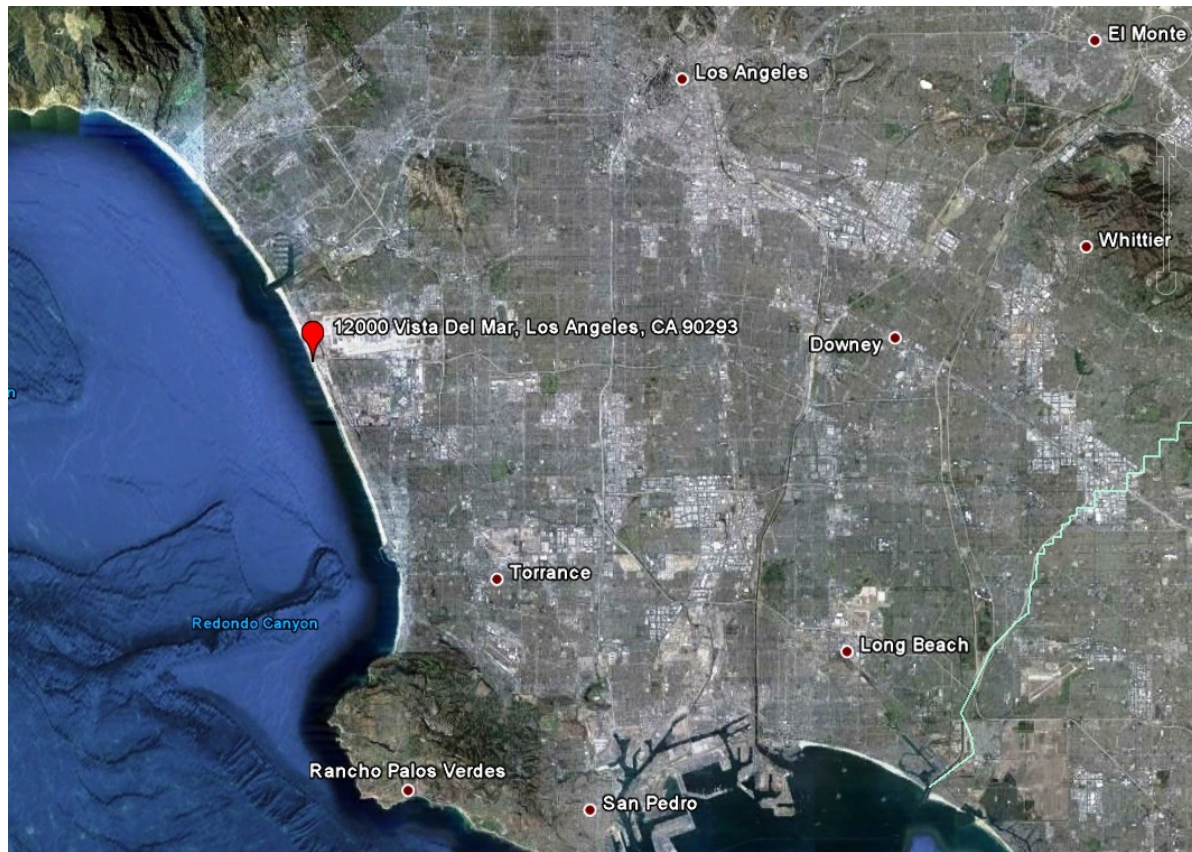


Figure 1-1. Proposed Project Location at the HTP Facility (12000 Vista Del Mar, Los Angeles, CA)







The HTP wastewater collection system tributary area, called the Hyperion Service Area (HSA), includes the San Fernando Valley, the coastal areas of Santa Monica and Pacific Palisades, most of the City of Los Angeles, the cities of Beverly Hills, Burbank, Glendale, Culver City, and other neighboring areas and cities in the region.

## 1.2 Project Objectives

The intent of the BOS is to construct and place in operation a project that beneficially utilizes HTP's renewable digas that would otherwise be flared on-site. The purpose and need for the proposed project were described in the IS/NOP and the Draft EIR:

1. Produce renewable energy from HTP's digas;
2. Provide all of HTP's electricity and process steam needs;
3. Allow HTP to operate without using external electrical power, which is subject to price changes and interruptions (The NPDES permit requires two independent sources of power. In addition, a USEPA technical bulletin on electric reliability also specifies that "two separate and independent sources of electric power shall be provided to the works from either two separate utility substations or from a single substation and a works based generator."<sup>1</sup>);
4. Allow the HTP to operate "off the grid" so that, in the case of an emergency (e.g., earthquake, blackouts), the facility can continue operating and flaring can be avoided;
5. Prevent flares from operating continuously to dispose of digas when it can no longer be sent to Scattergood (i.e., after the term of the biogas purchase agreement ends); and
6. Maintain the final output of Class A biosolids, even in the event of external power interruption, as opposed to the Class B biosolids that would likely result if not enough electricity and/or steam was available.

This EIR has been prepared in accordance with the requirements of the CEQA (California Public Resources Code § 21000 et seq.) to evaluate the potential environmental impacts associated with the BOS DGUP Power and Steam Generation Project.

## 1.3 Summary of Proposed Project

The proposed project will consist of installing and operating a digester gas/natural gas-fueled combined cycle cogeneration system at HTP. The cogeneration system will include the combustion of digester gas (or digester gas/natural gas mixture) in three combustion turbine generators (CTGs) to generate electricity, the recovery of heat to generate steam in three HRSGs, the generation of power from a steam turbine generator train (two STGs), and the extraction of a portion of the steam to meet the steam demand of the digesters.

The proposed project will offer efficient utilization of the digester gas and improve operations for BOS. DGUP will consume all digester gas produced at HTP, address energy needs by generating up to 34 MW of electricity, and provide up to 70,000 lb/hr of 90 psig saturated process steam.

The proposed project has been revised to reflect use of carbon monoxide (CO) control technology (e.g., oxidation catalyst system) and/or a maximum gas throughput consistent with

---

<sup>1</sup> USEPA. Technical Bulletin. Design Criteria for Mechanical, Electric, and Fluid System and Component Reliability. Supplement to Federal Guidelines for Design, Operation, and Maintenance of Waste Water Treatment Facilities.

regional incremental CO impacts that are less than significant, to address a potential issue in air permitting.<sup>2</sup>

A summary of the latest equipment in the proposed project is included below and described in more detail in Section 2.5 of the Draft EIR. Table 1-1 summarizes the emission units and corresponding design specifications proposed for this project. Figure 1-3 shows the overall flow of digester gas and how the proposed project interacts with existing systems at HTP. Figure 1-4 shows a block diagram of the proposed project.

**Table 1-1 Proposed Project Equipment**

<b>Emission Units</b>	<b>Rating</b>
Each of the three CTGs/HRSGs	11.35 MW each
One Condensing-Extraction STG	7.8 MW
One Backpressure STG	1.0 MW
Fuel Gas Compression and Supply System	Two siloxane removal vessels (one operating at a time) First stage compressor and cleaning systems: 6,000 scfm Swing compressor: 9,870 scfm Second stage compressor: 8,160 scfm Thermal Oxidizers <sup>3</sup>
Selective Catalytic Reduction (SCR)	25 ppmvd NO <sub>x</sub> using 19% aqueous ammonia
Oxidation Catalyst (OC)	NA
Ammonia tank (19% aqueous)	10,000 gallons
Substation	Not applicable
Two Transformer	55 MVA
One Emergency Diesel Engine Generators <sup>4</sup>	750 kW firing ULSFO
Oil/Water Separator	2,500 gpm
ULSFO Storage Tank	1,000 gallons aboveground

DG = Digester gas; NG = Natural gas.

<sup>2</sup> Any change in the permitted gas throughput would be a function of the technology's CO reduction effectiveness

<sup>3</sup> The thermal oxidizers are part of the siloxane removal system and operate during the system's regeneration process. The project operates only one thermal oxidizer at any given time.

<sup>4</sup> The cooling water backup emergency generator has been analyzed and is being installed as part of another project. However, because it is not yet operating, the analyses in the Draft and Final EIRs include its future impacts to be conservative.

## Digester Gas Utilization Project Process Flow Diagram

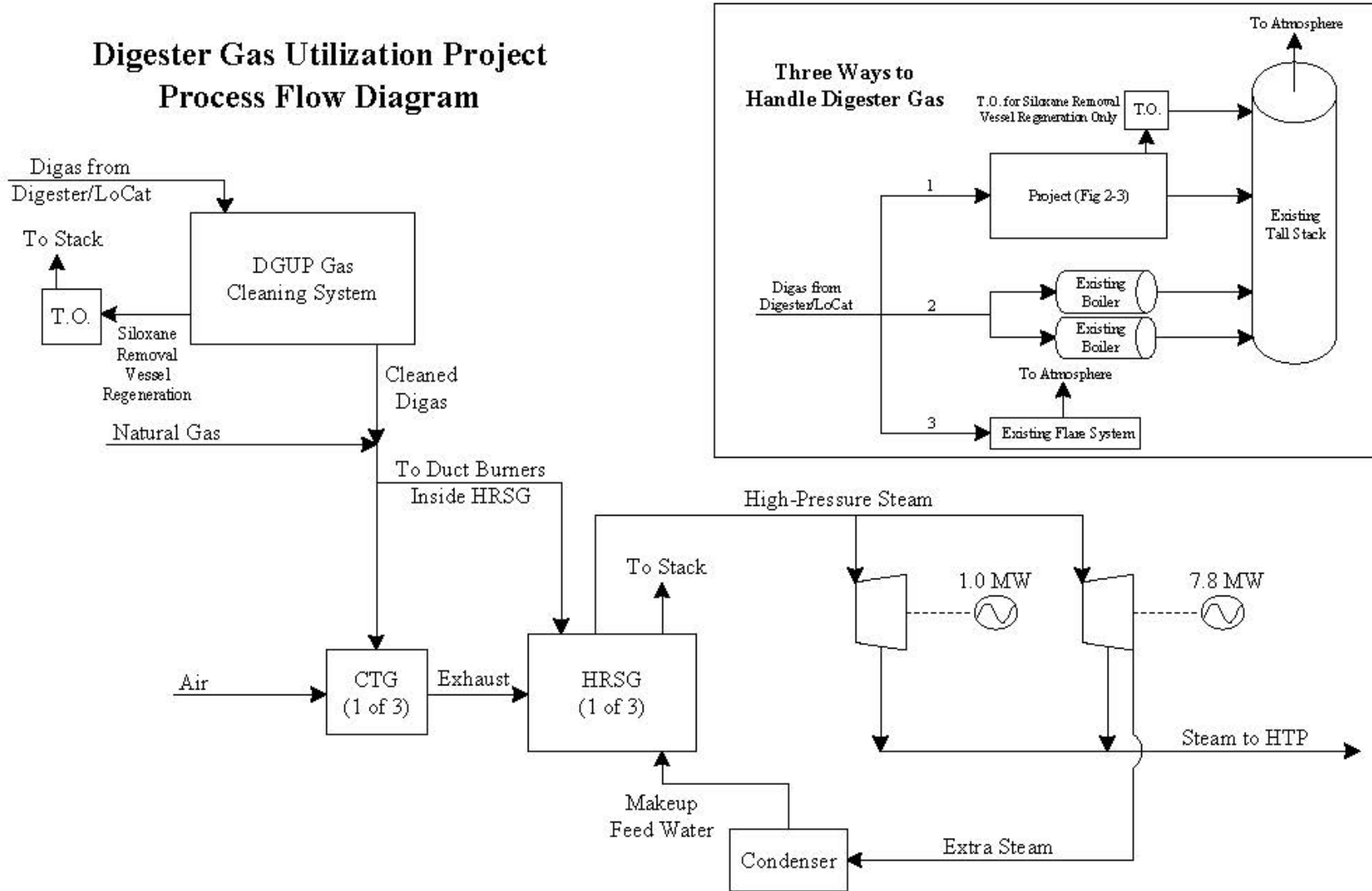


Figure 1-3. Process Flow Diagram

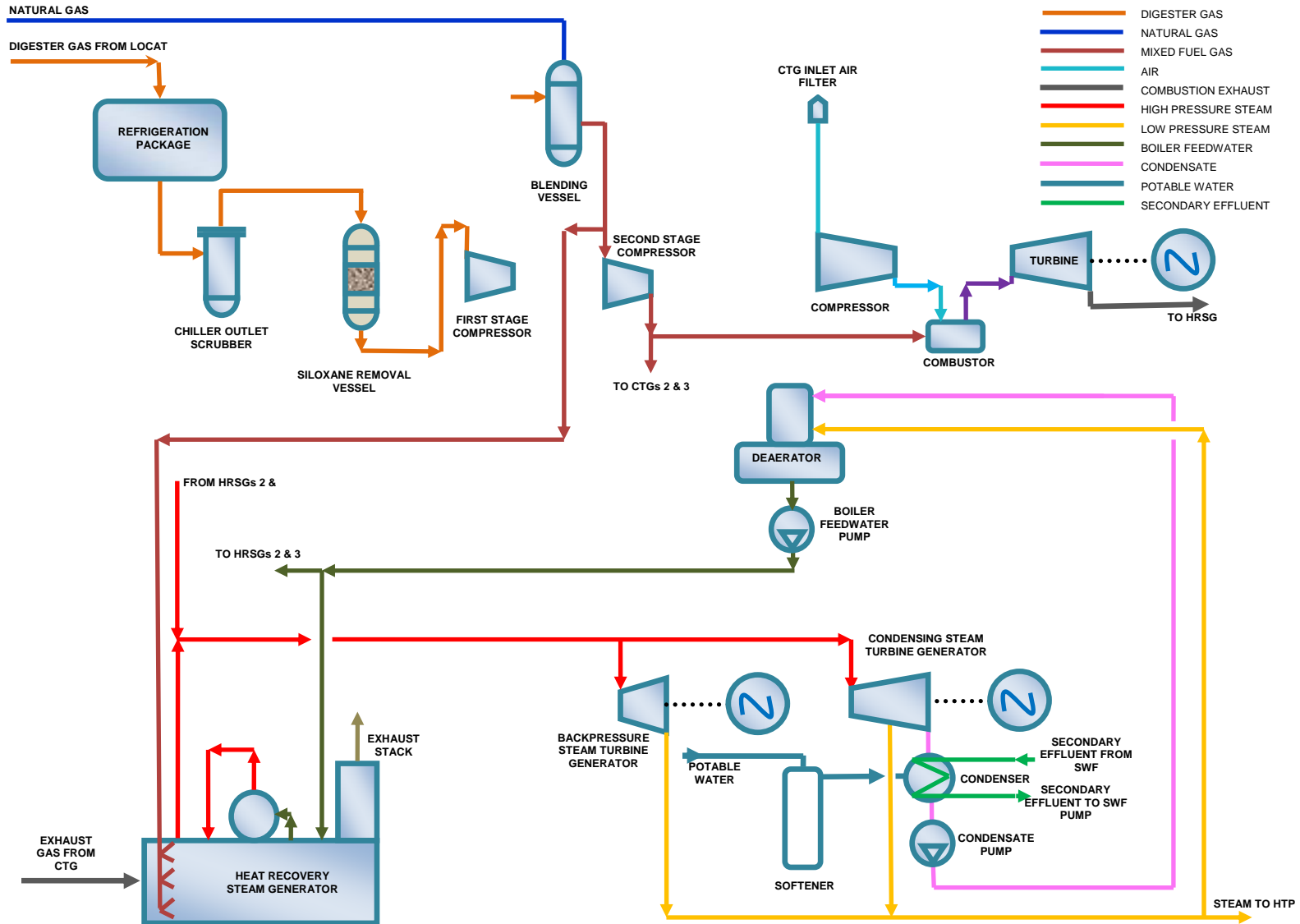


Figure 1-4. Process Flow Diagram (Draft EIR Figure 2-3)

A Fuel Gas Treating System (FGTS) will remove impurities from the digester gas, compress, and mix the natural gas and digester gas fuels, and moderate fluctuations in digester gas production, thereby providing a dependable blended mixture of digester gas and natural gas to the CTGs.

Three Solar Mars 100-1600 CTGs will be utilized for combined cycle cogeneration at the HTP. Normal operation will consist of operation of two digester gas-fired CTGs for baseload while the third CTG will be for peak demand and to accommodate any future increase in digester gas production up to 9.6 MMscf per day. The CTGs will be designed to operate on either 100 percent digester gas or a blend of digester gas and natural gas (up to 40% by volume of natural gas in each turbine).

Each CTG will be provided with one HRSG, which will use hot exhaust gases from its CTG to generate superheated steam. HRSG supplemental duct firing may be used to augment the steam output and meet the maximum amount of the HTP steam demands. One duct burner system with a maximum heat release of 44.6 MMBtu/hr based on a maximum firing temperature of 1,300°F will be provided for each CTG/HRSG train. The produced high-pressure steam from each of the three HRSG trains will be sent to two shared STGs. Low pressure process steam will be provided from the exhaust of the backpressure STG and/or from the extraction port of the condensing STG.

The Condensing and Condensate Systems will include the following major equipment and components:

- Single-pressure, single-shell, two-pass condensers
- Condensate pumps
- Condensate system piping

The exhaust steam from the last stage of the condensing STG will be directed into the condenser, which will utilize HTP secondary effluent water as the cooling media. There will be provisions in the steam and condenser systems to bypass steam from the HRSGs directly to the condenser during STG startup and during a STG trip. Potable makeup water will be supplied to the system to compensate for the process steam usage, cycle blowdown, and miscellaneous steam losses.

The digesters will utilize the saturated process steam from the HRSGs via exhaust and/or extraction steam from the STGs. When the CTGs are operating at or near full load, steam will be delivered from the backpressure STG exhaust and supplemented by steam extraction of the condensing STG. At lower electric loads, the steam will bypass the STGs.

The selective catalytic reduction (SCR) system will be used as a post-combustion air pollution control device designed to reduce the concentration of oxides of nitrogen (NO<sub>x</sub>) at the HRSG outlet to 25 ppmv at 15% O<sub>2</sub> with no more than 5 ppmv ammonia slip. The exhaust from each CTG will be routed to its own SCR system prior to being exhausted through the stack shared by all three CTG units. The system utilizes the 19 percent aqueous ammonia solution (ammonium hydroxide at 19 percent nominal concentration by weight), which is delivered to the site by truck and stored at a new aqueous ammonia storage and transferring system. The system consists of

a truck unloading station, 10,000 gallon ammonia storage tank, and aqueous ammonia pumps transferring skid. Based on air permitting requirements, an oxidation catalyst may be installed.

An emergency black start diesel generator will be installed and used to provide power to start one of the three CTGs only in the event of a power failure at the facility and on the grid. The generator will produce 750 kW of continuous emergency power. In the event of a plant and grid power failure, the diesel generator will be used to power the auxiliary (support) equipment and then one CTG. Once the turbine is operational, the generator will be shut down. The generator will be permitted for up to 200 hours per year of emergency use. Typical testing and maintenance is expected to occur no more than 50 hours per year, including at least 1 hour of testing every month.

A second diesel generator will be installed and used to power the cooling water backup system in the event of an interruption in utility power. Similar to the emergency black start generator, this generator will be permitted for up to 200 hours per year for emergency use. Typical testing and maintenance is also expected to occur no more than 50 hours per year, including at least 1 hour of testing every month.

Washdowns will result in wastewater mixed with oil. Prior to discharge of the wastewater, the oil will be separated using an oil/water separator. The only potential oil contaminant expected is the lubricating oil used in the CTGs and the ultra-low sulfur fuel oil (ULSFO) used in the emergency black start diesel engine generator. Under normal conditions the oil/water separators should not contain significant quantities of wastewater or oil.

### 1.3.1 Construction Schedule

The preliminary construction schedule is shown in Table 1-2.

**Table 1-2 Preliminary Construction Schedule**

Phase	Dates
Deconstruction of equipment (ERB)	December 2013 – February 2014
Demolition (transformer)	February 2014 – June 2014
Crushing (Transformer demolition phase debris)	February 2014 – March 2014
Site preparation: Backfill/compacting (transformer)	September 2014 – December 2014
Equipment delivery and installation (transformer)	October 2014 – September 2015
Construction of equipment (ERB)	October 2014 – May 2016

### 1.3.2 Project Approvals Required

The analysis in this document assumes that, unless otherwise stated, the project would be designed, constructed and operated following all applicable laws, regulations, ordinances and formally adopted City standards (e.g., Los Angeles Municipal Code and Bureau of Engineering Standard Plans). The proposed project and environmental documentation, including this EIR, would require approval by the following City of Los Angeles decision-making bodies: Board of Public Works, the City Council, Council committees, and the Mayor's office. Additional anticipated approvals or permits for the proposed project would be obtained as required and/or needed.



## 1.4 Summary of Environmental Impacts

Unavoidable significant impacts are identified in Section 3.0 of the Draft EIR in potentially one environmental resource area, as well as cumulative impacts. The City of Los Angeles, as Lead Agency, has determined that unavoidable significant adverse impacts would result from the Project and the City has prepared a “Statement of Overriding Considerations.” The Statement of Overriding Considerations states that the decision-making body has considered the benefits of the proposed project against its unavoidable significant environmental effects and has determined that the benefits of the Project outweigh the adverse effects and, therefore, the adverse effects are considered to be acceptable. The environmental resource areas that were found to have significant and unavoidable impacts are (Section 3.0 of the Draft EIR provides further details on these impacts):

- Project Level and Cumulative Impacts: Air Quality During Operations
  - Peak day operational emissions would generate up to 695 ~~449~~ lbs NO<sub>x</sub>, 392 lbs VOC, 235 lbs PM<sub>10</sub>, and 235 lbs PM<sub>2.5</sub> which exceed the applicable significance thresholds.<sup>5</sup>
  - The project results in ambient air quality impacts of 11.9 µg/m<sup>3</sup> for 24-hour PM<sub>10</sub> and 11.9 µg/m<sup>3</sup> for 24-hour PM<sub>2.5</sub>, which exceed the applicable significance thresholds.
  - Mitigation: Project equipment must receive AQMD permits and are required to meet Best Available Control Technology / Lowest Achievable Emission Rate (BACT/LAER) requirements.<sup>6</sup> Other measures were considered and deemed to be in-place or part of the project (i.e., minimizing large flaring events; electric on-site mobile equipment; rideshare program; and use of energy efficient lighting; and use of low volatile organic compound cleaning products) or not applicable and/or infeasible (i.e., additional controls on the main stack; Tier 4 emergency diesel generators; adding an electric vehicle charging station; use of new haul trucks; possible use of solar energy; and light colored paving and roofing materials). No additional feasible mitigation measures were identified that would reduce emissions below the significance thresholds.
- Cumulative Impacts: Greenhouse Gases (or GHGs)
  - The analysis conservatively assumed that all construction-related emissions are from fossil-fuel combustion and thus represent an increase from the baseline non-biogenic greenhouse gas emissions. Operations-related emissions result from direct combustion in the equipment and commuter trip emissions, and from indirect emissions associated with the water a needs for the proposed project.
  - The greatest source of greenhouse gas emissions from the proposed project is biogas-based emissions, which are considered to be biogenic and not a

---

<sup>5</sup> Maximum day emissions for NO<sub>x</sub> occur when the digester gas is combusted in the CTGs; maximum day emissions for VOC, PM<sub>10</sub>, and PM<sub>2.5</sub> occur when the digester gas is combusted in the flares.

<sup>6</sup> The revised project reflects CO and/or throughput limits consistent with the most recent permitting discussions (October 10) with the AQMD. Incremental CO emissions and concentration levels will remain below the significance threshold.

contributor to a net increase in atmospheric carbon dioxide (CO<sub>2</sub>).<sup>7,8,9</sup> The maximum total (biogenic and non-biogenic) greenhouse gas incremental emissions change would be approximately 60,000 MT CO<sub>2</sub>e/yr. The increase is solely due to an increase in biogenic greenhouse gas emissions, which are not a contributor to a net increase in atmospheric CO<sub>2</sub>; non-biogenic (fossil-fuel) greenhouse gas emissions would decrease over 50,000 MT CO<sub>2</sub>e/yr. The City has not established a greenhouse gas cumulative impacts significance threshold. The AQMD has set a 10,000 MT CO<sub>2</sub>e/yr cumulative significance threshold for industrial project. The regulatory agencies have not set a definitive policy concerning the exclusion of biogenic emissions that do not contribute to a net increase in atmospheric CO<sub>2</sub>. In light of regulatory uncertainty and for the purposes of this project, greenhouse gas cumulative impacts are considered potentially significant, and, per CEQA Guidelines, an EIR was prepared and mitigation measures were assessed.

- Mitigation: The proposed project inherently incorporates several of the California Association of Pollution Control Officers Association greenhouse gas mitigation measures as the objective is to produce renewable energy. Those measures are: establish onsite renewable or carbon-neutral energy systems (AE-1); utilize a combined heat and power system (AE-4); and establish methane recovery in wastewater treatment plants (AE-6). In addition, the Draft EIR includes an additional proposed greenhouse gas mitigation measure that would limit natural gas to no more than 10% of the total fuel combusted in the combustion turbines when possible. Actual digester gas flow levels depend on several operational factors (e.g., incoming untreated flow levels) and the project must meet all of HTP's power and steam needs, which may vary over time. Thus, the actual fuel blend used at any given time is contingent upon HTP's operational needs but not over a 40/60 natural gas/digester gas blend (by volume). The greenhouse gas mitigation measure, MMGHG-1, is fully described in the Mitigation Monitoring and Reporting Plan (MMRP).
- Cumulative Impacts: Air Quality and Noise During Construction
  - The proposed project was not found to have significant impacts related to construction air quality and noise. Air quality impacts of the construction of the Scattergood re-powering project (less than one mile from HTP) were found to be significant (even after mitigation). Noise impacts of the construction of the Scattergood re-powering project (less than one mile from HTP) were found to be less than significant (after mitigation). It is uncertain if actual construction of the Scattergood re-powering project would occur concurrently with the construction phases of the proposed project. Therefore, the proposed project could potentially result in cumulatively considerable impacts with respect to air quality and noise during construction.
  - Mitigation: Project-related construction noise and air quality impacts were less than significant. No additional mitigation measures could reduce these potentially significant cumulative construction impacts conclusively to less than significant.

---

<sup>7</sup> See [http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2\\_Volume2/V2\\_2\\_Ch2\\_Stationary\\_Combustion.pdf](http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf)

<sup>8</sup> See <http://www.epa.gov/climateleaders/documents/resources/stationarycombustionguidance.pdf>

<sup>9</sup> See [http://www.theclimaterestory.org/downloads/2013/03/TCR\\_GRP\\_Version\\_2.0.pdf](http://www.theclimaterestory.org/downloads/2013/03/TCR_GRP_Version_2.0.pdf)

## 1.5 Summary of Alternatives Evaluated in the EIR

As described in Sections 2.3 and 4.1 of the Draft EIR, the City evaluated several proposals, one of which was carried forward as the proposed project for further evaluation in the draft EIR. Other proposals were considered as alternatives to the proposed project. Refer to Sections 4.1 and 4.2 of the Draft EIR for a detailed discussion of how the alternatives were selected. Two alternatives (i.e., gas sales and alternative power equipment) were rejected as infeasible; Section 4.2.1 of the Draft EIR describes why these two alternatives were not further evaluated in the Draft EIR. Two other alternatives were carried through for a full alternatives analysis: Alternative 1 (No Project) and Alternative 2 (Two CTGs). Refer to Section 4.2 of the Draft EIR for a discussion of the relative impacts associated with each alternative analyzed. The following is a brief summary of each alternative analyzed in this EIR (see Table 1-3 for additional details).

- **Alternative 1 – No Project.** This alternative considers the scenario in which neither the proposed project nor any alternative takes place. There would be no construction or demolition activities. The No Project alternative has the same equipment as the baseline scenario. However, a greater volume of digester gas would be combusted on-site because the digester gas would no longer be sent to Scattergood after December 31, 2016. The digester gas would be either combusted in the existing boilers or, if necessary, flared. Therefore, no electricity would be produced in the No Project alternative. Consequently, there will be no electricity produced from the No Project alternative. Unlike the proposed project, there would be significant aesthetic impacts due to increased flaring compared to the 2011 baseline levels. Alternative 1 also does not meet the majority of the project objectives as it produces no power and does not minimize flaring of the digester gas.
- **Alternative 2 – Two CTGs.** This alternative is similar to the proposed project, except that there would only be two instead of three CTG/HSRG trains. This decrease in the number of process trains would result in a maximum possible 31 MW of electricity produced instead of 34 MW without appreciably changing the impacts or reducing potentially significant impacts to less than significant.

**Table 1-3 Comparison of Baseline, Project, and Alternatives Equipment and Associated Parameters**

Project	2011 Baseline	Project	Alt 1 - No Project	Alt 2 - 2 CTGs	Alt 3 - Gas sales	Alt 4 - Alternate Power Equipment
<b>Project Description</b>						
Digester gas flow <sup>[a]</sup>	7.2 MMscfd	9.6 MMscfd	9.6 MMscfd	9.6 MMscfd	9.6 MMscfd	9.6 MMscfd
Electricity Produced	0 MW	34 MW	0 MW	31 MW	0 MW	Variable
<b>New Equipment</b>						
# of CTGs (11.35 MW each)		3		2		
# of STGs		2		2		
Black-start generator		X		X		
Boilers					X <sup>[e][b]</sup>	
Thermal Oxidizer (New gas cleanup; Flare)		X <sup>[b][c][d]</sup>		X <sup>[b][c][d]</sup>	X <sup>[e][d]</sup>	
Fuel cleaning system (FCS), including PSA					X	
On-site vehicle alternative fueling station					X	
CNG fueling station					X	
Alternative power equipment						X <sup>[e][e]</sup>
Aqueous Ammonia tank		X		X		
<b>Existing Equipment</b>						
Emergency generator <sup>[e]</sup>	X	X	X	X	X	X
Boilers	X <sup>[f][g][h]</sup>	X <sup>[b][c]</sup>	X	X <sup>[b][c]</sup>	X <sup>[e][b]</sup>	
Flare	X <sup>[e][h]</sup>	X <sup>[b][c]</sup>	X	X <sup>[b][c]</sup>	X	X
<b>Full Analysis in the EIR?</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b> <sup>[h][i]</sup>	<b>No</b> <sup>[h][i]</sup>

<sup>a</sup> The proposed project and alternatives have been revised to reflect CO control technology (e.g., oxidation catalyst system) and/or a maximum gas throughput (digester gas plus natural gas, in any combination from 0% to 40% natural gas) consistent with regional incremental CO impacts that are less than significant, to address potential issue in air permitting.

<sup>e</sup> A new boiler would be installed to produce steam. The existing boiler would remain standby.

<sup>b</sup> Standby only.

<sup>d</sup> One thermal oxidizer would run approximately 24 hours per day.

<sup>e</sup> Engines, fuel cells, or alternative equipment would be used.

<sup>f</sup> Testing and maintenance only.

<sup>g</sup> Any digester gas that is not currently sent to Scattergood is used in the existing standby boilers to produce process steam.

<sup>h</sup> Excess digester gas (currently remaining after gas sent to Scattergood) is combusted in the existing flares.

<sup>i</sup> A reduced analysis would be included in the EIR because this alternative is not feasible and/or does not meet the project's key purpose and need.

Note: HTP electrical requirement is 22 MW.

Construction activities would be the same as in the proposed project; however, the overall duration for construction of two CTGs is expected to be less than construction of three CTGs (i.e., 400 days vs. 350 days).

## 1.6 Summary of Alternatives Evaluation

Table 1-4 provides a relative comparison of the environmental impacts of the alternatives to the proposed project based on the analysis in Section 4.0 of the Draft EIR.

**Table 1-4 Environmental Impacts of Alternatives as Compared to the Proposed Project**

Environmental Topic	(a) Proposed Project	(b) Alternative 1 (No Project)	(c) Alternative 2 (2 CTGs)
Aesthetics	NS	S (+)	NS (=)
Air Quality			
Operation	S	S (+)	S (=)
Construction	NS	NS (-)	NS (-)
Toxic Air Contaminants	NS	NS (=)	NS (-)
Greenhouse Gases			
Operation	S	S (-) <sup>[a]</sup>	S (-)
Construction	NS	NS (-)	NS (-)
Hazards and Hazardous Materials	NS	NS (-)	NS (=)
Noise	NS	NS (+)	NS (=)

S: Exceeds significance criteria; NS: Does not exceed significance criteria

(+): Potential impacts are greater than the proposed project.

(-): Potential impacts are less than the proposed project.

(=): Potential impacts are the same as the proposed project.

<sup>a</sup> For Alternative 1, non-biogenic emissions are not cumulatively considerable, but total (i.e., with biogenic) could be cumulatively considerable based on biogenic emissions. In addition, no renewable energy is produced in Alternative 1, and most of the digester gas is simply flared.

Based on the relative comparison ranking of the alternatives in Table 1-3, none of the alternatives avoids the exceedance of all significance criteria identified for the proposed project. Thus, none are clearly the “Environmentally Superior Alternative” per CEQA Guidelines §15126.6(e)(2). A Statement of Overriding Considerations is required and has been prepared.

## 1.7 Noticing and Availability of the Draft EIR

The CEQA environmental process for the DGUP is summarized in Section 1.2 of the Draft EIR. It notes that an Initial Study (IS) was prepared and a Notice of Preparation (NOP) distributed on March 31, 2011 to public agencies, interested organizations, and the general public. The City BOS held a Scoping Meeting on April 20, 2011. Seven written comment letters, one e-mail and two telephone messages were received on the IS/NOP. Appendix A of the draft EIR presents the response to comments on the NOP/IS.

### 1.7.1 Notice of Availability of the Draft EIR

In its role as the Lead Agency, the City distributed a Notice of Availability of the Draft EIR. In addition, copies of the Draft EIR were mailed to agencies and interested persons on June 4, 2013, for a 45-day public review period that closed on July 22, 2013. The Notice of Availability and the Draft EIR were sent to all known responsible and trustee agencies, numerous City departments that could have interest or discretionary approval regarding the project, and

individuals and organizations known to have interest in the project. The Notice of Availability and Draft EIR were sent to the State of California Governor's Office of Planning and Research, State Clearinghouse, for further responsible and trustee agency distribution. The Notice of Availability and the distribution list and newspaper notice for the Draft EIR are included in Appendix A and B, respectively, of this Final EIR.

### **1.7.2 Public Workshop**

On June 19, 2013, the City held a public workshop at the El Segundo library to provide an overview of the project, to answer questions on the project, and to solicit comments. Attendees were directed to submit comments in writing (or through means listed in the Notice of Availability) during the public review period. (In addition to attending monthly El Segundo Citizens group meetings throughout the CEQA process, a special March 6, 2013, meeting on the subject of the Draft EIR was held.)

### **1.7.3 Public Review of the Draft EIR**

The Draft EIR was distributed to numerous public agencies and other interested parties for review and comment. The Draft EIR was also available at the following locations:

- Bureau of Engineering, 1149 South Broadway, 6th Floor, Contact: Jim Doty at (213) 485-5759, fax: (213) 472-8544
- Bureau of Engineering website: [http://eng.lacity.org/techdocs/emg/hyperion\\_plant.htm](http://eng.lacity.org/techdocs/emg/hyperion_plant.htm)



## 2 Response to Comments

### 2.1 Introduction

The 45-day public comment period for the HTP DGUP Draft EIR began June 4, 2013, and closed on July 22, 2013. During the public review period, a public workshop was held at the El Segundo Library on June 19, 2013. Attendees asked questions about the proposed project, its goals, and its design. The major comments were that flaring and noise should be minimized to the extent possible.

During the public comment period, a total of three (3) correspondences were received on the Draft EIR. A copy of each comment letter received and responses to the comments are provided below.

### 2.2 Response to Comments

#### 2.2.1 Comment Letters on the Draft EIR

During the public review period, three letters commenting on the Draft EIR were received by the City. These letters are identified as follows:

- A. Native American Heritage Commission, Dave Singleton, Re: SCH# 2011041032 CEQA Notice of Completion; Draft Environmental Impact Report (DEIR) for the Hyperion Treatment Plant Digester Gas Utilization Project Power and Steam Generation; located in the El Segundo area; Los Angeles County, California (letter dated June 14, 2013)
- B. Joyce Dillard (email dated July 22, 2013)
- C. South Coast Air Quality Management District (AQMD), Ian MacMillan, Program Supervisor, CEQA Inter-Governmental Review (letter dated July 26, 2013)

The State of California Governor's Office of Planning and Research (OPR) letter has been included at the end of the comment letters. The OPR letter "acknowledges that you [CITY] have complied with State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act" and includes the Native American Heritage Commission letter as an attachment.

The comments and responses to the comment letters received during the public review period for the Draft EIR are presented below. Each of the comment letters is bracketed and the brackets numbered. The responses follow each comment letter. Where responses to comments resulted in changes to the text of the Draft EIR, these changes are noted in the responses and included in Section 3 of this Final EIR.

2.2.1.1 Comment Letter No. 1 – Native American Heritage Commission, June 14, 2013

STATE OF CALIFORNIA

Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Boulevard  
West Sacramento, CA 95691  
(916) 373-3715  
(916) 373-5471 – FAX  
e-mail: ds\_nahc@pacbell.net

cljdr  
7/15/13  
e

RECEIVED

JUN 19 2013

June 14, 2013

Mr. Jim Marchese, Project Planner

STATE CLEARING HOUSE

City of Los Angeles Bureau of Sanitation

1149 S. Broadway St.  
Los Angeles, CA 90015

RE: SCH# 2011041032 CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the Hyperion Treatment Plant Digester Gas Utilization Project Power and Steam Generation; located in the El Segundo area; Los Angeles County, California.

Dear Mr. Marchese:

The Native American Heritage Commission (NAHC) has reviewed the CEQA Notice regarding the above referenced project. In the 1985 Appellate Court decision (170 Cal App 3<sup>rd</sup> 604), the court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources impacted by proposed projects, including archaeological places of religious significance to Native Americans, and to Native American burial sites.

The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA guidelines 15064(b)). To adequately comply with this provision and mitigate project-related impacts on archaeological resources, the Commission recommends the following actions be required:

Contact the appropriate Information Center for a record search to determine if a part or all of the area of project effect (APE) has been previously surveyed for cultural places(s). The NAHC recommends that known traditional cultural resources recorded on or adjacent to the APE be listed in the draft Environmental Impact Report (DEIR).

If an additional archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey. We suggest that this be coordinated with the NAHC, if possible. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure pursuant to California Government Code Section 6254.10.

Contact has been made to the Native American Heritage Commission for a Sacred Lands File Check. A list of appropriate Native American Contacts for consultation concerning the project site has been provided and is attached to this letter to determine

1-1

1-2

1-3

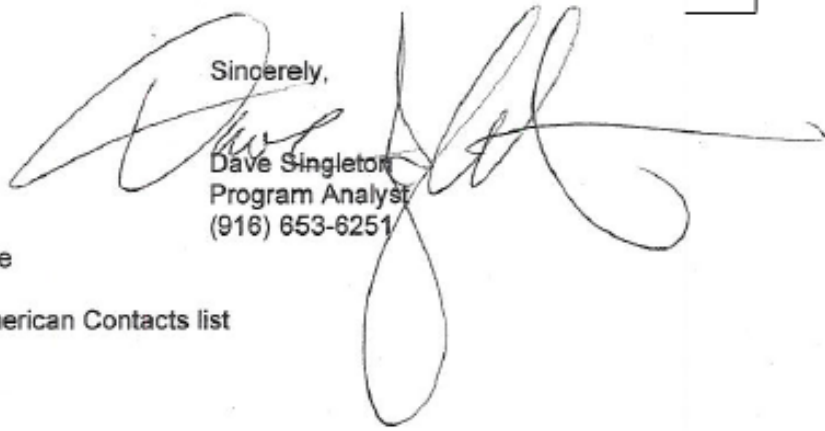
if the proposed active might impinge on any cultural resources. Lack of surface evidence of archeological resources does not preclude their subsurface existence.

1-3  
(cont'd)

Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities. Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans. Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

1-4

Sincerely,



Dave Singleton  
Program Analyst  
(916) 653-6251

CC: State Clearinghouse

Attachment: Native American Contacts list

### **Response 1-1**

This comment summarizes the requirement of preparing an EIR as it relates to significant impacts on historical resources, specifically related to Native American cultural resources, and recommends contacting the appropriate Information Center to determine if the area of the proposed project has been previously surveyed for cultural resources. As indicated on pages 30 and 31 of the IS, the HTP site has been in its current location since 1894, and, therefore, the majority of the site has already been previously cleared, excavated, and/or developed. Furthermore, no culturally or archeologically significant resources have been identified, including any Native American culturally significant resources. In addition, as indicated in Section 2.1 (page 7) of the Draft EIR, most of the DGUP will be constructed within the existing HTP Energy Recovery Building (ERB). No impacts on archeological or cultural resources are expected due to the DGUP.

### **Response 1-2**

Your comment regarding if an additional archaeological inventory survey is required is noted. If such a survey was required, the City would have complied with all applicable requirements related to the preparation of a professional report.

### **Response 1-3**

Your suggestion to consult with the Native American contacts attached to your letter is noted. The DGUP site is highly developed, and has undergone numerous expansions and improvements; no archaeological resources, paleontological resources, or human remains were previously identified. None are expected to be found during construction of the HTP DGUP; however, it is the City's practice to respect all cultures and communities and, as such, all effort will continue to be made to make contact with those on the provided Native American Contact List.

If unknown archeological resources are discovered, the City will comply with all applicable requirements related to discovery of any human remains.

### **Response 1-4**

Your comment regarding the inclusion of provisions for the identification and evaluation of accidentally discovered archaeological resources, recovered artifacts, and/or human remains is noted.

**2.2.1.2 Comment Letter No. 2 – Joyce Dillard, July 22, 2013**



Jim Doty <jim.doty@lacity.org>

---

**Comments to BOE Hyperion Treatment Plant (HTP) Digester Gas Utilization Project due 7.22.2013**

1 message

---

Joyce Dillard <dillardjoyce@yahoo.com>  
Reply-To: Joyce Dillard <dillardjoyce@yahoo.com>  
To: James Doty <Jim.Doty@lacity.org>

Mon, Jul 22, 2013 at 4:41 PM

PM 2.5 and PM 10 both exceed the South Coast Air Quality Management District SCAQMD threshold. 2-1

The EPA has not approved the State Implementation Plan for SCAQMD. 2-2

When will the Health Risk Assessment be executed? That should weigh in the decision of the Alternatives. 2-3

Joyce Dillard  
P.O. Box 31377  
Los Angeles, CA 90031

### **Response 2-1**

Your comment regarding the operational PM<sub>2.5</sub> and PM<sub>10</sub> emissions exceeding the SCAQMD thresholds is correct. The mitigation measures are discussed in Section 3.1.5 of the Draft EIR. Section 3.1.3.3.2 and Table 3-7 report incremental PM<sub>2.5</sub> emissions of 235 lb/day and state that these emissions do not exceed the applicable SCAQMD threshold. The emissions are reported correctly, but the statement that the emissions do not exceed the SCAQMD mass daily PM<sub>2.5</sub> emissions threshold is incorrect. This error is corrected in the Final EIR. Note that the discussion of mitigation measures correctly indicates that the PM<sub>2.5</sub> emissions exceed the mass daily significance threshold.

### **Response 2-2**

The USEPA proposed approval of the State Implementation Plan (SIP) to redesignate the South Coast Air Basin as being in attainment with the 24-hour PM<sub>10</sub> standard on April 8, 2013;<sup>10</sup> USEPA approved the SIP on June 26, 2013.<sup>11</sup> The proposed project will be subject to the rules and regulations incorporated in the SIP.

### **Response 2-3**

The Health Risk Assessment is discussed in Sections 3.1.3.3.3 and 4.2.4 and is found in Appendix D of the Draft EIR. As indicated in Sections 3.1.3.3.3 and 4.2.4 of the Draft EIR, the health risk impacts of the proposed project and alternatives are below all of the SCAQMD significance thresholds. No further analysis or response is required.

---

<sup>10</sup> Federal Register (FR) Volume 78, No. 67. April 8, 2013. pp. 20868-20881.

<sup>11</sup> FR Volume 78, No. 123. June 26, 2013. Pp. 38223-38226.



### 2.2.1.3 Comment Letter No 3 – SCAQMD July 26, 2013



South Coast  
Air Quality Management District  
21865 Copley Drive, Diamond Bar, CA 91765-4178  
(909) 396-2000 • www.aqmd.gov

E-Mailed: July 26, 2013  
Jim.Doty@lacity.org

July 26, 2013

Mr. James E. Doty  
Department of Public Works  
Bureau of Engineering  
1149 South Broadway Street, 6<sup>th</sup> Floor  
Los Angeles, CA 90015

**Review of the Draft Environmental Impact Report (Draft EIR) for the  
Hyperion Treatment Plant Digester Gas Utilization Project**

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document both as a commenting agency and a responsible agency. We also appreciate the lead agency's allowing our agency extra time to provide these comments. The following comments are intended to provide guidance to the lead agency and should be incorporated into the Final Environmental Impact Report (Final EIR) as appropriate. 3-0A

The project description and environmental analyses provided in the Draft EIR appear to present inconsistent information related to the proposed project. As a result, SCAQMD staff requests that the lead agency clearly identify the proposed project in the Final EIR (e.g., provide an explicit equipment list). Based on a review of the Draft EIR, the proposed project exceeds the SCAQMD's CEQA regional operational emissions threshold for VOC, NOX, and PM10 and the localized CEQA operational emissions threshold for PM2.5 and PM10. SCAQMD staff is particularly concerned that the modeling results indicate that this project on its own will exceed state and federal ambient air quality standards for PM10 and PM2.5, respectively. These exceedances are modeled to occur without considering background concentrations. It is exceedingly rare for individual projects to potentially cause our basin to be in non-attainment. We recommend that the lead agency work with our staff to ensure that the modeling analysis accurately reflects potential air quality impacts, and most importantly mitigates any significant impacts to the maximum extent feasible. 3-0B

Further, the Draft EIR demonstrates significant greenhouse gas (GHG) emissions during operation of the proposed project. However, the lead agency does not provide any mitigation measures to reduce the project's significant operational emissions and provides limited GHG mitigation measures. Therefore, the SCAQMD staff recommends that the lead agency provide additional mitigation in the Final EIR pursuant to CEQA Guidelines Section 15126.4 to address these concerns. Further, the SCAQMD staff recommends that the lead agency revise the project's GHG emissions analysis to account for all GHG emissions generated by the project, including biogenic emissions. Details regarding these comments are attached to this letter. 3-0C

Pursuant to Public Resources Code Section 21092.5, please provide the SCAQMD with written responses to all comments contained herein prior to the adoption of the Final EIR. Further, staff is available to work with the lead agency to address these issues and any other questions that may arise. Please contact Dan Garcia, Air Quality Specialist CEQA Section, at (909) 396-3304, if you have any questions regarding the enclosed comments. 3-0D

Mr. James E. Doty

2

July 26, 2013

Sincerely,



Ian MacMillan

Program Supervisor, CEQA Inter-Governmental Review  
Planning, Rule Development & Area Sources

Attachment IM:DG LAC130612-01  
Control Number

Mr. James E. Doty

3

July 26, 2013

Project Description

1. Based on a recent review of permit applications submitted to SCAQMD and the localized emissions analysis provided in the Draft EIR it is difficult to correlate not appear that the project description accurately reflects all equipment proposed for the project. For example, the air quality emissions modeling included two thermal oxidizers (one back-up device) in the project for VOC control, however, this control device is not identified in Table 2-2 (Proposed Project Equipment) of the project description. In addition, five diesel generators are included in the modeling analysis, however only two engines are described in the project description. Lastly, it is not clear from reading the Draft EIR how the existing equipment will be utilized in the future if the project is carried out.

Therefore, SCAQMD staff recommends that the lead agency revise the project description to more fully reflect all equipment that will operate if the proposed project is built. Also, the lead agency should either revise Figure 2-3 (Process Flow Diagram) of the Draft EIR or provide a new flow chart that includes all equipment (existing and new) as well as emission sources from the proposed project.

3-1

Modeling Analysis

2. As stated in the Draft EIR, the proposed project will exceed the annual PM10 threshold of  $1.0 \mu\text{g}/\text{m}^3$  and the 24-hour PM10 threshold of  $2.5 \mu\text{g}/\text{m}^3$ . From the modeling files provided to SCAQMD staff, it appears that the annual exceedance is driven primarily by the new turbines exhausting through the main stack, whereas the 24-hour scenario only modeled the flares. Table 3-8 of the Draft EIR indicates that the incremental increase in 24-hour PM10 concentration is  $11.9 \mu\text{g}/\text{m}^3$ . While this impact is above the SCAQMD threshold of  $2.5 \mu\text{g}/\text{m}^3$ , what is noteworthy is that Table 3-13 in the Air Quality Appendix indicates that the flares on their own will yield a total concentration of  $58 \mu\text{g}/\text{m}^3$ , without considering background concentrations. This level of pollution on its own will exceed the state's health-based ambient air quality standard of  $50 \mu\text{g}/\text{m}^3$ . Further, if modeled PM2.5 concentrations indeed are equivalent to PM10 concentrations as indicated in the Draft EIR, then the PM2.5 level will also equal  $58 \mu\text{g}/\text{m}^3$ , which is greater than the federal standard of  $35 \mu\text{g}/\text{m}^3$ .

Although flaring of this intensity may be a rare event, the high results from the annual modeling of turbine emissions indicate that this exceedance may be a more regular occurrence. We note that it is exceedingly rare for an individual project to exceed the ambient air quality standards on its own during operations, without even considering background concentrations. Given the severity of this significant impact, the lead agency must evaluate additional mitigation to reduce the intensity and potential frequency of these impacts.

3-2A

3-2B

3. The modeled short term impacts evaluated a scenario where all combusted digas would be emitted through the 3 flares located south of the main exhaust stack where the turbines will be located. Although this approach may work for determining total emissions, the different stack parameters from the main exhaust stack (size, flow rate, temperature, location, etc.) may yield different impacts. All short term averaging period scenarios (including for the HRA and criteria pollutant analyses) should also evaluate the impacts of peak operations of the turbines and their exhaust through the main stack.

3-3



- 4. Although SCAQMD has not yet listed the new federal 1-hour NO<sub>2</sub> standard as a CEQA threshold, we recommend that the lead agency include this health-based standard more explicitly in Table 3-8. This standard should be presented the same as the other pollutants, rather than as a footnote. Further, from the modeling files, the highest concentration utilizing the federal 1-hour averaging period is 79.57 µg/m<sup>3</sup>, or approximately 42 ppb. When added to the 3-year, 98<sup>th</sup> percentile background value of 65 ppb, the resulting concentration is 107 ppb. This value is higher than the federal ambient air quality standard of 100 ppb. This discrepancy should be addressed in the Final EIR, and if NO<sub>2</sub> impacts are found to exceed the federal air quality standards, mitigation should be implemented to reduce the concentration below the standard. } 3-4
  
- 5. Table 3-8 of the Draft EIR indicates that the maximum 1-hour NO<sub>2</sub> concentration is 30.8 µg/m<sup>3</sup>, while Table 3-13 of the Air Quality Appendix lists the maximum concentration as 79.6 µg/m<sup>3</sup> (apparently the federal standard average instead of the state standard average). However, the model files provided to SCAQMD staff indicate that the maximum 1-hour NO<sub>2</sub> concentration is 130.5 µg/m<sup>3</sup>. Further, the background concentration in Table 3-8 is listed as 207 µg/m<sup>3</sup>, whereas the 3 year average (2009-2011) background reported by SCAQMD monitors is 158.8 µg/m<sup>3</sup>. These discrepancies with the federal and state 1-hour concentrations and background concentrations should be addressed in the Final EIR. If impacts are found to exceed federal or state standards, then mitigation should be added to reduce these impacts to a less than significant level. } 3-5
  
- 6. The Final EIR should ensure that the modeling analysis is consistent with the final permit application materials provided to SCAQMD. If the permit is not complete at that stage, the CEQA analysis should ensure that it presents a scenario that is either equivalent to, or more conservative (e.g., higher impacts) than the final permit conditions. } 3-6
  
- 7. It is not clear how the hourly toxic emission rates used in the HARP model were derived. Annual and daily toxic emission rates calculations are presented in files provided to SCAQMD staff, however it appears that the hourly toxics calculations are not included. These calculations should be provided with the Final EIR. } 3-7
  
- 8. The meteorological file utilized in the CEQA modeling analysis only includes 3 years of data. Updated meteorological files are available on SCAQMD's website that includes 5 years of data. This updated meteorological data should be used in the final CEQA modeling to ensure consistency with any modeling conducted for permitting. } 3-8
  
- Operational Mitigation Measures } 3-9A
- 9. Given that the lead agency's operational air quality analysis demonstrates significant regional air quality impacts from NO<sub>x</sub>, VOC and PM<sub>10</sub> and localized air quality impacts from PM<sub>10</sub> and PM<sub>2.5</sub> emissions the SCAQMD staff recommends that the lead agency provide additional mitigation measures pursuant to CEQA Guidelines Section 15126.4. Specifically, the staff recommends that the lead agency minimize or eliminate significant adverse air quality impacts by adding the mitigation measures provided below.

<sup>1</sup> <http://www.aqmd.gov/smog/metdata/AERMOD.html>

*On-site Equipment (process and operational emissions)*

- a) Consider additional controls on the main stack to reduce normal operational emissions.
- b) Identify measures to minimize the possibility of large flaring events that yield significant short term impacts.
- c) Require both on-site emergency black start diesel generators to meet Tier 4 emissions standards. If the lead agency determines that Tier 4 emissions standards are infeasible for the said equipment then the lead agency shall, at a minimum, require diesel particulate filters on both diesel-fueled emergency generators.
- d) Require the use of electric or alternative fueled vehicles for maintenance activities including field vehicles, and forklifts.

3-9B

*Transportation Mitigation Measures*

- e) Provide sufficient electric vehicle (EV) Charging Stations to offset emissions generated by new employee trips.
- f) Implement a rideshare program for employees.
- g) Require the use of 2010 and newer diesel haul trucks (e.g., goods/materials delivery trucks) and if the lead agency determines that 2010 model year or newer diesel trucks cannot be obtained the lead agency shall use trucks that meet EPA 2007 model year NO<sub>x</sub> emissions requirements.

3-9C

*Energy and Other*

- h) Maximize use of solar energy including solar panels; installing the maximum possible number of solar energy arrays on the building roofs and/or on the project site to generate solar energy for the facility.
- i) Require all lighting fixtures, including signage, to be energy efficient. Where feasible use solar powered lighting.
- j) Use light colored paving and roofing materials.
- k) Require use of water-based or low VOC cleaning products at the project site.

3-9D

Cumulative Air Quality Emissions Analysis

10. The proposed project is located within one mile of the Los Angeles International Airport and the NRG Energy Facility, both of which have recently undergone environmental review and approval (LAX Specific Plan Project and the El Segundo Energy Center Project, respectively). However, the emissions from these projects are not considered in the potential cumulative health risk impacts for the proposed project. Further, the emissions from the El Segundo Energy Center Project are not considered in the cumulative air quality significance determination. Therefore, SCAQMD staff recommends that the lead agency include all projected emissions and criteria pollutant concentrations from these projects in the cumulative air quality analysis and health risk assessment for the Final EIR.

3-10

Mr. James E. Doty

6

July 26, 2013

Greenhouse Gas Emissions Analysis

11. The project's annual GHG emissions reported in Table 3.19 of the Draft EIR appear to account for existing/baseline operational emissions activity associated with off-site power generation (i.e., at the Scattergood Power Generation Facility) that utilizes digester gas from the project site (i.e., Hyperion Treatment Plant Site). Based on discussion provided in the Draft EIR it appears that the lead agency assumed that the proposed project will replace/transfer existing power generation (using digester gas from the project site) occurring at the Scattergood Power Generation Facility. As a result, the lead agency subtracts the emissions from this existing/baseline activity from the project's emissions. However, the lead agency does not provide substantial evidence demonstrating that the transfer of power generation to the project site will not be replaced to maintain existing power generation capacity at the Scattergood Power Generation Facility. As a result, the proposed project may result in an increase of overall power generation (globally) that has not been accounted for in the GHG emissions analysis. If the existing/baseline emissions are subtracted from project emissions, then a robust description is needed to justify the assumption that the existing/baseline emissions will not be continued elsewhere in the future. Therefore, the lead agency should provide sufficient technical information in the Final EIR to demonstrate that it is appropriate to assume that all existing/baseline emissions activity will cease in the future.

3-11A

Further, the lead agency provided two GHG emissions values for the proposed project including the project's GHG non-biogenic and biogenic emissions values. The lead agency ultimately limited the project's GHG impacts to non-biogenic emissions; however, the SCAQMD staff recommends that the lead agency revise its determination in the Final EIR to account for the said biogenic emissions identified in Table 3-19 of the DEIR. The SCAQMD's adopted GHG threshold (10,000 MTCO<sub>2</sub>e/yr.) for industrial projects does not exclude biogenic emissions from the project's GHG significance determination.

3-11B

DRAFT in Progress

Privileged and Confidential

15

mitigation measures AE-1, AE-4, and AE-6. In addition, the City proposes to limit pipeline natural gas to no more than 10% of the total fuel to the CTGs by volume (as opposed to up to 40%) when possible.] This project is consistent with States efforts to increase the use of biogas as a renewable fuel and is essential in maintaining wastewater treatment operations..



**Comment Letter No. 3**  
**South Coast Air Quality Management District**  
**July 26, 2013**

**Response 3-0A**

The City appreciated the opportunity to clarify several issues raised in the SCAQMD comment letter at our August 15th meeting. Specific clarifications and responses to comments are presented below.

**Response 3-0B**

The explicit equipment list is in Table 2-2 of the DEIR with expanded descriptions in Section 2.5.1. The HTP flares are existing gas handling equipment necessary for the operation of the wastewater treatment plant; the flares operate under an existing permit. The thermal oxidizers are part of the Fuel Gas Compression and Supply System (FGC/SS). Per your request, Table 2-2 will be revised in the FEIR to add the thermal oxidizers to the FGC/SS description and to now list only one emergency diesel generator. The thermal oxidizers are part of the siloxane removal system (DEIR, p. 13) and operate during the system's regeneration process. Only one thermal oxidizer will be in operation at any given time (because the other siloxane removal vessel will be operating at that time). The other emergency diesel generator for the Cooling Water project will be installed independent of the DGUP project; however, the impacts of operation of this generator have been included in this analysis. With these clarifications, Figure 2.3 would not change. However, as discussed with the SCAQMD staff, we will add an additional Figure to the FEIR to show the wastewater treatment plants essential gas handling system (including the Project equipment, existing equipment [i.e., flares and boiler]) and their exhausts to the atmosphere and to the stack.

After receiving the comment letter, the City has discussed with SCAQMD staff the modeling analysis (including the baseline case) and related assessment to clarify the equipment included in the different scenarios (e.g., baseline, project, etc.). As was discussed, the presentation of the modeling results was correct in the main volume of the DEIR, although there were typographical errors in the incremental PM<sub>10</sub> and PM<sub>2.5</sub> results table in Appendix D that may have misled SCAQMD staff into erroneously considering that the project may exceed federal PM<sub>10</sub> and/or PM<sub>2.5</sub> standards.

**Response 3-0C**

Section 3.4.5 of the DEIR discusses and assesses GHG mitigation measures. The HTP digester gas has been defined by the State as a form of biogas (i.e., biogenic gas), as well as a renewable resource. As described in the DEIR, the use of biogas is inherently a carbon-neutral activity. Per CEQA guidelines, all GHG emissions (biogenic and non-biogenic) are reported. Although the City has not adopted a GHG significance threshold and guidance on biogenic and non-biogenic GHGs is evolving, the DEIR states that the proposed project could be cumulatively considerable (significant) for GHGs (see Section 3.4.4). Section 3.4.5 of the DEIR assesses GHG mitigation measures. The proposed project already incorporates CAPCOA GHG measures AE-1, AE-4, and AE-6. In addition to the beneficial use of the project, the City will limit natural gas usage to no more than 10% of total fuel to the CTGs, when possible. Further details can be found in responses 3-11A and 3-11B.

**Response 3-0D**

The City will provide written responses to the SCAQMD as required. Thank you for the additional contact information.

**Response 3-1**

There may have been some confusion in the analysis of the modeling files, which also list other non-project equipment. The City has discussed with SCAQMD staff the modeling analysis (including the baseline case) and related assessment to clarify the equipment included in the different scenarios (e.g., baseline, project, etc.). The permit applications and the proposed project do not have the same equipment lists. Emissions from other non-project sources are not related to gas handling or utilization; their emissions are constant over the time frame of the project. As such, the City believes that it is not necessary (and possibly confusing) to include multiple equipment lists. See Response 3-0B for additional information.

The air quality emissions modeling analysis included both existing equipment at the facility, and new equipment proposed for the project. The 2011 Baseline analysis included only existing equipment that may be affected by the project. Existing equipment includes: two boilers, six flares, and three emergency diesel internal combustion engines (ICE). New equipment includes: three combustion turbine generators (CTGs) with duct burners (DBs), two thermal oxidizers (TOs), two emergency diesel ICEs (one of which will be installed as part of a separate project), and a fuel gas treating system (FGTS).

The modeling analysis evaluated emissions from the operation of the new equipment as well as potential changes in emissions to the existing sources due to the impact from the proposed project or alternatives. Details on the sources included in each of the modeling scenarios can be found in Appendix D, Attachment A: “Air Dispersion Modeling Analysis and Health Risk Assessment: CEQA Analysis of Digester Gas Utilization Project.”

**Response 3-2A**

The SCAQMD asked that Table 3-8 explicitly include the federal 1-hour NO<sub>2</sub> NAAQS results and for clarification on the discrepancies in Appendix D PM<sub>2.5</sub> and PM<sub>10</sub> results (Table 3-13) compared to those in the main EIR (Tables 3-8, 4-5, 4-7, and 4-9). The table below describes the additional row and revised notes that will be added to Table 3-8 in strike-out/underline.

**DEIR Table 3-8: Addition of 1-hour NO<sub>2</sub> standard comparison and related revisions**

Pollutant	Averaging Time	Maximum Concentration from Proposed Project (µg/m <sup>3</sup> )	Background Pollutant Concentration (µg/m <sup>3</sup> )	Maximum Proposed Project + Background Concentration (µg/m <sup>3</sup> )	SCAQMD Threshold (µg/m <sup>3</sup> )	Above SCAQMD Threshold?
<b>Proposed Project<sup>[a]</sup></b>						
NO <sub>2</sub> <sup>[b],[c]</sup>	<u>1-hour (98<sup>th</sup> %)</u> <sup>[d]</sup>	<u>17.3</u>	<u>123</u>	<u>140</u>	<u>188</u>	<u>No</u>

<sup>[c]</sup> Data from the Southwest Coastal Los Angeles County monitor in 2011 for NO<sub>2</sub> (maximum) and in 2010 for CO (maximum) based on most recent data availability. Note that the 2007 AQMP projects that NO<sub>x</sub> emissions in the Basin will decrease by nearly an order of magnitude by 2030 (see Section 5, Figure ~~5-85-16~~). Given these projections for NO<sub>x</sub> emissions, it is likely that the background NO<sub>2</sub> concentrations will also decrease by 2030.

<sup>[d]</sup> ~~There is a~~ The new federal 1-hour NO<sub>2</sub> standard of 0.100 ppm corresponding to 188 µg/m<sup>3</sup>. The SCAQMD is currently evaluating, and has not yet updated, its CEQA significance thresholds and handbook to add a new significance threshold corresponding to this new standard.<sup>12</sup> The proposed project's impacts for this new federal standard would be 149 µg/m<sup>3</sup> based on the 98<sup>th</sup> percentile result. Thus, the proposed project's impacts are below both the established SCAQMD threshold as well as the new federal standard.

This comment was discussed at the August 15<sup>th</sup> meeting between SCAQMD and the City; it was clarified that there were incorrect values in DEIR Appendix D Table 3-13 that may have misled SCAQMD staff into erroneously considering that the project may exceed federal PM<sub>10</sub> and/or PM<sub>2.5</sub> standards. DEIR Table 3-8 is correct and incremental PM concentrations are below the threshold; DEIR Appendix D Table 3-13 is incorrect and should not be the basis of any comments. Appendix D Table 3-13 incorrectly showed total project ambient air concentrations rather than incremental (i.e., project minus baseline). When the incremental concentrations are correctly considered, the project on its own is not shown to exceed the SCAQMD (and thus any AAQS) standards. The table below describes the corrections will be added to FEIR Appendix D table 3-13 in strike-out/underline.

**Correction to Appendix D Table 3-13 PM10 Incremental Analysis (PM<sub>10</sub>, PM<sub>2.5</sub> and SO<sub>2</sub>)**

Pollutant	Averaging Time	Maximum Concentration from Proposed Project (µg/m <sup>3</sup> )	Background Pollutant Concentration (µg/m <sup>3</sup> )	Maximum Proposed Project + Background Concentration (µg/m <sup>3</sup> )	SCAQMD Threshold (µg/m <sup>3</sup> )	Above SCAQMD Threshold?
<b>Proposed Project<sup>[a]</sup></b>						
<b>Incremental Analysis<sup>[a]</sup></b>						
PM <sub>10</sub>	24-hour	<del>58.0</del> <u>11.9</u>	-	-	2.5	<b>Yes</b>
	Annual	<del>4.4</del> <u>0.8</u>	-	-	1.0	No
PM <sub>2.5</sub>	24-hour	<del>58.0</del> <u>11.9</u>	-	-	2.5	<b>Yes</b>
	Annual	<del>4.4</del> <u>0.8</u>	-	-	-	-
SO <sub>2</sub>	1-hour	<del>44.9</del> <u>10.6</u>	-	-	196	No
	24-hour	<del>9.9</del> <u>2.0</u>	-	-	105	No

**Response 3-2B**

The peak day, worst case scenario is possible because all digas may have to be flared. However, it is not likely that this scenario will occur once the project is constructed because the digas will be combusted in the turbines. As noted in the DEIR and above, the goal of this project is to minimize use of the flares and maximize use of the renewable resource whether in the turbines or the boilers (e.g., when one DGUP train is down).

**Response 3-3**

<sup>12</sup> Personal communication with Ian Macmillan at the SCAQMD. May 2013.

This comment was discussed at the August 15<sup>th</sup> meeting between SCAQMD and the City; it was clarified how the worst-case day scenarios were established. The modeling demonstrated that flaring all digester gas from the existing flares would result in the worst-case short-term impacts. The impact from the new turbines and thermal oxidizer was analyzed as part of the permit application submitted to SCAQMD. The estimated total acute hazard index from the new equipment at maximum levels is 0.0069. As described in Table 3-9 of the Draft EIR, the estimated maximum acute hazard index from the flaring of digester gas through the existing flares was 0.02, which is higher than the conservative sum of the individual impacts from the new equipment.

Using the same conservative estimation method of summing the individual components, the total estimated ground level concentrations from the new equipment is lower than that predicted for the flares, with the exception of CO (see table below). Therefore, the worst-case impacts from the project are generally due to the flare operations, which are existing equipment.

**Demonstration That the Flaring Scenario Produces CEQA Peak Concentrations<sup>[a]</sup>**

Devices	NO <sub>2</sub> 1-Hour 98 <sup>th</sup> % (µg/m <sup>3</sup> )	CO 1-Hour (µg/m <sup>3</sup> )	CO 8-Hour (µg/m <sup>3</sup> )	PM <sub>10</sub> 24-Hour (µg/m <sup>3</sup> )	SO <sub>2</sub> 1-Hour (µg/m <sup>3</sup> )	SO <sub>2</sub> 24-Hour (µg/m <sup>3</sup> )
Sum of Impact from Three Turbines and Thermal Oxidizer at Maximum Permitted Levels	40.7	88.1 <sup>[b]</sup>	55.4 <sup>[b]</sup>	3.1	2.2	0.7
Impact from Flares as presented in DEIR	79.6	32.2 <sup>[b]</sup>	14.1 <sup>[b]</sup>	58.0	44.9	9.9

<sup>[a]</sup> The impacts shown in the table above are greater than the results presented in the DEIR because the impacts shown here do not account for baseline emissions. In addition, the scenario described in this table (i.e., operation of three turbines and thermal oxidizer at maximum permitted levels) would not occur during actual operation of the DGUP.

<sup>[b]</sup> The 1-hour and 8-hour CO impacts are greater for the non-project summation of the individual permit unit concentrations. However, the results presented in this table do not change the conclusion in the DEIR because even adding the highest calculated CO concentrations to the background levels could not produce an exceedence of the 1-hour or 8-hour CO standards (or SCAQMD significance threshold) –see Tables 4-5 and 4-9.

The comparisons shown in the table above highlights that the DGUP Project is an emissions reduction project because it minimizes impacts from flaring for all pollutants except CO (CO levels remain far below the applicable federal standards regardless, as shown above in footnote b).

**Response 3-4**

Both the old 1-hour NO<sub>2</sub> standard and the new federal 98<sup>th</sup> percentile 1-hour standard were analyzed. DEIR Table 3-8, and Appendix D Table 3-13 will be revised to show the results with respect to both NO<sub>2</sub> standards in the tables versus in the footnote. See Response 3-2A for the proposed revisions.

There is no discrepancy. 79.6 µg/m<sup>3</sup> is the 1-hr 98<sup>th</sup> percentile NO<sub>2</sub> concentration for the DGUP Project. However, these results include the baseline emissions such as the flares. The

incremental concentration is  $17.3 \mu\text{g}/\text{m}^3$ . When the incremental concentration is added to the background concentration of  $123 \mu\text{g}/\text{m}^3$  the result is  $140 \mu\text{g}/\text{m}^3$  which is below the threshold of  $188 \mu\text{g}/\text{m}^3$  (100 ppm).

### **Response 3-5**

There are no discrepancies. Our modeling analysis included emissions from all project equipment, which included some existing equipment such as the flares. We also modeled the 2011 Baseline, which includes the flares, to establish the contribution from the existing gas handling equipment and establish the basis for the increase. The procedure for assessing compliance with the ambient air standards is to add the modeling results to the background pollutant levels. The background ambient monitored pollutant data collected by the SCAQMD includes the contribution of the existing equipment, plus the contribution from other sources in the area. In other words, the 2011 Baseline results are the Hyperion contribution to the background ambient monitored data since the existing equipment already contributes to ambient pollutant levels measured at the monitoring stations. In order to properly estimate the ambient air pollutant concentrations for the project we have to subtract the 2011 Baseline modeling results from the project total and then add the background levels. Otherwise, we would be counting the baseline emissions twice.

Table 3-8 of the DEIR shows the incremental increase ( $30.8 \mu\text{g}/\text{m}^3$ ) in 1-hour (peak)  $\text{NO}_2$  for the project as compared to the baseline. Table 3-13 of the Air Quality Appendix shows the total 1-hour  $\text{NO}_2$  (peak) ( $130.5 \mu\text{g}/\text{m}^3$ ) and total 1-hour (98<sup>th</sup> percentile) ( $79.6 \mu\text{g}/\text{m}^3$ ) from all equipment (existing plus new).

Table 3-9 of the Air Quality Appendix D shows the modeling results and the calculation of incremental changes. The incremental increase in  $\text{NO}_2$  based on the 1-hour (peak) is  $30.8 \mu\text{g}/\text{m}^3$ ; the increase based on the 1-hour (98<sup>th</sup> percentile) is  $17.3 \mu\text{g}/\text{m}^3$ .

Appendix D Table 3-13 will be revised as indicated in Response 3-4.

We spoke with Tom Chico, the SCAQMD Modeling Program Supervisor, to confirm the correct approach for using the  $\text{NO}_2$  ambient monitoring data with respect to the two different 1-hour  $\text{NO}_2$  standards. He stated that for comparing with the 1-hour  $\text{NO}_2$  98<sup>th</sup> percentile background concentration, we should take the average of three years. For comparing with the 1-hour peak  $\text{NO}_2$  standard we should take the maximum concentration of the three years. The following table lists the ambient air quality data from the Southwest Coastal LA County monitoring station (Station No. 820) and the resulting concentration for the analysis. Appendix D Table 3-10 will be revised as follows:

**Revision to Appendix D Table 3-10: Historical Ambient Air Concentration Levels (standard units)**

Year	NO <sub>2</sub> (ppb)			CO (ppm)		PM <sub>10</sub> (µg/m <sup>3</sup> )		PM <sub>2.5</sub> (µg/m <sup>3</sup> )		SO <sub>2</sub> (ppb)	
	1-hour (98th %)	1-hour	Annual	1-hour	8-hour	24-hour	Annual	24-hour	Annual	1-hour	24-hour
2009	70	<u>110</u>	15.9	2	1.9	52	25.4	--	--	20	6
2010	60.9	<u>75.8</u>	12.1	3	2.2	37	20.6	--	--	25.9	3.5
2011	64.8	<u>97.6</u>	13.4	-	1.8	41	21.7	41	21.7	11.5	8.3
<b>Avg</b>	<b>65.2</b>	<b>=</b>	<b>=</b>	<b>=</b>	<b>=</b>	<b>=</b>	<b>=</b>	<b>=</b>	<b>=</b>	<b>=</b>	<b>=</b>
<b>Max</b>	<b>70</b>	<b>110</b>	<b>15.9</b>	<b>3</b>	<b>2.2</b>	<b>52</b>	<b>25.4</b>	<b>41</b>	<b>22</b>	<b>25.9</b>	<b>8.3</b>

The 1-hour NO<sub>2</sub> 3-year 98<sup>th</sup> percentile background concentration is 65.2 ppb, which is equivalent to 123 µg/m<sup>3</sup>. The 1-hour peak NO<sub>2</sub> background concentration is 110 ppb, which is equivalent to 207 µg/m<sup>3</sup>. The annual NO<sub>2</sub> background concentration is 15.9 ppb which is equivalent to 30 µg/m<sup>3</sup>. We will revise Appendix D Table 3-12 as follows:

**Revision to Appendix D Table 3-12: Historical Ambient Air Concentration Levels (µg/m<sup>3</sup>)**

	NO <sub>2</sub> (µg/m <sup>3</sup> )			CO (µg/m <sup>3</sup> )		PM <sub>10</sub> (µg/m <sup>3</sup> )		PM <sub>2.5</sub> (µg/m <sup>3</sup> )		SO <sub>2</sub> (µg/m <sup>3</sup> )	
	1-hour (98th %)	1-hour	Annual	1-hour	8-hour	24-hour	Annual	24-hour	Annual	1-hour	24-hour
<b>Avg</b>	<b>123</b>	<b>=</b>	<b>=</b>	<b>=</b>	<b>=</b>	<b>=</b>	<b>=</b>	<b>=</b>	<b>=</b>	<b>=</b>	<b>=</b>
<b>Max</b>	<b>434.7</b>	<b>207</b>	<b>30</b>	<b>3435</b>	<b>2519</b>	<b>52</b>	<b>25.4</b>	<b>41</b>	<b>22</b>	<b>67.8</b>	<b>21.7</b>

There is no need for mitigation measures because NO<sub>2</sub> impacts are below the applicable threshold standards listed in DEIR Table 3-8 as amended by Response 3-2A, herein.

**Response 3-6**

We agree that the CEQA analysis should be consistent with, or more conservative than, the final permit application, and this was the goal of this DEIR. The CEQA analysis is consistent with the permit analysis because both analyses are based on maximum production of 9.6 MMscf per day of digester gas and maximum combustion of no more than 40% natural gas. The modeling presented in the CEQA documentation follows the same methodology used for the permit application and is thus equivalent to, or more conservative than, the expected final conditions. The analysis for the permit application was performed for individual permit units in accordance with SCAQMD Rule 1303.

**Response 3-7**

Table A-12 of the Air Quality Appendix lists the daily toxic air contaminant emission rates. The hourly emission rates used within HARP were calculated by dividing the daily emissions by 24. We will add a table (Table A-12a) to show the hourly TAC emission rates.

**Additional Table A-12a: Maximum Hourly Toxic Air Contaminant Emission Comparison (lb/hour).**

Pollutant	CAS	2011 Baseline		Incremental Change					
				DGUP Project (Constellation)		Alternative 1 - No Project		Alternative 2: Two Turbines	
		lbs/day	lbs/hr	lbs/day	lbs/hr	lbs/day	lbs/hr	lbs/day	lbs/hr
1,3 Butadiene	106990	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Cadmium	7440439	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

Pollutant	CAS	2011 Baseline		Incremental Change					
				DGUP Project (Constellation)		Alternative 1 - No Project		Alternative 2: Two Turbines	
		lbs/day	lbs/hr	lbs/day	lbs/hr	lbs/day	lbs/hr	lbs/day	lbs/hr
Carbon Tetrachloride	56235	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Ethylene dichloride	107062	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Benzene	71432	1.14	0.0477	0.38	0.0159	0.38	0.0159	0.38	0.0159
Formaldehyde	50000	8.42	0.3507	2.81	0.1169	2.81	0.1169	2.81	0.1169
Arsenic	7440382	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Lead	7439921	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Methylene chloride	75092	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Nickel	7440020	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Perchloroethylene	127184	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Trichloroethylene	79016	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Vinyl chloride	75014	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Total PAH	1151	0.02	0.0009	0.01	0.0003	0.01	0.0003	0.01	0.0003
Naphthalene	91203	0.08	0.0033	0.03	0.0011	0.03	0.0011	0.03	0.0011
Acetaldehyde	75070	0.31	0.0129	0.10	0.0043	0.10	0.0043	0.10	0.0043
Acrolein	107028	0.07	0.0030	0.02	0.0010	0.02	0.0010	0.02	0.0010
Ammonia	7664417	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Chloroform	67662	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
1,4 Dichlorobenzene	106467	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Selenium	7782492	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Ethyl benzene	100414	10.40	0.4332	3.47	0.1444	3.47	0.1444	3.47	0.1444
Hexane	110543	0.21	0.0087	0.07	0.0029	0.07	0.0029	0.07	0.0029
Propylene oxide	75569	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Toluene	108883	0.42	0.0174	0.14	0.0058	0.14	0.0058	0.14	0.0058
Xylene	1330207	0.21	0.0087	0.07	0.0029	0.07	0.0029	0.07	0.0029
Hexavalent chromium	18540299	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Copper	7440508	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Manganese	7439965	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Mercury	7439976	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
DPM	9901	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

**Response 3-8**

At the time the modeling analysis was conducted only three years of meteorological data were available from SCAQMD per discussion with Jillian Baker of SCAQMD.

**Response 3-9A**

As discussed in Section 3.1.5 of the DEIR, the proposed project is permissible under SCAQMD and federal requirements (BACT requirements are met where required). Furthermore, the City has reviewed possible mitigation measures as suggested by SCAQMD or other available guidelines and those listed for similar projects, and none of these mitigation measures were found to be applicable to the proposed project. The proposed project is also designed to utilize a renewable resource, digester gas, in a turbine system that emits lower levels of pollutants than the existing permitted flares.

We note that, if the turbine system goes down, any remaining digas will go to the existing boilers and, if necessary, the flares.

**Response 3-9B**

- a. The currently proposed controls are BACT/LAER. No other potential controls were found.
- b. The Project is designed to meet this purpose: to minimize the use of flares and use the renewable fuel biogas to create electricity replacing the demand for 34 MW of fossil fuel generated electricity (DEIR Section 2.4).
- c. The emergency diesel generators will be required to meet BACT/LAER under the New Source Review regulations. The permit application included proposed BACT/LAER for this size engine as Tier 2. The PM<sub>10</sub> standard, as listed in examples from the EPA BACT/LAER Clearinghouse, is 0.2 g/kW-hr (0.15 g/bhp-hr) which is consistent with a Tier 2 engine. We reviewed the current EPA engine certification website and note that this engine may now be available certified to Interim Tier 4 standards. We anticipate discussions with the SCAQMD to clarify the BACT/LAER requirements and the applicability of an Interim Tier 4 engine and/or diesel particulate filters.
- d. The HTP uses electric and alt fuel vehicles/equipment for these purposes on-site.

**Response 3-9C**

- e. There are only 10 new worker trips per day. On-road emissions from these trips are de minimus (<0.15 lbs NO<sub>x</sub>/day) and an EV charging station is not required to "offset" those emissions.
- f. The City has a ride share program for employees.
- g. There are only 40 vendor truck trips per year; the emissions from these trucks are negligible (< 9 lbs NO<sub>x</sub>/year or < 0.03 lbs NO<sub>x</sub>/day on average). This measure would not be cost-effective or result in measureable emission reductions.

**Response 3-9D**

- h. No new buildings are added to the project. In addition, the project is a renewable energy project that meets the facility's energy needs; thus there is no need to add any additional solar power components.
- i. More efficient lighting (e.g., LED) will be incorporated in the project.
- j. No new buildings or paving to be added due to the project.
- k. The City already uses these products as required under SCAQMD Reg. XI rules. Therefore, this practice is already followed and is not considered as an additional mitigation measure.

**Response 3-10**

The DEIR did include these projects in the standard cumulative impacts analysis in Section 5.1. The DEIR analysis already goes beyond common CEQA practice by conducting a semi-quantitative analysis of cumulative health risks of the project and the Scattergood project right next to the HTP site (DEIR Table 5-1, Figure 5-1 and Section 5.1.3).

The existing use of biogas occurs approximately 1,000 feet to the south of the proposed project. The proposed project will utilize the same gas at the volume which would otherwise go to flare for disposal. This combined heat and power project is the air pollution control device for this biogas. This project will maintain the ability to utilize the biogas (which is continuously generated at Hyperion as product of the wastewater treatment process) to generate electricity.

**Response 3-11A**

CEQA requires that GHG emissions be quantified and reported. The City has not established a significance threshold for GHGs, but the DEIR discusses the SCAQMD's threshold. All project



GHG emissions (biogenic and non-biogenic) have been quantified and reported as required under CEQA (Section 3.4.2). The DEIR discusses the baseline used; regardless of the baseline, the City stated that the Project GHG emissions could be considered cumulatively considerable (Section 3.5.4)

Total "global" generation at Scattergood and HTP will not increase because it is dependent on electricity demand, not how or where DWP generates its electricity. Demand and/or generation do not change due to DGUP. Regardless, HTP has its own energy needs, whether the energy comes from the grid or from its own renewable DGUP generators.

**Response 3-11B**

The City acknowledges the SCAQMD's comment regarding listing the biogenic GHG emissions and the SCAQMD's adopted GHG threshold. CEQA requires that GHG emissions be quantified and reported. The City has not established a significance threshold for GHGs, but the DEIR discusses the SCAQMD's threshold. All project GHG emissions (biogenic and non-biogenic) have been quantified and reported in the DEIR as required under CEQA (Section 3.4.2). The DEIR discusses the baseline used; regardless of the baseline, the City stated that the Project GHG emissions could be considered cumulatively considerable (Section 3.5.4); consistent with SB97 guidance, this EIR was prepared and mitigation measures were assessed (Section 3.4.5). Note that the Project actually incorporates CAPCOA's GHG mitigation measures AE-1, AE-4, and AE-6. In addition, the City proposes to limit pipeline natural gas to no more than 10% of the total fuel to the CTGs by volume (as opposed to up to 40%) when possible. Actual digester gas flow levels depend on several operational factors (e.g., incoming untreated flow levels) and the project must meet all of HTP's power and steam needs, which may vary over time. Thus, the actual fuel blend used over any given time will be contingent upon HTP's operational needs but never over a 40/60 natural gas/digester gas blend (by volume). This project is consistent with the State's efforts to increase the use of biogas as a renewable fuel and is essential in maintaining wastewater treatment operations.

2.2.1.4 Letter from the California Governor's Office of Planning and Research (OPR)

rec'd 7-25-13



EDMUND G. BROWN JR.  
GOVERNOR

STATE OF CALIFORNIA  
GOVERNOR'S OFFICE of PLANNING AND RESEARCH  
STATE CLEARINGHOUSE AND PLANNING UNIT



KEE ALICE  
DIRECTOR

July 19, 2013

Jim Marchese  
City of Los Angeles Public Works Department  
1149 S. Broadway St.  
Los Angeles, CA 90015

Subject: Hyperion Treatment Plant Digester Gas Utilization Project  
SCH#: 2011041032

Dear Jim Marchese:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on July 18, 2013, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan  
Director, State Clearinghouse

Enclosures  
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044  
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

**Document Details Report  
State Clearinghouse Data Base**

<b>SCH#</b>	2011041032		
<b>Project Title</b>	Hyperion Treatment Plant Digester Gas Utilization Project		
<b>Lead Agency</b>	Los Angeles, City of		

---

<b>Type</b>	EIR	Draft EIR
<b>Description</b>	<p>The City of Los Angeles, Lead Agency, has prepared a DEIR for the proposed project. The City's Bureau of Sanitation (BOS) owns and operates the Hyperion Treatment Plant (HTP), which treats wastewater and biosolids at 12000 Vista del mar in Playa del Rey. Digester gas produced at HTP is treated to remove sulfur and moisture and is piped to Scattergood Generating Station (SGS) under an energy exchange agreement. This arrangement will continue through to 2017. Instead of firing the gas, the BOS proposes to beneficially use the renewable digester gas in a combined cycle cogeneration system, ensuring that the HTP has reliable electricity and steam for plant use. Two transformers, a substation, and related interconnections will also be installed. Copies of the DEIR are available for public review.</p>	

---

**Lead Agency Contact**

<b>Name</b>	Jim Marchese		
<b>Agency</b>	City of Los Angeles Public Works Department		
<b>Phone</b>	213 847 5174	<b>Fax</b>	
<b>email</b>			
<b>Address</b>	1149 S. Broadway St.		
<b>City</b>	Los Angeles	<b>State</b>	CA <b>Zip</b> 90015

---

**Project Location**

<b>County</b>	Los Angeles		
<b>City</b>	El Segundo		
<b>Region</b>			
<b>Lat / Long</b>	33° 55' 47" N / 118° 25' 54" W		
<b>Cross Streets</b>	Vista del Mar at Imperial Highway		
<b>Parcel No.</b>	4131-029-901		
<b>Township</b>	<b>Range</b>	<b>Section</b>	<b>Base</b>

---

**Proximity to:**

<b>Highways</b>	Rta 1, Rta 105
<b>Airports</b>	LAX
<b>Railways</b>	
<b>Waterways</b>	Pacific Ocean
<b>Schools</b>	10
<b>Land Use</b>	Wastewater Treatment Plant / Public Facility (PF-1) / Open Space, Public and Quasi-Public Lands

---

**Project Issues** Aesthetic/Visual; Air Quality; Noise; Cumulative Effects; Other Issues

---

**Reviewing Agencies** Resources Agency; California Coastal Commission; Department of Conservation; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; Resources, Recycling and Recovery; Caltrans, District 7; CA Department of Public Health; Air Resources Board, Major Industrial Projects; Regional Water Quality Control Board, Region 4; Department of Toxic Substances Control; California Energy Commission; Native American Heritage Commission; State Lands Commission

---

<b>Date Received</b>	06/04/2013	<b>Start of Review</b>	06/04/2013	<b>End of Review</b>	07/18/2013
----------------------	------------	------------------------	------------	----------------------	------------

[Attached letter from the Native American Heritage Commission is in Section 2.2.1.1.]

### 3 Draft EIR Modifications for the Final EIR

This section of the Final EIR contains modifications to the Draft EIR based on minor corrections to formatting or grammar and on comments received from the public. No clarifications or modifications have been made to the Draft EIR that would add a new significant unmitigated impact or a substantial increase in the severity of an impact already analyzed. This section is organized into subsections that correspond to the sections headings in the Draft EIR. Each subsection contains a list of the modifications (if any) that were made to the corresponding section. The Draft EIR section headings and corresponding subsections headings are as follows:

<b>Draft EIR Chapter and Title</b>	<b>FEIR Section Describing Modifications to the Draft EIR</b>	<b>Comment</b>
Executive Summary	Section 3.1	
Chapter 1: Introduction	Section 3.2	No modifications
Chapter 2: Project Description	Section 3.3	
Chapter 3: Environmental Setting, Impacts and Mitigation	Section 3.4	Includes each environmental topic discussed in the Draft EIR
Chapter 4: Alternatives	Section 3.5	
Chapter 5: Additional CEQA Considerations	Section 3.6	No modifications
Chapter 6: References	Section 3.7	No modifications
Chapter 7: Acronyms and Abbreviations	Section 3.8	No modifications
Chapter 8: List of Preparers	Section 3.9	No modifications
Appendices	Section 3.10	

#### 3.1 Executive Summary

The Executive Summary of the Draft EIR has been modified to correct a minor error in the Draft EIR.

- Section Project Objectives, on page iv of the Draft EIR. In the first sentence, replace January 31, 2015, with December 31, 2016, to read as follows:

“The intent of the BOS is to construct, and place in operation by ~~January 31, 2015~~ December 31, 2016, a project that beneficially utilizes HTP’s renewable digester gas that would otherwise be flared on-site.”

- Section Project Objectives, on page v of the Draft EIR. In Item 5, replace January 2015 with December 2016 to read as follows;

“5. Prevent flares from operating continuously to dispose of digester gas when it can no longer be sent to Scattergood (i.e., post-~~January 2015~~ December 2016); and”

- Section Proposed Project Characteristics, on page vi of the Draft EIR. At the end of the third paragraph add as follows:

“Based on air permitting requirements, an oxidation catalyst may be installed to reduce CO and VOC emissions.”

- Section Alternatives to the Proposed Project, on page xi. In the partial sentence at the beginning of the first paragraph, replace 2015 with 2017 to read as follows:  
“~~January 2015~~ 2017.”

### **3.2 Introduction**

There are no clarifications and modifications to this section of the Draft EIR.

### **3.3 Project Description**

The Project Description of the Draft EIR has been modified to address comments received on the Draft EIR.

- Section 2.5, after page 10. Add Figure 2-3a (see figure below) on page 11a.
- Section 2.5, after page 11a (preceding bullet). Rename Figure 2-3 (Draft EIR) as Figure 2.3b on page 11b.

### Digester Gas Utilization Project Process Flow Diagram

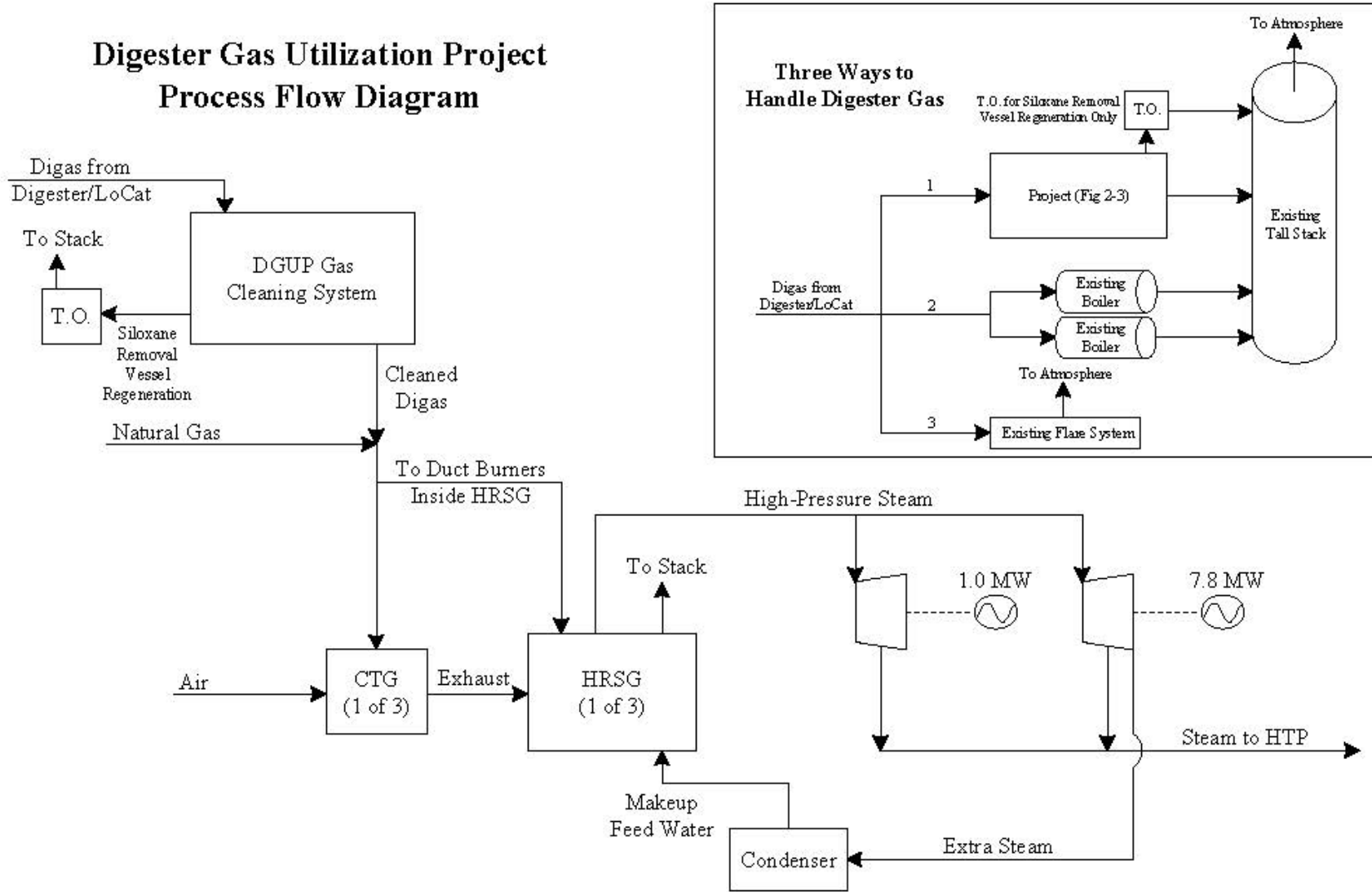


Figure 2-3a. Process Flow Diagram

- Table 2-2 in Section 2.5.1, on page 12. Modify the table to add “thermal oxidizers” into the fuel gas compression and supply system and add a footnote; modify the table to list only one emergency diesel engine generator. The revised table and footnotes are as follows:

**Table 2-2. Proposed Project Equipment**

Emission Units	Rating
Each of the three CTGs/HRSGs	11.35 MW each
One Condensing-Extraction STG	7.8 MW
One Backpressure STG	1.0 MW
Fuel Gas Compression and Supply System	Two siloxane removal vessels (one operating at a time) First stage compressor and cleaning systems: 6,000 scfm Swing compressor: 9,870 scfm Second stage compressor: 8,160 scfm Thermal Oxidizers <sup>[a]</sup>
Selective Catalytic Reduction (SCR)	25 ppmvd NO <sub>x</sub> using 19% aqueous ammonia
Oxidation Catalyst (OC)	NA
Ammonia tank (19% aqueous)	10,000 gallons
Substation	Not Applicable
Two Transformer	55 MVA
<del>Two</del> <u>One</u> Emergency Diesel Engine Generators <sup>12</sup>	750 kW firing ULSFO
Oil/Water Separator	2,500 gpm
ULSFO Storage Tank	1,000 gallons aboveground

DG = Digester gas; NG = Natural gas.

<sup>[a]</sup> The thermal oxidizers are part of the siloxane removal system and operate during the system’s regeneration process. The project operates only one thermal oxidizer at any given.

- Section 2.5 on page 12. Add the following language after the first paragraph (i.e., before the heading for section 2.5.1 Proposed Elements)

“The proposed project has been revised to reflect use of CO control technology (e.g., oxidation catalyst system) and/or a maximum gas throughput (digester gas plus natural gas, in any combination from 0% up to 40% natural gas) consistent with regional incremental CO impacts that are less than significant, to address potential issue in air permitting.”

- Section 2.5 on page 14. Add the following language after the fourth paragraph (i.e., before the heading Ammonia Handling and Storage)

“Based on air permitting requirements, an oxidation catalyst may be installed to reduce CO and VOC emissions.”

### 3.4 Environmental Setting, Impacts and Mitigation

The Environmental Setting, Impacts and Mitigation section of the Draft EIR has been modified to address comments received on the Draft EIR.

- Section 3.1.3.3.2 on page 30. Modify the language under the subheading “Operation” to read as follows:

“The estimated maximum mass daily operation emissions when digester gas is combusted in the flares are shown in Table 3-7a. The estimated maximum mass daily operation emissions during any scenario (e.g., combustion in CTGs or flares) are shown in Table 3-7b.

- Table 3-7 in Section 3.1.3.3.2. on page 31.
  - Under the PM<sub>2.5</sub> heading for Significant?, replace No with Yes; as follows:
  - Modify the table title as shown.

**Table 3-7a Operational Emissions for Combustion of the Digester Gas in the Flares**

Emission Source	Maximum Daily Emissions (lb/day)					
	CO	NO <sub>x</sub>	SO <sub>x</sub>	VOC	PM <sub>10</sub>	PM <sub>2.5</sub> <sup>[a]</sup>
Baseline	86	354	121	1,176	704	704
On-site emissions	115	471	161	1,568	939	939
Off-site emissions	1.6	0.2	<0.1	0.2	0.2	0.2
Total operational emissions	117	472	161	1,568	939	939
Incremental emissions	30	118	40	392	235	235
Significance threshold	550	55	150	55	150	55
<b>Significant?</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>Yes</b>	<b>No <u>Yes</u></b>

a. PM<sub>2.5</sub> is assumed equal to PM<sub>10</sub>.



- Section 3.1.3.3.2 Add Table 3-7b after the new Table 3-7a on page 31.

**Table 3-7b [New table] Operational Maximum Daily Emissions (Any Scenario)**

Emission Source	Maximum Daily Emissions (lb/day)					
	CO <sup>[a]</sup>	NO <sub>x</sub> <sup>[a]</sup>	SO <sub>x</sub> <sup>[b]</sup>	VOC <sup>[b]</sup>	PM <sub>10</sub> <sup>[b]</sup>	PM <sub>2.5</sub> <sup>[b], [c]</sup>
Baseline	86	354	121	1,176	704	704
On-site emissions	630	1,048	161	1,568	939	939
Off-site emissions	1.6	0.2	<0.1	0.2	0.2	0.2
Total operational emissions	632	1,048	161	1,568	939	939
Incremental emissions	545	695	40	392	235	235
Significance threshold	550	55	150	55	150	55
<b>Significant?</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>

a. Maximum emissions occur when digester gas is combusted in the CTGs.

b. Maximum emissions occur when digester gas is combusted in the flares.

c. PM<sub>2.5</sub> is assumed equal to PM<sub>10</sub>.

- Table 3-8 in Section 3.1.3.3.2. on page 32. Add a line for NO<sub>2</sub> 1-hour (98<sup>th</sup> %), modify the CO concentration, and revised footnotes as follows:

**Table 3-8. Maximum Incremental Ambient Air Quality Impacts**

Pollutant	Averaging Time	Maximum Concentration from Proposed Project (µg/m <sup>3</sup> )	Background Pollutant Concentration (µg/m <sup>3</sup> )	Maximum Proposed Project + Background Concentration (µg/m <sup>3</sup> )	SCAQMD Threshold (µg/m <sup>3</sup> )	Above SCAQMD Threshold?
<b>Proposed Project<sup>[a]</sup></b>						
NO <sub>2</sub> <sup>[b],[c]</sup>	1-hour <sup>[d]</sup>	30.8	207	238	339	No
	<u>1-hour (98<sup>th</sup> %)<sup>[d]</sup></u>	<u>17.3</u>	<u>123</u>	<u>140</u>	<u>188</u>	<u>No</u>
	Annual	4.6	30	34	57	No
CO	1-hour	<del>7.6</del> <u>42.1</u>	3,435	<del>3,443</del> <u>3,477</u>	23,000	No
	8-hour	<del>3.3</del> <u>31.1</u>	2,519	<del>2,522</del> <u>2,550</u>	10,000	No
<b>Incremental Analysis<sup>[a]</sup></b>						
PM <sub>10</sub>	24-hour	11.9	N/A	N/A	2.5	<b>Yes</b>
	Annual	0.8	N/A	N/A	1.0	No
PM <sub>2.5</sub> <sup>[e]</sup>	24-hour	11.9	N/A	N/A	2.5	<b>Yes</b>
SO <sub>2</sub>	1-hour	10.6	N/A	N/A	196	No
	24-hour	2.0	N/A	N/A	105	No
Sulfates <sup>[f]</sup>	24-hour	--	N/A	N/A	25	N/A

N/A - Not Applicable

<sup>[a]</sup> PM<sub>10</sub>, PM<sub>2.5</sub>, and sulfates are incremental impacts from the proposed project's emissions. Impacts for NO<sub>2</sub> and CO are added to background pollutant concentrations and compared to thresholds. Although flare NO<sub>2</sub> emissions are lower than for the CTGs, the ambient concentrations are higher because the flares are ground-level and nearer to the fenceline. CO impacts have been re-calculated for worst-possible concentration impacts (CTG emissions).

<sup>[b]</sup> NO<sub>2</sub> concentration assumes full conversion of NO<sub>x</sub> to NO<sub>2</sub>.

<sup>[c]</sup> Data from the Southwest Coastal Los Angeles County monitor in 2011 for NO<sub>2</sub> (maximum) and in 2010 for CO (maximum) based on most recent data availability. Note that the 2007 AQMP projects that NO<sub>x</sub> emissions in the Basin will decrease by nearly an order of magnitude by 2030 (see Section 5, Figure 5-8 5-16). Given these projections for NO<sub>x</sub> emissions, it is likely that the background NO<sub>2</sub> concentrations will also decrease by 2030.

<sup>[d]</sup> ~~There is a~~ The new federal 1-hour NO<sub>2</sub> standard of 0.100 ppm corresponding to 188 µg/m<sup>3</sup>. The SCAQMD is currently evaluating, and has not yet updated, its CEQA significance thresholds and handbook to add a new significance threshold corresponding to this new standard.<sup>13</sup> The proposed project's impacts for this new federal standard would be 149 µg/m<sup>3</sup> based on the 98<sup>th</sup> percentile result. Thus, the proposed project's impacts are below both the established SCAQMD threshold as well as the new federal standard.

<sup>[e]</sup> PM<sub>2.5</sub> is assumed to be equal to PM<sub>10</sub>.

<sup>[f]</sup> See discussion in text regarding sulfates.

<sup>13</sup> Personal communication with Ian MacMillan at the SCAQMD. May 2013.

- Section 3.2.1, page 34, second paragraph. Add the following language after the last sentence in the current paragraph:

“An oxidation catalyst may be installed as part of the proposed project. The oxidation catalyst was included and analyzed in the Initial Study. No hazardous materials are associated with the oxidation catalyst and no impacts are expected.”

- Section 3.4.3.2 Baseline for Greenhouse Gases, on page 57 of the Draft EIR. In the partial sentence at the beginning of the first paragraph, replace January 31, 2015, with December 31, 2016, to read as follows:

“gas to the SGS expires on ~~January 31, 2015~~ December 31, 2016.”

- Table 3-19 in Section 3.4.3.3. on page 59. Under the GHG Emissions – Non-biogenic heading for Incremental Emissions, replace -50,782 with -50,872 as follows:

**Table 3-19 Total Incremental Change in GHG Emissions from the Proposed Project Baseline**

Summary of Incremental Project Emissions	GHG Emissions – Non-biogenic (MT CO <sub>2</sub> e/yr)	GHG Emissions – Biogenic (MT CO <sub>2</sub> e/yr)
Baseline <sup>[1]</sup>	79	2,857
<b>Project</b>		
Amortized construction emissions <sup>[2]</sup>	29.0	0
Operational emissions (direct)	77,994	113,691
Operational emissions (indirect) <sup>[3]</sup>	128,816	0
<i>Subtotal</i>	<i>-50,793</i>	<i>113,691</i>
<b>Incremental Emissions</b>	<b><del>-50,782</del> -50,872</b>	<b>110,834</b>

<sup>1</sup> Assumes 100% combustion of digester gas at HTP (i.e., in boiler for steam production and flaring). Note that an average of 7.2 MMscfd of digester gas is being combusted at SGS; these emissions are not being included in the project background but would exist in the global baseline.

<sup>2</sup> Construction emissions are amortized over 30 years per SCAQMD guidance.

<sup>3</sup> Indirect emissions represent emissions associated with generating 22 MW (192,720 MWh) offsite. These represent a reduction in total incremental emissions for the proposed project because the electricity is generated onsite and accounted for in the operational emissions, thus offsetting offsite emissions.

- Section 3.4.3.3, subheading Operation, page 58. Add the following sentence after the second sentence as follows:

“... of the installed equipment. An oxidation catalyst may be installed as part of the proposed project. The oxidation catalyst was analyzed and included in the Initial Study. The estimated number of delivery trucks includes the delivery of replacement catalysts if the oxidation catalyst is installed. Thus, there are no changes to these assumptions if the oxidation catalyst is installed.”

### 3.5 Alternatives

The Alternatives of the Draft EIR have been modified to correct minor errors in the Draft EIR.

- Section 4.1 Introduction, on page 61 of the Draft EIR. In Item 5, replace January 2015 with December 2016 to read as follows;

“5. Prevent flares from operating continuously to dispose of digester gas when it can no longer be sent to SGS (i.e., post-~~January 2015~~ December 2016); and”

- Table 4-1, Section 4.2, page 63. Modify the table as shown below:

Project	2011 Baseline	Project	Alt 1 - No Project	Alt 2 - 2 CTGs	Alt 3 - Gas sales	Alt 4 - Alternate Power Equipment
<b>Project Description</b>						
Digester gas flow <sup>[a]</sup>	7.2 MMscfd	9.6 MMscfd	9.6 MMscfd	9.6 MMscfd	9.6 MMscfd	9.6 MMscfd
Electricity Produced	0 MW	34 MW	0 MW	31 MW	0 MW	Variable
<b>New Equipment</b>						
# of CTGs (11.35 MW each)		3		2		
# of STGs		2		2		
Black-start generator		X		X		
Boilers					X <sup>[e][b]</sup>	
Thermal Oxidizer (New gas cleanup; Flare)		X <sup>[b][c][d]</sup>		X <sup>[b][c][d]</sup>	X <sup>[e][d]</sup>	
Fuel cleaning system (FCS), including PSA					X	
On-site vehicle alternative fueling station					X	
CNG fueling station					X	
Alternative power equipment						X <sup>[e][e]</sup>
Aqueous Ammonia tank		X		X		
<b>Existing Equipment</b>						
Emergency generator <sup>[e]</sup>	X	X	X	X	X	X
Boilers	X <sup>[f][g][h]</sup>	X <sup>[b][c]</sup>	X	X <sup>[b][c]</sup>	X <sup>[e][b]</sup>	
Flare	X <sup>[e][b]</sup>	X <sup>[b][c]</sup>	X	X <sup>[b][c]</sup>	X	X
<b>Full Analysis in the EIR?</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>No<sup>[h][i]</sup></b>	<b>No<sup>[h][i]</sup></b>

<sup>a</sup> The proposed project and alternatives have been revised to reflect CO control technology (e.g., oxidation catalyst system) and/or a maximum gas throughput (digester gas plus natural gas, in any combination from 0% to 40% natural gas) consistent with regional incremental CO impacts that are less than significant, to address potential issue in air permitting.

<sup>b</sup> A new boiler would be installed to produce steam. The existing boiler would remain standby.

<sup>c</sup> Standby only.

<sup>d</sup> One thermal oxidizer would run approximately 24 hours per day.

<sup>e</sup> Engines, fuel cells, or alternative equipment would be used.

<sup>f</sup> Testing and maintenance only.

<sup>g</sup> Any digester gas that is not currently sent to Scattergood is used in the existing standby boilers to produce process steam.

<sup>h</sup> Excess digester gas (currently remaining after gas sent to Scattergood) is combusted in the existing flares.

<sup>i</sup> A reduced analysis would be included in the EIR because this alternative is not feasible and/or does not meet the project's key purpose and need.

Note: HTP electrical requirement is 22 MW.

- Section 4.2.2.1., on page 64 of the Draft EIR. Add the following language after the last sentence in the last paragraph:

“The proposed project has been revised to reflect use of carbon monoxide (CO) control technology (e.g., an oxidation catalyst system) and/or a maximum gas throughput consistent with regional incremental CO impacts that are less than significant, to address potential issue in air permitting.”
- Section 4.2.2.2., on page 65 of the Draft EIR. In the fourth sentence, replace January 2015 with December 2016 to read as follows:

“Because the digester gas would no longer be sent to SGS after ~~January 2015~~ December 2016, it would be either combusted in the existing boilers, if steam is needed or, if steam is not needed, flared.”
- Section 4.2.2.3., on page 65 of the Draft EIR. Add the following language after the last sentence in the first paragraph:

“The proposed project has been revised to reflect the use of CO control technology (e.g., an oxidation catalyst system) and/or a maximum gas throughput (digester gas plus natural gas, in any combination from 0% up to 40% natural gas) consistent with regional incremental CO impacts that are less than significant, to address potential issues in air permitting.”
- Table 4-3, Section 4.2.4., on page 68 of the Draft EIR. Modify the table title as follows:

“Table 4-3a Comparison of Maximum Daily Operational Emissions (Combustion in Flare)”
- Section 4.2.4., on page 68 of the Draft EIR. Add Table 4-3b as shown below:

**Table 4-3b. [New table] Comparison of Maximum Daily Operational Emissions (Any Operating Scenario)**

Emission Source	Maximum Daily Emissions (lb/day)					
	CO <sup>[a]</sup>	NO <sub>x</sub> <sup>[a]</sup>	SO <sub>x</sub> <sup>[b]</sup>	VOC <sup>[b]</sup>	PM <sub>10</sub> <sup>[b]</sup>	PM <sub>2.5</sub> <sup>[b],[c]</sup>
Baseline	86	354	121	1,176	704	704
Proposed Project						
Total Emissions	632	1,048	161	1,568	939	939
Incremental Emissions	545	695	40	392	235	235
Alternative 1 (No Project)						
Total Emissions	115	471	161	1,568	939	939
Incremental Emissions	29	118	40	392	235	235
Alternative 2						
Total Emissions	562	938	161	1,568	939	939
Incremental Emissions	475	584	40	392	235	235
Significance threshold	550	55	150	55	150	55

a. Maximum day emissions occur when the digester gas is combusted in the CTGs.

b. Maximum day emissions occur when the digester gas is combusted in the flares.

c. PM<sub>2.5</sub> is assumed equal to PM<sub>10</sub>.

### 3.6 Additional CEQA Considerations

There are no clarifications and modifications to this section of the Draft EIR.

### 3.7 References

There are no clarifications and modifications to this section of the Draft EIR.

### 3.8 List of Preparers

There are no clarifications and modifications to this section of the Draft EIR.

### 3.9 Appendices

The Appendices of the Draft EIR have been modified to address comments received on the Draft EIR.

- Table 3-10 in Appendix D, Attachment A on page A-12: Add in 1-hour NO<sub>2</sub> results and add a row for average values as follows:

**Revision to Appendix D Table 3-10: Historical Ambient Air Concentration Levels (standard units)**

Year	NO <sub>2</sub> (ppb)			CO (ppm)		PM <sub>10</sub> (µg/m <sup>3</sup> )		PM <sub>2.5</sub> (µg/m <sup>3</sup> )		SO <sub>2</sub> (ppb)	
	1-hour (98th %)	1-hour	Annual	1-hour	8-hour	24-hour	Annual	24-hour	Annual	1-hour	24-hour
2009	70	<u>110</u>	15.9	2	1.9	52	25.4	--	--	20	6
2010	60.9	<u>75.8</u>	12.1	3	2.2	37	20.6	--	--	25.9	3.5
2011	64.8	<u>97.6</u>	13.4	-	1.8	41	21.7	41	21.7	11.5	8.3
<b>Avg</b>	<b><u>65.2</u></b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Max</b>	<b><u>79</u></b>	<b><u>110</u></b>	<b>15.9</b>	<b>3</b>	<b>2.2</b>	<b>52</b>	<b>25.4</b>	<b>41</b>	<b>22</b>	<b>25.9</b>	<b>8.3</b>

- Table 3-12 in Appendix D, Attachment A on page A-13: Add a row for average values as follows:

**Revision to Appendix D Table 3-12: Historical Ambient Air Concentration Levels (µg/m<sup>3</sup>)**

	NO <sub>2</sub> (µg/m <sup>3</sup> )			CO (µg/m <sup>3</sup> )		PM <sub>10</sub> (µg/m <sup>3</sup> )		PM <sub>2.5</sub> (µg/m <sup>3</sup> )		SO <sub>2</sub> (µg/m <sup>3</sup> )	
	1-hour (98th %)	1-hour	Annual	1-hour	8-hour	24-hour	Annual	24-hour	Annual	1-hour	24-hour
<b>Avg</b>	<b><u>123</u></b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Max</b>	<b><u>434.7</u></b>	<b><u>207</u></b>	<b>30</b>	<b>3435</b>	<b>2519</b>	<b>52</b>	<b>25.4</b>	<b>41</b>	<b>22</b>	<b>67.8</b>	<b>21.7</b>

- Table 3-13 in Appendix D, Attachment A on page A-13. Replace total Project results with incremental (i.e., Project minus baseline) results to be consistent with the results reported in the EIR as follows:

**Table 3-13. Ambient Air Modeling Results Compared to CEQA Significance Thresholds**

Pollutant	Averaging Time	Maximum Concentration from Proposed Project (µg/m <sup>3</sup> )	Background Concentration (µg/m <sup>3</sup> )	Maximum Proposed Project + Background Concentration (µg/m <sup>3</sup> )	SCAQMD Threshold (µg/m <sup>3</sup> )	Above SCAQMD Threshold?
<b>Proposed Project<sup>[a]</sup></b>						
NO <sub>2</sub> <sup>[b],[c]</sup>	1-hour <sup>[d]</sup>	<del>79.6</del> <u>30.8</u>	<del>432</del> <u>207</u>	<del>211</del> <u>238</u>	339	No
	<u>1-hour (98<sup>th</sup> %)</u> <sup>[d]</sup>	<u>17.3</u>	<u>123</u>	<u>140</u>	<u>188</u>	<u>No</u>
	Annual	<del>4.7</del> <u>4.6</u>	30	<del>35</del> <u>34</u>	57	No
CO	1-hour	<del>32.2</del> <del>7.6</del> <u>42.1</u>	3,435	<del>3,467</del> <del>3,443</del> <u>3,477</u>	23,000	No
	8-hour	<del>44.1</del> <del>3.3</del> <u>31.1</u>	2,519	<del>2,533</del> <del>2,522</del> <u>2,550</u>	10,000	No
<b>Incremental Analysis<sup>[a]</sup></b>						
PM <sub>10</sub>	24-hour	<del>58.0</del> <u>11.9</u>	--	--	2.5	<b>Yes</b>
	Annual	<del>4.4</del> <u>0.8</u>	--	--	1.0	No
PM <sub>2.5</sub> <sup>[e]</sup>	24-hour	<del>58.0</del> <u>11.9</u>	--	--	2.5	<b>Yes</b>
	Annual	<del>4.2</del> <u>0.8</u>	--	--	--	--
SO <sub>2</sub>	1-hour	<del>44.9</del> <u>10.6</u>	--	--	196	No
	24-hour	<del>9.9</del> <u>2.0</u>	--	--	105	No



- Add a Table A-12a in Appendix D, Appendix A after page A-8. Add a table with hourly TAC emission rates used with HARP as follows:

**Additional Table A-12a: Maximum Hourly Toxic Air Contaminant Emission Comparison (lb/hour).**

Pollutant	CAS	2011 Baseline		Incremental Change					
				DGUP Project (Constellation)		Alternative 1 - No Project		Alternative 2: Two Turbines	
		lbs/day	lbs/hr	lbs/day	lbs/hr	lbs/day	lbs/hr	lbs/day	lbs/hr
1,3 Butadiene	106990	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Cadmium	7440439	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Carbon Tetrachloride	56235	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Ethylene dichloride	107062	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Benzene	71432	1.14	0.0477	0.38	0.0159	0.38	0.0159	0.38	0.0159
Formaldehyde	50000	8.42	0.3507	2.81	0.1169	2.81	0.1169	2.81	0.1169
Arsenic	7440382	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Lead	7439921	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Methylene chloride	75092	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Nickel	7440020	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Perchloroethylene	127184	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Trichloroethylene	79016	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Vinyl chloride	75014	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Total PAH	1151	0.02	0.0009	0.01	0.0003	0.01	0.0003	0.01	0.0003
Naphthalene	91203	0.08	0.0033	0.03	0.0011	0.03	0.0011	0.03	0.0011
Acetaldehyde	75070	0.31	0.0129	0.10	0.0043	0.10	0.0043	0.10	0.0043
Acrolein	107028	0.07	0.0030	0.02	0.0010	0.02	0.0010	0.02	0.0010
Ammonia	7664417	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Chloroform	67662	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
1,4 Dichlorobenzene	106467	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Selenium	7782492	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Ethyl benzene	100414	10.40	0.4332	3.47	0.1444	3.47	0.1444	3.47	0.1444
Hexane	110543	0.21	0.0087	0.07	0.0029	0.07	0.0029	0.07	0.0029
Propylene oxide	75569	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Toluene	108883	0.42	0.0174	0.14	0.0058	0.14	0.0058	0.14	0.0058
Xylene	1330207	0.21	0.0087	0.07	0.0029	0.07	0.0029	0.07	0.0029
Hexavalent chromium	18540299	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Copper	7440508	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Manganese	7439965	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Mercury	7439976	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
DPM	9901	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

**Appendix A**  
**Notice of Availability**  
**and**  
**Notice of Completion**

**Appendix B**  
**Draft EIR Mailing List and Newspaper Notice**

**Appendix C**  
**Public Workshop Sign-In Sheet**