## Appendix D3: El Segundo Repower: Dynergy/NRG 630 MW Project 301 Vista Del Mar

Environmental Topic	Impact(s)	Mitigation	Conclusion
Aesthetics (Visual Resources) - Construction	<ul> <li><b>PROJECT SPECIFIC:</b> Construction activities proposed at the tank farm staging and laydown site are a primary concern of residents in Manhattan Beach. The period of construction could extend for up to 3-1/2 years, and result in significant adverse effects if unmitigated. Under the applicant's proposed Tank Farm Plan the existing abandoned storage tanks would be converted into dome structures, which would visually shield and contain most construction activities and lighting to less than significant levels. The applicant has also proposed related construction measures, such as control of vehicle head light glare at night. With these measures, as described under recommended applicant's Tank Farm Plan, together with perimeter landscaping as described in applicant's conceptual landscape plan.</li> <li><b>CUMULATIVE:</b> No reasonably foreseeable future cumulative projects were identified. The only available parcel capable of future development of that site is not currently anticipated.</li> </ul>	<ul> <li>Before starting construction, the project owner shall complete a comprehensive visual enhancement plan that includes architectural screening, landscaping, painting, lighting, and other measures that result in an overall enhancement of views of the facility from areas accessible to the public. The plan shall be made available for review and comment by the Executive Director of the Coastal Commission and for review and approval by the Energy Commission.</li> <li>The project owner shall install architectural screening to cover the outer framework of the structures of the new proposed Units 5 through 7 and reduce visibility of mechanical equipment below 125 feet elevation of the superstructures to the extent determined to be feasible in the Energy Commission's decision. Such screening shall conform to the requirements of the Energy Commission's decision.</li> <li>Prior to demolition of existing storage tanks, the project owner shall modify Unit 3 and 4 permanent lighting, such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project, the vicinity, and the nighttime sky is minimized. <i>To meet these requirements the project owner shall ensure that:</i> <ul> <li>a) Lighting shall be designed so exterior light fixtures are hooded, with light solirected downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light source is shielded to prevent light trespass outside the project boundary;</li> <li>b) All lighting shall be of minimum necessary brightness consistent with worker safety;</li> <li>c) Project owner shall implement where feasible and practical modifications of circuits in order to allow turning off specific lights when not in use;</li> <li>d) A lighting complaint resolution form shall be used</li> </ul></li></ul>	Mitigated to less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
		<ul> <li>by plant operations to record all lighting complaints received and document the resolution of those complaints. All records of lighting complaints shall be kept in the on-site compliance file.</li> <li>Prior to site mobilization, the project owner shall ensure that lighting for construction of the power plant is used in a manner that minimizes potential night lighting impacts, as follows: <ul> <li>a) All lighting shall be of minimum necessary brightness consistent with worker safety.</li> <li>b) All fixed position lighting shall be shielded, hooded, and directed downward to minimize backscatter to the night sky and prevent light trespass (direct lighting extending outside the boundaries of the construction area).</li> <li>c) Wherever feasible and safe, lighting shall be kept off when not in use and motion detectors shall be employed.</li> <li>d) A lighting complaint resolution form shall be maintained by plant construction management, to record all lighting in the tank farm area shall be limited to the hours of 7:30 a.m. to 6:00 p.m. except as necessary for safety or security purposes.</li> </ul> </li> <li>Temporary landscaping shall be installed prior to the start of ground disturbing activities at the site in those opportunity areas that do not create a hindrance to construction activities. Temporary landscaping shall be maintained for the duration of construction, and shall be designed to the extent feasible to be retained permanently as part of the perimeter landscaping plan.</li> </ul>	
Aesthetics (Visual Resources) - Operation	<b>PROJECT SPECIFIC:</b> Impact severity or anticipated degree of visual change due to introduction of proposed project structures from middle-ground viewpoints (over ½ mile distance) were	• To partially screen vertically prominent features from off-site foreground viewpoints, the applicant should implement a perimeter landscape plan, similar to that	Mitigated to less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	<ul> <li>considered to be weak to negligible due to low levels of contrast with existing conditions, low levels of visual dominance, and negligible view blockage effects. Combined with low to moderate levels of overall visual sensitivity due mainly to distance, and in particular, because significant impacts in this distance zone are not anticipated as a result of project vapor plumes significant impacts are not anticipated. Due to the prominence of the proposed structures above the level of Vista del Mar, unmitigated night lighting has the potential to have a significant adverse impact on motorists and visitors at Dockweiler Beach at night. In addition, the removal of existing storage tanks after completion of construction would expose views of night lighting and ground-level lighting to the view of residents on 45th Street. Without mitigation this could also represent a significant adverse impact. Impacts to residents in this area due to lighting at the proposed units are not anticipated because of its obscuration by the intervening existing units.</li> <li><b>CUMULATIVE:</b> Potential project contributions to cumulative visible vapor plume impacts when combined with existing plumes of Units 3 and 4 and the Scattergood Plant, are sufficiently infrequent that staff considered these to be <i>de minimis</i> and less than significant.</li> </ul>	<ul> <li>depicted in the applicant's revised Conceptual Landscape Plan and modified as feasible to incorporate recommendations by the Cities of El Segundo and Manhattan Beach and the Coastal Commission, following their review of final plans. At a minimum such plan shall include: continuous tree canopies on the eastern roadside perimeter to enhance visual unity of the road corridor, compatibility of the project with its coastal setting; shrub plantings to screen views of the structures, while preserving perpendicular view corridors to the Bay; landscape screening along 45th Street reflecting comments by the City of Manhattan Beach and the Coastal Commission, to provide long-term screening of the tank farm site; tree planting on the western site perimeter to screen upper portions of Units 3 and 4 from the bike path; and landscape planting in the vicinity of the proposed seawalls as depicted in the revised Landscape Plan, in order to mitigate loss of landscaping in that area. The plan shall utilize native or non-invasive plant material.</li> <li>The project owner shall construct the proposed seawall with architectural design treatment to reduce visual monotony, enhance design quality and interest, and discourage graffiti. Techniques may include precast or cast-in-place texturing, split-faced concrete block, or other methods feasible to produce a textured surface.</li> <li>Prior to the start of commercial operation, the project owner shall paint or treat portions of Units 5, 6 and 7 structures visible to the public, such that their colors minimize visual intrusion and contrast by blending with the landscape; their surfaces do not create glare; and they are consistent with local laws, rdinances, regulations, and standards.</li> <li>Prior to the start of commercial operation, the project owner shall design and install new permanent lighting for Units 5, 6 and 7, such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and</li> </ul>	

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		<ul> <li>illumination of the project, the vicinity, and the nighttime sky is minimized. <i>To meet these requirements the project owner shall ensure that</i>:</li> <li>a) Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light source is shielded to prevent light trespass outside the project boundary;</li> <li>b) All lighting shall be of minimum necessary brightness consistent with worker safety;</li> <li>c) Wherever feasible and safe, lighting shall be used by plant operations to record all lighting complaints received and document the resolution of those complaints. All records of lighting complaints shall be kept in the on-site compliance file.</li> </ul>	
Agricultural (and Soil) Resources - Construction	Not evaluated in the document	Not evaluated in the document	Not evaluated in the document
Agricultural (and Soil) Resources - Operation	PROJECT SPECIFIC: CUMULATIVE:		Less than significant.
Air Quality - Construction	<ul> <li>PROJECT SPECIFIC: Fugitive dust is generated from the construction activity and combustion emissions from the equipment.</li> <li>CUMULATIVE: Evaluated those probable future projects in our cumulative impacts analysis that are currently under construction, or are currently under District review. Projects located up to six miles from the proposed facility site usually need to be included in the analysis. Historic and current emissions sources are represented by adding the modeled expected future project emission impacts to the measured background ambient air quality conditions. The list included the Redondo Beach Power Plant, the Scattergood Power Plant, the nearby Chevron refinery and the Los</li> </ul>	Since the general public live and work in the vicinity of the project site, the construction of the project may result in unavoidable short-term impacts that may expose the general public to adverse air quality conditions. Thus, staff believes that the impact from the construction of the project could have a significant and unavoidable impact on the PM10 ambient air quality standards, and should be mitigated, to the extent feasible. The Construction Mitigation Manager shall be responsible for implementing all mitigation measures related to construction, including preparation and submittal for approval a Fugitive Dust Mitigation Plan, Diesel Construction Equipment Mitigation Plan and Monthly	Significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	Angeles International Airport. Upon further investigation by both the ESPII and Energy Commission staff, it was revealed that the Redondo Beach, Scattergood and LAX sources are reducing emissions through added control technologies. The actions taken at the Chevron Refinery will result in a decrease in NOx emissions, but an increase in SOx, CO, VOC and PM10. The increase in PM10 emissions is of the greatest concern, since the SCAQMD is not in attainment for the 24-hour or annual PM10 ambient air quality standards. If left unmitigated, staff would consider the El Segundo project contribution to this cumulative impact significant.	<ul> <li>Construction Compliance Report. Specific mitigation measures include:</li> <li>the use of catalyzed diesel particulate filters (CDPF);</li> <li>the use of CARB certified ultra low sulfur diesel fuel, containing 15ppm sulfur or less (ULSD);</li> <li>the use of diesel engines certified to meet EPA and/or CARB 1996 or better off-road equipment emission standards.</li> <li>the practice of restrictingdiesel engine idle time, to the extent practical, to no more than 10 minutes.</li> </ul>	
Air Quality - Operation	<ul> <li>PROJECT SPECIFIC: Operating emissions for the project include emission from the combustion turbines, the gas-fired HRSGs (duct firing) and, for purposes of evaluating cumulative impacts, the existing boilers. Due to the large combustion turbines used in this project and the need to control NOx emissions, significant amounts of ammonia will be injected into the flue gas stream as part of the SCR system. Potential for direct, cumulative and secondary impacts on PM10 ambient air quality conditions have not been mitigated to a level of insignificance. Emissions of PM10 and SO2 are not fully mitigated and thus can be expected to cause or contribute to a new violation of the 24-hour PM10 standards (both federal and state) if left unmitigated.</li> <li>CUMULATIVE: As noted above in the Air Quality construction cumulative discussion, the actions taken at the Chevron Refinery will result in a decrease in NOx emissions, but an increase in SOx, CO, VOC and PM10. The increase in PM10 emissions is of the greatest concern, since the SCAQMD is not in attainment for the 24-hour or annual PM10 ambient air quality standards. If left unmitigated, staff would consider the El Segundo project contribution to this cumulative impact significant.</li> </ul>	GE Frame 7FA turbines shall be equipped with control technology such as SCRs and oxidation catalysts. The operator shall not operate at the El Segundo Power Generation facility combined cycle turbines No. 5 and No. 7 unless prior to the initial operation, the operator demonstrates to the Executive Officer that the facility holds RTCs in the amount of 297,651 lbs for the initial compliance year. The operator shall install and maintain a flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia (NH3) to the SCR. The operator shall install and maintain a temperature gauge to accurately indicate the temperature in the exhaust at the inlet to the SCR reactor. The operator shall install and maintain a pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches water column.	Significant
Biological Resources – Construction	<b>PROJECT SPECIFIC:</b> No significant adverse biological impacts are expected from site preparation and construction of the proposed ESGS project. The proposed project includes construction of a 630 MW, combined cycle power plant within the footprint of two existing units that will be demolished. Because the plant site is void of native biological resources, construction	Impacts from construction not significant and no construction mitigation measures identified in the document.	Less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	activities would not result in significant impacts to such resources. <b>CUMULATIVE:</b> Not identified in document		
Biological Resources - Operation	<ul> <li>PROJECT SPECIFIC: Two 215-foot high stacks will replace the two existing 210-foot high exhaust stacks on site. These structures may present a collision hazard to birds, especially migrating waterfowl or other insectivorous species that migrate at night. The contribution of the two replacement stacks to bird mortalities from collisions is not expected to be significantly greater from existing impacts, given the small, 5-foot difference in height between the existing and replacement stacks. Staff concludes that the direct entrainment, impingement and thermal discharge impacts from the proposed once-through cooling water system will be adverse and potentially significant.</li> <li>CUMULATIVE: The cumulative impacts of the proposed project will cause significant adverse impacts on marine organisms. In addition to the proposed project, there are two other power plants that draw cooling water from the ocean in southeast Santa Monica Bay. these two power plants may withdraw close to 10% of the shallow waters containing the marine organisms living in central Santa Monica Bay. In the absence of sound scientific evidence to the contrary, it is reasonable to conclude that the proposed ESGS, in combination with other existing facilities now operating nearby, will cause significant adverse impacts on the marine organisms of Santa Monica Bay. Cumulative adverse impacts of coastal power plant intakes on marine resources are particularly important because Southern California zooplankton biomass and many nearshore fish species have declined dramatically since the 1970s and Santa Monica Bay has been listed as an impaired water body for several pollutants including heavy metals, debris, pesticides, polyaromatic hydrocarbons, and polychlorinated biphenyls.</li> </ul>	<ul> <li>The Applicant will select lighting fixtures and arrangements with consideration for minimizing potential collision hazards while maintaining Federal Aviation Administration safety standards.</li> <li><i>Proposes the following three mitigation measures that are relevant to biological resources at the site:</i> <ul> <li>Impacts to ornamental vegetation on the cut-slope on the north side of the existing facility will be mitigated by landscaping this area following disturbance;</li> <li>The existing cooling water intake structure with its velocity cap will be maintained and the Applicant will continue to monitor and report fish impingement and the presence/absence of the federally listed Endangered green sea turtle in the vicinity of the intake structure, as required under the current program; and</li> <li>The Applicant will initiate a pilot project to investigate the feasibility of removing fish prior to heat treatment through deployment of a modified beach seine to scoop fish out of the forebay of the cooling water system, prior to heat treatment, and return the fish to the ocean.</li> </ul> </li> </ul>	Significant
Cultural Resources - Construction	<b>PROJECT SPECIFIC:</b> Because project-related site development and construction would entail ground disturbance, the proposed project has the potential to adversely affect previously unknown cultural resources. The proposed power plant location yielded no physical evidence of cultural resources. There are four previously identified prehistoric sites within one-quarter mile of the project	Cultural resource monitoring during ground disturbance will be necessary to mitigate any potential impacts to previously undiscovered resources. For cultural resources, the preferred method of mitigation is for project construction to avoid areas where cultural resources are known to exist, wherever possible. Often,	Less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	area. The water pipeline route chosen by the applicant will avoid two historic properties and one historic district. <b>CUMULATIVE:</b> The potential for cumulative impacts may be associated with the degree of prehistoric and historic sensitivity. The ESPR site would be located in an area where both historic properties and archaeological sites have previously been identified. Most of the area proposed for use by the El Segundo project has already been disturbed by development. Therefore, cumulative impacts are not an issue at this time. Proposed developments such as the power plant and its associated linear facilities in conjunction with other development projects would not alter the amount of land currently exposed to public access and/or the potential removal or damage to cultural resources. The combined effects of development may accelerate the potential for impacts to cultural resources, but not in this case.	however, avoidance cannot be achieved, and other measures such as surface collection, subsurface testing, and data recovery must be implemented. Mitigation measures are developed to reduce the potential for adverse project impacts on cultural resources to a less than significant level. <i>The following mitigation program</i> <i>is recommended:</i> • Avoidance • Physical demarcation and Protection • Crew Education • Archaeological Monitoring • Native American Monitoring • Formal Compliance with CEQA Sections 15064.5 and 15126.4	
Cultural Resources - Operation	Not identified in document	None identified in document	Not identified in document
Energy	Not evaluated in document	Not identified in document	Not identified in document
Geology - Construction	<ul> <li>PROJECT SPECIFIC: No active faults are known to cross thepower plant footprint. A number of active faults lie within a 25-mile radius of the site. The Applicant has acknowledged that the site is located in an area with moderate to high liquefaction potential. The project site is located in an area mapped as liquefaction hazard zone. The potential for significant compaction due to hydrocompaction is considered remote since the ground water table at the site is shallow. No landslides were observed on or adjacent to the proposed power plant footprint.</li> <li>CUMULATIVE: The potential for a significant adverse cumulative impact on paleontological resources, geological resources, or surface water hydrology is unlikely if the project is constructed according to the proposed conditions of certification. It is noted that the site is located near the El Segundo Oil Field; however, construction and operation of the ESPR would not be expected to affect the oil field or vice versa.</li> </ul>	<ul> <li>The applicant proposes to:</li> <li>replace structures designed under much older building codes with structures designed under current earthquake standards.</li> <li>conduct a detailed liquefaction analysis of the project site and linear facilities prior to the completion of the final design for the project</li> <li><i>Conditions of Certification</i>:</li> <li>Prior to the start of construction, the project owner shall assign to the project an engineering geologist(s) and a geotechnical engineer(s) certified by the State of California, to carry out the duties required by the 1998 edition of the California Building Code (CBC) Appendix Chapter 33, Section 3309.4. The certified engineer(s) assigned must be approved by the CBO and submitted to the Compliance Project Manager (CPM) for concurrence.</li> </ul>	Less than significant

Environmental Topic	Impact(s)	Mitigation	Conclusion
		<ul> <li>Prior to the initiation of ground disturbance, the owner shall have a liquefaction analysis conducted for the power plant site and adjacent existing cut slope to the east. The liquefaction analysis shall be implemented by following the recommended procedures contained in <i>Recommended Procedures for Implementation of California Division of Mines and Geology Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction Hazards in California dated March 1999.</i></li> <li>Prior to completion of the final design of the project, the owner shall have a slope stability analysis conducted for the existing cut slope east of Units 1 and 2. The analysis shall consider both static and earthquake conditions, as well as the effects of any liquefaction of the foundation soils. Since cohesionless soils may be present, the proposed 1.5:1 perimeter excavation should also be evaluated for stability, but only for static conditions.</li> <li>Applicant shall designate and use a Coastal or Geotechnical Engineer, or geologist familiar with geomorphology, to conduct a shoreline monitoring program and assess erosion on the beach area and at the foot of the revetment on an annual basis for at least ten years. Applicant shall report such results to the CPM and California Coastal Commission annually.</li> <li>The assigned engineering geologist(s) shall carry out the following duties:</li> <li>Prepare the Engineering Geology Report. This report shall accompany the Plans and Specifications when applying to the CBO for the grading permit.</li> <li>Monitor geologic conditions during construction.</li> </ul>	
		<ul> <li>The design for additional seawall or perimeter wall, including any necessary modifications to the existing seawall, shall be performed by a coastal engineer, geotechnical engineer, or engineering geologist, familiar with coastal processes and in accordance with</li> </ul>	

Geology - Operation       PROJECT SPECIFIC: No active faults are known to cross thepower plant footprint. A number of active faults lie within a 25- mile radius of the site. The Applicant has acknowledged that the site is located in an area with moderate to high liquefaction potential. The project site is located in an area mapped as liquefaction hazard zone. The potential for significant compaction due to hydrocompaction is considered remote since the ground water table at the site is shallow. No landslides were observed on or adjacent to the proposed power plant footprint.       The applicant proposes to: • replace structures designed under much olde codes with structures designed under current earthquake standards.         CUMULATIVE: The potential for a significant adverse cumulative impact on paleontological resources, geological resources, or surface water hydrology is unlikely if the project is constructed according to the proposed conditions of certification. It is noted that the site is located near the EI Segundo Oil Field; however, construction and operation of the ESPR would not be expected to affect the oil field or vice versa.       During demolition and construction an interim protection system will be placed in service possible during the demolition and construction of the proposed EI Segundo Power Redevelopment project thre is the potential for both small fires and major structural fires. Electrical sparks, combustion of fuel oil, natural gas or flammable liquids, explosions, and over-heated equipment may cause small fires. Major structural fires may develop from uncontrolled fires or be       During demolition and construction	Environmental Topic	Impact(s)	Mitigation	Conclusion
<ul> <li>the power plant footprint. A number of active faults lie within a 25-mile radius of the site. The Applicant has acknowledged that the site is located in an area with moderate to high liquefaction potential. The project site is located in an area mapped as liquefaction hazard zone. The potential for significant compaction due to hydrocompaction is considered remote since the ground water table at the site is shallow. No landslides were observed on or adjacent to the proposed power plant footprint.</li> <li>CUMULATIVE: The potential for a significant adverse cumulative impact on paleontological resources, geological resources, or surface water hydrology is unlikely if the project is constructed according to the proposed conditions of certification. It is noted that the site is located near the El Segundo Oil Field, however, construction and operation of the ESPR would not be expected to affect the oil field or vice versa.</li> <li>Hazards and Hazardous Materials - Construction</li> <li>Materials - Construction</li> <li>PROJECT SPECIFIC: A variety of hazardous materials are proposed for storage and use during the construction of the project ticuluding Gasoline, diesel, fuel oil, lubricants, solvents, adhesives, paint materials and welding gases are listed for use during construction. During demolition and construction of the proposed EI Segundo Power Redevelopment project there is the potential for both small fires and major structural fires. Electrical sparks, combustion of fuel oil, natural gas or flammable liquids, explosions, and over-heated equipment may cause small fires. be</li> </ul>			the requirements of the California Coastal Commission Procedural Memo #19 (July 29, 1992).	
resources, or surface water hydrology is unlikely if the project is constructed according to the proposed conditions of certification. It is noted that the site is located near the El Segundo Oil Field; however, construction and operation of the ESPR would not be expected to affect the oil field or vice versa.During demolition and construction an interim proposed for storage and use during the construction phase of the project including Gasoline, diesel, fuel oil, lubricants, solvents, adhesives, paint materials and welding gases are listed for use during construction. During demolition and construction of the proposed El Segundo Power Redevelopment project there is the potential for both small fires and major structural fires. Electrical sparks, combustion of fuel oil, natural gas or flammable liquids, explosions, and over-heated equipment may cause small fires. Major structural fires may develop from uncontrolled fires or beDuring demolition and construction is unitable in place.	Geology - Operation	<ul> <li>thepower plant footprint. A number of active faults lie within a 25-mile radius of the site. The Applicant has acknowledged that the site is located in an area with moderate to high liquefaction potential. The project site is located in an area mapped as liquefaction hazard zone. The potential for significant compaction due to hydrocompaction is considered remote since the ground water table at the site is shallow. No landslides were observed on or adjacent to the proposed power plant footprint.</li> <li>CUMULATIVE: The potential for a significant adverse</li> </ul>	<ul> <li>replace structures designed under much older building codes with structures designed under current earthquake standards.</li> <li>conduct a detailed liquefaction analysis of the project site and linear facilities prior to the completion of the</li> </ul>	Less than significant
Materials - Constructionproposed for storage and use during the construction phase of the project including Gasoline, diesel, fuel oil, lubricants, solvents, adhesives, paint materials and welding gases are listed for use during construction. During demolition and construction of the proposed El Segundo Power Redevelopment project there is the potential for both small fires and major structural fires. Electrical sparks, combustion of fuel oil, natural gas or flammable liquids, explosions, and over-heated equipment may cause small fires. Major structural fires may develop from uncontrolled fires or beprotection system will be in place. The permar fire protection system will be placed in service possible during the demolition and construction		resources, or surface water hydrology is unlikely if the project is constructed according to the proposed conditions of certification. It is noted that the site is located near the El Segundo Oil Field; however, construction and operation of the ESPR would not be expected to affect the oil field or vice versa.		
caused by large explosions of natural gas or other flammable gasses or liquids.		proposed for storage and use during the construction phase of the project including Gasoline, diesel, fuel oil, lubricants, solvents, adhesives, paint materials and welding gases are listed for use during construction. During demolition and construction of the proposed El Segundo Power Redevelopment project there is the potential for both small fires and major structural fires. Electrical sparks, combustion of fuel oil, natural gas or flammable liquids, explosions, and over-heated equipment may cause small fires. Major structural fires may develop from uncontrolled fires or be caused by large explosions of natural gas or other flammable	During demolition and construction an interim fire protection system will be in place. The permanent facility fire protection system will be placed in service as early as possible during the demolition and construction phase.	Less than significant
CUMULATIVE: Staff reviewed the potential for the demolition and construction of El Segundo Power Redevelopment project, combined with existing industrial facilities, to result in impacts on the fire and emergency service capabilities of the City of El Segundo Fire Department and found that cumulative impacts were insignificant.         Hazards and Hazardous       PROJECT SPECIFIC: Identified three major types of hazards		and construction of El Segundo Power Redevelopment project, combined with existing industrial facilities, to result in impacts on the fire and emergency service capabilities of the City of El Segundo Fire Department and found that cumulative impacts were insignificant.	The risk of a fire and/or explosion from natural gas can	Mitigated to less

Environmental Topic	Impact(s)	Mitigation	Conclusion
Materials – Operation	<ul> <li>associated with the project, including the accidental release of ammonia, hydrazine vapor mishandling and fire and explosion from natural gas. During operation of the proposed El Segundo Power Redevelopment project there is the potential for both small fires and major structural fires. Electrical sparks, combustion of fuel oil, natural gas or flammable liquids, explosions, and overheated equipment may cause small fires. Major structural fires may develop from uncontrolled fires or be caused by large explosions of natural gas or other flammable gasses or liquids.</li> <li>CUMULATIVE: Activities related to hazardous materials at the ESPR project are regulated by existing laws and regulations to prevent unacceptable off-site risks to the public. Additional mitigation measures have been proposed to reduce any potential impacts to the project to less-than-significant levels. Other projects causing related impacts are not anticipated in the vicinity. No cumulative impacts are therefore expected in combination with the project. Staff reviewed the potential for the operation of El Segundo Power Redevelopment project, combined with existing industrial facilities, to result in impacts on the fire and emergency service capabilities of the City of El Segundo Fire Department and found that cumulative impacts were insignificant.</li> </ul>	<ul> <li>be reduced to insignificant levels through adherence to applicable codes and the development and implementation of effective safety management practices. The project owner shall obtain the advance approval if the facility intends to store, handle, use or move (or combination of these activities) a material. The project owner shall update its existing Business Plan and revise the existing CalARP Program Risk Management Plan (RMP). The project owner shall undertake a feasibility study for the substitution of the 35% hydrazine with a less hazardous chemical.</li> <li><i>Operational safety program will include the following programs and plans:</i> <ul> <li>Injury and Illness Prevention Program (8 CCR § 3203);</li> <li>Emergency Action Plan (8 CCR § 3220);</li> <li>Hazardous Materials Management Program;</li> <li>Operations and Maintenance Safety Program;</li> <li>Fire Protection and Prevention Program (8 CCR § 3221); and</li> <li>Personal Protective Equipment Program (8 CCR § 3401-3411).</li> </ul> </li> </ul>	than significant
Hydrology and Water Quality - Construction	<ul> <li>PROJECT SPECIFIC: Sanitary waste and equipment washwater would be generated during demolition activities. Construction related sanitary wastes would be collected on-site in portable toilets and transported to a sanitary wastewater treatment facility. Equipment washwater has the potential for contamination. The wash water would either be collected and contained on-site at designated wash areas and transported to a wastewater treatment facility or it would be directed to the construction stormwater runoff collection system. The latter discharge would be addressed through NPDES permit requirements</li> <li>CUMULATIVE: Construction activities related to the project may cause accelerated wind and water erosion. If the applicant's and staff mitigation measures and the proposed Conditions of Certification are implemented, the contribution of the project to any cumulative impacts would be less than significant. The final</li> </ul>	<ul> <li>Adherence to both the Construction Storm Water Pollution Prevention Plan (SWPPP) and the Remedial Investigation Plan for handling of contaminated soils and groundwater.</li> <li>Erosion and sediment control measures to be used during construction include but are not limited to: silt fence, straw bales, mulches, temporary or permanent geotextiles or aggregate surfacing, dust preventative measures and additional BMPs referenced from the California Stormwater Best Management Practice Handbook for Construction Activity.</li> <li><i>The following conditions are intended to provide</i> <i>mitigation for potentially significant impacts:</i></li> <li>Owner shall implement and utilize sufficient construction dewatering control methods to ensure dewatering volumes do not impact groundwater</li> </ul>	Mitigated to less than significant

Environmental Topic	Impact(s)	Mitigation	Conclusion
	SWPPP for the project provides adequate mitigation for stormwater impacts, and the applicant will be required to remain in compliance with all NPDES permit conditions during construction. No significant cumulative impacts are expected.	<ul> <li>conditions.</li> <li>Sanitary waste for ESGS shall be directed to a sanitary waste pipeline system andnot discharged directly to the ocean.</li> <li>Owner intends to utilize maximum volumes of reclaimed water on-site and reduce potable water use to extent practicable.</li> <li><i>Conditions of Certification:</i></li> <li>Prior to site mobilization, demolition, and/or construction related ground disturbance activities, including linear facilities, the project owner shall develop a Storm Water Pollution Prevention Plan (SWPPP) for the project as required under the NPDES General Stormwater Construction Activity Permit. A copy of the SWPPP and the Notice of Intent (NOI) submitted to the LARWQCB as required under the NPDES General Stormwater Construction Activity Permit regulations shall be provided to the CPM for review and approval. The SWPPP shall include the actual drainage and facility design for all on- and off-site project facilities for construction, and shall address all issues detailed in the Staff Recommended Mitigation section of this FSA. The SWPPP shall demonstrate compliance will all applicable SUSUMP requirements.</li> <li>Prior to site mobilization, demolition, and/or construction related ground disturbance activities, including linear facilities, the project owner shall develop an Erosion and Sedimentation Control Plan (ESCP) for the construction phase of the project. A copy of the ESCP for construction shall be provided to the CPM for review and approval. The ESCP shall address the actual drainage and facility design for all on- and off-site ESPR project facilities for construction, and shall address of the project. A staff Recommended Mitigation section of this FSA. The ESCP shall address the actual drainage and facility design for all on- and off-site ESPR project facilities for construction, and shall address all issues detailed in the Staff Recommended Mitigation section of this FSA. The ESCP shall address the actual drainage and facility design for all on- and off-site ESPR project facili</li></ul>	

Environmental Topic	Impact(s)	Mitigation	Conclusion
	Impact(s)         PROJECT SPECIFIC: Any impacts resulting from the proposed operation of the power block would be mitigated to less than significant. The West Basin Municipal Water District would provide reclaimed water. Potable water from the City of El Segundo (Metropolitan Water District of Southern California) would be supplied to the ESGS for the makeup water for the evaporative coolers, Hear Recovery Steam Generator (HRSG) blowdown, quench water, and miscellaneous plant uses. Potable water usage for the new Units 5, 6, and 7 of the proposed project is estimated at 0.09 mgd. The proposed project involves a new sanitary wastewater connection pipeline, which would transport sanitary waste from the ESGS offsite to the local municipal wastewater treatment facility, thereby eliminating discharge of sanitary waste to the bay.         CUMULATIVE: Operational activities related to the project may cause accelerated wind and water erosion. If the applicant's and staff mitigation measures and the proposed Conditions of Certification are implemented, the contribution of the project to any cumulative impacts would be less than significant. The final SWPPP for the project provides adequate mitigation for stormwater impacts, and the applicant will be required to remain in compliance with all NPDES permit conditions during operation. No significant cumulative impacts are expected.	<ul> <li>Mitigation</li> <li>Adherence to both the Construction Storm Water Pollution Prevention Plan (SWPPP) and the Remedial Investigation Plan for handling of contaminated soils and groundwater.</li> <li>The applicant proposes:         <ul> <li>Stormwater management BMPs</li> <li>Non-stormwater management BMPs</li> <li>A Waste Management Plan that addresses dewatering procedures regarding the volume of water and how it would be treated to remove hydrocarbons</li> <li>Containment for hazardous material delivery and storage areas to prevent spills of leakage of liquid materials from contaminating soil and stormwater</li> <li>Storage areas for construction wastes, hazardous materials, paints, and related products along with covered dumpsters and containers for waste and recyclables</li> <li>Implementation of a Spill Prevention Containment Contingency plan</li> <li>Monitoring programs that include maintenance, inspection, and repair</li> <li>Specialized drainage systems such as an oil/water separator to trap oily materials</li> </ul> </li> <li>Conditions of Certification:         <ul> <li>Prior to power plant operation the owner shall develop a SWPPP as required under the NPDES stormwater discharge permit for operation of the project. The SWPP shall include the actual drainage and facility design for all on- and off-site ESPR project and linear facilities showing the details of the stormwater and sediment run-off and</li> </ul> </li> </ul>	Conclusion         Mitigated to less than significant
	<ul> <li>sanitary wastewater connection pipeline, which would transport sanitary waste from the ESGS offsite to the local municipal wastewater treatment facility, thereby eliminating discharge of sanitary waste to the bay.</li> <li>CUMULATIVE: Operational activities related to the project may cause accelerated wind and water erosion. If the applicant's and staff mitigation measures and the proposed Conditions of Certification are implemented, the contribution of the project to any cumulative impacts would be less than significant. The final SWPPP for the project provides adequate mitigation for stormwater impacts, and the applicant will be required to remain in compliance with all NPDES permit conditions during operation.</li> </ul>	<ul> <li>Containment for hazardous material delivery and storage areas to prevent spills of leakage of liquid materials from contaminating soil and stormwater</li> <li>Storage areas for construction wastes, hazardous materials, paints, and related products along with covered dumpsters and containers for waste and recyclables</li> <li>Implementation of a Spill Prevention Containment Contingency plan</li> <li>Monitoring programs that include maintenance, inspection, and repair</li> <li>Specialized drainage systems such as an oil/water separator to trap oily materials</li> <li>Conditions of Certification:</li> <li>Prior to power plant operation the owner shall develop a SWPPP as required under the NPDES stormwater discharge permit for operation of the project. The SWPPP shall include the actual drainage and facility design for all on- and off-site ESPR project and linear facilities showing the</li> </ul>	

Environmental Topic	Impact(s)	Mitigation	Conclusion
		facilities have adequate capacity as required by the	
		City of El Segundo. The SWPPP shall be consistent	
		with all other permit and design documents, and shall demonstrate compliance with all applicable	
		SUSUMP requirements. The project owner shall	
		include in this plan the installation of secondary	
		containment for the entire site, excluding off-site	
		and linear facilities. The containment design shall	
		have design documentation and specifications for	
		the berms or other walled structures.	
		• Prior to power plant operation the owner shall	
		develop an Erosion and Sedimentation Control Plan	
		(ESCP) for the operational phase of the project. The	
		ESCP shall include the actual drainage and facility	
		design for all on- and offsite ESPR project and	
		linear facilities showing all of the details of	
		stormwater and sediment run-off and run-on to the	
		ESPR project facilities during operation. The ESCP	
		shall address all issues detailed in the Staff	
		Recommended Mitigation section of this FSA. The	
		SWPPP shall be consistent with all other permit and	
		design documents, and shall demonstrate	
		compliance with all applicable SUSUMP	
		requirements. The project owner shall include in this plan the installation of secondary containment	
		for the entire site, excluding off-site and linear	
		facilities. The containment design shall have design	
		documentation and specifications for the berms or	
		other walled structures.	
		• The project owner shall maintain in effect the	
		National Pollutant Discharge Elimination System	
		(NPDES) Permit from the LARWQCB for the life	
		of the ESPR project. The project owner shall	
		comply with all provisions of the NPDES Permit,	
		and shall notify the CPM of any proposed or actual	
		changes made to this permit and provide copies of	
		materials related to permit amendment,	
		modification, and renewal, and of any changes to	
		the project design or operational plan necessary to	

Environmental Topic	Impact(s)	Mitigation	Conclusion
		comply with the NPDES permit changes. All	
		NPDES compliance monitoring reports submitted to the LARWQCB, permit violations, and enforcement	
		actions shall be reported and discussed in the annual	
		Compliance Report to the CPM. All NPDES	
		enforcement actions against the project shall be	
		reported to the CPM by letter within 30-days of the	
		project being notified by LARWQCB. The project	
		shall not operate without the NPDES permit in	
		place.	
		• The project owner shall use reclaimed water for all	
		in-plant process water needs. Specifically excepted	
		from using reclaimed water are fire control supply	
		water, sanitary water, and potable water. The project	
		owner shall submit a Reclaimed Water Use Plan (RWUP) that includes a detailed revised project	
		design, operational plan, and water balance for the	
		use of reclaimed water for review and approval by	
		the CPM prior to the start of any site mobilization	
		activities for the project or any linear element. This	
		RWUP shall be consistent with all applicable	
		LORS, including Title 22 California Code of	
		Regulations. Site mobilization activities shall not	
		begin without a CPM approved RWUP.	
		• Within 120 days after the project begins operating,	
		samples shall be collected and analyzed for organic	
		and inorganic chemical constituents from each	
		waste stream prior to mixing with any other waste stream. These samples shall be collected and	
		analyzed in a manner consistent with the discharger	
		monitoring requirements of the NPDES permit. The	
		analytical method used for metals and trace element	
		analyses shall have detection limits comparable with	
		USEPA Method 200.8 (ICP-MS). All metals and	
		trace elements shall be reported along with	
		applicable detection limits for each analyte.	
		Samples shall be obtained at a time when the plant	
		has been operating at a level of at least 75% of	
		capacity over a 24-hour period, and the operating	

Environmental Topic	Impact(s)	Mitigation	Conclusion
		capacity and time at that operating capacity will be	
		reported at the time of sampling. The chemical analytical data and volume of flow data shall be	
		provided for all in-plant wastewater streams, the	
		combined in-plant wastewater streams, the	
		discharge to the retention basin, the water contained	
		in the retention basin, and in the wastewater	
		discharge from the retention basin prior to mixing	
		with cooling water flows.	
		• The project owner shall record on a monthly basis,	
		the amount of reclaimed and potable/fresh water	
		used by the project. This information shall be	
		supplied to the CPM in the Annual Compliance	
		Report. The annual summary shall include the	
		monthly range, monthly average, and total amounts	
		of reclaimed and potable/freshwater water used by	
		the project in both gallons-per-minute and acre-feet.	
		Following the first year of operation, the annual	
		summary will also include the yearly range and	
		yearly average of reclaimed and potable/fresh water	
		used by the project.	
		• Reclaimed water may be unavailable at times due to	
		upsets or equipment failures at the West Basin	
		Municipal Water District (WBMWD). The project	
		owner shall provide a detailed contingency plan for the use of an alternate reclaimed or other water	
		source when reclaimed water is unavailable. The	
		plan shall assume a reasonable unavailability of	
		reclaim water set at 5 percent, or 18 days per year.	
		The plan shall further provide for the contingency	
		that the failure rate could exceed 5 percent. The	
		project owner shall include a detailed summary of	
		all WBMWD reclaimed water delivery failures in	
		the Annual Compliance Report. Commercial	
		operation shall not commence without a CPM	
		approved plan.	
Land Use and Planning -	PROJECT SPECIFIC: The proposed project would be	The project owner shall:	Less than
Construction	constructed on the site of the existing power plant facility.	• ensure that any signs erected (either permanent or for	significant
		construction only) comply with the outdoor	0

Environmental Topic	Impact(s)	Mitigation	Conclusion
	<b>CUMULATIVE:</b> Cumulative land use impacts may occur when a project has effects that are individually limited but cumulatively considerable when viewed together with effects of related new residential, commercial, and industrial projects. Depending on the timing of the start of construction for the projects in the area and the proposed project, there may be some traffic flow disruptions and/or inconveniences within the City of El Segundo.	<ul> <li>advertising regulations established by the City of El Segundo Zoning Ordinance (Chapter 18).</li> <li>identify the secured lay down/staging area(s) for the project prior to site mobilization.</li> <li>either bore the proposed sewer line under 45<sup>th</sup> Street in the City of Manhattan Beach or use conventional excavation techniques using steel cover plates to allow traffic to have access to the Strand parking lot at all times.</li> <li>abandon fuel storage tanks on Parcel 2 shall be removed prior to the start of commercial operation of the new generating units.</li> <li>provide copies of final grading and drainage plans to the planning departments of the Cities of El Segundo and Manhattan Beach.</li> <li>provide copies of the final perimeter landscape plan(s)</li> </ul>	
Land Use and Planning - Operation	<ul> <li>PROJECT SPECIFIC: The proposed project is compatible with the existing power plant use and neighboring recreational uses that include State owned beaches. The proposed project is also consistent with existing heavy industrial and energy uses to the north and east of the project site.</li> <li>CUMULATIVE: Cumulative land use impacts may occur when a project has effects that are individually limited but cumulatively considerable when viewed together with effects of related new residential, commercial, and industrial projects. The project is not expected to make a significant contribution to regional impacts related to new development and growth, such as population immigration, the resultant increased demand for public services, and expansion of public infrastructure such as water and natural gas pipelines to serve residential development.</li> </ul>	<ul> <li>The project owner shall: <ul> <li>comply with the minimum design and performance standards for the M2 Zone District set forth in the City of El Segundo Zoning Ordinance where applicable for this project.</li> <li>comply with the parking standards established by the City of El Segundo Zoning Ordinance (Title 8, Chapter 5).</li> <li>provide appropriate evidence of compliance with Federal Aviation Administration (FAA) regulations regarding the marking and/or lighting of the project's new exhaust stacks.</li> <li>provide written notification when any plans for use of the abandoned fuel tank farm area (Parcel 2) are developed and indicate whether the project owner believes such plans are subject to the Energy Commission's permitting authority in accordance to the Warren-Alquist Act</li> </ul> </li> </ul>	Less than significant
Mineral Resources	Not evaluated in document	None identified in document	Not identified in document

Environmental Topic	Impact(s)	Mitigation	Conclusion
Noise - Construction	<ul> <li><b>PROJECT SPECIFIC:</b> Noise due to construction activities is usually considered to be insignificant in terms of CEQA compliance if:</li> <li>1. The construction activity is temporary,</li> <li>2. Use of heavy equipment and noisy activities is limited to daytime hours, and</li> <li>3. All feasible noise abatement measures are implemented for noise-producing equipment.</li> <li>Construction and demolition of an industrial facility such as a power plant is typically noisier than permissible under usual noise ordinances. In order to allow the construction of new facilities, construction noise during certain hours is commonly exempt from enforcement by local ordinances.</li> <li><b>CUMULATIVE:</b> There are no planned projects that could contribute to cumulative noise impacts in the project study area identified. There are industrial noise sources north of the project site which could contribute to the cumulative noise levels at receptors in that direction. In addition, traffic noise levels are significant in the Vista Del Mar Boulevard corridor. The effects of noise produced by those sources have been accounted for by the ambient noise level measurements.</li> </ul>	<ul> <li>At least 15 days prior to site mobilization, the project owner shall notify all residents, property owners, and business owners within one-half mile of the site, and the City of Manhattan Beach, the City of El Segundo, and L.A. County Lifeguard Headquarters, by mail and/or other effective means, of the commencement of project construction.</li> <li>Throughout the construction and operation of the project, the project owner shall document, investigate, evaluate, and attempt to resolve all project-related noise complaints as soon as possible.</li> <li>Prior to site mobilization, the project owner shall submit for review and approval a noise control program.</li> <li>A low-pressure continuous steam blow or other equivalent low-pressure process shall be employed.</li> <li>The project design and implementation shall ensure that demolition, construction, or operation of the power plant will not cause vibration at any sensitive receptor to cause vibration which is perceptible without use of instruments to any reasonable person of normal sensitivity.</li> <li>The project owner shall, prior to site mobilization, cease the use of exterior loudspeakers except to the extent that</li> </ul>	Mitigated to less than significant
		written direction from OHSA requires their use. No non-required loudspeaker use shall be permitted.	
Noise - Operation	<b>PROJECT SPECIFIC:</b> The applicant has incorporated noise reduction measures into the design of the project to ensure that there will not be a substantial increase in noise levels due to operation of the new units at the nearest residences. During its operating life, the ESPR represents essentially a steady, continuous noise source day and night. Occasional short-term increases in noise levels would occur as steam relief valves open to vent pressure, or during startup or shutdown as the plant transitions to and from steady-state operation. At other times, such as when the plant is shut down for lack of dispatch or for maintenance, noise levels would decrease. The primary noise sources anticipated from the facility include the steam turbine generator, gas turbine generators, heat recovery steam generators,	<ul> <li>Specific noise mitigation measures evaluated included:</li> <li>Enclosure around the gas turbine compartments</li> <li>Noise barriers around the gas turbine generators</li> <li>Acoustic shroud around the gas turbine exhaust ducts</li> <li>Acoustic shroud around transition ductwork</li> <li>Noise barriers around boilers</li> <li>Silencers at the boiler exit stack</li> <li>Enclosures around the steam turbine package and the generator package</li> <li>Noise barriers around transformers</li> <li>Enclosures for major pumps</li> <li>Noise barriers for fin fan coolers</li> <li>Further, at least 15 days prior to the first steam blow(s),</li> </ul>	Mitigated to less than significant

Environmental Topic	Impact(s)	Mitigation	Conclusion
	<ul> <li>transformers, boiler feed pumps, circulating water pumps, fin fan coolers and gas compressors. The noise emitted by power plants during normal operations is generally broadband, steady state in nature. The noise due to the new generating units is not expected to have a significant noise effect.</li> <li><b>CUMULATIVE:</b> There are no planned projects that could contribute to cumulative noise impacts in the project study area identified in the AFC. There are industrial noise sources north of the project site which could contribute to the cumulative noise levels at receptors in that direction. In addition, traffic noise levels are significant in the Vista Del Mar Boulevard corridor. The effects of noise produced by those sources have been accounted for by the ambient noise level measurements.</li> </ul>	the project owner shall notify the Cities of El Segundo and Manhattan Beach, L.A. County Lifeguard Headquarters, and all residents, property owners and business owners within one mile of the site of the planned steam blow activity, and shall make the notification available to other area residents in an appropriate manner. In addition, within 30 days of the project first achieving a sustained output of 80 percent or greater of rated capacity, the project owner shall conduct an occupational noise survey to identify the noise hazardous areas in the facility.	
Population/Housing	Not evaluated in document	None identified in document	Not identified in document
Public Services - Construction	Staff also concludes that the proposed project will not have significant impacts on local fire protection services. The proposed facility is located within an existing power plant facility that is currently served by the local fire department. The fire risks are similar to those of the existing facility and thus pose no new or added demands on local fire protection services.	<ul> <li>Conditions of Certification:</li> <li>The project owner shall submit to the Compliance Project Manager (CPM) for approval, a copy of the Project Demolition and Construction Safety and Health Program containing the following: <ul> <li>A Demolition and Construction Injury and Illness Prevention Program;</li> <li>A Demolition and Construction Personal Protective Equipment Program;</li> <li>A Demolition and Construction Exposure Monitoring Program;</li> <li>A Demolition and Construction Emergency Action Plan; and</li> <li>A Demolition and Construction Fire Protection and Prevention Plan.</li> </ul> </li> </ul>	Less than significant
Public Services - Operation	Staff also concludes that the proposed project will not have significant impacts on local fire protection services. The proposed facility is located within an existing power plant facility that is currently served by the local fire department. The fire risks are similar to those of the existing facility and thus pose no new or added demands on local fire protection services.	<ul> <li>Conditions of Certification:</li> <li>The project owner shall submit to the CPM for approval a copy of the Project Operations and Maintenance Safety and Health Program containing the following: <ul> <li>An Operation Injury and Illness Prevention Plan;</li> <li>An Emergency Action Plan;</li> </ul> </li> </ul>	Less than significant

Environmental Topic	Impact(s)	Mitigation	Conclusion
		<ul> <li>Hazardous Materials Management Program;</li> <li>Fire Protection and Prevention Program (8 CCR § 3221); and;</li> <li>Personal Protective Equipment Program (8 CCR §§ 3401-3411).</li> <li>Before using one of the fuel oil storage tanks as a clean soils storage area, the project owner shall ensure that the integrity of the floor has not been compromised by cracks or holes, the tanks have been thoroughly cleaned, no airborne hydrocarbons are present above the method detection level of a hand-held PID hydrocarbon vapor detector, and that the earth-moving vehicles used are equipped with environmental cabs.</li> </ul>	
Recreation	Not evaluated in document	None identified in document	Not identified in document
Solid/Hazardous Waste – Construction	<ul> <li>PROJECT SPECIFIC: Demolition, site preparation, and construction of the generating plant and associated facilities will generate both nonhazardous and hazardous wastes. Individual contractors are considered to be the generators of construction wastes, and as part of its contract specifications for construction contractors, materials required to be handled and disposed in accordance with applicable regulations. Nonhazardous waste streams from construction include paper, scrap wood, glass, metal, plastics, concrete, asphalt, oil absorbent mats, and oily rags. The applicant estimates that about 20-40 cubic yards of these types of wastes will be generated on a weekly basis plus about1000 sq. feet of oily mats and three to four 55-gallon drums of oily rags per month during the construction are expected to generate both solid and liquid hazardous wastes wastes typically generated during construction include waste oil and grease, paint, used batteries, spent solvent, welding materials, and startup cleaning of the HRSG. The 200,000 gallons generated during this process can mostly be recycled.</li> </ul>	<ul> <li>The project owner and, if necessary, its construction contractor, shall each obtain a hazardous waste generator identification number from the Department of Toxic Substances Control prior to generating any hazardous waste.</li> <li>Upon becoming aware of any impending waste management-related enforcement action by any local, state, or federal authority, the project owner shall notify the CPM of any such action taken or proposed to be taken against the project itself, or against any waste hauler or disposal facility with which the owner contracts.</li> <li>Prior to the start of site mobilization, the project owner shall prepare and submit to the LA County Department of Hazardous Materials for review and comment and to the CPM for review and approval, a waste management plan for all wastes generated during construction of the facility.</li> <li>The project owner shall have a Registered Professional Engineer or Geologist, with experience in remedial investigation and feasibility studies, available for consultation during soil excavation and grading activities. The Registered Professional Engineer or</li> </ul>	Mitigated to less than significant

Environmental Topic	Impact(s)	Mitigation	Conclusion
	those associated with the demolition of the existing fuel oil storage tanks with related environmental remediation, and installation of selective catalytic reduction (SCR) pollution control on the new units. Demolition of fuel oil storage tanks is a separate phase due to the planned use of two tanks as construction areas. Wastes (including hazardous and nonhazardous) generated by such demolition could be significant. Much of this waste can be recycled or used on-site. Once the tanks are removed, soil or groundwater contamination may be present, and remediation may be required. Until the tanks are removed, the extent of potential contamination is unknown. Installation of SCR pollution control will not result in any significant waste related impacts. The quantities of wastes generated during construction of the project will not result in any significant waste management related impacts. Quantities of wastes associated with the activities including site preparation, demolition of existing units one and two, and installation of SCR catalyst, although significant, are mitigatable. However, considering the lack of impacts on individual disposal facilities and the availability of additional regional landfills and the efforts made to recycle, cumulative impacts will be insignificant for both hazardous and nonhazardous wastes.	<ul> <li>Geologist shall be given full authority to oversee any earth moving activities that have the potential to disturb contaminated soil.</li> <li>If potentially contaminated soil is unearthed during excavation at either the proposed site or linear facilities as evidenced by discoloration, odor, detection by handheld instruments, or other signs, the Registered Professional Engineer or Geologist shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and file a written report to the project owner and CPM stating the recommended course of action. Depending on the nature and extent of contamination, the Registered Professional Engineer or Geologist shall have the authority to temporarily suspend construction activity at that location for the protection of workers or the public. If, in the opinion of the Registered Professional Engineer or Geologist, significant remediation may be required, the project owner shall contact representatives of the LA County Department of Hazardous Materials, the Los Angeles Regional Water Quality Control Board and the Glendale Regional Office of the California Department of Toxic Substances Control for guidance and possible oversight.</li> <li>Before demolition of the fuel oil tanks, the existing generator buildings, and any other building, the project owner shall prepare a Remedial Investigation Workplan (RI Workplan). This plan shall be provided to the Los Angeles County Fire Department, the Glendale Regional Office of the California Department the extent and nature of contamination existing beneath these structures. The RI Workplan shall be provided to the Los Angeles County Fire Department, the Glendale Regional Office of the California Department of Toxic Substances Control, the Los Angeles Regional Water Quality Control, and the City of El Segundo Fire Department for review and comment, and to the CEC CPM for review and</li> </ul>	

Environmental Topic	Impact(s)	Mitigation	Conclusion
		<ul> <li>approval. If contaminated soil or groundwater is found to exist, the project owner shall contact representatives of the above-named agencies for further guidance and possible oversight. In no event shall the project owner proceed with site preparation or construction activities at any location on the site where hazardous waste contamination is found to be present until that location is either remediated or shown to pose an insignificant risk to humans and the environment as demonstrated to the satisfaction of the LARWQCB, DTSC, and the CPM.</li> <li>Before demolition of the fuel oil tanks, the existing generator buildings, and any other building, the project owner shall ensure that the entire site is surrounded by a berm or other solid structures capable of containing any runoff from the site and preventing this runoff from leaving the site. In no event shall the project owner proceed with site preparation or construction activities at any location on the site where hazardous waste contamination is found to be present until that location has such containment in place to the satisfaction of the CPM.</li> </ul>	
Solid/Hazardous Waste - Operation	<b>PROJECT SPECIFIC:</b> The proposed facility will generate both nonhazardous and hazardous wastes under normal operating conditions. Nonhazardous wastes generated during operation of Units 5, 6, and 7 are expected to be similar to those generated by the present facility and include trash, paper, wood, plastic, cardboard, broken and rusted metal and machine parts, defective electrical materials, empty containers, and other typical worker-generated solid wastes. The quantities of nonhazardous wastes generated from gas-fired facilities are typically minor and operation of the new units is expected to generate the same amount as currently generated. Nonhazardous solid waste at the existing facility is routinely segregated according to recyclable content to minimize the quantity disposed offsite Hazardous wastes likely to be generated during routine project operation include oily water, CTG washwater, heat recovery steam generator (HRSG) washwater, spent selective catalytic reduction (SCR) catalysts, and minimal amounts of used cleaning solvents. About	<ul> <li>The project owner and, if necessary, its construction contractor, shall each obtain a hazardous waste generator identification number from the Department of Toxic Substances Control prior to generating any hazardous waste.</li> <li>Upon becoming aware of any impending waste management-related enforcement action by any local, state, or federal authority, the project owner shall notify the CPM of any such action taken or proposed to be taken against the project itself, or against any waste hauler or disposal facility or treatment operator with which the owner contracts.</li> <li>Prior to the start of project operation, the project owner shall prepare and submit to the LA County Department of Hazardous Materials for review and comment and to the CPM for review and approval, a waste management plan for all wastes generated</li> </ul>	Mitigated to less than significant

Environmental Topic	Impact(s)	Mitigation	Conclusion
	50 gallons per year (g/y) of oily water, 7200 g/y of CTG washwater, 50,000 gallons of HRSG washwater per cleaning (2 cleanings every 5 years), and 50 cubic meters of SCR catalyst (containing heavy metals such as vanadium) are expected to be generated on an annual basis from the new combined cycle units Solid wastes will be disposed of at either Class I, II, or III landfills (depending on the waste type) while liquid wastes will be either discharged to municipal sewage treatment plants or transported to hazardous waste treatment or disposal facilities.	during operation of the facility.	
	<b>CUMULATIVE:</b> Additional waste management impacts which could contribute to those from operation of the project include those associated with the operation of selective catalytic reduction (SCR) pollution control on the new units. Operation of SCR Pollution control will not result in any significant waste related impacts. Periodically, the catalysts must be replaced to maintain operating efficiency, and are typically recycled. The quantities of wastes generated during operation of the project will not result in any significant waste management related impacts. Quantities of wastes associated with the activities, including continued operation of units three and four, and operation of SCR catalyst, although significant, are mitigatable. However, considering the lack of impacts on individual disposal facilities and the availability of additional regional landfills and the efforts made to recycle, cumulative impacts will be insignificant for both hazardous and		
Traffic Impacts - Construction	nonhazardous wastes. <b>PROJECT SPECIFIC:</b> The construction phase of the project will require a peak workforce of approximately 422 workers per day. Truck deliveries of heavy equipment, construction materials (such as concrete, wire, pipe, cable, fuels), consumables and miscellaneous items are expected to occur between 6:00 AM and 6:00 PM. At the peak month of construction (month 6), 29 delivery trucks per day are expected to access the project site. The applicant has indicates that heavy equipment would be transported to the area by rail or ship. Both rail service and port facilities are available in the area for the applicant to use. However, neither of these facilities would allow for shipment directly to the plant site. Therefore, this equipment will still need to be offloaded at either the rail terminal or port facility and be placed on trucks for final	<ul> <li>Staff has concluded that the intersections and roadways that are operating at acceptable LOS (LOS of D or better) will not see a decline in their LOS to an unacceptable LOS. Since some of the area intersections and roadways are operating at a LOS of "E" or "F" the potential exists for the project to cause an impact in the traffic and transportation area. Any identified impacts can be mitigated to a level of insignificance by implementing the following recommended transportation mitigation measures: <ul> <li>enforce a policy that all project-related parking occurs in designated parking areas;</li> <li>repair any damage to adjacent roadway sections</li> </ul> </li> </ul>	Mitigated to less than significant

Environmental Topic	Impact(s)	Mitigation	Conclusion
	delivery to the plant site. The size of the construction workforce will require the workers to park in designated areas. The majority of construction employee parking will be provided at remote locations with shuttle service provided to and from the site. <b>CUMULATIVE:</b> With mitigation, regional and local roadways will have adequate capacity to accommodate project construction traffic. Staff has concluded that the traffic volume from all cumulative projects, plus the power plant project would likely increase the congestion levels on area roadways and intersection. However, the construction schedules for these projects may not overlap with the construction phase of the project are short-term, thus significant impacts are not expected under cumulative conditions.	<ul> <li>incurred during construction to the road's preproject construction condition. Any repair work needed shall occur outside of the ambient street traffic peak periods; and</li> <li>prepare a Traffic Control Plan subject to review by the City of El Segundo, the City of Manhattan Beach, and the City of Los Angeles. The Traffic Control Plan should include measures to ensure that at least 40 percent of project related traffic previously assumed to occur during the AM peak hour, occurs outside of the AM peak hour, occurs outside of the AM peak hour, occurs outside of the PM peak hour cocurs outside of the PM peak hour cocurs outside of the PM peak hour occurs outside of the PM peak hour occurs outside of the PM peak hour occurs outside of the PM peak hour oct and Boulevard and Sepulveda Boulevard during the AM peak hour and Rosecrans Boulevard at Vista Del Mar during the PM peak hour to a level of insignificance. The Traffic Control Plan should specify measures to mitigate impacts associated with construction activities occurring within any public street right-of-way in accordance with local jurisdictional requirements.</li> <li>The project owner shall:</li> <li>comply with Caltrans and other relevant jurisdictions limitations on vehicle sizes and weights. In addition, the project owner or its contractor shall obtain necessary transportation permits from Caltrans and all relevant jurisdictions limitations for encroachment into public rights-of-way and shall obtain necessary encroachment permits from Caltrans and all relevant jurisdictions.</li> <li>ensure that permits and/or licenses are secured from the California Highway Patrol and Caltrans for the transport of hazardous materials.</li> </ul>	

Environmental Topic	Impact(s)	Mitigation	Conclusion
		<ul> <li>project construction to enforce a policy that all project-related parking occurs on-site or in designated off-site parking areas.</li> <li>consult with the Cities of El Segundo, Manhattan Beach and Los Angeles, and prepare and submit for approval a construction traffic control plan and implementation program which addresses the following issues: <ul> <li>Timing of heavy equipment and building materials deliveries;</li> <li>Redirecting construction traffic with a flagperson;</li> <li>Signing, lighting, and traffic control device placement if required;</li> <li>Need for construction work hours and arrival/departure times outside of peak traffic periods;</li> <li>Ensure access for emergency vehicles to the project site;</li> <li>Temporary travel lane closure; and</li> <li>Access to adjacent residential and commercial property during the construction of all linears.</li> </ul> </li> </ul>	
Traffic Impacts - Operation	<ul> <li>PROJECT SPECIFIC: The proposed project is expected to add two new full-time employees above the current operations employee levels. This increase in staff represents an insignificant increase in traffic levels as a result of the on-going operation the power plant. Deliveries to the project site are expected for on-going maintenance of the plant. The incremental change in the number of delivery trips to the plant site is expected to be nominal and will generally occur during non-commute periods. Therefore, the resulting LOS on local roadways would remain unchanged from the existing LOS. It will take delivery of the ammonia via a pipeline to be constructed between the refinery and plant site.</li> <li>CUMULATIVE: Based on the current and future traffic characteristics of the area, congestion associated with the operation of the project is nominal. Staff has concluded that the traffic volume from all cumulative projects, plus the power plant</li> </ul>	Stacks shall be marked and lighted if required by the FAA so that they do not create a hazard to air navigation. The project owner shall submit to the FAA Form 7460-1, Notice of Proposed Construction or Alteration and supporting documents on how the project plans to comply with stack lighting and marking requirements imposed by the FAA.	Mitigated to less than significant

Environmental Topic	Impact(s)	Mitigation	Conclusion
	project would likely increase the congestion levels on area roadways and intersection. The impacts associated with the operational phase impacts will be insignificant due to the slight increase in employees (i.e., 2 new full-time employees) above current conditions, thus significant impacts are not expected under cumulative conditions.		