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Inland Empire Energy Center

Decommissioning and Demolition Plan

ATC Group Services LLC National Programs Power and Industrial Sector 25 Cupania Circle Monterey Park, CA 91755

Inland Empire Energy Center Decommissioning and Demolition Plan

Submitted to the:

California Energy Commission

Prepared by:

Inland Empire Energy Center, LLC

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1.0 EXECUTIVE SUMMARY

1.1 **Project Overview and Decommissioning Requirement**

The Inland Empire Energy Center (Project) is an existing natural gas-fired, combined-cycle generating facility located in Riverside County, California. The Project is owned and operated by Inland Empire Energy Center, LLC (IEEC), which is an indirectly wholly-owned subsidiary of General Electric Company. At the time the Application for Certification¹ (AFC) was filed, the project site was located in an unincorporated area of Riverside County near the town of Romoland. The project site has since been annexed into the City of Menifee, which is located approximately 30 miles southeast of the City of Riverside (Project Site).

The Project was permitted by the California Energy Commission (CEC) on December 17, 2003.² Commercial operation began in June of 2009 with Unit 1. Operation of Unit 2 followed in May 2010. In addition to the CEC license, IEEC also holds the following permits and agreements for operation of the Project:

- Non-Reclaimable Wastewater Service Agreement by and between Eastern Municipal Water District (EMWD) and IEEC, effective August 22, 2005.
- Recycled Water and Supplemental Raw Water Service Agreement No. 05-07 by and between EMWD and IEEC, effective June 14, 2005.
- South Coast Air Quality Management District (SCAQMD) Title V Operating Permit, Facility ID No. 129816, effective July 1, 2018.
- United States Environmental Protection Agency (USEPA) Hazardous Waste Generator Identification Number, Facility ID: 1000-0019-9741.

The Project supplies electricity to the California Independent System Operator (CAISO) on a merchant basis. The Project sells both Local and System Resource Adequacy (RA) and bids daily into the merchant energy markets. The Project has RA commitments through December 31, 2019, which are served by Unit 1. Unit 2 at the Project has been mothballed since March 2017, based on economic considerations. IEEC has decided to cease operation of the entire Project as of December 31, 2019. The decision to retire the IEEC was based on the following primary commercial conditions:

- The plant was designed with the intent of base-load operations, hence the singleshaft design. The plant is highly efficient but is not designed for the needs of the evolving California market, which requires fast start capabilities to satisfy peak demand periods.
- When designed, the Project's Model 7H turbine design was expected to have a similar installed base as its predecessor the Model 7FA turbine, which numbers

¹ Application for Certification for Inland Empire Energy Center, Docket No. 01-AFC-17, August 17, 2001 (AFC).

² CEC, Commission Decision, Application for Certification for IEEC, Docket No. 01-AFC-17, December 17, 2003 (Commission Decision).

in the hundreds of units. This market condition did not develop and has resulted in an orphan technology installation at IEEC. Due to this condition, support costs (e.g. parts, engineering, etc.) of the unit have increased rapidly due to loss of scale economics. Due to its orphan nature, operations & maintenance (O&M) costs for the Model 7H turbine are 2-2.5 times the O&M costs of a Model 7FA turbine. GE Power will no longer support the 7H units, including the manufacture of replacement parts.

- Retrofit of the Project to enhance flexibility is not economically feasible owing to a variety of market and regulatory factors that may preclude California utilities or Community Choice Aggregators (CCAs) from purchasing energy from fossil fuel plants. Despite an improving Capacity market, without a guaranteed energy revenue stream, the retrofit of the Project could not be funded.
- The current Title V Operating permit limits the start-up/shut-down hours to 31 hours/unit/month. In order to support the current market need for fast start and/or peaking operations, condition in the Operating Permit would require significant modification to allow for daily or multiple daily starts, which would result in a significant increase in total allowable emissions.

Upon approval of the activities described in this Decommissioning and Demolition Plan (Plan), the power plant and other facilities will be decommissioned, demolished and removed and the CEC license terminated.

Effective February 1, 2019, IEEC entered into an agreement to sell the Project Site and certain assets associated therewith, to Nova Power, LLC (Nova), for the purpose of developing a battery energy storage system (BESS) on the Project Site. IEEC will continue to hold the CEC license and be responsible for compliance with the CEC's Conditions of Certification (COC) until decommissioning is completed and the CEC has released jurisdiction over the Project Site. IEEC will be responsible for implementing this Plan. IEEC has retained ATC Group Services, LLC (ATC) as its contractor to assist with implementing this Plan. Nova is not expected to take possession of the Project Site or associated equipment until decommissioning is complete and the CEC license is terminated. Nova will obtain any required land use and environmental permits from the appropriate local or state agencies for development and operation of the BESS.

The Commission Decision granting the CEC license requires IEEC to prepare and submit a plan for review and approval prior to undertaking facility closure. The objectives of the plan are to:

- Identify and discuss any impacts and mitigation to address significant adverse impacts associated with proposed closure activities and to address facilities, equipment, or other project related remnants that will remain at the site.
- Identify a schedule of activities for closure of the power plant site, transmission line corridor, and all other appurtenant facilities constructed as part of the project.
- Identify any facilities or equipment intended to remain on site after closure, the reason, and any future use.

• Address conformance of the plan with all applicable laws, ordinances, regulations, standards, local/regional plans in existence at the time of facility closure, and applicable COC.³

CEC regulations do not establish a specific process for review and approval of decommissioning plans; instead, the CEC processes a proposed decommissioning plan as a Post-Certification Amendment to the Commission Decision in accordance with Title 20, California Code of Regulations, Section 1769. The contents of this Plan address the requirements set forth in both the Commission Decision on the Project, and the content requirements for a Petition to Amend set forth in Section 1769(a)(1).

1.2 Decommissioning and Demolition Proposal

Decommissioning and demolition of the Project involves selling equipment of no interest to Nova, removing regulated materials, disconnecting utilities and electric supply, dismantling/demolishing the power plant and associated facilities not retained by Nova, recycling components and materials to the extent possible, hauling off and disposing of the remaining waste, and establishing final grade at the Project Site. It is anticipated that these activities will take approximately twelve (12) months to complete, with certain planning, valuation and equipment marketing activities scheduled prior to Plan approval and Unit 1 retirement. Once decommissioning and demolition are complete, the Project Site and certain related assets, will be transferred to Nova for future industrial use.

1.3 Environmental Considerations

Prior to construction of the Project, the Project Site was highly disturbed cultivated agricultural land used for growing wheat. Currently, the Project Site and its surroundings are heavily disturbed and have been used for industrial purposes for power generation. Analysis of the decommissioning and demolition proposal shows that the planned activities will comply with all applicable laws, ordinances, regulations and standards (LORS) and will not result in any significant adverse environmental impacts.

Table ES-1 provides a summary of the environmental considerations associated with decommissioning and demolition and recommended conditions.

³ Commission Decision, pp. 39-40.

TECHNICAL AREA	COMPLIES WITH EXISTING APPLICABLE LORS?	POTENTIAL FOR SIGNIFICANT ADVERSE IMPACTS?	PROPOSED CONDITIONS
Air Quality and Greenhouse Gases	Complies with all applicable air quality LORS. There are no applicable greenhouse gas emission LORS specific to demolition. No new permits are required.	There are no significant potential impacts. Emissions during decommissioning and demolition are significantly lower than during construction or operation for criteria air pollutants and lower than during operation for greenhouse gases.	COC pertaining to construction emissions will be implemented.
Public Health	Complies will all applicable public health LORS.	There are no significant potential impacts. Emissions during decommissioning and demolition are significantly lower than during construction or operation for criteria air pollutants and toxic air contaminants.	No conditions are proposed.
Hazardous Materials Management	Complies with all applicable LORS, no new permits are required.	Implementation of the proposed conditions and compliance with LORS will ensure there are no significant impacts.	COC pertaining to storage and transport of hazardous materials will be implemented.

Table ES-1	Summary	of Environmental	Considerations
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TECHNICAL AREA	COMPLIES WITH EXISTING APPLICABLE LORS?	POTENTIAL FOR SIGNIFICANT ADVERSE IMPACTS?	PROPOSED CONDITIONS
Waste Management	Complies with all applicable LORS, no new permits are required but existing permits will remain active until demolition activities are complete, including the existing USEPA identification number and Hazardous Materials Handler and Hazardous Waste Generator permit from Riverside County Department of Environmental Health, which is the Certified Unified Permitting Agency.	There will be no significant impacts. There is sufficient capacity in existing landfills to accommodate demolition waste.	COC pertaining to the handling of wastes will be implemented. A condition is proposed to ensure hazardous wastes are sent to a Class I landfill and records are submitted to the Compliance Project Manager.
Worker Safety and Fire Protection	LORS applicable to construction and operation of the facility also apply to decommissioning and demolition and will be complied with through implementing the worker safety programs and plans prepared by the decommissioning and demolition contractor. A Construction Activity Permit (includes demolition) and an Erection of a Fixed Tower Crane Permit will be obtained from Cal/OSHA.	Implementation of the conditions and compliance with LORS will ensure there are no significant impacts.	New conditions proposed for Health & Safety Plans, Fire Protection & Prevention Program, and worker training.

TECHNICAL AREA	COMPLIES WITH EXISTING APPLICABLE LORS?	POTENTIAL FOR SIGNIFICANT ADVERSE IMPACTS?	PROPOSED CONDITIONS
Cultural Resources	Complies with all applicable LORS. No new permits are required.	There will be no significant impacts. No subsurface work will occur outside areas where subsurface work occurred during construction.	No conditions are proposed.
Biological Resources	Complies with all applicable LORS. No new permits are required.	There will be no significant impacts. No sensitive biological resources exist within the areas where decommissioning and demolition will occur.	Included in this Plan as Appendix C is a Biological Resource Mitigation Implementation and Monitoring Plan (BRMIMP) Addendum.
Paleontology	Complies with all applicable LORS. No new permits are required.	There will be no significant impacts. No subsurface work will occur outside areas where subsurface work occurred during construction.	None of the COC nor any additional conditions are necessary. Excavation activities will be covered under a Construction Stormwater Pollution Protection Plan (SWPPP).
Geologic Hazards and Soil Resources	Complies with all applicable LORS. No new permits are required.	There will be minimal movement of soil on-site; therefore, there will be no significant impacts on soil and geologic resources.	No conditions are proposed.
Soil and Water Resources	Complies with all applicable LORS.	Compliance with General National Pollutant Discharge Elimination System (NPDES) Permit for Discharges of Storm Water Associated with Construction Activity will be sufficient to protect water resources during decommissioning and demolition.	Notice of intent for construction under the General NPDES Permit for Discharges of Storm Water Associated with Construction Activity will be submitted to the State Water Resources Control Board.

TECHNICAL AREA	COMPLIES WITH EXISTING APPLICABLE LORS?	POTENTIAL FOR SIGNIFICANT ADVERSE IMPACTS?	PROPOSED CONDITIONS
Land Use	The decommissioning and demolition activities are consistent with current land use designations, plans, and goals except for Policy ED-1.1, ED- 1.2, and ED-1.3, which encourage business development and retention.	There are no land use impacts other than the loss of business and job opportunities.	No conditions are proposed.
Noise	Decommissioning and demolition will comply with applicable noise LORS. No new permits are required.	There will not be a substantial increase in ambient noise levels during decommissioning and demolition relative to current conditions and no significant impacts from noise.	Existing programs related to worker safety will remain in place during decommissioning and demolition. No new conditions are proposed.
Socioeconomics	Decommissioning and demolition will comply with applicable socioeconomic LORS.	The socioeconomic impact from closure of the Project will be minor since continued industrial use at the site will retain jobs and create new jobs.	No conditions are proposed.
Traffic and Transportation	Decommissioning and demolition will comply with applicable traffic and transportation LORS.	Decommissioning and demolition activities will not result in significant, additional traffic impacts and will not cause a significant impact on traffic and transportation.	A traffic management plan will be developed to ensure compliance with the Riverside County Congestion Management Program (CMP) for truck intensive operations.

TECHNICAL AREA	COMPLIES WITH EXISTING APPLICABLE LORS?	POTENTIAL FOR SIGNIFICANT ADVERSE IMPACTS?	PROPOSED CONDITIONS
Visual Resources	Decommissioning and demolition will comply with all applicable LORS. Some night-time lighting will be used for site security during the decommissioning and demolition and will be in accordance with local lighting and shielding requirements.	There will be no visual impact from decommissioning and demolition. Since other industrial facilities dominate the project area landscape, the visual character of the project area will remain substantially unchanged.	No conditions are proposed.

2.0 DECOMMISSIONING AND DEMOLITION PLAN ORGANIZATION AND CONTENTS

This Plan responds to the requirements identified in the Commission Decision for the Project, and Title 20 California Code of Regulations, Section 1769, pertaining to post-certification amendments to a license granted by the CEC. It recognizes that decommissioning and demolition are temporary activities resulting in the removal, rather than the creation, of long-term impacts.

This Plan presents:

- The existing conditions at the Project Site (Chapter 3).
- The proposed decommissioning and demolition activities (Chapter 4).
- Key staffing for decommissioning and demolition (Chapter 5).
- An assessment of conformance with applicable LORS, the potential for any significant adverse impacts, and any proposed conditions to mitigate impacts (Chapter 6).

Although the California Environmental Quality Act (CEQA) is one of the applicable LORS, the environmental analysis presented in this document is not an initial CEQA impact assessment. The CEQA analysis was performed during the AFC process when the CEC made its discretionary approval of the whole of the project – construction, operation, and closure. This environmental analysis specifically addresses whether the activities associated with decommissioning and demolition will result in unanticipated significant adverse impacts not contemplated by the Commission Decision.

3.0 EXISTING CONDITIONS

3.1 Introduction

The Project is an existing natural gas-fired, combined-cycle generating facility located in Riverside County, California. The Project is owned and operated by IEEC, which is an indirectly wholly-owned subsidiary of General Electric Company.

3.2 Location of Facilities

The Project is located at 26226 Antelope Road in the City of Menifee, Riverside County, California 92585 on approximately 45.8 acres. The Project Site is located approximately six miles west of the City of Hemet, four miles east of the City of Perris, and 30 miles southeast of the City of Riverside. Figure 3-1 provides a regional location plan.

3.3 Site Description

The Project occupies approximately 35 acres within the 45.8-acre Project Site. Approximately 24 fenced acres accommodate the power generation facility, a switchyard, a water treatment facility, storage tank areas, a parking area, a control room building, and two storm water retention basins. The remaining 11 acres of the 35 disturbed acres are comprised of landscaped areas and access roads.

Decommissioning and demolition laydown and parking areas will be located within the 45.8-acre Project Site, or on near-by leased parcels, as was the case during Project construction. Figure 3-2 provides a detailed site plan.

Prior to construction of the Project, the Project Site was disturbed cultivated agricultural land used for growing wheat. The areas surrounding the Project Site are also heavily disturbed and used primarily for industrial purposes.

Primary access to the Project Site is by way of Ethanac Road to Antelope Road.

3.4 Power Generating Facility

The Project consists of two GE MS7001(H) in a two gas combustion turbines (CTs) and one steam turbine configuration; with each CT equipped with dry, low oxides of nitrogen (NOx) combustors, a heat recovery steam generator (HRSG), a single condensing steam turbine (ST), a deaerating surface condenser, and an eight-cell mechanical draft cooling tower. Each HRSG unit has a single 195-foot exhaust stack.

Each CT is rated at approximately 240 megawatts (MWs). The steam produced by each HRSG drives the single ST, which is rated at approximately 130 MWs. At base load, under average ambient conditions, the Project's net output is approximately 730 MWs. The peak net output when both turbines were operating was 730 to 750 MWs. One of the two turbines (Unit 2) at the Project has been mothballed since March 2017 due to economic considerations.

Additional Project equipment includes a nominal 100,000 pound per hour auxiliary boiler, two 2,000 kilowatt (kW) diesel emergency generators, and a 370 horsepower (hp) diesel fire pump.

3.5 Fuel Supply System

Natural gas is supplied through a 0.9-mile, 20-inch diameter pipeline that was constructed to deliver fuel from a pre-existing Sempra Energy gas pipeline running along Menifee Road, located approximately one mile southeast of the Project Site. Fuel gas is delivered to the Project Site through the Southern California Gas Company (SoCal Gas) Fuel Gas metering station located in the southeast corner of the Project Site.

3.6 Diesel Fuel

The Project includes one temporary 300-gallon aboveground diesel fuel storage tank of dual wall construction as well as two (2) emergency diesel generators (3,200 gallons each), and the diesel fire pump (350 gallons).

3.7 Electric Transmission Interconnection

The Project interconnects with the electrical transmission grid from an on-site switchyard through a transmission line constructed for the Project to the pre-existing Southern California Edison (SCE) Valley Substation. The transmission line is a 0.9-mile, 500-kilovolt (kV) overhead line, utilizing single and double-circuit steel lattice towers to connect to the substation.

3.8 Water Supply

The cooling and process water used by the Project consists primarily of recycled water supplied by EMWD, which was supplemented with raw water supplied by EMWD during the initial years of operation. Water is pumped from EMWD's Perris Valley Water Treatment Plant south into a pre-existing 48-inch recycled water pipeline that runs along McLaughlin Road, and is delivered to the Project Site via a 0.1-mile long water pipeline constructed for the Project.

3.9 Wastewater and Waste Management

Disposal of process wastewater is via a 4.7-mile non-reclaimable wastewater pipeline that was constructed for the Project within pre-existing utility rights-of-way along McLaughlin Road and Murrieta Road, and connected with pre-existing EMWD facilities located in the community of Sun City. Cooling tower blowdown is discharged into this pipeline. Other wastewater streams, including the reject stream from reverse osmosis, HRSG blowdown, and recovery from plant service water drains, is recycled for use as cooling tower makeup.

Sanitary wastewater is discharged via a 0.1-mile sewer line constructed for the Project and connected to a pre-existing sanitary sewer line under Antelope Road.

3.10 Workforce

The current Project workforce is relatively small with a normal staff of approximately 23 for plant operation and maintenance. The plant is staffed 24 hours per day, seven days per week. The work force is augmented by part-time workers and periodically increased during maintenance and repair events.



Figure 3-1 Project Regional Location

Figure 3-2 Project Site Plan



4.0 DECOMMISSIONING AND DEMOLITION PLAN

4.1 Overview

For the purposes of this Plan, decommissioning and demolition are considered two separate activities, as described below:

- Decommissioning Activities completed to place the Project in a zero-energy and environmentally neutral state. To include all activities associated with preparation of the plant for demolition.
- Demolition Physical removal through use of mechanical means of above and below grade structures, utilities, equipment and associated appurtenances.

Upon termination of power generation activities, the following initial decommissioning activities will occur to remove the Project from service:

- Drain all fluid systems and collect all contents to ensure public health and safety, and protection of the environment.
- Categorize all wastes including lubricating oils, fuels, water treatment chemicals, universal waste, etc. These materials will be managed for proper containerization, profiling, and shipment off-site for disposal or recycling.
- Identify utility systems required for continued operation of remaining BESS infrastructure.
- Design and install temporary facilities for support of IEEC and contractor personnel such as office trailers, temporary power, potable water and sanitary service.
- Equipment liquidation/sale activities.

Certain Project facilities and equipment will remain in place at the Project Site to support the proposed BESS. Certain other equipment acquired by Nova will be decommissioned and placed into temporary storage, at either the Project Site or elsewhere. Some of the stored equipment may be used in connection with the proposed BESS, and some may be used by Nova for other purposes unrelated to the Project Site and the proposed BESS. Facilities and equipment that neither remains in place nor is placed into temporary storage will be permanently removed from the Project Site. The planned disposition of the current Project facilities and equipment is as follows:

Facilities to Remain In Place

- Control Room Building and all contents (IT equipment/computers/displays, furniture, personal protective equipment, office equipment, etc.);
- Warehouse (existing contents removed and replaced with specified equipment to be placed in temporary storage);
- Water Treatment Building (de-energized) and all contents;
- Any lower voltage connections (below 500kV) to SCE for standby or station service and associated equipment needed to serve the Control Room Building and Warehouse; and

• Fire Water Storage Tank (This tank will remain in place and operational during the project).

Equipment to Remain in Place

- 500kV generator step-up transformers (de-energized and in a safe store condition per the manufacturer's recommendations);
- Unit auxiliary transformers (de-energized and in a safe store condition per the manufacturer's recommendations);
- 500kV switchyard and all associated equipment and spares within the fenced switchyard area (all maintained in their current status);
- Spare 500kV generator step-up transformer to remain at its current location adjacent to (at the north end of) the fenced switchyard area (de-energized and in a safe store condition per the manufacturer's recommendations);
- Diesel fire pump (Tag # 9FP-P-01A) (to be maintained and operated during the project);
- Motor driven (electric) fire pump (Tag # 9FP-P-02A);
- Jockey pump (electric)(Tag # 9FP-P-03A) (to be maintained and operated during the project);
- Site security equipment (cameras, fencing, controlled access gates, etc.); and
- Generator circuit breakers (de-energized and locked out). These units will require disconnection and removal from the Unit 1 and 2 power blocks prior to facility demolition. These units will be staged on-site for future use.

Equipment to be Decommissioned and Stored for Possible Future Use

- 2 x gas compressors (Tag #'s 9FG-C-01A/02A) (2 x Quantity);
- Cooling tower motors (4 x Quantity);
- Emergency generators (2 x Quantity);
- Fuel gas knockout drum, filter separators, and drain tanks (Tag #'s 9FG-F-01A, 9FG-F-02A/02B, 9FG-T-01A/01B/02A);
- Air compressors, dryers, and receivers (Tag #'s 1IA-C-01A/01B, 1IA-D-01A/01B, 1IA-D-02A/03A);
- Fin fan coolers (Tag #'s 9FG-A-01A/01B/01C); and
- CEMS HRSG PDC including calibration gases (2 x Quantity).

Some Project foundations and subsurface facilities will remain in place either because they may be utilized in connection with the proposed BESS, or because their removal is unnecessary given the continued use of the Project Site for industrial/power purposes, and/or removal would result in greater environmental impacts than retaining in place.

Foundations

- Foundations will be retained for facilities and equipment to remain in place;
- Power block foundations will be removed to grade or existing finished pad surface depending on slab construction details and future use considerations;

- Turbine pedestals, platforms and other elevated concrete power block structures will be removed to final foundation elevation;
- Power block sump structures will be filled to final foundation elevation;
- Foundations for facilities and equipment to be decommissioned and removed from the Project Site or placed in temporary storage will be removed entirely if feasible. Conditions making removal infeasible would include but not necessarily be limited to the following:
 - Impacts to surrounding structures; and
 - Structures located at significant depth (greater than 12 feet); and
- Pilings, if present beneath foundations scheduled for removal, will be cut immediately below the foundation and left in place.

Subsurface Facilities and Utilities

- Cooling tower basin walls will be removed to six inches below grade and the remaining basin will be filled to grade level with recycled concrete and clean fill and compacted as described under Backfilling and Finished Site Grade specifications below;
- Any pipes that are 0-12 feet below surface and are accessible (i.e., not located below foundations that are not removed) will be removed, with the exception of piping required for operation of the fire protection system including hydrants);
- Circulating water pipe that is below foundations in existing duct banks or concrete encased will remain in place and not be excavated. Circulating water piping is large diameter pipe that circulated cooling water between the generating unit's condensers and the cooling tower basin. Circulating water pipe risers and manways will be removed from grade to 12' below grade surface. Remaining pipe will be filled with flowable fill and capped with a weld in place steel cap. This piping is not associated with recycled water, non-reclaimable waste water, or sanitary sewer pipelines that are present on site and are referenced in Sections 3.8 and 3.9 of this document;
- All subsurface piping 6" diameter or greater that will remain and not be removed will be filled with flowable fill and capped with a weld in place steel cap.
- All cabling from underground duct bank conduits will be removed and duct banks will be left in place with empty conduit. Duct banks and conduit to be used for future site development will be left in place without grout/caps;
- Piping for water (fire, potable, service) and sewer, that is not required for operation of the site's fire protection system and does not impact the operations of utilities within the control room building, control room and warehouse, will be removed back to the Project Site boundary or closest flanged connection and secured with a blanking plate as described below or an existing valve if near the Project Site boundary. For piping left in place less than 6" in diameter, remaining ends will be capped in place with a 12" grout plug and a weld in place steel cap. If 6" or greater in diameter this piping will be filled with flowable fill and capped with a weld in place steel cap;

- Gas service will be terminated at the boundary of the Southern California Fuel Gas metering station. The fuel gas supply line will be purged from the metering station through to the units and auxiliary boiler. Fuel gas supply system components including the knock out and filtration skid will be removed. Above grade piping and piping between 0-12' below grade surface from the knock out and filtration skid to Units 1 and 2 and the auxiliary boiler will be removed;
- Drain lines located within the power block foundations will be capped in place with a 12" grout plug and a weld in place steel cap;
- Electrical service that routes to the Project from the power block will be terminated once the power block is disconnected from the switchyard. This will de-energize the water treatment building and electric fire pump. Once electrical service is terminated temporary fire protection measures will be utilized during decommissioning and demolition which will primarily consist of operation of diesel fire pump using existing fire suppression system infrastructure (fire water tank, pipeline and hydrants);
- The storm water drainage and retention system will be left in place and remain operable;
- Other subsurface facilities that are located within 12 feet of the surface and not identified above will be removed;
- Utility and gas pipeline capping will be completed in accordance with utility owner requirements and specifications; and
- Prior to abandoning or decommissioning any existing underground utilities in place, particularly underground fuel supply pipeline(s), water-supply pipeline(s), and sewer pipeline(s), the Project Owner will document the location of such pipelines to include a brief description of the former utility use, diameter/dimension of the abandoned utility, depth of burial, and date of abandonment. Documentation will permit future site owners/operators to locate such pipelines in the field.

Figure 4-1 presents an aerial view of the Project Site and identifies the Project components that are to remain in place.



Figure 4-1 Project Components to Remain in Place

At the completion of decommissioning and demolition, site grade will be returned to datum elevation as shown on existing drawings and sloped to existing stormwater drains to prevent accumulation and ponding of rainwater. All areas excavated during demolition will be backfilled with existing site material, and imported clean engineered fill if necessary, to maintain the required site grade. The density of fill material will not be less than 93 percent of the maximum modified proctor density in accordance with American Society for Testing and Materials (ASTM) D1557, or not less than 95 percent

of the maximum standard proctor density in accordance with ASTM D698. Fill in the upper twelve inches in the areas of the existing roads will be compacted to not less than 95 percent of the maximum modified proctor density in accordance with ASTM D1557, or not less than 98 percent of the maximum standard proctor density in accordance with ASTM D698.

4.2 Disposition of Major Project Components

The proposed disposition of the major Project components is summarized in Table 4.2-1 and discussed in greater detail in the sections that follow. For each major Project component, a "Primary Approach" has been identified, which is the intended approach for disposition of that component. In some cases, an "Alternative Approach" has been identified, which would be implemented should the Primary Approach be infeasible due to market conditions or component condition.

PROJECT COMPONENT	PRIMARY APPROACH	ALTERNATIVE APPROACH
Combustion Turbines (CT)	Disconnect, disassemble / remove, and sell to a new user	Demolish, size, and sell as recycled ferrous metal
Steam Turbines (ST)	Disconnect, disassemble /remove, and sell to a new user	Demolish, size, and sell as recycled ferrous metal
Generators	Disconnect, disassemble / remove, and sell to a new user	Demolish, size, and sell as recycled ferrous metal
Heat Recovery Steam Generators (HRSG)	Disconnect, disassemble / remove, and sell to a new user	Demolish, size, and sell as recycled ferrous metal
HRSG Stack Structure	Disconnect, disassemble / remove, and sell to a new user	Demolish, size, and sell as recycled ferrous metal
CT Air Intake System Structure	Disconnect, disassemble / remove, and sell to a new user	Demolish, size, and sell as recycled ferrous metal
Step Up 500kV Transformers (2)	Remains in place	NA
Unit Auxiliary Transformers	Remains in place	NA
Generator Breakers	Remains in place	NA
Water Treatment Building	Remains in place	NA
Maintenance Building and Control Room Building	Remains in place	NA
Medium Voltage Switchgear Building (4)	Remains in place	NA

Table 4.2-1 Summary of Decommissioning Approach

PROJECT COMPONENT	PRIMARY APPROACH	ALTERNATIVE APPROACH
Diesel Fire Pump (Tag # 9FP-P-01A)	Maintained on-site for operation during D&D operations	NA
Motor Driven Fire Pump (electric)(Tag # 9FP-P- 02A)	Decommissioned and Stored for Possible Future Use	NA
Jockey Pump (electric) (Tag # 9FP-P-03A)	Maintained on-site for operation during D&D operations	NA
Gas Compressors (2) – (Tag #'s 9FG-C-01A / 02A)	Decommissioned and Stored for Possible Future Use	NA
Cooling Tower Motors	Decommissioned and Stored for Possible Future Use	NA
Emergency Generators (2)	Decommissioned and Stored for Possible Future Use	NA
FG Knockout Drum, Filter Separators, Drain Tanks (Tag #'s 9FG-F-01A, 9FG- F-02A/02B, 9FG-T- 01A/01B/ 02A	Decommissioned and Stored for Possible Future Use	NA
Air Compressors, Dryers, Receivers (Tag #'s 1IA-C- 01A/01B, 1IA-D-01A/01B, 1IA-D-02A/03A	Decommissioned and Stored for Possible Future Use	NA
Fin Fan Coolers (Tag #'s 9FG-A-01A / 01B / 01C	Decommissioned and Stored for Possible Future Use	NA
CEMS HRSG PDC (2)	Decommissioned and Stored for Possible Future Use	NA
Auxiliary Cooling Water Pump	Disconnect, disassemble / remove, and sell to a new user	Demolish, size, and sell as recycled ferrous metal
Circulating Water Pumps	Disconnect, disassemble / remove, and sell to a new user	Demolish, size, and sell as recycled ferrous metal
Boiler Feed Pumps	Disconnect, disassemble / remove, and sell to a new user	Demolish, size, and sell as recycled ferrous metal
Cooling Tower Structure	Demolish above grade structure and walls to 6" below grade, sell any ferrous material, dispose of remaining material as C&D debris	NA

PROJECT COMPONENT	PRIMARY APPROACH	ALTERNATIVE APPROACH
Cooling Tower Electrical Building	Disconnect, disassemble / remove, and sell to a new user	Demolish building and components and dispose of as C&D debris, ferrous, and non-ferrous material
Cooling Tower Chemical Feed Foundation and Connections	Demolish, size, and retain on site foundation concrete and size and sell connections as recycled ferrous material	NA
Fire Water Tank	Remains in place	NA
Demineralized Water Storage Tank	Demolish, size, and sell as recycled ferrous metal	NA
Condensate Surge Tank	Demolish, size, and sell as recycled ferrous metal	NA
Ammonia Storage Tank	Demolish, size, and sell as recycled ferrous metal	NA
Switchyard Control Building	Remains in Place	NA
HRSG Blowdown Tank	Demolish, size, and sell as recycled ferrous metal	NA
Ammonia Injection Skid	Disconnect, disassemble / remove, and sell to a new user	Demolish, size, and sell as recycled ferrous metal
Condenser and Auxiliaries	Demolish, size, and sell as recycled ferrous metal	NA
Auxiliary Transformer	Remain in Place	NA
Recycled Water Tank	Demolish, size, and sell as recycled ferrous metal	NA
Condensate Pumps	Demolish, size, and sell as recycled ferrous metal	NA
Non-Reclaimable Wastewater Tank	Demolish, size, and sell as recycled ferrous metal	NA
Fire Protection System	Demolish, size, and sell as recycled ferrous metal	NA
Auxiliary Boiler	Disconnect, disassemble/remove, and sell to a new user	Demolish, size, and sell as recycled ferrous metal
Standby Generators	Disconnect, disassemble / remove, and sell to a new user	Demolish, size, and sell as recycled ferrous metal
High Pressure and Large Diameter Piping	Demolish, size, and sell as recycled ferrous metal.	NA

PROJECT COMPONENT	PRIMARY APPROACH	ALTERNATIVE APPROACH
Switchyard, Buses and Towers	Remain in place (up to limits of power block demolition). Buses within limits will be removed and recycled.	NA

4.3 Natural Gas Interconnection

IEEC will coordinate with SoCal Gas to ensure a safe and coordinated disconnect of the Project from its natural gas supply system. The natural gas service will be terminated and the isolation valves at the meter station closed and locked. The underground natural gas pipeline from the meter station to the Project will be purged, air-gapped, capped and abandoned in place.

4.4 Electric Transmission Interconnection

IEEC will work closely with SCE to ensure a safe and coordinated disconnection of the Project from the SCE transmission system. Electric transmission interconnection facilities will remain in place to serve the proposed BESS.

4.5 Water Supply

Certain water supply components will be left in place to serve the proposed BESS, while others will be removed as detailed in Table 4.2-1.

4.6 Wastewater

Wastewater pipelines from the power block foundations will be permanently plugged from the inlets to the external edges of the power block foundations. All wastewater pipelines that are 0-12 feet below the existing ground surface and not below foundations will be removed except for those lines that are associated with Water Treatment Building, Control Room Building and Warehouse operations. The water treatment and processing equipment, tanks, and facilities contained within the Water Treatment Building will be retained. All associated ancillary external components to wastewater treatment will be dismantled.

4.7 Other Waste

To the extent possible, all materials generated during decommissioning and demolition activities will be assessed for recycling, salvage, reuse or use as on-site fill (limited to processed concrete) in order to minimize waste generation.

All non-hazardous wastes including construction and demolition (C&D) debris, will be collected and disposed of in appropriate landfills or waste collection facilities.

All hazardous wastes and universal wastes will be disposed of in accordance with applicable LORS.

Any unknown hazardous or toxic materials encountered during decommissioning and demolition activities will be properly sampled and submitted to an approved analytical laboratory for analysis, characterization and profiling. All hazardous or toxic materials will be managed to ensure protection of the environment, as well as human health and safety. Associated activities including characterization, containerization, and off-site transport and disposal will be completed in accordance with applicable LORS.

4.8 Workforce

Decommissioning, demolition, asset and materials removal, and final grading activities will be performed by IEEC personnel and external contractors with the appropriate expertise and licensing. The on-site workforce including both IEEC employees and external contractors, is projected to be approximately 30 workers per day over the approximately 12-month period of decommissioning and demolition.

4.9 Equipment Requirements

Equipment types likely to be used for the demolition and removal activities are listed in Table 4.9-1. The equipment is anticipated to operate up to 10 hours per day, five days per week.

EQUIPMENT TYPE	HORSEPOWER	NUMBER
Skid-Steer Loader	85	2
Excavator with Shear	433	1
Excavator with Shear	359	1
Excavator with Shear	359	1
Excavator with Shear / Concrete Processor	355	1
Excavator with Thumb / Magnet	288	1
Compactor	156	1
Wheel Loader	225	1
160 Ton Rough Terrain Crane (short term rental as needed)	333	1

Table 4.9-1 Demolition and Removal Equipment Use

All equipment, as well as scrap and recycled materials to be removed from the Project Site, will be transported using 18-wheel tractor-trailer trucks. There will be approximately 20,000 tons of ferrous and non-ferrous material to be removed from the Project Site requiring an estimated 1,540 truck-loads. In addition to this material, approximately 100 loads of C&D debris, mainly generated by the demolition of the cooling tower, will require off-site transport and disposal. Mobilization and demobilization of demolition equipment will add an additional 20 truck trips to and from the Project Site. A total of 10 two-axle box truck round trips is estimated to be sufficient to occasionally haul hazardous or universal waste off the Project Site.

The import of approximately 4,000 tons of engineered fill will result in an additional 160 trips, and the import of diesel fuel being supplied to the Project Site to refuel mobile offroad equipment will account for an additional 100 trips during the approximately 12month period of decommissioning and demolition.

Consequently, there will be an estimated 1,930 truck round trips to and from the Project Site during the twelve-month decommissioning and demolition period.

4.10 Roads

The on-site paved roads, as well as paved parking and graveled surfaces, will be left in place.

4.11 Security

IEEC and its contractors will maintain 24-hour per day manned security during decommission and demolition. This will include perimeter fencing with Project Site entry monitored by on-site security personnel, and maintenance of a site security network.

4.12 Schedule

Planning and preparation activities are currently in progress and include preparation of planning documentation, detailed Project and asset characterization activities, and equipment marketing activities.

It should also be noted that certain actions that were taken with respect to Unit 2 when it was placed into cold lay-up status, consistent with the 2016 "COM13-14: Unplanned Temporary/Permanent Closure And On-Site Contingency Plan" previously filed with the CEC, are the same or similar to actions taken to permanently decommission a unit. Therefore, some of the decommissioning activities described in this Plan have already occurred with respect to Unit 2. With the exception of planning and preparation, IEEC will not undertake any decommissioning or demolition activities beyond those authorized by the 2016 plan referred to above until this Plan has been approved by the CEC.

Decommissioning and demolition will begin once this Plan is approved by the CEC, on or about December 15, 2019. Power block demolition activities will begin once the Project ceases power production, which is expected to be January 1, 2020. Decommissioning, demolition, removal, and final grading is expected to last approximately twelve months. The majority of the work will occur Monday through Friday during normal work hours (7:00 AM through 5:00 PM PS/DT).

The current decommissioning and demolition schedule is shown in Figure 4-2.

Figure 4-2 Project Decommissioning and Demolition Schedule



4.13 Implementation of Decommissioning and Demolition Activities

The decommissioning and demolition of the Project will be completed in three consecutive phases. The work in each phase is described below:

4.13.1 Phase 1 (3-Month Estimated Duration)

The initial activities under Phase 1 will include disconnection of the Project from primary utilities including gas supply and electrical supply from the switchyard. Once on-site systems and piping scheduled for demolition are confirmed purged and free of natural gas and high voltage electricity, additional Phase 1 activities will proceed as follows:

- Removal of regulated materials including hazardous materials/waste and universal waste. This includes removal, containerization, profiling, manifesting and transport for off-site disposal of the following items:
 - Lubricating and cooling oils removal/recovery from equipment scheduled for demolition/salvage;
 - Universal waste removal including fluorescent lights, ballasts, batteries, mercury switches, etc.;
 - Tank cleaning including removal of free liquids, sludges and tank bottoms; and
 - Decommission and store onsite equipment components listed for possible future reuse.
- Demolition of the Balance of Plant (BOP) structures (outside of the main power block), including foundations and subsurface utilities.

Phase 1 BOP demolition work will require the following types of equipment and may not include all specialty types of equipment:

- Excavators with Concrete Processors (breaking/sizing of concrete foundations/ pedestals and complete rebar removal);
- Excavators with Hydraulic Metal Shears (demolition and sizing of metal structural components, tanks, and any unsold equipment);
- Excavators with Thumbs/Magnets (loading trucks, containers, and rail cars with sized ferrous and non-ferrous material);
- Water Truck (site dust control (12,000 gallons per day estimated as required to maintain compliance with applicable requirements);
- Roll-off Container Drop Truck (stockpile/segregate ferrous and non-ferrous material);
- Skid-steer Loaders (stockpile/segregate ferrous and non-ferrous material);
- Wheel Loader (stockpile/segregate ferrous, non-ferrous, and pulverized concrete;
- Fuel/Lube/Mechanic Truck (equipment support);
- 4WD Project Pickups (personnel transport); and
- 160 Ton All Terrain Crane, as needed.

All C&D waste and recyclable material generated during Phase 1 will be loaded in approved and properly labelled containers and transferred from the Project Site to a California licensed and approved waste disposal facility in properly placarded transport vehicles.

4.13.2 Phase 2 (8 Month Estimated Duration)

Phase 2 consists of the demolition of the main power block structures and all remaining ancillary structures to existing grade. The main power block structures, equipment, and ancillary structures include:

- Units 1 & 2 Steel Support Structures;
- Units 1 & 2 Combustion Turbine and Concrete Foundations;
- Units 1 & 2 Generators;
- Units 1 & 2 Steam Turbines and Concrete Foundations;
- Units 1 & 2 Natural Gas Conditioning Structures;
- Units 1 & 2 HRSG & Concrete Foundations;
- Units 1 & 2 HRSG Stack Structures and Concrete Foundations;
- Units 1 & 2 Combustion Turbine Air Inlet System Structures and Foundations;
- Units 1 & 2 Power Block Transformers;
- Units 1 & 2 Power Block Power Distribution Control Modules;
- Units 1 & 2 Power Block Pumps and Related Valves / Piping; and
- Units 1 & 2 Power Block Electrical, buses, and Control Cabling / Cable Trays.

This demolition work will be completed utilizing the same equipment used in Phase 1, all performing the same functions. C&D waste and recyclable material generated during Phase 2 will be loaded in approved and properly labelled containers and transferred from the Project Site to a California licensed and approved waste disposal facility in properly placarded transport vehicles.

The Phase 1 and Phase 2 estimate of the ferrous and non-ferrous salvage material is 20,000 tons, which will leave the Project Site in highway tractor trailer trucks transporting 13 tons net salvage material per load. Consequently, 1,539 truckloads will leave the Project Site to a predetermined metal recycling destination. Rail cars may be used if a railroad siding exists nearby that can be used to stage railroad scrap metal cars. Typical scrap cars can haul 90 net tons, but the net will be reduced to 60 net tons due to void spaces inherent when loading salvage metal. Considering this, if railroad cars can be used, 334 rail cars would move the material to the final recycling destination with 1,540 truckloads still being involved to transport the material from the Project Site to the rail car siding loading area.

4.13.3 Phase 3 (1-Month Estimated Duration)

Phase 3 consists of the placement and compaction to project specifications of existing site backfill material (processed concrete) and imported engineered backfill material in the cooling tower basin and any areas excavated during the demolition phases. Final grading of disturbed areas per the final grading design and project specifications of the
disturbed areas will be completed and any required permanent erosion control measures installed. This work will be completed utilizing the following types of equipment:

- Water Truck (site dust control and backfill moisture control per compaction specifications);
- Excavators with Buckets (loading processed concrete in the container truck during the demolition phases);
- Roll-off Container Drop Truck (dumping processed concrete in the Cooling Tower Basin and areas requiring backfill following demolition);
- Skid-steer Loaders (spreading processed concrete in eight-foot lifts in the Cooling Tower Basin and areas requiring backfill and spreading imported backfill between the processed concrete lifts to fill void spaces and achieve compaction specifications);
- Sheepsfoot Vibratory Compactor (achieve compaction specifications);
- Fuel / Lube / Maintenance Truck (equipment support); and
- 4WD Project Pickups (personnel transport).

Waste material generated during Phase 3 will be loaded in approved and properly labelled containers and transferred from the Project Site to a California licensed and approved waste disposal facility in properly placarded transport vehicles.

4.14 Implementation of the Compaction Plan

Phase 3 includes purchasing approved backfill and hauling/placing/compacting the fill between all processed concrete lifts. The work consists of the following tasks:

- Approved fill will be loaded and transported to the Project Site and placed in eight inch lifts over each processed concrete lift;
- Compaction will be gained by utilizing a vibratory compactor to achieve desired compaction specifications with moisture requirements being within specified percentage points of optimum moisture.
- Confirmation testing will be completed by a local and approved geotechnical company; and
- The final survey will be completed to ensure final design for fill elevations in all Project Site areas was achieved.

4.15 Implementation of the Final Grading Plan

The final grading involves the following:

- Importing approved backfill and spreading/compacting to gain final specified elevations and grading/contouring of the backfill to maintain positive slope to storm water drains; and
- Installation of all permanent erosion control measures (rip rap, erosion control mats, silt fence, etc.) per the final design will be completed by the demolition contractor.

4.16 Implementation of the Demobilization and Post-Construction Plan

Phase 3 also includes demobilization of all equipment, removal of any temporary safety or silt fences, complete demobilization of all demolition personnel, and any subcontractor equipment and personnel. The work generally consists of the following:

- Temporary safety fence removal;
- Sanitary facilities demobilization;
- Complete equipment demobilization; and
- Demolition contractor and any subcontractor personnel demobilization.

After the completion of the decommissioning and demolition, a project close-out report will be prepared and provided to the CEC. This report will document beginning and endstate property conditions, means and methods used in completing the work, field activity daily logs, records of material transport both on and off site (to include off-site waste, salvage and component shipments; as well as imported fill and other materials). The project close-out report will include a number of as built drawings documenting Project Site conditions including remaining subsurface utility lines.

5.0 **PROJECT STAFFING – KEY POSITIONS**

5.1 Minimum Functional Requirements/Responsibilities

In the context of decommissioning and demolition execution and site safety, specified requirements shall be met and specified responsibilities performed by the functional equivalent of the positions described in the following sections. Please note that specific decommissioning and demolition work activities will be detailed in a set of project specific plans and specifications. Preparation and implementation of these project specific plans, as well as compliance with the CEC-approved Plan, is the responsibility of the individual project positions listed below, as noted.

5.1.1 Project Manager

The Project Manager (PM) is an experienced demolition professional who ensures that constructability input and appropriate Health, Safety and Environmental (HSE) requirements are integrated into the decommissioning and demolition project and is ultimately responsible and accountable for specified metrics performance for all phases of work.

The PM oversees and ensures that the execution of the various stages of the work are being performed satisfactorily by the applicable "owner" of each stage. Specific assignments/activities include:

- Ensures compliance with the CEC-approved Plan;
- Develops compliance reporting for CEC to document Plan compliance;
- Generates the monthly Contract Status Report;

- Initiates, develops, prepares/issues, and enforces adherence to the approved plans and procedures;
- Supports, provides input into, and generates/approves the following documents:
 - Baseline demolition schedule and updates to ensure adherence to critical path activity dates and other project constraints; and
 - Daily construction reports, sharing significant deviations/concerns (and proposed solutions) with IEEC;
- Prepares Substantial and Final Completion Certificates with regard to demolition work in the field for IEEC review; and
- Leads all constructability reviews relating to the decommissioning and demolition of the Project.

5.1.2 Site Supervisor

The Demolition Site Supervisor has oversight and overall responsibility for the demolition activities. Specific assignments/activities include:

- Supervises and directs the demolition team;
- Approves the monthly Contract Status Report prior to formal issuance;
- Initiates, develops, prepares/issues, and enforces project/site-wide adherence to the site plans and procedures;
- Supports, provides input into, and approves the following documents:
 - Baseline demolition schedule and updates to ensure adherence to critical path activity dates and other project constraints; and
 - Daily construction reports, sharing significant deviations/concerns (and proposed solutions) with the IEEC and the PM;
- Approves Substantial and Final Completion Certificates with regard to demolition /construction work in the field; and
- Inputs/attends all constructability reviews relating to the demolition portion of the project.

5.1.3 Site HSE Manager

The Demolition HSE Manager ensures that all personnel supporting the project are educated in the applicable HSE processes.

At the Project Site the Demolition HSE Manager shall be the key point of contact in terms of implementing the Demolition HSE Plan by reviewing the decommissioning and demolition safety programs against the Demolition HSE Plan, as well as observing contractors' and subcontractors' safety practices to ensure overall compliance with the Demolition HSE Plan.

5.1.4 Site Quality Assurance Officer

The responsibility of the Site Quality Assurance (QA) Officer is to ensure the expectations and requirements regarding the quality of contractors' and subcontractors' work processes and end products meet or exceed applicable IEEC requirements and specifications, as well as industry code requirements. The focus of the Site QA Officer will be to ensure consistency in the quality of work across all decommissioning and demolition entities involved with the work.

On the Project Site, the QA Officer will be the key point of contact in terms of implementing the CEC approved Plan and IEEC Decommissioning Project's Site Demolition/Construction Quality Assurance Plan, reviewing Contractor's quality control programs and work practices against the Site Demolition/Construction Quality Assurance Plan, as well as observing the contractor's jobsite quality control procedures and practices.

5.1.5 Air Quality Mitigation Manager

An Air Quality Mitigation Manager (AQMM) shall be designated who will be certified by the California Air Resources Board (CARB) for Visible Emissions Evaluation before any demolition activities commence at the Project Site. The AQMM will also serve as the Dust Control Supervisor, if required by SCAQMD Rule 403 – Fugitive Dust. The AQMM shall be responsible for assuring that:

- No dust from demolition activities remains visible beyond the property line;
- No dust emissions exceed 20 percent opacity from vehicle traffic;
- All active operations at the Project Site utilize applicable Best Available Control Measures as specified in SCAQMD Rule 403, including all appropriate measures found in Table 1 of Rule 403;
- All mobile off-road diesel-fueled vehicles operating at the Project Site are:
 - Properly labeled with an Equipment Identification Number (EIN) issued by the CARB;
 - Properly registered in the CARB Diesel Off-road Online Reporting System (DOORS); and
 - Are part of a vehicle fleet that has a current CARB Certificate of Reported Compliance;
- All mobile on-road diesel fueled vehicles operating at the Project Site are:
 - In compliance with CARB requirements for on-road vehicles for the current compliance year; and
 - Part of a fleet that has properly reported, as necessary, in the CARB Truck Regulation Upload, Compliance and Reporting System (TRUCRS) for which the fleet has a current Certificate of Reported Compliance; and

- Daily records are kept regarding the extent of active operations at the Project Site, including:
 - The nature of daily on-site demolition activities, including an estimate of the tons of various materials handled;
 - The amounts of diesel fuel consumed in each mobile off-road vehicle; and
 - The amounts of materials imported/exported to the Project Site.

6.0 LORS CONFORMANCE AND IMPACT ASSESSMENT

6.1 Introduction to the Environmental Resource Sections

The following Sections in Chapter 6 analyze each environmental resources that could be affected by decommissioning and demolition of the Project. Each Section is divided into four subsections that provide:

- 1. A summary of the conclusions from the Commission's Decision related to the specific resource, including any specific decommissioning or demolition requirements.
- 2. Whether there are any applicable LORS for decommissioning and demolition of the Project and any additional permits required for decommissioning and demolition.⁴
- 3. A discussion of how decommissioning and demolition will conform with all applicable LORS, and an assessment of the impacts of the decommissioning and demolition on the resource area in question, and
- 4. Conditions, if any, required for mitigation of impacts associated with decommissioning and demolition activities.

Proposed conditions included in this Plan include existing COC (with appropriate modifications in some cases), and new conditions developed specifically for decommissioning and demolition. Proposed conditions included in this Plan are designated with a "D" to indicate that they are applicable to decommissioning and/or demolition. Existing COC that are not specifically incorporated into this Plan have been deemed not applicable to decommissioning and demolition, and IEEC requests that the CEC approval of this Plan indicate that all such COC cease to be effective upon cessation of production of electricity from the Project. At that point, only those COC and new conditions specifically included in this Plan would cease to be effective upon full implementation of this Plan and release of CEC jurisdiction over the Project Site.

⁴ Where no applicable LORS have been identified, a LORS table is not provided or a table is provided with a comment column to provide the reasoning for the determination.

6.2 Air Quality and Greenhouse Gases

This section presents an analysis of LORS compliance and potential environmental impacts and benefits related to air quality and greenhouse gas emissions that may result from the decommissioning and demolition of the Project. With the cessation of Project operations, there is a substantial reduction in emissions which are being temporarily replaced with short-term emissions of a lesser magnitude related to decommissioning and demolition.

6.2.1 Background

The Commission Decision concluded:

"The Commission therefore conclude [sic] the implementation of the Conditions of Certification, below, and the mitigation measures described in the evidentiary record, ensures the Inland Empire Energy Center will conform with all applicable laws, ordinances, regulations, and standards relating to air quality as set forth in the pertinent portions of Appendix A of this Decision."⁵

The Commission Decision did not identify any decommissioning and demolition conditions specifically related to air quality or greenhouse gases.

6.2.2 Applicable LORS and Required Permits

As indicated in Table 6.2-1, most of the LORS applicable to air quality during decommissioning and demolition are SCAQMD rules. There are no specific LORS applicable to greenhouse gases during decommissioning and demolition.

No SCAQMD permits related to air quality or greenhouse gases will be required for the decommissioning or demolition activities. If portable equipment requiring permits is used for the decommissioning and demolition activities, that equipment will be registered through the CARB Portable Equipment Registration Program (PERP).

6.2.3 LORS Conformance and Impact Assessment

Table 6.2-1 shows how the decommissioning and demolition activities will conform with LORS applicable to air quality.

⁵ Commission Decision, p. 122.

LORS	DESCRIPTION	COMMENTS
Federal		
40 Code of Federal Regulations (CFR) Part 60 – NSPS, Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.	Establishes emission standards for stationary compression ignition internal combustion engines, including emergency fire water pump and generator engines over a specific size.	All the stationary engines operated as part of the power plant will be shut down, drained of fluids (fuel and lube), and potentially sold off, before the start of demolition. No SCAQMD permits will be required for the decommissioning and demolition activities. If portable equipment requiring permits is used, that equipment will be registered through the CARB PERP.
State		
Title 17 California Code of Regulations (CCR), Section 93115, Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines.	Establishes emission limits, operating limits, fuel use restrictions, monitoring and recordkeeping requirements for large (>50 hp) stationary compression ignition engines, including emergency fire water pump and generator engines.	No SCAQMD permits will be required for the decommissioning and demolition activities. If portable equipment requiring permits is used, that equipment will be registered through the CARB PERP. If portable engines are required, the AQMM will be responsible for verifying compliance with the ATCM for each portable engine that is operated at the Project
Title 17, CCR., Section 93116, ATCM for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower or Greater.	Establishes requirements for diesel fuel, use of only certified engines, weighted particulate matter (PM) emission fleet averages, record keeping and reporting for >50 hp compression engines, powering portable equipment such as generators and air compressors.	No SCAQMD permits will be required for the decommissioning and demolition activities. If portable equipment requiring permits is used, that equipment will be registered through the CARB PERP. If portable engines are required, the AQMM will be responsible for verifying compliance

LORS	DESCRIPTION	COMMENTS
		with the ATCM for each portable engine that is operated at the Project.
California Health & Safety Code (H&SC) §41700 (Nuisance Regulation)	Prohibits discharge of such quantities of air contaminants that cause injury, detriment, nuisance, or annoyance.	The Project owner will ensure contractor compliance with this requirement.
California H&SC §2451, et seq. (Portable Equipment Registration Program – PERP)	Allows the permitting of portable equipment under a statewide registration program.	If portable equipment requiring permits is used for the decommissioning and demolition activities, that equipment will be registered through the CARB PERP.
Title 13, CCR, Article 4.8, Chapter 9, Section 2449, Regulation for In- Use Off-Road Diesel- Fueled Fleets	Establishes requirements for diesel- fueled mobile off-road vehicle fleets in order to reduce criteria pollutant emissions from engines greater than 25 hp, including requirements on excess idling, CARB assigned EINs, and year-by-year fleet average requirements, as well as recordkeeping and reporting.	The AQMM shall be responsible for determining the compliance status of all mobile off-road equipment that will be operated during decommissioning at the Project Site, including verifying that all equipment is properly identified and that equipment fleets meet the appropriate annual reporting and compliance schedules.
Title 13, CCR, Division 3, Chapter 1, Section 2025, Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants for In-Use Heavy Duty Diesel-Fueled Vehicles.	Regulates diesel –fueled on- highway vehicles over 14,000 pounds Gross Vehicle Weight Rating (GVWR) by establishing dates by which certain model year engines can no longer be operated in California, with separate requirements for medium-duty (14000-26,000 GVWR) and heavy- duty (over 26,000 GVWR) vehicles, including recordkeeping and reporting for some vehicles.	The AQMM shall be responsible for determining the compliance status of all mobile on-road vehicles over 14,000 GWVR that are used in any capacity during the decommissioning and demolition of the Project.
Local (SCAQMD)		
Rule 201 – Permit to Construct, Rule 202 - Temporary Permit to	Rules 201, 202 and 203 require that permits be obtained for any equipment that emits air contaminants.	No SCAQMD permits will be required for the decommissioning and demolition activities. If

LORS	DESCRIPTION	COMMENTS
Operate, Rule 203 – Permit to Operate		portable equipment requiring permits is used, that equipment will be registered through the CARB PERP.
Rule 401 – Visible Emissions	Limits visible emissions from applicable equipment or processes to values no darker than Ringelmann #1 for periods greater than three minutes in any hour.	The Project owner will ensure that the demolition contractor complies with this requirement.
Rule 402 – Nuisance	Prohibits emissions in quantities that would adversely affect public health, other businesses, or property.	The Project owner will ensure that the demolition contractor complies with this requirement.
Rule 403 – Fugitive Dust	Limits fugitive PM emissions from transport, construction, handling and storage activities.	The Project owner will ensure that the demolition contractor will use appropriate dust suppression mitigation to limit fugitive PM emissions.
Rule 404 – Particulate Matter Concentration	Limits PM emissions concentration from sources.	No SCAQMD permits will be required for the decommissioning and demolition activities. This requirement would not apply to PERP registered equipment.
Rule 405 – Solid Particulate Matter Weight	Limits PM emissions based on process weight.	No SCAQMD permits will be required for the decommissioning and demolition activities. This requirement would not apply to PERP registered equipment.
Rule 407 – Liquid and Gaseous Contaminants	Limits CO emissions from combustion sources.	No SCAQMD permits will be required for the decommissioning and demolition activities. This requirement would not apply to PERP registered equipment.
Rule 409 – Combustion Contaminants	Limits emissions of combustion contaminants	No SCAQMD permits will be required for the decommissioning and demolition activities. This

LORS	DESCRIPTION	COMMENTS
		requirement would not apply to PERP registered equipment.
Rule 431 – Sulfur Content of Fuels, Rule 431.2 Sulfur Content of Liquid Fuels	Limits sulfur content of liquid and solid fuels.	No SCAQMD permits will be required for the decommissioning and demolition activities. This requirement would not apply to PERP registered equipment.
Rule 1166 – Volatile Organic Compound (VOC) Emissions from Decontamination of Soil	Sets requirements to control the emission of VOC from excavating, grading, handling and treating VOC contaminated soil.	If VOC contaminated soil is encountered during demolition, the Project owner will ensure the demolition contractor is in compliance with this rule.
Regulation XIII – New Source Review	Sets forth the pre-construction review requirements for new, modified or relocated facilities	No SCAQMD permits will be required for the decommissioning and demolition activities. This requirement would not apply to PERP registered equipment.
Regulation XIV – Toxics and Other Non-Criteria Pollutants	Sets limits on toxic air contaminants from stationary sources.	No SCAQMD permits will be required for the decommissioning and demolition activities. If portable equipment requiring permits is used for the decommissioning activities, that equipment will be registered through the CARB PERP.
Regulation XVII- Prevention of Significant Deterioration	Sets forth the pre-construction requirement for stationary sources.	No SCAQMD permits will be required for the decommissioning and demolition activities. This requirement would not apply to PERP registered equipment.
Regulation XX – RECLAIM	Imposes facility emission caps on nitrogen oxides (NOx) and sulfur oxides (SOx) emissions from large stationary sources.	No SCAQMD permits will be required for the decommissioning and demolition activities. This requirement would not

LORS	DESCRIPTION	COMMENTS
		apply to PERP registered equipment.
Regulation XXX – Title V Permits	Sets forth permitting requirements for large stationary sources.	No SCAQMD permits will be required for the decommissioning and demolition activities. This requirement would not apply to PERP registered equipment. Once operations cease the Title V permit will be retired.

6.2.3.1 Criteria Pollutant Emissions

Demolition activities will generate emissions of criteria pollutants (VOC, carbon monoxide [CO], NOx, SOx, respirable particulate matter [PM10] and fine particulate matter [PM2.5]). These pollutants were also generated during construction and operation of the Project. Criteria pollutant emissions anticipated to occur during demolition activities were estimated and compared with actual and calculated emissions during construction and operation of the Project to evaluate the potential for the demolition activities to result in impacts from criteria pollutant emissions greater than those previously analyzed for construction and operation of the Project.

Criteria pollutant emissions from the following sources during demolition were calculated:

- Fugitive PM emissions from earth moving activities;
- Off-road equipment exhaust;
- On-site portable equipment exhaust;
- On-site motor vehicle exhaust;
- On-site motor vehicle fugitive (PM) emissions from entrained dust;
- Off-site motor vehicle exhaust; and
- Off-site motor vehicle fugitive PM emissions from entrained dust.

Off-road equipment exhaust emissions were estimated by multiplying total operating hours for each piece of equipment by equipment-specific emission factors. IEEC's demolition contractor provided estimates of the types, number, horsepower rating, usage factors and operating hours for the equipment that is anticipated to be used. Emission factors were taken from the CARB Executive Order for each individual engine present in each piece of mobile off-road equipment, as found in Appendix A.

CARB Executive Orders are written documentation of compliance with CARB Regulations, for example – vehicle engines certified to specific emission standards, issued pursuant to Title 13 CCR, Chapter 9, Article 4, Sections 2420-2427.

On-site and off-site motor vehicle exhaust emissions were estimated by multiplying total on-site and off-site vehicle miles traveled for each type of motor vehicle used by vehicle-specific emission factors. IEEC's demolition contractor provided estimates of the types, number and vehicle miles traveled for the motor vehicles that are anticipated to be used. Emission factors were from either the California Air Pollution Control Officers Association (CAPCOA) CalEEMod emissions model or the CARB EMFAC2017 website.

Motor vehicle fugitive PM emissions were estimated by multiplying total on-site and offsite vehicle miles traveled for each type of motor vehicle used by vehicle-specific emission factors. Emission factors were calculated using equations from the U.S. Environmental Protection Agency (EPA) Compilation of Air Pollutant Emission Factors (AP-42).

6.2.3.2 Comparison to Project Construction Emissions

Estimated construction emissions were taken from FSA Air Quality Table 5, IEEC Project, Estimated Construction Emissions (Daily and Annual). Total estimated criteria pollutant emissions during demolition and during construction are summarized in Table 6.2-2. Estimated emission calculations are provided in Appendix A. As indicated, criteria pollutant emissions during demolition are estimated to be substantially lower than emissions during Project construction. Therefore, impacts from criteria pollutant emissions during demolition will be substantially less than impacts during Project construction, which were found to be less than significant in the Commission Decision.

SOURCE	VOC	CO	NOx	SOx	PM10	PM2.5
Total Demolition Activities	0.21	0.78	4.04	0.01	0.09	0.01
Total Construction Activities	5.10	56.3	17.3	0.10	0.90	1.00
Demolition Emissions Less Than Construction Emissions?	Yes	Yes	Yes	Yes	Yes	Yes

Table 6.2-2 Comparison of Demolition Emissions with Construction Emissions

Note: Emissions are in Tons per Year

6.2.3.3 Comparison to Project Operation Emissions

Operational criteria pollutant emissions were obtained from measurements, fuel use, or calculations for the following sources that generated emissions during operation of the Project:

- On-site stationary sources;
- Off-site motor vehicle exhaust (primarily delivery trucks); and
- Off-site motor vehicle fugitive PM emissions from entrained dust.

The maximum annual operating emissions were taken from FSA Air Quality Table 7, IECC Project, Estimated Maximum Emissions during Operation.

Emissions from on-site stationary sources during 2018 are based on the annual emission report submitted to the SCAQMD. Exhaust and fugitive PM emissions from off-site motor vehicles were calculated using the same approaches that were used to estimate emissions from these sources during the demolition activities.

Comparison of demolition emissions to maximum annual operating emissions and comparison of demolition emissions to 2018 operational emissions are summarized in Tables 6.2-3 and 6.2-4. Estimated emission calculations are provided in Appendix A. As indicated, criteria pollutant emissions during demolition are estimated to be lower than operational emissions during 2018. Therefore, impacts from criteria pollutant emissions during demolition in 2018, which were themselves significantly less than the maximum annual operational emissions found to be less than significant in the Commission Decision.

Table 6.2-3Comparison of Demolition Criteria Pollutant Emissions withMaximum Annual Operating Emissions

SOURCE	VOC	СО	NOx	SOx	PM10	PM2.5
Total Demolition Emissions	0.21	0.78	4.04	0.01	0.09	0.01
Maximum Yearly Operating Emissions	48.1	418.2	169.4	14.0	105.1	N/A
Demolition Emissions Less Than Maximum Operating Emissions?	Yes	Yes	Yes	Yes	Yes	N/A

N/A – Not Available

Emissions are in Tons per Year

Table 6.2-4Comparison of Demolition Emissions with 2018 OperationalEmissions

SOURCE	VOC	СО	NOx	SOx	PM10	PM2.5
Total Demolition Emissions	0.21	0.78	4.04	0.01	0.09	0.01
2018 Operating Emissions	1.471	2.13	5.27	0.51	2.74	N/A
Demolition Emissions Less Than 2018 Operating Emissions?	Yes	Yes	Yes	Yes	Yes	N/A

N/A – Not Available

Emissions are in Tons per Year

6.2.3.4 Greenhouse Gas Emissions

Fuel combustion during demolition activities will also generate emissions of greenhouse gases (GHG) (carbon dioxide [CO2], methane [CH4] and nitrous oxide [N2O]). Fuel combustion during operation of the Project to generate electricity also generated

emissions of these pollutants. GHG emissions anticipated to occur during demolition activities were estimated and compared with estimated emissions during operation of the Project to evaluate the potential for the demolition activities to increase potential impacts from GHG emissions.

GHG emissions were estimated from the following sources during demolition:

- Off-road equipment exhaust;
- Portable equipment exhaust;
- On-site motor vehicle exhaust; and
- Off-site motor vehicle exhaust.

Off-road equipment exhaust emissions were calculated by multiplying total fuel use for each piece of equipment by equipment-specific emission factors, as found on the CARB EMFAC2017 web-site. Total fuel use for each type of equipment was estimated by IEEC's demolition contractor and as found in the CARB Executive Order for each vehicle's engine as presented in Appendix A.

On-site and off-site motor vehicle exhaust GHG emissions were calculated in a similar fashion utilizing CARB EMFAC2017 emission factors.

Total GHG emissions over the twelve-month decommissioning and demolition period are summarized in Table 6.2-5. Estimated GHG emissions calculations are provided in Appendix A.

GHG emissions from the following sources that generated emissions during operation of the Project were estimated:

- On-site stationary sources; and
- Off-site motor vehicle exhaust (primarily five-axle trucks).

Operating emissions were taken from the CARB GHG Report for calendar year 2017, as the 2018 report is not yet verified.

IEEC provided estimates of emissions from on-site stationary sources calculated from records of the amount of fuel combusted. Exhaust emissions from off-site motor vehicles were estimated using the same approaches that were used to estimate criteria pollutant emissions from these sources during the demolition activities.

Total estimated GHG emissions during demolition and during operations in 2017 are summarized in Table 6.2-5. Estimated emission calculations are provided in Appendix A. As indicated, GHG emissions during demolition are estimated to be substantially lower than operational GHG emissions during 2017. Therefore, impacts from GHG emissions during demolition will be substantially less than impacts during Project operation in 2017, which were themselves less than the maximum annual operational emissions found to be less than significant in the Commission Decision.

SOURCE	CO2e (Metric Tons per Year)
Demolition GHG Emissions	1,284
2017 Facility GHG Emissions	144,827
Demolition GHG Emissions Less Than 2017 Facility GHG Emissions?	Yes

Table 6.2-5Comparison of Demolition Greenhouse Gas Emissions withOperations during 2017

6.2.4 Proposed Conditions

The following COC developed for the Application for Construction and approved by the CEC (Docket No 01-AFC-17C) are proposed to be followed during decommissioning and demolition to ensure that activities conform to applicable LORS:

AQ-SC1 The project owner shall fund all expenses for an on-site Air Quality Construction Mitigation Manager (AQCMM) who shall be responsible for maintaining compliance with conditions AQ-SC2 through AQ-SC6 for the entire project site and linear facility construction. The on-site AQCMM may delegate responsibilities identified in Conditions AQ-SC1 through AQ-SC6 to one or more air quality construction mitigation monitors. The on-site AQCMM shall have access to areas of construction of the project site and linear facilities, and shall have the authority to appeal to the CPM to have the CPM stop any or all construction activities as warranted by applicable construction mitigation conditions. The on-site AQCMM, and any air quality construction mitigation monitors responsible for compliance with the requirements of AQ-SC4, shall have a current certification by the California Air Resources Board for Visible Emission Evaluation prior to the commencement of ground disturbance. The AQCMM may have other responsibilities in addition to those described in this condition. The on-site AQCMM shall not be terminated without written consent of CPM.

Verification: At least 60 days prior to the start of ground disturbance, the project owner shall submit to the CPM, for approval, the name, current CARB Visible Emission Evaluation certificate, and contact information for the on-site AQCMM and air quality construction mitigation monitors.

AQ-SC2 The project owner shall provide a construction mitigation plan, for approval, which shows the steps that will be taken, and reporting requirements, to ensure compliance with conditions AQ-SC3 and AQ- SC4.

<u>Verification:</u> At least 60 days prior to start any ground disturbance, the project owner shall submit to the CPM, for approval, the construction mitigation plan. The CPM will notify the project owner of any necessary modifications to the plan within 30 days from the date of receipt. Otherwise, the plan shall be deemed approved.

- **AQ-SC3** The on-site AQCMM shall submit to the CPM, in the Monthly Compliance Report (MCR), a construction mitigation report that demonstrates compliance with the following mitigation measures:
 - a) All unpaved roads and disturbed areas in the project and linear construction sites shall be watered until sufficiently wet for every four hours of construction activities, or until sufficiently wet to comply with the dust mitigation objectives of Condition AQ-SC4. The frequency of watering can be reduced or eliminated during periods of precipitation.
 - b) No vehicle shall exceed 15 miles per hour within the construction site.
 - c) The construction site entrances shall be posted with visible speed limit signs.
 - d) All construction equipment vehicle tires shall be washed or cleaned free of dirt prior to entering paved roadways.
 - e) Gravel ramps of at least 20 feet in length must be provided at the tire washing/cleaning station.
 - f) All entrances to the construction site shall be graveled or treated with water or dust soil stabilization compounds.
 - g) Construction vehicles must enter the construction site through the treated entrance roadways.
 - h) Construction areas adjacent to any paved roadway shall be provided with sandbags to prevent run-off to the roadway.
 - i) All paved roads within the construction site shall be swept twice daily when construction activity occurs.
 - j) At least the first 500 feet of any public roadway exiting from the construction site shall be swept twice daily when construction activity occurs.
 - k) All soil storage piles and disturbed areas that remain inactive for longer than 10 days shall be covered, or be treated with appropriate dust suppressant compounds.
 - All vehicles that are used to transport solid bulk material on public roadways and that have potential to cause visible emissions shall be provided with a cover, or the materials shall be sufficiently wetted and loaded onto the trucks in a manner to provide at least one foot of freeboard.
 - m) Wind erosion control techniques, such as windbreaks, water, chemical dust suppressants, and vegetation, shall be used on all construction areas that may be disturbed. Any windbreaks used shall remain in place until the soil is stabilized or permanently covered with vegetation.
 - n) Any construction activities that may cause fugitive dust in excess of the visible emission limits specified in Condition AQ-SC4 shall cease when the wind exceeds 25 miles per hour unless water, chemical dust

suppressant, or other measures have been applied to reduce dust to the limits set forth in **AQ-SC4**.

o) **Diesel Fired Engines**

- 1. All diesel-fueled engines used in the construction of the facility shall be fueled only with ultra-low sulfur diesel, containing no more than 15-ppm sulfur.
- 2. All diesel-fueled engines used in the construction of the facility shall have clearly visible tags issued by the on-site AQCMM that shows the engine meets the conditions set forth herein.
- 3. All large construction diesel engines, which have a rating of 100 hp or more, shall be equipped with catalyzed diesel particulate filters (soot filters), unless certified by engine manufacturers or the on-site AQCMM that the diesel engine is not available or the use of such devices is not practical for specific engine types. For purposes of this condition, a diesel engine is "unavailable" or the use of such devices is "not practical" if the AQCMM in applying recognized industry practices certifies that:
 - The device is not available. For purposes of this condition, "not available" means that a device certified by either CARB or EPA is: (i) not in existence at any location for use by the project owner at or near the time project construction commences; (ii) in existence but the construction equipment is intended to be on-site for ten (10) days or less or (iii) not available for a particular piece of equipment.
 - Despite the project owner's best efforts, use of the device is not practical. For purposes of this condition, "not practical" means any of the following: (i) the use of the soot filter is excessively reducing normal availability of the construction equipment due to increased downtime for maintenance, and/or reduced power output due to an excessive increase in backpressure; (ii) the soot filter is causing or is reasonably expected to cause significant engine damage; (iii) the soot filter is causing or is reasonably expected to cause a significant risk to workers or the public; or (iv) other good cause approved by the CPM.

The project owner shall notify the CPM within seven (7) days of determining that a soot filter is unavailable or not practical, and the reasons therefore.

Verification: In the MCR, the project owner shall provide the CPM a copy of the construction mitigation report and any diesel fuel purchase records, which demonstrate compliance with condition **AQ-SC3**.

AQ-SC4: No construction activities are allowed to cause visible dust emissions at or beyond the project site fenced property boundary or any adjacent lands

owned by the applicant. No construction activities are allowed to cause visible dust plumes that exceed 20 percent opacity at any location on the construction site. No construction activities are allowed to cause any visible dust plume in excess of 200 feet beyond the centerline of the construction of linearfacilities.

<u>Verification:</u> The on-site AQCMM shall conduct a visible emission evaluation at the construction site fence line, or 200 feet from the center of construction activities at the linear facilities, each time he/she sees excessive fugitive dust from the construction or linear facility site. The records of the visible emission evaluations shall be maintained at the construction site and shall be provided to the CPM in the MCR.

AQ-SC6: During site mobilization, ground disturbance, and grading activities, the project owner shall limit the fugitive dust causing activities (i.e. scraping, grading, trenching, or other earth moving activities) to no more than a twelve-hour per day schedule as provided in Condition NOISE-8.

Verification: The project owner shall provide records of compliance as part of the MCR.

6.3 Public Health

This section presents an analysis of LORS compliance and potential environmental impacts to public health that may result from the proposed decommissioning and demolition of the Project.

6.3.1 Background

The Commission Decision concluded:

"The Commission therefore concludes that with implementation of the Condition of Certification below, Project emissions of non-criteria pollutants will not pose a significant direct, indirect, or cumulative adverse public health risk."⁶

The Commission Decision did not identify any decommissioning conditions specifically related to public health.⁷

6.3.2 Applicable LORS and Required Permits

LORS potentially applicable to public health during decommissioning and demolition are discussed in Section 6.2 Air Quality and Greenhouse Gases. No other LORS related to public health are applicable or are anticipated.

⁶ Commission Decision, p. 172.

⁷ Commission Decision, pp 39-40.

6.3.3 LORS Conformance and Impact Assessment

Diesel-fueled construction equipment and motor vehicles will emit diesel particulate matter (DPM) during demolition. DPM is a California carcinogenic toxic air contaminant (TAC) as listed in the CARB TAC Identification Program. However, cancer risks from exposure to TACs are generally only estimated for exposure periods of nine (9), thirty (30), and seventy (70) years. The demolition activities will only occur over a one (1) year period, which is much less than the exposure periods that are generally of concern. Furthermore, the emissions of DPM and other TACs will be much lower during demolition than during operation of the Project. Therefore, exposure to DPM emitted during demolition activities is not anticipated to cause a significant public health impact.

Risks to public health could also occur if toxic substances are contained in the structures to be demolished and are emitted during the demolition process. No toxic substances, such as asbestos or lead-based paint, were used during construction of the Project. Prior to initiation of demolition activities, a comprehensive regulated materials survey will be completed for both Units 1 and 2, as well as ancillary structures and systems scheduled for demolition. This survey will identify other materials of concern such as lubricating and cooling oils, process chemicals and universal waste items that will be removed and transported off-site for disposal or reclamation prior to initiation of demolition of demolition activities. Considering this, toxic substances will not be emitted during demolition of the Project structures and no impacts to public health are anticipated to occur.

6.3.4 Proposed Conditions

No conditions related to public health are required for decommissioning or demolition.

6.4 Hazardous Materials Management

This section describes the systems and procedures that will be implemented to minimize the potential impacts from storage and use of hazardous materials during decommissioning and demolition activities. Waste management procedures and LORS compliance are discussed in Section 6.5, Waste Management.

6.4.1 Background

The Project has established hazardous materials programs designed to minimize the impact on workers, the community, and the environment.

The Commission Decision concluded:

"The Commission therefore concludes that the use of hazardous materials by the Inland Empire Energy Center will not result in any significant adverse public health and safety impacts."⁸

⁸ Commission Decision, p. 186.

The Commission Decision did not identify any decommissioning or demolition conditions specifically related to hazardous materials.⁹

6.4.2 Applicable LORS and Required Permits

The LORS applicable to decommissioning and demolition are briefly summarized in Table 6.4-1.

One acutely hazardous material is currently stored at the Project Site in quantities exceeding the reportable amounts defined in the California Health and Safety Code, Section 25532 (j), as summarized below:

• Aqueous ammonia (28 percent ammonia in aqueous solution).

Other hazardous materials stored in smaller quantities, such as mineral and lubricating oils, corrosion inhibitors and water conditioners, are present at the Project Site. Hazardous materials used during demolition will include gasoline, diesel fuel, oil and lubricants. None of these materials pose significant potential for off-site impacts as a result of the quantities on-site, their relative toxicity, and/or their environmental mobility. No acutely toxic hazardous materials will be used onsite during demolition.

LORS	DESCRIPTION	COMMENTS
Federal		
The Superfund Amendments and Reauthorization Act of 1986 (42 USC §9601 et seq.).	Contains the Emergency Planning and Community Right to Know Act (also known as SARA Title III).	All materials located on-site during operation are being handled and will be removed according to approved plans during decommissioning. Hazardous materials used during demolition will include gasoline, diesel fuel, oil and lubricants.
The Clean Air Act (CAA) (42 USC 7401 et seq. as amended).	Established a nationwide emergency planning and response program and imposed reporting requirements for businesses which store, handle, or produce significant quantities of extremely hazardous materials.	All materials located on-site during operation are being handled and will be removed according to approved plans during decommissioning. Hazardous materials used during demolition will include gasoline, diesel fuel, oil and lubricants.

 Table 6.4-1
 LORS Applicable to Hazardous Materials

⁹ Commission Decision, pp.39-40.

LORS	DESCRIPTION	COMMENTS			
State					
California H&SC §§ 25500 to §§ 25543; 19 CCR §§ 2720 – 2734.	Directs facility owners, storing or handling acutely hazardous materials in reportable quantities, to develop a Risk Management Plan (RMP) and submit it to appropriate local authorities, the USEPA, and the designated local Administering Agency for review and approval.	All materials located on-site during operation are being handled and will be removed according to approved plans during decommissioning. Hazardous materials used during demolition will include gasoline, diesel fuel, oil and lubricants.			
California Uniform Building Code	Requirements regarding the storage and handling of hazardous materials.	All materials located on-site during operation are being handled and will be removed according to approved plans during decommissioning. Hazardous materials used during demolition include gasoline, diesel fuel, oil and lubricants.			
Local					
The Certified Unified Program Authority (CUPA) with responsibility to review RMPs and Hazardous Materials Business Plans is the Riverside County of Environmental Health Department.	Requires Consolidated Hazardous Materials Permit (as per H&S Code chapter 6.95) from the County.	All materials located on-site during operation are being handled and will be removed according to approved plans during decommissioning. Hazardous materials used during demolition include gasoline, diesel fuel, oil and lubricants.			
Industry Codes and Standards					
California Fire Code, Chapters 27, 34, and others	Sets forth requirements for the storage and handling of hazardous materials.	All materials located on-site during operation are being handled and will be removed according to approved plans during decommissioning. Hazardous materials used during demolition include gasoline, diesel fuel, oil and lubricants.			

6.4.3 LORS Conformance and Impact Assessment

Operational hazardous materials, such as aqueous ammonia, will be removed once the Project ceases operation. A summary of hazardous materials used during operation that will be removed prior to the start of demolition is provided in Table 6.4-2.

Table 6.4-2Operational Hazardous Materials to be Removed Prior to or DuringDecommissioning

CATEGORY	MATERIAL	CHEMICAL NAME	CONTAINER TYPE (QUANTITY)	ESTIMATED QUANTITY
CG	EPA Protocol Gases	Oxygen (24%) Nitrogen (99%)	Cylinder (16)	2,240 CF
CG	Methane/Ethane	Methane (90%) Ethane (5%)	Cylinder (2)	500 CF
CG	Acetylene	Acetylene (100%)	Cylinder (4)	920 CF
CG	Argon	Argon (100%)	Cylinder (2)	582 CF
CG	Carbon Dioxide	Carbon Dioxide (98%)	Tank (1) Cylinder (2)	453,000 CF
CG	Helium	Helium (100%)	Cylinder (4)	1,164 CF
CG	Hydrogen	Hydrogen (100%)	Tube Trailers (2)	104,000 CF
CG	Nitrogen	Nitrogen (100%)	Tanks (2) Cylinders (4)	112,200 CF
CG	Oxygen	Oxygen (100%)	gen (100%) Cylinder (4)	
CG	Sulfur Hexafluoride	Sulfur Hexafluoride (100%)	Cylinder (3)	8,950 CF
CG	Odorized Commercial Propane	Propane (100%)	Cylinder (20)	2,750 CF
L	Ammonium Hydroxide	Ammonium Hydroxide (30%)	Tank (2)	16,200 G
L	Biomate MBC2881	Amide (40%) Sodium Bromide (7%)	Tank/Tote (1)	550 G
L	Conntect 6000	Ethylene Glycol (20%) Ethoxylated Alcohols (40%)	Tank/Tote (1)	550 G
L	Corrshield MD4100	Sodium Molybdate (20%) Sodium Nitrate (13%)	Drum (2)	110 G
L	Corrtrol OS5607	Carbonic Dihydrazide (10%)	Tank/Tote (2)	1,100 G
L	Hydrochloric Acid	Hydrochloric Acid (20%)	Drum (2)	110 G
L	Hypersperse MS1310	Not Listed	Tank/Tote (1)	550 G
L	Kleen MCT 103	Phosphoric Acid (20%) Nitriloracetic Acid (1%)	Tote (3)	1,050 G

CATEGORY	MATERIAL	CHEMICAL NAME	CONTAINER TYPE (QUANTITY)	ESTIMATED QUANTITY
L	Optisperse HP3100	Sodium Hydroxide (7%)	Tank/Tote (2)	1,100 G
L	Paints	Various	Containers (60)	300 G
L	RO Membrane Cleaner	Various	Tank/Tote (1)	400 G
L	Sodium Hypochlorite	Sodium Hypochlorite (15%) Sodium Chloride (15%) Sodium Hydroxide (1%)	Tank (3)	25,500 G
L	Spectrus DT1404	Sodium Bisulfite (60%)	Tank (1)	550 G
L	Spectrus NX1100	2-Bromo-2- Nitropropane-1,3-Diol (10%) Magnesium Nitrate (5%)	Tank (1)	550 G
L	Steamate NA1321	Ammonium Hydroxide (40%)	nium Hydroxide (40%) Tote (6)	
L	Sulfuric Acid	Sulfuric Acid (85%)	Tank (2)	12,000 G
L	Sodium Chloride	Sodium Chloride	Sodium Chloride Tank (2)	
L	Lube Oil (contained-in equipment) ¹	Lube Oil	Equipment (6)	32,356 G
L	Electric Oil (contained-in equipment) ²	Electric Oil	Electric Oil Equipment (4)	
L	Diesel Fuel (contained-in equipment) ³	Diesel Fuel Equipment (4)		7,800 G
L	Freon-123 Refrigerant (contained-in equipment) ⁴	2,2-Dichloro-1,1,1- trifluoroethane	Equipment (4)	12,800 G
S	Lead Acid Batteries	Lead (60%)	Batteries (100)	2,600 LB
HW	SCR Catalyst ⁵	Heavy Metals	Equipment	70,000 LB
HW	Used Oil ⁶	Used Oil	Tank (6) Oil-Water Separator (1)	4,420 G

CATEGORY	MATERIAL	CHEMICAL NAME	CONTAINER TYPE (QUANTITY)	ESTIMATED QUANTITY		
UW	Batteries Fluorescent Lamps Electronic Wastes Mercury Wastes	NA	NA	Not Estimated		
Notes:		Quantity Unit Abb	reviations			
Category Abbre	viations	CF = Cubic Feet				
CG = Compressed Gas G = Gallons						
HW = Hazardous Waste LB = Pounds						
UW = Universal	Waste					
L = Liquids						
S = Solids						
¹ – Lube oil cont and Boiler Feed	tained in equipment to be water Pumps (2 each)	e removed, including Unit #	1 and #2 Lube Oil a	and HPU Skids,		
² – Electric oil contained in equipment to be removed, including LCI Transformer, Water Treatment Substation A and B BUS Transformer, and Unit #1 and #2 Cooling Tower AUX Substation A and B BUS Transformers.						
³ – Diesel fuel contained in Unit #1 and #2 emergency generators, diesel firewater pump, and Hazmat Storage Area diesel tank. Note that some of remaining fuel will be used by onsite equipment utilized during demolition.						
⁴ – Freon 123 co technician.	⁴ – Freon 123 contained in chiller units (4 total). Refrigerant to be removed by a licensed refrigeration technician.					
⁵ – Material not considered a hazardous waste until removed from process and relinquished or intended						

⁵ – Material not considered a hazardous waste until removed from process and relinquished or intended for disposal.

⁶ – Includes used oil, waste oil, and oily water contained in fuel gas drain tanks (2), compressor drain tanks (2), fuel gas reception drain tank (1), Hazmat Storage Area Used Oil Tank (1), and Oil Water Separator (1).

Several plans will be updated or closed as the Project transitions from operation through decommissioning and demolition. The facility Hazardous Materials Business Plan (HMBP) outlines hazardous materials handling, storage, spill response, and reporting procedures that will be updated as materials are removed, and tanks are decommissioned. The existing Risk Management Plan will be closed after the aqueous ammonia is removed and the tanks containing this material are demolished. The existing Spill Prevention Control and Countermeasure (SPCC) Plan will be closed after decommissioning activities are complete and no potential for spillage remains.

Small quantities of spilled fuel oil, hydraulic fluid and grease drippings from equipment may occur during demolition. Such materials generally have a low relative risk to human health and the environment. If there is a large spill, the spill area will be bermed or controlled as quickly as is practical to minimize the footprint of the spill. Contaminated soil and materials produced during cleanup of a spill will be placed into DOT-approved drums or containers for off-site disposal as a hazardous waste at a permitted hazardous waste transfer, storage, and disposal facility (TSDF). If a spill or leak into the environment involves hazardous materials equal to or greater than the specific reportable quantity, federal, State, and local reporting requirements will be adhered to.

Hazardous materials that are anticipated to be supplied and used by the demolition contractor include gasoline, diesel fuel, oil, and lubricants. The contractor will be responsible for verifying that the use, storage, and handling of these materials are in compliance with applicable federal, state, and local requirements, including licensing, personnel training, accumulation limits, reporting requirements, and recordkeeping.

A summary of hazardous materials anticipated during decommissioning and demolition is provided in Table 6.4-3. No acutely hazardous substances will be used or stored during decommissioning and demolition.

Table 6.4-3Hazardous Materials Present During Decommissioning and
Demolition Activities

MATERIAL	CAS NO.	APPLICATION	HAZARDOUS CHARACTERISTICS	MAXIMUM QUANTITY ON SITE
Acetylene gas	74-86-2	Welding gas	Health: moderate toxicity Physical: combustible, flammable Hazard class: Toxic	600 cubic feet
Argon gas	7440-37-1	Welding gas	Health: low toxicity Physical: non- flammable gas	600 cubic feet
Oxygen	7782-44-7	Welding gas	Health: low toxicity Physical: oxidizer	600 cubic feet
Batteries (Lead Acid)	7439-92-1	Equipment	Health: N/A Physical: N/A	60 each
Diesel fuel	68476-34-6	Equipment fuel	Health: low toxicity Physical: combustible liquid	2,500 gallons
Hydraulic fluid	64741-89-5	Equipment (e.g., drive units)	Health: low to moderate toxicity Physical: Class IIIB combustible liquid	20 gallons per tracker drive unit, maintenance inventory of 55 gallons
Lube Oil	64742-65-0	Lubricate rotating equipment	Health: low toxicity Physical: N/A	Maintenance inventory in 55- gallon drums

6.4.4 **Proposed Conditions**

IEEC personnel and the demolition contractor will implement the various hazardous materials management programs, plans, and procedures during decommissioning and demolition to comply with applicable regulatory requirements. Decommissioning and demolition will not have significant impacts due to hazardous materials; however, the following conditions are proposed to be implemented before the start of work.

D-HM-1 The project owner shall update the Hazardous Materials Business Plan as needed to reflect the use of hazardous materials during decommissioning that have not been previously used at the site.

Verification: If hazardous materials that have not previously been used at this site are needed, the project owner or their contractor shall prepare and submit a revised HMBP to the CPM and Fire Department within one week of determination.

D-HM-2 The project owner shall direct and require all vendors delivering any hazardous material to the Project Site to use only the route previously approved by the CPM (I-215 to Ethanac Road to Antelope Road and then into the Project Site) as required by Condition of Certification HAZ-10. The project owner shall obtain approval of the CPM if an alternate route is desired.

Verification: Not required, as this in an extension of an existing condition of certification.

D-HM-3 The project owner shall direct all vendors carrying any liquid hazardous materials greater than 500 gallons not to deliver during the time in the mornings and afternoons when children are going to and from school, as required by Condition of Certification HAZ-11.

Verification: Not required, as this in an extension of an existing condition of certification.

6.5 Waste Management

This section presents an analysis of the potential adverse environmental impacts and LORS compliance related to the wastes that will be generated during the Project decommissioning and demolition. Management and discharge of wastewater is addressed in Section 6.9. Additional information related to waste management is also provided in the Section 6.6, Worker Safety and Fire Protection, and Section 6.4, Hazardous Materials.

After cessation of operations, all remaining non-hazardous wastes will be collected and disposed of in appropriate recycling centers, landfills, or waste collection facilities. Hazardous wastes will be disposed of according to all applicable LORS. The site will be secured 24 hours per day during decommissioning and demolition activities. Decommissioning activities include removal of products such as hydraulic, lubricating, and mineral oils and process-related chemicals to reduce the risk of worker exposure and the potential for release to the environment. All operational liquids and chemicals, including water treatment chemicals, calibration and other compressed gas cylinders, and any maintenance lubricants, solvents, and cleaners, are expected to be removed during the decommissioning phase and prior to demolition. To the extent possible, unused or partially used containers will be returned to the vendor for recycling.

Hazardous materials containers and pipelines will be rinsed clean when feasible and rinsate collected for off-site disposal. When possible, these materials will be placed directly into tanker trucks or other transport vessels and removed from the Project Site at the point of generation in order to minimize the need for on-site storage.

Demolition will entail breakdown and removal of applicable structures and facilities. Mechanized equipment and trained personnel will be used to safely dismantle and remove structures. Most major equipment is targeted for reuse or resale on the secondary markets. Debris and equipment that is not removed intact will be placed in temporary on-site storage areas pending transportation to selected recycling and/or disposal facilities.

6.5.1 Background

The Project has several existing waste management programs to minimize impacts on the environment. These programs will be revised as necessary as the Project transitions from operation to closure.

The Commission Decision concluded:

"The Commission therefore concludes that the management of project wastes will comply with all applicable laws, ordinances, regulations, and standards related to waste management as identified in the pertinent portion of Appendix A of this Decision."¹⁰

The Commission Decision did not identify any decommissioning or demolition conditions specifically related waste management.¹¹

6.5.2 Applicable LORS and Required Permits

The applicable LORS are briefly discussed and summarized in Table 6.5-1.

¹⁰ Commission Decision, p. 206.

¹¹ Commission Decision, pp. 39-40.

LORS	DESCRIPTION	COMMENTS				
Federal						
Resource Conservation and Recovery Act (42 U.S.C. § 6922)	Establishes requirements for the management of hazardous wastes from the time of generation to the point of ultimate treatment or disposal.	All hazardous wastes generated will be removed according to approved plans. Hazardous wastes generated during demolition may potentially include waste fuel, lubricants, oil, and sorbent media.				
Title 40, Code of Federal Regulations, part 260	These sections contain regulations promulgated by the EPA to implement the requirements of RCRA.	All hazardous wastes generated will be removed according to approved plans. Hazardous wastes generated during demolition may potentially include waste fuel, lubricants, oil, and sorbent media.				
Comprehensive Environmental Response, Compensation and Liability Act: (Superfund) Title 42, USC, §§ 9601, et seq.	Establishes mechanisms for the cleanup of accidental spills or releases of pollutants into the environment.	The facility HMBP outlines spill response and reporting procedures to be followed during decommissioning and demolition.				
State	1	1				
California Health and Safety Code, Section 25100 et seq. (Hazardous Waste Control Act of 1972, as amended).	Creates the framework under which hazardous wastes must be managed in California.	All hazardous wastes generated will be removed according to approved plans. Hazardous wastes generated during demolition may potentially include waste fuel, lubricants, oil, and sorbent media.				

Table 6.5-1	LORS Applicable to Waste Management

LORS	DESCRIPTION	COMMENTS
Title 14, California Code of Regulations, Section 17200 et seq. (Minimum Standards for Solid Waste Handling and Disposal)	Establish minimum standards for solid waste handling and disposal and guidelines to ensure conformance of solid waste facilities with county solid waste management plans; as well as enforcement and administrative provisions.	Applies to facilities receiving non- hazardous waste materials generated during facility decommissioning and demolition. No wastes will be disposed at the Project Site.
Title 22, California Code of Regulations, Section 66262.10 et seq. (Generator Standards)	Establish requirements for generators of hazardous waste.	All hazardous wastes generated will be removed according to approved plans. Hazardous wastes generated during demolition may potentially include waste fuel, lubricants, oil, and sorbent media.
Title 22, California Code of Regulations, Section 67100.1 et seq. (Hazardous Waste Source Reduction and Management Review)	Establish reporting requirements for generators of certain hazardous and extremely hazardous wastes in excess of specified limits.	The requirements of this section apply to routinely generated wastes from ongoing processes or operations. These requirements do not apply to facility decommissioning or demolition.
Title 24, California Code of Regulations, Part 11, Section 5.408 (California Green Building Standards Code)	Establishes standards for construction waste management and recycling or salvage of a minimum of 65% of nonhazardous C&D waste.	IEEC expects to sell or recycle much of the Project equipment and waste, satisfying the 65% diversion requirements.

LORS	DESCRIPTION	COMMENTS
Local		
The Riverside County Department of Environmental Health.	Administers the California laws and regulations for both solid and hazardous wastes in the proposed project area. This agency has been designated as the local hazardous waste Certified Unified Program Agency (CUPA) by the state of California.	All hazardous wastes generated will be removed according to approved plans. Hazardous wastes generated during demolition may potentially include waste fuel, lubricants, oil, and sorbent media.

No new permits will be required during decommissioning or demolition regarding hazardous waste management; however, some existing permits will be required to remain open until decommissioning and demolition are completed. During decommissioning and demolition, IEEC will use the existing EPA identification number and Hazardous Materials Handler and Hazardous Waste Generator permit from Riverside County Department of Environmental Health, which is the CUPA.

To close out the AST permits, Hazardous Materials Business Plan (HMBP), hazardous waste generation, and hazardous materials management plans and inventory statements, the CUPA will be contacted to arrange for an exit inspection. The CUPA will then close the above permits.

Existing permits related to waste management are shown in Table 6.5-2.

PERMIT	ISSUING AGENCY	REQUIREMENT	SCHEDULE
EPA ID number	EPA	Must have an EPA ID number to ship hazardous waste	N/A – will use existing facility EPA ID number (CAR000216952) through decommissioning and demolition
Hazardous Materials Handler and Hazardous Waste Generator permit	CUPA	Required to store hazardous materials and generate hazardous waste within the County	N/A – will use the existing permit through decommissioning and demolition
Aboveground Storage Tank permit	CUPA	Required to store hazardous materials in a storage tank	N/A – will use existing permits through decommissioning and demolition

Table 6.5.2 Required Permits for Waste Management

6.5.3 LORS Conformance and Impact Assessment

Prior to decommissioning, facility personnel will use all hazardous and non-hazardous materials to the extent possible to minimize waste generation and truck trips. Any remaining fluids and gasses will be drained and either returned to the vendor, sold, or disposed of in a permitted waste disposal facility. Table 6.5-3 summarizes the anticipated waste streams generated during decommissioning and demolition activities, along with appropriate management methods for treatment, recycling, or disposal.

Table 6.5-3	Summary of Decommissioning and Demolition Waste Streams and
Management	Methods

WASTE STREAM AND	ORIGIN AND COM-	ESTIMATED AMOUNT	ESTIMATED FREQUENCY	WASTE M ME	IANAGEMENT ETHOD
TION ¹	POSITION		GENERATION	ON-SITE	OFF-SITE
		Compresse	d Gases ²		
Acetylene	Hazmat Storage Area Compressed gas cylinder	920 cubic feet	One time	None	Return to vendor
Argon	Hazmat Storage Area Compressed gas cylinders	582 cubic feet	One time	None	Return to vendor
Carbon Dioxide	Various Locations Tank and Compressed gas cylinders	453,000 cubic feet	One time	None	Return to vendor
Helium	Various Locations Compressed gas cylinders	1,164 cubic feet	One time	None	Return to vendor
Hydrogen	East of Units 1 and 2 Tube Trailers	104,000 cubic feet	One time	None	Return to vendor
Nitrogen	Units 1 and 2 Skids Tanks (2) Various Locations Compressed gas cylinders	112,200 cubic feet	One time	None	Return to vendor

WASTE STREAM AND	ORIGIN AND COM-	ESTIMATED AMOUNT	ESTIMATED FREQUENCY	WASTE MANAGEMEN METHOD	
TION ¹	POSITION		GENERATION	ON-SITE	OFF-SITE
Oxygen	Hazmat Storage and Maintenance Shop Compressed gas cylinders	768 cubic feet	One time	None	Return to vendor
Propane (Commercial)	Warehouse and Units 1 and 2 Compressed gas cylinders	2,750 cubic feet	One time	None	Return to vendor
Sulfur Hexafluoride	Various Locations Compressed gas cylinders	8,950 cubic feet	One time	None	Return to vendor
		Universal	Wastes ³		
Batteries	In Existing Equipment	Not Estimated	One time	None	Recycle
Electronic Wastes	In Existing Equipment	Not Estimated	One time	None	Recycle
Fluorescent Lamps/Signs	In Structures	Not Estimated	One time	None	Recycle
Mercury Waste	In Existing Equipment and Structures	Not Estimated	One time	None	Recycle
		Liquid	ds³		
Ammonium Hydroxide	Near Cooling Towers Tanks (2)	16,200 gallons	One time	None	Return to vendor
Biomate MBC2881	Water Treatment Building Tote	550 gallons	One time	None	Return to vendor
Conntect 6000	Between Units 1 and 2 Tote	550 gallons	One time	None	Return to vendor

WASTE STREAM AND	ORIGIN AND COM-	ESTIMATED AMOUNT	ESTIMATED FREQUENCY	WASTE MANAGEMENT METHOD	
CLASSIFICA- TION ¹	POSITION		OF GENERATION	ON-SITE	OFF-SITE
Corrshield MD4100	Auxiliary Cooling System Drums	110 gallons	One time	None	Return to vendor
Corrtrol OS5607	Unit 1 and 2 Condenser Tank/Tote	1,100 gallons	One time	None	Return to vendor
Hydrochloric Acid	Water Treatment Building Drums	110 gallons	One time	None	Return to vendor
Hypersperse MS1310	Water Treatment Building Tank/Tote	550 gallons	One time	None	Return to vendor
Kleen MCT 103	Water Treatment Building Totes	1,050 gallons	One time	None	Return to vendor
Optisperse HP3100	Units 1 and 2 Tank/Tote	1,100 gallons	One time	None	Return to vendor
Paints	Hazmat Storage Area 5-Gallon Containers	300 gallons	One time	None	Offsite Recycle
RO Membrane Cleaner	Water Treatment Building Tank/Tote	400 gallons	One time	None	Return to vendor
Sodium Chloride	Outside Water Treatment Building Tanks	100,000 pounds	One time	None	Return to vendor
Sodium Hypochlorite	Water Treatment Building Tank	25,500 gallons	One time	None	Return to vendor

WASTE STREAM AND	ORIGIN AND COM-	ESTIMATED AMOUNT	ESTIMATED FREQUENCY	WASTE M ME	ANAGEMENT ETHOD	
TION ¹	POSITION		OF GENERATION	ON-SITE	OFF-SITE	
Spectrus DT 1404	Water Treatment Building Tank	550 gallons	One time	None	Return to vendor	
Spectrus NX1100	Water Treatment Building Tank	550 gallons	One time	None	Return to vendor	
Steamate NA1321	Power blocks Totes	2,100 gallons	One time	None	Return to vendor	
Sulfuric Acid	Water Treatment and Cooling Tower Tanks	12,000 gallons	One time	None	Return to vendor	
Petroleum Hydrocarbons and Refrigerants (Contained in Equipment) ³						
Diesel Fuel (excess)	Emergency Generators Firewater Pump Hazmat Diesel Tank	7,800 gallons	One time	None	Return to vendor or recycle offsite	
Electric Oil	Transformer Substations	4,285 gallons	One time	None	Return to vendor or recycle offsite	
Freon-123	Chiller Units	12,800 gallons	One time	None	Removal by Licensed Refrigerant Technician and Recycle offsite	
Lube Oil	Lube Oil Skids HPU Skids Boiler Feedwater Pumps	32,400 gallons	One time	None	Return to vendor or recycle offsite	

WASTE STREAM AND	ORIGIN AND ES COM- A	ESTIMATED AMOUNT	ESTIMATED FREQUENCY	WASTE MANAGEMENT METHOD		
CLASSIFICA- TION ¹	POSITION		OF GENERATION	ON-SITE	OFF-SITE	
Used Oil	Fuel Gas Drain Tanks Compressor Drain Tanks Fuel Gas Reception Tank Hazmat Used Oil Tank Oil-Water Separator	4,420 gallons	One time	None	Recycle or use for energy recovery	
Process-Related Solid Wastes ⁴						
SCR Catalyst	SCR Catalyst Units	70,000 pounds	One time	None	Return to Manufacturer for recycling or Dispose in Class I landfill	
Demolition Wastes⁵						
Demolition Waste - Hazardous	Empty hazardous material containers	~ 1 cubic yard per week	Intermittent	None. Accumula te on-site for <90 days	Return to vendor or dispose in a permitted waste disposal facility	
Demolition waste - Hazardous	Solvents, used oil and lubricants	~ 400 gallons	Intermittent	None. Accumula te on-site for <90 days	Recycle, treat, or dispose at a Class I Landfill	
Demolition waste - Nonhazardous	Scrap wood, concrete, steel, glass, plastic, paper, insulation	~ 600 tons/week	Intermittent	None	Recycle wherever possible, otherwise dispose to Class III landfill	
Sanitary waste– Non- hazardous	Portable chemical toilets – sanitary waste	~ 200 gallons / day	Periodically pumped to tanker truck by licensed contractors	None	Ship to sanitary wastewater treatment plant	

WASTE STREAM AND	ORIGIN AND COM-	ESTIMATED AMOUNT	ESTIMATED FREQUENCY	WASTE MANAGEMENT METHOD	
CLASSIFICA- TION ¹	POSITION		OF GENERATION	ON-SITE	OFF-SITE
Non-RCRA hazardous waste	Used Oily Rags, Pig Blankets, Adsorbent Material	500 pounds	Intermittent	None	Recycle or dispose off- site at a Class I Landfill

Notes:

¹Classification under Title 22, CCR § 66261.20 et seq, where applicable

²Removal of compressed gas cylinders that are not required to support Project demolition activities will occur in Phase 1 of the decommissioning and demolition.

³Removal of residual liquids, decontamination fluids, and universal wastes will occur during Phase 1 of the decommissioning and demolition. These materials do not become wastes until they are removed and intended to be discarded during decommissioning.

⁴Category includes solid hazardous materials that become wastes when removed or intended to be discarded during decommissioning.

⁵Solid and/or recyclable wastes generated during Phase 2 of the decommissioning and demolition will include C&D wastes (e.g., steel support, structures, and concrete foundations) and incidental hazardous wastes associated with construction support activities. Hazardous wastes generated during decommissioning will be temporarily stored on site pending completion of profile documents, hazardous waste manifests, and arrangements for transport to a licensed Class I disposal facility.

One time – Term relates to the intent to manage like wastes during a specific phase of project activities. Waste generation may occur on an intermittent basis, but would not occur during multiple phases of the project execution.

Intermittent – Term applies to wastes that may be generated during more than one phase of project activities (i.e., decommissioning, demolition, and site restoration).

Wastes that may be generated during abatement activities (e.g., asbestos containing materials) are not included in this summary. A detail hazardous materials assessment will be performed prior to commencing demolition activities to identify regulated materials that may be present in building structures or equipment (e.g., flange/valve gaskets). Any hazardous waste generated during asbestos abatement activities will be managed and disposed of in accordance with applicable standards.

6.5.3.1 Environmental Site Assessment

A Phase I Environmental Site Assessment (ESA) of the Project Site was prepared in May 2019 in in accordance with American Society for Testing and Materials (ASTM) Standard Practice E1527-13 ("Phase I ESA"). A copy of the Phase I ESA Report is included as Appendix B of this Plan.

According to historical research conducted as part of the Phase I ESA, the Project Site was under cultivation from at least the late 1930s until the Project was constructed beginning in the mid-2000s. Although non-adjacent residential and commercial buildings were present a short distance to the north and northeast along Ethanac and Pinacate Roads in increasing density since at least 1938, adjacent properties were either vacant or under cultivation until power transmission towers were constructed on the south-adjacent parcel sometime between 1985 and 1989. The asphalt and cement production
plants located on the north-adjacent parcel were constructed sometime between 1989 and 2002. Between 2002 and the present, various lots located across Antelope Road to the west, appear to have been in intermittent use as equipment yards. The west-adjacent RV yard first appears in a 2012 aerial photograph.

A search of environmental databases found that the Project Site is listed in a number of databases. None of the listings was judged an indicator of an unresolved release or threatened release of a petroleum product, and other material of concern, and therefore, is not considered to represent an environmental concern to the property.

The Phase I ESA did not identify any *recognized environmental conditions* (RECs) within the Project Site boundaries.

6.5.3.2 Non-Hazardous Solid Waste Generation and Disposal

During decommissioning and demolition, the following non-hazardous wastes will be generated:

- Universal Waste: Information on universal wastes anticipated to be generated is provided in Table 6.5-3. Universal wastes and unusable materials will be handled, stored, and managed per California Universal Waste requirements and will not be disposed of in Class II landfills.
- Non-Hazardous Solid Waste: Solid waste generated will include lumber, plastic, metal, glass, concrete, and empty non-hazardous containers. Management and disposal of these wastes will be the responsibility of the decommissioning contractor. Typical management practices for this material include mainly recycling and proper storage of waste to prevent wind dispersion. The majority of the non-hazardous solid wastes, including ferrous and non-ferrous metals, concrete, and wood waste, will be recycled. Consideration will also be given to recycling plastic, glass, and insulation if suitable recycling options are identified for these materials. Any remaining non-hazardous solid wastes that are not suitable for recycling will be transported to approved local Class III landfills for disposal, The quantity of solid wastes generated during decommissioning and demolition are not expected to significantly impact the capacity of the Class III landfills in Riverside County.
- *Wastewater*: Wastewater generated will include sanitary wastes, dust suppression drainage, and equipment wash water. Sanitary wastes, collected in portable self-contained chemical toilets, will be pumped periodically. Potentially contaminated equipment wash water will be contained at designated wash areas and transported to an authorized wastewater treatment facility via a licensed hauler.

There are three active Class III landfills located within approximately 30 miles of the Project Site, including the Lamb Canyon, El Sobrante, and Badlands landfills. In addition, the Robert A. Nelson Transfer Station and Materials Recovery Facility accepts mixed materials, C&D debris, and wood waste for recycling. The three Class III disposal facilities possess a total of more than 150 million cubic yards of remaining capacity and

are expected to remain operational through at least 2022 (Badlands) and 2051 (El Sobrante). The maximum landfill capacity, daily operating rate, and remaining capacity of the three Class III landfills that will accept nonhazardous solid wastes from the Project are summarized in Table 6.5-4.

Waste Disposal Site	Title 23 Class	Maximum Permitted Capacity ¹ (tons/day)	Current Operating Rate ² (tons/day)	Remaining Capacity ¹ (cubic yards)	Estimated Closure Date
Lamb Canyon Sanitary Landfill		5 000	1 600	10 2/2 050	2020
Beaumont, CA 92223	Class III	3,000	1,000	19,242,950	2029
El Sobrante Landfill					
10910 Dawson Canyon Road	Class III	16,054	9,300	143,977,170	2051
Corona, CA 91719					
Badlands Sanitary Landfill					
31125 Ironwood Avenue	Class III	4,800	2,400	15,748,799	2022
Moreno Valley, CA 92555					
Robert A Nelson					
Transfer Station and MRF	NA	4 000	2 000	NA	NA
1830 Agua Mansa Road		1,000	2,000		
Riverside, CA 92509					
Source: CalRecycle SWIS Facility Detail May, 2019					
¹ Permitted and Remaining Capacity as of most recent date of calculation					
² Current operating rate based on 2018 data					
NA – Not Applicable or Not Available					

A comparison of the potential waste generation in Table 6.5-3 to the landfill capacities shown in Table 6.5-4 demonstrates that there is sufficient off-site landfill capacity for Project wastes generated during decommissioning and demolition.

6.5.3.3 Hazardous Waste Generation and Disposal

A summary of the hazardous wastes generated during decommissioning and demolition is provided in Table 6.5-3. Most of the hazardous wastes generated during decommissioning (e.g., solvents and vehicle and equipment maintenance-related materials) will be recycled. Empty containers will be returned to the appropriate vendor, if possible. Any hazardous waste generated during decommissioning that cannot be recycled will be transported off-site by a licensed and permitted hazardous waste transporter to a permitted treatment, storage, and disposal facility (TSDF).

In the unlikely event that contaminated soil is encountered during excavation, the soil will be segregated, sampled, and subjected to laboratory analysis to determine appropriate waste classification and treatment and disposal options. If the soil is classified as hazardous, the CPM will be notified, and the soil will be transported to a Class I landfill or other appropriate soil treatment and recycling facility.

The two Class I landfills in California permitted to accept hazardous wastes are the Waste Management, Inc. Kettleman Hills and Clean Harbors Buttonwillow LLC facilities located in Kings and Kern County, respectively. The Kettleman Hills facility accepts Class I solid and Class II solid and liquid wastes, while the Buttonwillow facility accepts Class I solid wastes. While details regarding the remaining capacity of the Buttonwillow facility far exceeds the anticipated quantity of hazardous waste that may be subject to landfill disposal.

As was previously discussed, the majority of the liquid hazardous materials that are associated with facility operations is intended to be returned to the vendor or recycled. Similarly, oil and oily liquid wastes generated during decommissioning will be transported off-site for recycling and would not be subject to landfill disposal. For select liquid wastes, the World Oil Recycling facility located in Compton (Los Angeles County), is a RCRA-permitted Part B TSDF that recycles used oil, wastewater, and antifreeze.

The capacities of hazardous waste TSDF facilities that will accept hazardous liquid and/or solid wastes from the Project are summarized in Table 6.5-5.

TSDF Site	Title 23 Class	Maximum Permitted Capacity ¹ (tons/day)	Current Operating Rate ² (tons/day)	Remaining Capacity ¹ (cubic yards)	Estimated Closure Date
Kettleman Hills Landfill 35251 Old Skyline Road Kettleman City, CA 93239	Class I Class II	8,000	480	6,000,000	NA
Clean Harbors Buttonwillow LLC 2500 West Lokern Road Buttonwillow, CA 93206	Class I	10,500	100	NA	2040
World Oil Recycling 2000 North Alameda Street Compton, A 90222 ³	NA	781,000	500,000	NA	NA

 Table 6.5-5
 Hazardous Waste Treatment, Storage, and Disposal Facilities

Source: CalRecycle SWIS Facility Detail May, 2019

¹ Permitted and Remaining Capacity as of most recent date of calculation

² Current operating rate based on 2018 data

³ World Oil Recycling is a RCRA Part B permitted TSDF and accepts certain hazardous and nonhazardous liquid wastes (e.g., oil, oily water, antifreeze). Permitted capacities and operating rates are for waste oil only and expressed in gallons per day.

NA – Not Applicable or Not Available

The small quantities of hazardous waste that cannot be recycled are not expected to significantly impact the capacity of the Class I landfills located in California.

6.5.4 **Proposed Conditions**

During decommissioning, IEEC and its contractor will continue to implement the various operational waste management programs and procedures that are currently in effect and will comply with the applicable regulatory requirements. In order to ensure

compliance with LORS and to demonstrate that waste generated during decommissioning and demolition will not have significant impacts, the following conditions are proposed:

D-WM-1 The project owner shall ensure its contractor ships all hazardous waste, as defined under the applicable regulations, resulting from decommissioning and demolition, to a Class I or II disposal facility or to a permitted TSDF authorized to treat specified waste streams.

Verification: The project owner or its contractor will submit records of the types, quantities, and disposition of hazardous waste generated during decommissioning and demolition to the CPM upon completion of decommissioning and demolition.

D-WM-2 The project owner shall require its contractor to prepare a Construction Waste Management Plan that identifies the non-hazardous demolition waste materials to be diverted from disposal by salvage, sale, recycling, or other form of disposal diversion.

Verification: The project owner or its contractor will prepare and submit the Construction Waste Management Plan to the CPM prior to commencing demolition. Subsequent updates or modifications to the Construction Waste Management Plan will be maintained onsite. Following completion of demolition, records and documentation of the types, quantities, and disposition of nonhazardous demolition wastes diverted will be submitted to the CPM.

D-WM-3 The project owner shall direct and require all hazardous waste transporters removing hazardous waste from the Project Site to use only the reverse of the route previously approved by the CPM as a Condition of Certification HAZ-10 (Project Site to Antelope Road, to Ethanac Road, to I-215). The project owner shall obtain approval of the CPM if an alternate route is desired.

Verification: Not required, as this in an extension of an existing condition of certification.

D-WM-4 If potentially contaminated soil is discovered during excavation, as evidenced by discoloration, odor, detection by handheld instruments, or other signs, a Registered Professional Engineer or Geologist shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and submit 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 suspect demolition 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 Santa Ana Regional Water Quality Control Board, the Riverside County Department of Environmental Health, and/or the Cypress Regional Office

of the California Department of Toxic Substances Control for guidance and possible oversight.

Verification: The project owner or its contractor shall submit any reports filed by the Registered Professional Engineer or Geologist to the CPM with 5 days of their receipt. The project owner or its contractor shall notify the CPM within 24 hours of any orders issued to halt demolition.

6.6 Worker Safety and Fire Protection

This section describes the systems and procedures that will be implemented to provide occupational safety and health protection for IEEC personnel and contractors in accordance with applicable requirements and includes descriptions of the health and safety programs that will be used during decommissioning and demolition. The section also provides information on the planned fire prevention and protection program.

6.6.1 Background

The Commission Decision concluded:

"The Commission therefore concludes that implementation of the Conditions of Certification below will reduce potential adverse impacts on the health and safety of industrial workers to levels of insignificance."¹²

The Commission Decision did not identify any decommissioning or demolition conditions specifically related to worker safety.¹³

As the Project transitions from operation to decommissioning and demolition, the existing worker safety programs will be amended, as needed, to reflect this transition and the applicable requirements to protect human health and safety.

6.6.2 Applicable LORS and Required Permits

To ensure a safe and healthy workplace, decommissioning and demolition activities will be performed in accordance with the applicable LORS. The applicable LORS are summarized in Table 6.6-1.

¹² Commission Decision, p. 177.

¹³ Commission Decision, pp. 39-40.

LORS	DESCRIPTION	COMMENTS
Federal		
Federal Occupational Safety and Health Act of 1970, Title 29 of the United States Code, section 651 (29 U.S.C. §§ 651 through 678) and implementing regulations, Title 29 of the Code of Federal Regulations (CFR), General Industry Standards, sections 1910.1 - 1910.1500.	Mandates safety requirements in the workplace.	All applicable regulations will be followed during decommissioning and demolition activities.
Department of Labor, Safety and Health Regulations for Construction Promulgated Under Section 333 of the contract Work Hours and Safety Standards Act, 40 USC 327 et seq. and 29 CFR 1926	Meet employee health and safety standards for construction activities.	All applicable regulations will be followed during decommissioning and demolition activities.
State and Local		
California Occupational Safety and Health Act, 1973	Establishes minimum safety and health standards for construction activities and industrial facilities in California.	These sections provide federal approval of California's plan for enforcement of its own safety and health requirements, in lieu of most of the federal requirements found in 29 CFR §1910.1 to 1910.1500.
California Building Code Title 24, California Code of Regulations (24 CCR § 3, et seq.).	Consists of 11 parts containing the building design and construction requirements relating to fire and life safety and structural safety. The Building Standards Code includes the electrical, mechanical, energy, and fire codes applicable to the Project. Local planning/building and safety departments enforce the California Building Code.	All applicable requirements will be followed during decommissioning and demolition activities.

Table 6.6-1	LORS Applicable to Wor	ker Safety and Fire	Protection

LORS	DESCRIPTION	COMMENTS		
California Fire Code, Part 9 of Title 24 of the California Code of Regulations.	The Fire Code contains general provisions for fire safety.	All applicable requirements will be followed during decommissioning and demolition activities.		
Uniform Fire Code (UFC) Standards, a companion publication to the California Fire Code.	Contains standards of the ASTM and the NFPA. Riverside County adopted the 1997 Uniform Fire Code in 1999. The Riverside County Fire Department administers the UFC.	All applicable requirements will be followed during decommissioning and demolition activities.		
Industry Codes and Standards				
ANSI A10.6-1983	Safety requirements for demolition operations.	All applicable requirements will be followed during decommissioning and demolition activities.		

Required permits regarding worker health and safety for Project decommissioning and demolition are identified in Table 6.6-2. As identified in Table 6.6-2, a construction activities permit is required and includes a safety permit conference appointment at a Cal/OSHA district office. During this conference, IEEC or its contractor will identify the potential safety and health risks with respect to decommissioning and demolition activities and present the specific measures that will be taken to minimize the risks to employees and contractors.

Table 6.6-2 Decommissioning Permit Requirements

PERMIT OR APPROVAL	ISSUING AGENCY	REQUIREMENTS	SCHEDULE
Construction Activity (includes	Cal/OSHA	Permits are required for the following operations: • Trenches and excavations of more than	Submit completed permit
demolition)		five feet below ground surface where personnel are required to enter.	application to Cal/OSHA
		 Construction of buildings, structures, scaffolding, or false work that are more than three stories high. 	receive a permit within 24 hours.
		 Demolition of any building, structure, or the dismantling of scaffolding or false work that are more than three stories high. 	

PERMIT OR APPROVAL	ISSUING AGENCY	REQUIREMENTS	SCHEDULE
Erection of a Fixed Tower Crane Permit	Cal/OSHA	 Permits are required for the following operations: Erection, climbing, and dismantling of fixed tower cranes. Additionally, notifications to the Cal/OSHA must be made at least 24 hours prior to the initiation of the following activities: Completion of erection and commencement of operation. Climbing of the tower crane. 	Submit completed permit application to Cal/OSHA and receive a permit within 24 hours.
		Dismantling of the tower crane.	

6.6.3 LORS Conformance

In order to ensure compliance with LORS specifically during demolition, the existing operations Safety and Health Program for the Project will be replaced by an approved Demolition Safety and Health Program provided by the demolition contractor. The Program will be designed to address the LORS provided in Table 6.6-1, above, and as discussed below.

6.6.3.1 Federal Regulations

Federal construction health and safety regulations are provided in 29 CFR Section 1926. Part 1926 addresses several types of construction activities, such as general safety and health provisions (Subpart C); occupational health and environmental controls (Subpart D); personal protective and lifesaving equipment (Subpart E); fire protection and prevention (Subpart F); material handling, storage, use, and disposal (Subpart H); tools – hand and power (Subpart I); welding and cutting activities (Subpart J); electrical work (Subpart K); scaffolding (Subpart L); fall protection (Subpart M); cranes, derricks, hoists, elevators, and conveyors (Subpart N); motor vehicles and mechanized equipment (Subpart O); excavations (Subpart P); demolition (Subpart T); blasting and the use of explosives (Subpart U); power transmission and distribution (Subpart V); rollover protection structures and overhead protection (Subpart W); stairways and ladders (Subpart X); toxic and hazardous substances (Subpart Z); confined spaces in construction (Subpart AA) and cranes and derricks in construction (Subpart CC). Federal safety and health regulations for construction also are provided in 40 U.S. Code (USC) 327 et seq.; these requirements are addressed in Title 8, California Code of Regulations (CCR), Chapter 4, Subchapter 4, General Construction Safety Orders.

6.6.3.2 State Regulations

Construction safety orders are published in Title 8 of the California Code of Regulations, sections 1502, et seq., and are made public by Cal/OSHA. These requirements apply to

demolition and will be addressed in the Demolition Safety and Health Program, which will include the following elements:

- Demolition Injury and Illness Prevention Plan;
- Demolition Personal Protective Equipment Program;
- Demolition Exposure Monitoring Program;
- Demolition Heat Stress Protection Plan;
- Demolition Emergency Action Plan; and
- Demolition Fire Prevention and Protection Plan.

Additional programs required under General Industry Safety Orders (8 CCR §§ 3200 to 6184), Electrical Safety Orders (8 CCR §§2299 to 2974), and Unfired Pressure Vessel Safety Orders (8 CCR §§ 450 to 544) will be in place during demolition and part of the Demolition Safety and Health Program.

6.6.3.3 Local Regulations and Ordinances

The Riverside County Code of Ordinances includes many county-specific ordinances on topics including fire regulations, hazardous materials, and waste management. In addition, the County Code also adopts and integrates by inclusion into County law several State and Federal codes and standards. In cases of adoption of State or Federal codes, Riverside County may have made modifications or additional changes or standards to tailor the code to the local climatic, geographical and topographical distinctiveness of the County.

6.6.3.4 Industry Codes and Standards

The National Fire Protection Association (NFPA), the American National Standards Institute (ANSI), the American Society of Mechanical Engineers (ASME), the American Welding Society, the Instrument Society of America, and a few other private and industrial organizations have established internal standards regarding the design and operation of industrial facilities and equipment. Many of these standards have been incorporated into Federal and State regulations and into building codes.

6.6.3.5 Hazard Analysis

Workers may be exposed to hazards during decommissioning and demolition of the Project. Implementation of appropriate engineering and administrative controls and use of personal protective equipment can minimize impacts to workers. Existing health and safety programs designed to mitigate hazards and comply with applicable LORS for the operation of the Project will be replaced by an approved Demolition Safety and Health Program provided by the demolition contractor. This Program will be implemented to protect worker health and safety during decommissioning and demolition, including demolition and site cleaning activities.

A hazard analysis of the expected activities during demolition and site clean-up is summarized in Table 6.6-3. This table lists work activities and associated hazards and

shows programs designed to reduce the occurrence of each exposure, work place, or occupational hazard. In order to ensure that the types of work activities, associated hazards and hazard control approaches are appropriate for demolition and site clean-up activities, IEEC or its demolition contractor will update the analyses of hazards and the specifics of control strategies as the demolition and site clean-up proceeds.

ACTIVITY	HAZARD	CONTROL
Construction Vehicles	Collisions resulting in injury and/or equipment damage.	Demolition contractor will implement a Heavy Equipment Safety Program.
Industrial Trucks	Similar to motor vehicle and heavy equipment use.	Demolition contractor will implement a Forklift Operator Training Program.
Elevated Heights	Injury due to falls from elevated heights or struck by falling objects.	Demolition contractor will implement a Fall Protection Program and Scaffolding Safety Program.
Trenching and Excavation	Injury and/or property damage from unsafe trenches and excavations.	Demolition contractor will implement a Trenching and Excavation Safety Program and Confined Space Permit Program.
Use of Cranes or Derricks	Equipment and property damage from falling loads and injuries to workers.	Demolition contractor will implement Crane Permits per Cal/OSHA requirements and Hoisting and Rigging Safety Program.
Plant Systems and General Decommissioni ng Activities	Injury and property damage from contact with hazardous energy sources (e.g., heat sources, electrical, tools, and mechanical equipment)	Demolition contractor will implement procedures to control energy sources (e.g., Lockout/Tagout Program and Hot Work Permits)
Flammable and Combustible Liquids	Danger of fire or explosion resulting in damage to property and injury to workers.	Demolition contractor will implement a Hazardous Materials Handling Program; Fire Prevention Program; and Proper Housekeeping Program.
Hot Work	Injury and/or property damage due to a fire. Employee exposure to toxic fumes and eye injury due to exposure to ultraviolet and infrared radiation during cutting and welding.	Demolition contractor will implement a Respiratory Protection Program, Hot Work Program, Exposure Monitoring Program, and Proper Housekeeping Program.
Electrical Equipment and Systems	Injury and equipment damage from flashovers or contact with electrical sources.	Demolition contractor will implement an Electrical Safety Program, Personal Protective Equipment Program, and Hazardous Energy Control Program.

Table 6.6-3	Demolition	and Site	Clean-up	Hazard Analy	vsis
	Demontion		orean up	Thazara Anar	y 313

ACTIVITY	HAZARD	CONTROL
Hand Tools	Injury from hand and portable power tools.	Demolition contractor will implement a Hand and Portable Power Tool Safety Program, Personal Protective Equipment Program, and Tool Inspection Program.
Confined Spaces	Injury from working in spaces with poor ventilation or oxygen depleted atmosphere.	Demolition contractor will implement a Confined Space Entry Program.
Ingress and Egress	Injury and/or property damage from inadequate walking and working surfaces.	Demolition contractor will implement a Proper Housekeeping Program.
Hearing Conservation	Injury from overexposure or inadequate hearing protection.	Demolition contractor will implement a Hearing Conservation Program and a Personal Protective Equipment Program.
Lifting	Injury from improper carrying or lifting of materials and equipment.	Demolition contractor will implement a Safe Lifting Program and Personal Protective Equipment Program.
Industrial Hygiene	Injury due to exposure or overexposure to hazardous gases, vapors, dusts, and fumes.	Demolition contractor will implement a Hazard Communication Program, Respiratory Protection Program, Personal Protective Equipment Program, and Exposure Monitoring Program.
High Pressure Systems	Injury and/or property damage from sudden or unexpected release of high pressure steam or air.	Demolition contractor will implement a Relief Valve Testing Plan and Lockout/Tagout Program.

6.6.3.6 Health and Safety Plan

The following components will be addressed by the contractor's Demolition Safety and Health Program. Project health and safety plans and program components will incorporate Project owner health and safety program requirements, and maintain compliance with those requirements.

• Demolition Injury and Illness Prevention Plan (IIPP)

The demolition contractor will provide a Demolition IIPP, which is required by Title 8 CCR Section 3203. The Demolition IIPP will meet Cal/OSHA Injury and Illness Prevention Program requirements.

• Demolition Personal Protective Equipment (PPE) Program

The demolition contractor will perform demolition related activities in accordance with its PPE Program. The Demolition PPE Program will meet Cal/OSHA PPE Program requirements.

• Demolition Exposure Monitoring Program (EMP)

The demolition contractor's Safety and Health Plan will address regulated exposures that maybe encountered during demolition and site clean-up.

• Demolition Heat Stress Protection Program (HSPP)

IEEC has in place a HSPP that will be adapted for use during demolition and through the use of existing on-site training materials, appropriate local best practices, and lessons-learned conveyed to the demolition contractor for adaption in its HSPP.

• Demolition Emergency Action Program (EAP)

The demolition contractor will provide an EAP. The Demolition EAP will include regulatory requirements such as emergency procedures for the protection of personnel, equipment, the environment, and materials during demolition, an update of the fire and emergency reporting procedures, and response actions for accidents involving personnel and/or property.

6.6.3.7 Decommissioning Fire Protection and Prevention Program

The existing on-site fire protection systems will be modified to permit continued operation after the 500 kV back feed is removed to allow decommissioning and demolition activities to commence. Specifically, fire protection system modifications and operation during demolition activities will be as follows:

- The existing fire protection system consists of an electric main and electric jockey pump, and diesel fire pump. Additional components include the fire water tank, subsurface fire water piping loop, fire protection system in the control/administration and water treatment buildings, associated grade mounted fire hydrants, and any associated appurtenances;
- System operation including system design pressure and flow requirements will be maintained during the project through operation of the diesel fire pump, rated at 2000 GPH, and the electric jockey pump. The 5 HP electric jockey pump is utilized to maintain system operating pressure at 160 PSI. Operation of the electric main will be discontinued. Please note that the electric and diesel fire pumps are completely redundant and therefore can be run independently and maintain full system operation. This was demonstrated during construction; before electricity was supplied to the electric fire pumps the diesel pump was used to maintain system pressures and operation. Remaining associated system

components (fire water tank, subsurface piping and hydrants, fire protection systems in control/administration and water treatment bldgs.) will remain operational through completion of decommissioning and demolition activities;

- Operation of the deluge fire protection system associated with the primary 500 kV Generator Step-Up (GSU) and Unit Auxiliary transformers will be discontinued considering these units are equipped with concrete enclosures which isolate the units and serve as the primary fire protection features;
- All facility access gates will remain energized, operational and available for fire department access throughout the duration of the decommissioning and demolition.

In addition, fire extinguishers and other portable firefighting equipment will be made available on-site. These fire extinguishers will be maintained for the full decommissioning and demolition duration, in accordance with applicable Cal/OSHA requirements.

Locations of portable fire extinguishers will also include portable office spaces, hot work areas, flammable chemical storage areas, and mobile equipment (e.g., passenger vehicles and earthmoving equipment). Fire-fighting equipment will be located to allow for unobstructed access to the equipment and will be conspicuously marked. Portable firefighting equipment will be routinely inspected per regulatory requirements and replaced immediately, if defective, or if in need of recharge.

Construction fire prevention regulations in Title 8 CCR § 1920 et seq. will be followed, as necessary, to prevent fires during decommissioning and demolition activities.

Special attention will be given to operations involving open flames, such as welding, cutting, and the use of flammable liquids and gases. Personnel involved in such operations will have appropriate licensing to perform hot work operations in structural demolition. A fire watch, utilizing the appropriate class of extinguishers or other equipment, will be maintained during hazardous or hot work operations. Site personnel will not be expected to fight fires past the incipient stage.

Equipment refueling will be done through use of a temporary, skid mounted 2500-gallon diesel tank constructed in accordance with applicable LORS, including secondary containment. This tank will be serviced by a fuel delivery service as required.

6.6.3.8 Safety Training Program

The demolition contractor's Demolition Safety Training Program will address the training requirements for the specific work activities occurring during demolition in accordance with Cal/OSHA and all other applicable regulations. Table 6.6-4 lists the typical training courses along with the employees who are required to be trained.

6.6.4 **Proposed Conditions**

Decommissioning and demolition of the Project will not have significant impacts on worker safety; however, the demolition contractor's Demolition Safety and Health Program will comply with applicable Cal/OSHA requirements.

D-WS-1 The project owner shall require its demolition contractor to prepare necessary Health and Safety Plans (IIPP, PPE, EMP, HSPP, EAP) to reflect the activities expected during decommissioning and demolition.

Verification: The project owner or its contractor shall maintain the decommissioning Health and Safety Plans on-site and furnish to the CPM upon request.

D-WS-2 The project owner shall require its demolition contractor to prepare a decommissioning Fire Protection and Prevention Program (FPPP) to reflect the activities expected during decommissioning and demolition.

Verification: The project owner or its contractor shall maintain on-site the decommissioning Fire Protection and Prevention Program, and furnish it to the CPM upon request.

D-WS-3 The project owner shall ensure that all IEEC employees, contractor workers, and visitors that will be on-site during decommissioning and demolition receive safety training specific to the decommissioning and demolition activities.

Verification: The project owner or its demolition contractor shall maintain on-site records showing that all on-site employees, workers and visitors present during decommissioning and demolition activities have received and understand the Safety Training Program. The project owner or its contractor shall furnish the records to the CPM upon request.

Table 6.6-4Typical Safety Training Courses

TRAINING REQUIREMENT	TARGET EMPLOYEES
Demolition Injury and Illness Prevention Training	All
Demolition Emergency Action Plan Training	All
Demolition PPE Program Training	All
Heavy Equipment Safety Training	Employees working on, near, or with heavy equipment.
Forklift Operation Training	Employees working with forklifts.
Excavation and Trenching Safety Training	Employees involved with trenching or excavation operations.

TRAINING REQUIREMENT	TARGET EMPLOYEES
Fall Protection Training	All
Scaffolding and Ladder Safety Training	Employees required to erect or to use scaffolding and employees using ladders.
Hoist and Rigging Program	Employees and supervisors responsible for conducting hoists and rigging operations.
Crane Safety Training	Employees supervising, crane operators, and employees involved in crane operations.
Demolition Fire Protection and Prevention Training	All
Confined Space Entry Program	All
Blood Borne Pathogens Training	First Responders
Hazard Communication Training	All
Electrical Safety Training	Employees performing work with electrical systems, equipment, or electrical extension cords. Additionally, employees working with lock out/ tag out activities.
Hand and Portable Power Tool Safety Training	All
Heat Stress and Cold Stress Safety Training	All
Hearing Conservation Training	All
Back Injury Prevention Training	All
Safe Driving Training	All
Pressure Vessel and Pipeline Safety Training	Employees supervising or working on pressurized vessel, pipes, or equipment.
Respiratory Protection Training	All employees required to wear respiratory protection equipment.
Hot Work Training	All employees working with welding, heating, or other equipment that generates ignition sources.

6.7 Biological Resources

This section presents an analysis of the LORS compliance related to biological resources that might be impacted during the decommissioning and demolition of the Project.

6.7.1 Background

The Perris Valley, in which the Project is located, has a Mediterranean climate influenced by the Pacific Ocean and is characterized by hot, dry summers and mild, wet winters. Temperatures average from the mid to upper 60s during the winter months, and from the high 80s to the low to mid 90s during the summer months. Average precipitation in the Perris Valley is 12 inches a year of which the majority falls between November and March with local stations recording 9.65 inches so far this year.¹⁴

The Project Site is located on flat terrain with the immediate surroundings comprised of development with residential communities, small scale agriculture, and commercial and industrial development. To the south of the Project Site are low hills and foothills. Approximately three miles to the northeast are the Lakeview Mountains, approximately two miles east are the Double Butte Mountains, and around 1.35 miles to the south near Sun City is a small unnamed mountain, with Steele Peak further to the west. At the time of Project development, the area was classified as disturbed agricultural land. Vegetation mapping was based on an assessment completed for the draft Western Riverside Multiple Species Habitat Conservation Plan (MSHCP), with the Project Site within the most highly disturbed area.¹⁵ In 2012, the Western Riverside County Regional Conservation Authority updated the vegetation map database and the Project area and immediate surroundings are classified as within the Agriculture Mapping Unit (Cropland, Orchard, or Vineyard) and Urban or Development Mapping Unit.¹⁶

6.7.1.1 Existing Vegetation and Wildlife

Currently, the Project Site is predominantly hardscape, (asphalt, concrete, and gravel) along with maintained landscaping near the Control Room Building and along the site boundary that does not provide suitable habitat for protected species. Two on-site water retention ponds contain some native vegetation; mulefat (*Baccharis salicifolia*), cottonwood (*Populus fremontii*), willow (*salix* sp.), as well as a predominance of nonnative vegetation tamarix (Tamarix sp.) tree tabaco (Nicotiana glauca), stinknet (*Oncosiphon piluliferum*), red stemmed filaree (*Erodium cicutarium*), and thistle (*Sonchus* sp.).The retention ponds will be left in place and not be impacted by decommissioning or demolition activities.

To support preparation of the AFC in 2001, IEEC completed a survey of flora and fauna within the Project Site and surrounding area prior to Project construction.¹⁷ Federal and/or state listed plant and animal species known or expected to occur in this area are identified in the FSA in Biological Resources Table 1- Sensitive Species Known to

¹⁴ National Weather Service, US Department of Commerce & NOAA available at <u>www.wrh.noaa.gov</u> (accessed 05/09/2019).

¹⁵ Final Staff Assessment, IEEC, Docket No. 01-AFC-17, May 23, 2003 (FSA), p. 5.2-6.

¹⁶ Vegetation - Western Riverside County Update - 2012 [ds1196]., Aerial Information Systems, Inc., Publication date 2015-03-01.

¹⁷ FSA, p. 5.2-6.

Occur in the Project Vicinity. Eleven (11) sensitive plant species and fourteen (14) wildlife species (seven birds, two invertebrates, two mammals, and three reptile and amphibian species) were documented as known to occur in the vicinity of the Project Site.

To support development of this proposed Plan, on May 6, 2019, Sapphos Environmental Inc. conducted a California Natural Diversity Database (CNDDB) search for nearby records of sensitive species within five miles of the Project Site. Information obtained from this search was combined with information compiled in 2001 to create Table 6.7-1 below, which assesses the potential for each species to occur within the Project area. To determine the likeliness for a species to occur, Sapphos Environmental biologist, Paulette Loubet, reviewed aerial imagery, historic site photos, and existing data from the CNDDB and other databases along with information collected during a Project Site visit on May 16, 2019.

SCIENTIFIC NAME	COMMON NAME	STATUS	POTENTIAL TO OCCUR WITHIN THE PROJECT AREA
Plants			
Allium munzii	Munz's onion	FE, ST, 1B.1*	Does not occur. Found in chaparral, coastal scrub, cismontane woodland, pinyon and juniper woodland, and valley and foothill grassland with heavy clay soils. The Project area is entirely developed and does not contain suitable habitat for this species.
Atriplex coronata var. notatior	San Jacinto Valley crownscale	FE, 1B.1	Does not occur. Found in playas, valley and foothill grassland, and vernal pools within alkaline areas in the San Jacinto River Valley. The Project area is entirely developed and does not contain suitable habitat for this species.
Atriplex parishii	Parish's brittlescale	1B.1	Does not occur. Found in vernal pools, chenopod scrub, and playas. Usually on drying alkali flats with fine soils. The Project area is entirely developed and does not contain suitable habitat for this species.
Brodiaea filifolia	Thread-leaved brodiaea	FT, FE, 1B.1	Does not occur. Usually associated with annual grassland and vernal pools; often surrounded by shrubland habitats. Occurs in openings on clay soils. The Project area is entirely developed and does not contain suitable habitat for this species.
Centromadia pungens ssp. laevis	Smooth tarplant	1B.1	Does not occur. Found in alkali meadow, alkali scrub; valley and foothill grassland, chenopod scrub, meadows and seeps, playas, and

Table 6.7-1 Species with Potential to Occur

SCIENTIFIC NAME	COMMON NAME	STATUS	POTENTIAL TO OCCUR WITHIN THE PROJECT AREA
			riparian woodland. The Project area is entirely developed and does not contain suitable habitat for this species.
Chorizanthe parryi var. parryi	Parry's spineflower	1B.1	Does not occur. Usually associated with dry slopes and flats; sometimes at interface of two vegetation types, such as chaparral and oak woodland. Prefers dry, sandy soils. The Project area is entirely developed and does not contain suitable habitat for this species.
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	1B.1	Does not occur. Usually associated with coastal salt marshes, playas, and vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. The Project area is entirely developed and does not contain suitable habitat for this species.
Navarretia fossalis	Spreading navarretia	FT, 1B.1	Does not occur. Usually associated with vernal pools, chenopod scrub, marshes and swamps, playas, in swales and vernal pools, often surrounded by other habitat types. The Project area is entirely developed and does not contain suitable habitat for this species.
Orcuttia californica	California Orcutt grass	FE, SE, 1B.1	Does not occur. Found in vernal pool habitat. The Project area is entirely developed and does not contain suitable habitat for this species.
Tortula californica	California screw moss	1B.2*	Does not occur. Found in chenopod scrub, valley and foothill grassland. Moss growing on sandy soil. The Project area is entirely developed and does not contain suitable habitat for this species.
Invertebrates			
Streptocephalus woottoni	Riverside fairy shrimp	FE	Unlikely to occur. Species occupies swales/earth slump basins in grassland and coastal sage scrub. Inhabits seasonally astatic pools filled by winter/spring rains. Hatch in warm water later in the season. The Project area is entirely developed and does not contain suitable habitat for this species. Potentially suitable habitat found within former construction laydown area MW-51, which is located outside the Site boundary and in which no decommissioning or demolition activities will occur.

SCIENTIFIC NAME	COMMON NAME	STATUS	POTENTIAL TO OCCUR WITHIN THE PROJECT AREA		
Reptiles and Amp	Reptiles and Amphibians				
Anniella stebbinsi	Southern California legless lizard	SSC*	Does not occur. Occurs in sandy or loose loamy soils under sparse vegetation. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content. The Project area is entirely developed and does not contain suitable habitat for this species.		
Arizona elegans occidentalis	California glossy snake	SSC*	Does not occur. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils. The Project area is entirely developed and does not contain suitable habitat for this species.		
Aspidoscelis tigris stejnegeri	Coastal whiptail	SSC*	Does not occur. Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. The Project area is entirely developed and does not contain suitable habitat for this species.		
Crotalus ruber	Red-diamond rattlesnake	SSC*	Does not occur. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks, or surface cover objects. The Project area is entirely developed and does not contain suitable habitat for this species.		
Emys marmorata	Western pond turtle	SSC*	Does not occur. A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation. The Project area is entirely developed and does not contain suitable habitat for this species.		
Phrynosoma blainvillii	Coast horned lizard	SSC*	Does not occur. Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects. The Project area is entirely developed and does not contain suitable habitat for this species.		
Spea hammondii	Western spadefoot	SSC	Does not occur. Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg laying. The Project area is entirely developed and does not contain suitable habitat for this species.		

SCIENTIFIC NAME	COMMON NAME	STATUS	POTENTIAL TO OCCUR WITHIN THE PROJECT AREA		
Birds	Birds				
Aquila chrysaetos	Golden eagle	FP	Does not occur. Usually associated with rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas. The Project area is entirely developed and does not contain suitable habitat for this species		
Athene cunicularia	Burrowing owl	SSC	Unlikely to occur. Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. The Project area is entirely developed and does not contain suitable habitat for this species		
Lanius Iudovicianus	Loggerhead shrike	SSC*	Does not occur. Found in broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting. The Project area is entirely developed and does not contain suitable habitat for this species.		
Polioptila californica californica	Coastal California gnatcatcher	FT, SSC	Does not occur. Obligate, permanent resident of coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied. The Project area is entirely developed and does not contain suitable habitat for this species.		
Vireo bellii pusillus	Least Bell's vireo	FE SE	Does not occur. Summer resident of Southern California in low riparian habitat in vicinity of water or in dry river bottoms. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite. The Project area is entirely developed and does not contain suitable habitat for this species.		
Mammals					
Chaetodipus californicus femoralis	Dulzura pocket mouse	SSC*	Does not occur. Usually associated with a variety of habitats including coastal scrub, chaparral and grassland in San Diego County. Attracted to grass-chaparral edges. The Project		

SCIENTIFIC NAME	COMMON NAME	STATUS	POTENTIAL TO OCCUR WITHIN THE PROJECT AREA
			area is entirely developed and does not contain suitable habitat for this species.
Chaetodipus fallax fallax	Northwestern San Diego pocket mouse	SSC*	Does not occur. Found in coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County. Sandy, herbaceous areas, usually in association with rocks or coarse gravel. The Project area is entirely developed and does not contain suitable habitat for this species.
Dipodomys merriami parvus	San Bernardino kangaroo rat	FE, SSC	Unlikely to occur. Found in alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains. Needs early to intermediate seral stages. The Project area is entirely developed and does not contain suitable habitat for this species
Dipodomys stephensi	Stephens' kangaroo rat	FE, ST	Unlikely to occur. Occupies primarily annual and perennial grasslands, but also occurs in coastal scrub and sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Project within historic habitat. A single carcass was reported on the Project Site in 2006.
Eumops perotis californicus	Western mastiff bat	SSC*	Does not occur. Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels. The Project area is entirely developed and does not contain suitable habitat for this species.
Lasiurus xanthinus	Western yellow bat	SSC*	Does not occur. Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees. The Project area is entirely developed and does not contain suitable habitat for this species.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	SSC*	Does not occur. Found in coastal sage scrub habitats in Southern California. Intermediate canopy stages of shrub habitats and open shrub / herbaceous and tree / herbaceous edges. The Project area is entirely developed and does not contain suitable habitat for this species.

SCIENTIFIC NAME	COMMON NAME	STATUS	POTENTIAL TO OCCUR WITHIN THE PROJECT AREA
Onychomys torridus ramona	Southern grasshopper mouse	SSC*	Does not occur. Found in desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects. The Project area is entirely developed and does not contain suitable habitat for this species.
Perognathus longimembris brevinasus	Los Angeles pocket mouse	SSC*	Does not occur. Found in lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin. Open ground with fine, sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead. The Project area is entirely developed and does not contain suitable habitat for this species.
*species not previously identified in FSA Biological Resources Table 1 (CALPINE 2001a.,			

Status Legend: FE: Federally Endangered; FT: Federally Threatened;

SE: California Endangered; ST: California Threatened; SSC: California Species of Special Concern; FP: California Fully-protected Species

California Native Plant Society (CNPS) 1B: Rare or endangered in California and elsewhere Threat Ranks: 0.1 - Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat), 0.2 - Moderately threatened in California (20–80% occurrences threatened / moderate degree and immediacy of threat)

During the surveys completed for the AFC, plant species observed consisted primarily of a mixture of native and non-native herbaceous species commonly found in disturbed areas, fallow fields, meadows, and wetlands. Mulefat (*Baccharis salicifolia*), a common riparian species, was also present along drainages at the Project Site.¹⁸

Wildlife species observed during Project Site visits conducted on October 19 and 30, 2001 and August 14, 2002, included a variety of common songbirds and raptors, several species of toads, frogs, snakes and lizards, ground squirrel, rabbit, coyote, and skunk.

IEEC conducted biological surveys in 2001 and 2002 to assess the potential for presence of occupied, or suitable but unoccupied, habitat for burrowing owl, bald and golden eagles, southwestern willow flycatcher, least Bell's vireo, Quino checkerspot butterfly, arroyo southwestern toad, western spadefoot toad, Stephens' kangaroo rat, and San Bernardino kangaroo rat. No individuals, or sign thereof, were observed during the surveys for these species.¹⁹ The site assessment and focused survey for Stephens'

¹⁸ FSA, p. 5.2-6.

¹⁹ FSA, p. 5.2-7.

kangaroo rat and San Bernardino kangaroo rat, completed by a permitted biologist, indicated no habitat or sign of the species in the Project area.²⁰ Only potentially occupied habitat for the vernal pool fairy shrimp was identified within the Project laydown area MW-51.²¹ However, the MW-51 area will not be used during decommissioning activities and therefore will not be impacted.

Since the plant energized, one sensitive species has been reported on the Project Site. In May 2006, a single carcass of a kangaroo rat, classified as "probably *Dipodomys stephensi*" was found by plant personnel. This individual was compensated by fee payment into the habitat conservation plan (HCP) for Stephen's kangaroo rat.²² No additional observation of sensitive biological resources were documented in the 2018 and 2019 Final Biological Reports.²³

During the Project Site visit conducted on May 16, 2019 Sapphos Environmental Inc. biologist Paulette Loubet observed several old and inactive nests as well as several species exhibiting nesting behavior. The majority of nests observed within structures were those of pigeon (*Columba livia*), European starling (*Sturnus vulgaris*), and house sparrow (*Passer domesticus*), species which are not protected by the Migratory Bird Treaty Act. Common ravens (*Corvus corax*), red tailed hawks (*Buteo jamaicensis*), and a great horned owl (*Bubo virginianus*) were also observed, although no active nests (nests containing chicks or eggs) were identified.

Additionally, mature trees and shrubs along the Project perimeter could provide nesting habitat for avian species.

6.7.1.2 Sensitive Habitats

The Project Site is not located within Critical Habitat for Threatened and Endangered Species designated by U.S. Fish and Wildlife Services (USFWS) or within any Class I Wilderness Areas under the Clean Air Act. The updated CNDDB record search did not result in any rare vegetation communities within five miles of the Project Site. The Project Site is located within historic Stephens' kangaroo rat habitat; however, there is no known occupied habitat located near the Project Site. Decommissioning and demolition will be limited to only the developed Project Site and therefore, no sensitive or natural habitats will be impacted.

6.7.1.3 Wetlands and Aquatic Habitats

IEEC completed a wetlands delineation of the Project Site to identify the presence of features subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE) under Section 404 of the federal Clean Water Act. The delineation identified six potential

²⁰ FSA, p. 5.2-7.

²¹ FSA, p. 5.2-7.

²² IEEC - BIO 5 Final Report, Ref. No. GE/IEEC- 0369, August 17, 2009.

²³ IEEC - BIO 5 Final Report, Waldie Environmental 2018 and 2019.

jurisdictional areas, as well as drainage features within the Project Site, all of which lie within the FEMA 100-year flood plain of the San Jacinto River.²⁴

The three indicators used to classify an area as a wetland under the jurisdiction of the USACE include hydrophytic vegetation, hydric soils, and wetland hydrology. Under normal circumstances, evidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland determination. After careful assessment of the characteristics of these potential wetland areas, it was concluded that none of the six potential wetland areas presented hydric soils and therefore, were not jurisdictional wetlands.²⁵ It was determined however, that the bed and bank features associated with Project liner facilities do meet the requirements for jurisdictional waters of the U.S.²⁶ However, no decommissioning or demolition activities will take place in these areas, which are located outside of the Project Site.

6.7.1.4 Coastal Sage Scrub and Chaparral

Within the vicinity of the Project Site, the draft MSHCP identifies coastal sage scrub and chaparral habitat as scattered fragments primarily located in elevated areas identified as mountainous/rural land use, and generally unsuitable for agricultural or urban development (e.g., Double Buttes to the east of the Project area).²⁷ The protection of coastal sage scrub has been the focus of the Natural Communities Conservation Planning program, under the act of the same name, because it provides habitat to many special status species. The vegetation mapping in the draft MSHCP was not of sufficient detail to determine if the Project area supports the vegetation associations or series cited as rare by the California Department of Fish and Wildlife.²⁸ Much of this vegetation has been lost to agricultural and urban development. No coastal sage scrub or Chaparral habitat occurs within the Project Site.

6.7.2 Conditions of Certification and Mitigation Measures

The Commission Decision concluded:

"The area is predominantly agricultural, including the area proposed for the project. At the plant site and construction laydown areas no sensitive habitats or vegetation dominated by native species will be cleared or disturbed."²⁹

- ²⁶ FSA, p. 5.2-9.
- ²⁷ FSA, p. 5.2-9.
- ²⁸ FSA, p. 5.2-9.

²⁴ FSA, p. 5.2-9.

²⁵ FSA, p. 5.2-9.

²⁹ Commission Decision, p. 216.

The Commission Decision included COC BIO-1 through BIO-13 intended to mitigate potential impacts to biological resources. These measures where incorporated into the Project's BRMIMP. The BRMIMP is a plan to mitigate potential impacts to biological resources from the construction and operation of the Project. This BRMIMP, including the associated mitigation measures, were applicable for Project construction and operation, not specifically for permanent closure. Section 9.0 of the BRMIMP sets forth measures required for permanent closure, specifically as follows:

A permanent closure plan will be prepared by IEEC, LLC 12 months prior to closure activities. It will include take avoidance and mitigation requirements applicable to the sensitive biological resources in the area at that time. The plan will also include reclamation of areas where facilities would be removed, including transmission conductors and all other power plant facilities. In order to restore wildlife habitat and promote the reestablishment of wildlife species, drought tolerant native plants will be established using a native plant seed mix.

A BRMIMP Addendum (August 2019) has been prepared to meet the requirements described above in Section 9 of the current BRMIMP (Nov 2005). This Addendum is included as Appendix C of this Plan.

This BRMIIMP Addendum addresses take avoidance and mitigation procedures applicable to special-status species and protected biological resources that may be present within the Project Site. These measures are proposed to mitigate potential impacts to these resources during permanent closure of the Project facility.

6.7.3 Applicable LORS and Required Permits

LORS potentially applicable to decommissioning and demolition are discussed in Table 6.7-2. No new impacts to streambeds or listed or sensitive species are expected due to decommissioning and demolition activities with the continued implementation of a the BRMIMP and Addendum that includes relevant measures modified as appropriate for decommissioning and demolition. Implementation of the BRMIMP Addendum will avoid or reduce impacts to levels that are less than significant during decommissioning and demolition; therefore, no additional biological resource permits or approvals are needed.

6.7.4 LORS Conformance and Impact Assessment

Decommissioning and demolition activities will be limited to the developed Project Site. No decommissioning or demolition activities will take place within the bed and bank features that meet the requirements for jurisdictional waters of the U.S. Because the Project Site is industrialized and does not contain natural habitat (see Section 6.7.1), no impacts to biological resources are expected as a result of decommissioning and demolition.

The USFWS threshold of significance is 60 dBA Leg, on an hourly average basis, for sensitive biological resources that may be found in the vicinity of the Project Site. Noise levels associated with demolition and site clean-up is covered in Section 6.13, Noise

and Vibration. The analysis indicates that temporary noise associated with decommissioning and demolition will be similar to noise levels associated with current operations. Given that noise levels are not expected to increase materially, and that the Project Site and surrounding area do not include sensitive species or habitat, noise associated with decommissioning and demolition will not have a significant impact on biological resources.

Decommissioning and demolition of the Project will comply with all applicable LORS.

LORS DESCRIPTION COMMENTS	LORS DESCRIPTION COMMENTS	LORS DESCRIPTION COMMENTS
Federal		
Migratory Bird Treaty Act (MBTA): 16 USC Sections 703-721	Prohibits the take of protected migratory birds.	Although no wildlife habitat is found on the Project Site, structures throughout the site and mature trees around the perimeter provide potentially suitable nesting habitat for birds. To minimize potential impacts to birds from decommissioning and demolition, IEEC will implement measures detailed in the BRMIMP Addendum included as Appendix C of this document that includes relevant measures modified as appropriate for decommissioning and demolition activities.
Clean Water Act (CWA) of 1977 Title 33, United States Code, sections 1251-1376, and Code of Federal Regulations, part 30, sections 330.5(a)(26).	Prohibit the discharge of dredged or fill material into the waters of the United States without a permit.	IEEC submitted an application to obtain a CWA 404 permit issued by the USACE and a CWA 401 water quality certification issued by the Regional Water Quality Control Board (RWQCB) prior to construction of the Project. IEEC will implement measures detailed in the BRMIMP Addendum included as Appendix C of this document that includes relevant measures modified as appropriate for decommissioning and demolition activities.
Endangered Species Act (ESA) of 1973 Title 16, United States Code, section 1531 et seq., and Title 50, Code of Federal	Designate and provide for the protection of threatened and endangered plant and animal species, and their	Stephens' kangaroo rat Although considered not likely to occur at the project site, for construction, the USFWS indicated

Table 6.7-2LORS Applicable to Biological Resources

LORS DESCRIPTION COMMENTS	LORS DESCRIPTION COMMENTS	LORS DESCRIPTION COMMENTS
Regulations, part 17.1 et seq.	critical habitat. The administering agency is the USFWS.	that compliance with the regional incidental take permit (Stephens' kangaroo rat HCP) would ensure compliance for this species. ³⁰ This requirement was incorporated into the BRMIMP to ensure that any related impacts were reduced to levels that are less than significant. IEEC will implement measures detailed in the BRMIMP Addendum included as Appendix C of this document that includes relevant measures modified as appropriate for decommissioning and demolition activities. Implementation of the BRMIMP Addendum will avoid or reduce impacts to levels that are less than significant during decommissioning and demolition activities will not occur in areas with potentially suitable habitat.
State		
Native Plant Protection Act CDFW Code Sections 1900–1913	Prohibit taking of endangered and rare plants from the wild and requires that CDFW be notified at least 10 days in advance of any change in land use that would adversely impact listed plants.	Not applicable, decommissioning and demolition will be limited to previously disturbed and developed areas.
California Endangered Species Act (CESA) of 1984, Fish and Game Code sections 2050 through 2098; California Code of Regulations Title 14, Division 1, Subdivision 3, Chapter 3, sections 670.2 and 670.5.	Identifies and protects California's rare, threatened, and endangered species.	IEEC will implement measures detailed in the BRMIMP Addendum included as Appendix C of this document that includes relevant measures modified as appropriate for decommissioning and demolition activities. Implementation of the revised BRMIMP will avoid or reduce impacts to levels that are

³⁰ FSA, p. 5.2-28.

LORS DESCRIPTION COMMENTS	LORS DESCRIPTION COMMENTS	LORS DESCRIPTION COMMENTS
		less than significant during decommissioning and demolition.
Fish and Game Code Section 3503.5	"It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."	IEEC will implement measures detailed in the BRMIMP Addendum included as Appendix C of this document that includes relevant measures modified as appropriate for decommissioning and demolition activities. Implementation of the BRMIMP addendum will avoid or reduce impacts to levels that are less than significant during decommissioning and demolition.
Streambed Alteration Agreement (SAA): CFGC Section 1600 et seq.	Requires California Department of Fish and Wildlife (CDFW) to review Project impacts to waters of the State (bed, banks, channel, or associated riparian areas), including impacts to wildlife and vegetation from sediments, diversions, and other disturbances.	Not applicable as decommissioning and demolition activities will be restricted to developed Project Site.
Regional Water Quality Control Board (RWQCB)	Requires every applicant for a federal permit or license for an activity which may result in a discharge into a California water body must request State certification that the proposed activity will not violate state and federal water quality standards. CWA Section 401 certification from the Santa Ana RWQCB.	The Project Site is not located in or near any surface waters or federally protected wetlands or other jurisdictional waters and therefore, there is no direct loss of this sensitive habitat. IEEC obtained CWA 401 Water Quality Certification issued by the RWQCB in 2005. IEEC will implement measures detailed in the BRMIMP Addendum included as Appendix C of this document that includes relevant measures modified as appropriate for decommissioning and demolition activities. Implementation of the revised BRMIMP Addendum will avoid or reduce impacts to levels that are less than significant during decommissioning and demolition.

LORS DESCRIPTION COMMENTS	LORS DESCRIPTION COMMENTS	LORS DESCRIPTION COMMENTS
Local		
Western Riverside Multiple Species Habitat Conservation Plan (MSHCP).	The Western Riverside MSHCP is an element of the Riverside County Integrated Project. The MSHCP is designed to conserve open space, nature preserves, and wildlife areas for over 150 species in western Riverside County.	The Project Site is not located in an MSHCP Cellgroup or Criteria Cell. <u>Stephen's kangaroo rat</u> As mentioned above, implementation of the BRMIMP Addendum will ensure that any potential impacts are reduced to levels that are less than significant. <u>Vernal Pool Fairy Shrimp</u> Decommissioning and demolition activities will not occur in areas with potentially suitable habitat. Other MSHCP Species Decommissioning and demolition activities will be restricted to the developed property boundary and adherence to the applicable requirements of the BRMIMP Addendum will reduce impacts to levels that are less than significant.
Nitrogen Deposition Effects on Areas Proposed for Management under the Draft Western Riverside MSHCP (Draft MSHCP)		The decommissioning and demolition of the Project will eliminate its contribution of Nitrogen Deposition Effects to the surrounding area.
Stephens' Kangaroo Rat Habitat Conservation Plan (HCP).	The Stephens' Kangaroo Rat HCP is a 30-year plan approved in 1996 that is designed to acquire and permanently set-aside, maintain, manage, and fund conservation, preservation, restoration, and enhancement of the Stephens' Kangaroo Rat and its habitat.	Implementation of the BRMIMP Addendum will avoid or reduce impacts to levels that are less than significant during decommissioning and demolition. Any accidental take of this species as a result of decommissioning and demolition activities will additionally be compensated for by prior fee payment into the HCP.

LORS DESCRIPTION COMMENTS	LORS DESCRIPTION COMMENTS	LORS DESCRIPTION COMMENTS
Riverside County Ordinance No. 663.10, Stephens' Kangaroo Rat Mitigation Fee	Establishes a Plan Fee Assessment Area and sets mitigation fees for development permits in historic Stephen's Kangaroo Rat Habitat.	Fee payment was provided in July 2005 for the total disturbance caused by the Project. Supplemental payments were provided to the County for the increased acreage in 2005, 2006, and 2007. Decommissioning and demolition will be limited to the Property Site boundary and not require additional fees. However, any accidental take of Stephen's kangaroo rat as a result of decommissioning and demolition will be compensated for by prior fee payment into the HCP.
Riverside County Comprehensive General Plan – Environmental Hazards and Resources Element	This Plan contains general policies regarding the protection and preservation of habitat and sensitive plant and wildlife species.	Activities associated with decommissioning and demolition could further facilitate the introduction of weedy species as a result of ground disturbance, imported fill, or landscaping with non-native species. Weedy plant species growth could suppress native vegetation and infest agricultural lands. However, the Project Site is developed and there is little native vegetation in the immediate vicinity of the Project Site. Decommissioning and demolition activities will be restricted to developed Project Site and therefore will not impact habitat.

6.7.5 **Proposed Conditions**

The BRMIMP Addendum has been developed to address specific circumstances related to plant closure, decommissioning, and demolition to minimize or totally avoid impacts to sensitive biological resources.

6.8 Cultural Resources

This section presents an analysis of LORS compliance and potential impacts related to cultural resources that may result from decommissioning and demolition of the Project.

6.8.1 Background

The Commission Decision concluded:

There are no known archaeological or historic resources within or adjacent to the critical Area of Potential Effect (APE).³¹ The Native American Heritage Commission has not recorded any Native American sacred properties within the APE.³²

The Commission therefore concludes that with implementation of the Conditions of Certification below, the proposed project will conform with all applicable laws, ordinances, regulations, and standards relating to cultural resources as set forth in the pertinent portions of Appendix A of this Decision.³³

The Commission Decision did not identify any decommissioning and demolition conditions specifically related to cultural resources.³⁴

6.8.2 Applicable LORS and Required Permits

LORS potentially applicable to cultural resources during decommissioning and demolition are discussed in Table 6.8-1. No other LORS related to cultural resources are applicable because no off-site or underground work below the level of existing Project foundations is anticipated.

No new or revised permits are required related to cultural resources.

Table 6.8-1 LORS Applicable to Cultural Resources

LORS	DESCRIPTION	COMMENTS
Federal		
Section 106 of the National Historic Preservation Act, 16 U.S.C. § 470; Code of Federal Regulations, 36 CFR Part 800 et seq.,	Require federal agencies to take into account the effects of their undertakings on historic properties through consultations beginning at the early stages of project planning.	No historic properties are located on the Project Site.

³¹ Commission Decision, p. 244.

³² Commission Decision, p. 244.

³³ Commission Decision, p. 245.

³⁴ Commission Decision, pp. 39-40.

LORS	DESCRIPTION	COMMENTS	
State			
California Code of Regulations, Title 14, section 4852.	Defines the term "cultural resource" to include buildings, sites, structures, objects, and historic districts.	Two cultural resources are located in the vicinity of the Project Site; however, decommissioning and demolition will not adversely affect these resources and demolition of the existing cooling tower would reduce indirect impacts to these resources.	
Public Resources Code, Section 5000.	Establishes the California Register of Historical Resources (CRHR), establishes criteria for eligibility to the CRHR, and defines eligible resources.	Two historical resources are located in the vicinity of the Project Site; however, decommissioning and demolition will not adversely affect these resources and demolition of the existing cooling tower will reduce indirect impacts to these resources.	
The CEQA (Pub. Resources Code, § 21000 et seq.; Title 14, Cal. Code Regs., § 15000 et seq.	Require analysis of potential environmental impacts of proposed projects and requires application of feasible mitigation measures.	Two historical resources are located in the vicinity of the Project Site; however, decommissioning and demolition will not adversely affect these resources and demolition of the existing cooling tower will reduce indirect impacts to these resources.	

6.8.3 LORS Conformance and Impact Assessment

As stated in the FSA for the Project, the archaeological inventories for the Project Site and linear components did not record any archaeological sites within the Project Area of Potential Effect (APE).³⁵ The FSA also concluded that the two historical buildings located at 25626 Antelope Road and 28050 Matthews Road and evaluated as eligible for the CRHR would not be physically impacted by construction of the Project or its associated facilities.³⁶

No buried cultural resources were discovered during the construction of the Project, and excavations associated with decommissioning and demolition will not be deeper than they were for Project construction. Furthermore, certain subsurface structures will be left in place, which means that the total extent of excavation associated with decommissioning and demolition will be less than that which occurred during Project construction.

The FSA also specifically addressed Project closure, stating that applicable LORS will be identified in the closure plan, and that if no additional ground disturbance occurs

³⁵ FSA, p. 5.3-8.

³⁶ FSA, p. 5.3-12.

during closure activities and all COC have been met, no impacts to cultural resources would be expected.³⁷

The decommissioning and demolition activities will comply with all LORS pertaining to cultural resources, and will not have a significant adverse impact on any cultural resources.

6.8.4 **Proposed Conditions**

No cultural resources conditions are proposed related to decommissioning and demolition. All decommissioning and demolition work will occur within previously disturbed areas where no resources were detected during Project construction. Therefore, none of the existing COC nor any additional conditions are necessary.

6.9 Soil and Water Resources

This section presents an analysis of LORS compliance and potential impacts related to soil and water resources that may result from Project decommissioning and demolition.

The Commission Decision concluded that with implementation of the adopted COC:

"We therefore conclude that the project will not cause any significant adverse direct, indirect, or cumulative impacts to soil or water resources, and will comply with all applicable laws, ordinances, regulations, and standards (LORS)."³⁸

The Commission Decision did not identify any decommissioning and demolition conditions specifically related to soil and water resources.³⁹

6.9.1 Geology and Soils

IEEC investigated soil, groundwater, and surface water at the Project Site in 2005 to evaluate potential areas of concern for contamination as a result of the Project Site's previous agricultural activities.⁴⁰ A total of 20 soil borings were advanced, six of which were converted into temporary groundwater monitoring wells. The six soil borings that were converted into monitoring wells were advanced to depths of between 70 and 90 feet below ground surface (bgs). Fourteen soil borings were advanced to a depth of 20 feet bgs. Groundwater was encountered at depths between 75 and 80 feet bgs.

URS collected a surface soil sample from each of the 20 borings, and a total of 23 subsurface soil samples from the 20 borings; one soil sample from 17 of the borings

³⁷ FSA, p. 5.8-13.

³⁸ Commission Decision, p. 236.

³⁹ Commission Decision, pp. 39-40.

⁴⁰ URS Corporation, Phase II Baseline Investigation, GE Energy, GE Inland Empire Energy Center, 26226 Antelope Road, Romoland, California, May 5, 2005.

and two samples from three of the borings. The soil samples were delivered to a laboratory and analyzed for Volatile Organic Compounds (VOCs), semi-volatile organic compounds (SVOCs), "Priority Pollutant List" (= Title 22 CAM) Metals, polychlorinated biphenyls (PCBs), and organochlorine and chlorinated pesticides. Two subsurface soil samples were additionally analyzed for 1,4-dioxane.

One groundwater sample was collected from each of the six temporary monitoring wells. The groundwater samples were delivered to a laboratory and analyzed for VOCs, SVOCs, Title 22 CAM Metals, PCBs, organochlorine and chlorinated pesticides, and perchlorate.

One surface water sample and one surface soil sample were collected from a drainage ditch on the western perimeter of the Project Site. The surface water sample was analyzed for the same constituents as the groundwater sample and the surface soil sample was analyzed for the same constituents as the surface soil samples described above.

For the soil samples, URS reported that no contaminants were detected above the EPA preliminary remediation goals (PRGs) or California Office of Environmental Health hazard Assessment (OEHHA) soil screening levels (SSLs). The concentrations of metals in the surface soil samples were also found to be below the PRGs and SSLs. Concentrations of arsenic in surface soil were found to exceed the SSL, but were within background concentration levels for California soil.

Comparison of these results to current EPA screening levels indicates that concentrations of contaminants and metals measured by URS in 2005 are below current screening levels for commercial and industrial properties. These concentrations are also below current Environmental Screening levels (ESLs) for commercial properties promulgated by the San Francisco Bay RWQCB.

URS reported that no VOCs were detected above the California Maximum Contaminant Levels (MCLs) for groundwater. The reported concentrations were compared to current MCLs (California Water Boards, 2019) and found to be below regulatory limits. One SVOC, benzo(a)pyrene, was detected above its MCL in one groundwater sample, but at a concentration below the laboratory reporting limit. One groundwater sample was found to have a concentration of perchlorate (6.1 micrograms per liter [μ g/L]) slightly above the 2005 California Public Health Goal (PHG) of 6.0 μ g/L. The 6.0 μ g/L perchlorate concentration is now the MCL (California Water Boards, 2019). URS reported that perchlorate is associated with historic aerospace and fireworks manufacturing. The presence of perchlorate in groundwater may be related to regional manufacturing operations or agriculture in the Colorado River region.

Soil and groundwater samples collected and analyzed by URS in 2005 do not display evidence of contamination at levels that would necessitate a Soil Management Plan during decommissioning and demolition activities. Furthermore, there were no significant releases of contaminants during Project operations, and any minor spills were promptly addressed in accordance with applicable requirements. The Work Plan for Decommissioning and Demolition will provide guidance in the unlikely event that discolored or malodorous soil is encountered during decommissioning and demolition activities.

6.9.2 Storm Water

IEEC's decommissioning contractor, ATC, has been provided with IEEC SWPPP Revision 4, dated August 2006. The SWPPP was prepared for the State of California's General Permit for storm water discharges associated with the construction of the Project.

Section 4.2 of the SWPPP indicated that two sediment basins, located in the southeastern and southwestern corners of the Project Site, were to be constructed to intercept and monitor sediment-laden site runoff. During construction, storm water was conveyed to these basins by temporary drainage swales. The SWPPP indicated that these swales would be removed as construction progressed, with water subsequently directed to the basins by other temporary means such as pumping. Section 4.2 also indicated that permanent storm drain inlets would be installed at the Project Site.

Appendix F of the SWPPP provided guidance for post-construction storm water management. Section F.4 states that a storm drain system designed to collect storm water runoff would be constructed at the Project Site, and that the sediment ponds would be maintained until the site is fully stabilized.

Section F.4.1 of the SWPPP stated that the Riverside County Flood Control District and Water Conservation District planned to construct the Romoland MOP Flood Control Channel along the southern edge of the Project Site before completion of the Project. After the channel was constructed, the sediment basins were to be backfilled. The backfilled areas were then to be covered with sediment stabilization measures. If the channel was not completed before construction of the Project, then the sediment ponds would not only remain but would be enlarged to accommodate the higher volumes of runoff.

The Romoland MOP Flood Control Channel was not built before Project construction was completed. As per the SWPPP, the sediment basins remained and were enlarged. During the course of the Project's operations, storm water that has accumulated in the basins has been pumped to the Cooling Tower Basin. The storm water basins do not discharge. The California Water Board therefore determined that an Industrial SWPPP was unnecessary for the Project since it did not discharge storm water. The Project currently operates under a Notice of Non-Applicability (NONA).

The Romoland MOP Flood Control Channel has recently been completed. The sediment basins have not been subsequently connected to the flood control channel.

As part of decommissioning, the Cooling Tower Basin will be removed down to six inches below grade and filled to grade level with clean fill and compacted. Any remaining water in the Cooling Tower Basin may be discharged into the Brine Line as per Brine Line Wastewater Discharge Permit Number D1036-3 issued to the Project on

May 14, 2018 by the EMWD. The storm water drainage and retention system will be left in place and remain operable. Since water that accumulates in the sediment basins would no longer be pumped out to the Cooling Tower Basin for an industrial purpose (cooling tower), then the site may become a storm water discharger.

An initial estimate of the total volume of the two sediment ponds is 500,000 cubic feet. The average rainfall in the vicinity is 11.13 inches per year (National Storm water Calculator modeling program [https://www.epa.gov/water-research/national-stormwatercalculator)]). Given the area of the Project Site (45.8 acres), this gives an annual average volume of rain for the Project Site as approximately 1,850,407 cubic feet of rainfall.

Preliminary calculations, using an estimate of the volume of the two sediment ponds, was performed with the National Storm water Calculator. The National Storm water Calculator has automatic inputs for location, soil type, soil drainage, topography, precipitation, evaporation, land use, land cover, and storm water management practices. The results produced by the National Storm water Calculator indicate that 77 percent of the rainfall would evaporate or infiltrate, leaving 23 percent of the rainfall (415,244 cubic feet) as storm water runoff. The results indicate that the sediment basins would not discharge during a year of average rainfall. However, the possibility exists that during a period of intense rainfall there may be storm water discharge from the Project Site. Therefore, it is recommended that a California General Construction SWPPP be developed for the Project Site, although less than one acre of soil will be exposed during the decommissioning and demolition activities. The California General Construction SWPPP is a form of NPDES permit; no additional permit for storm water discharge would be necessary during decommissioning and demolition activities.

The SWPPP should include, at a minimum, the following Best Management Practices (BMPs):

- Gravel bag or fiber roll berms along the perimeter of the two sediment basins;
- Storm drain inlet protection;
- Trackout control;
- Dust control (see Section 6.9.3); and
- Coverage of soil stockpiles.

Given that surface flow of water is to the south across the Project Site and in the vicinity, it is recommended that sampling points for discharge be located at the southwestern and southeastern corners of the Project Site.

6.9.3 Dust Control

Although soil exposure at the Project Site will be minimal (less than one acre) during decommissioning and demolition activities, dust control will be necessary. The Project Site is under the jurisdiction of the SCAQMD. Dust control for this district is regulated by SCAQMD Rule 403. Rule 403 does not prohibit the use of potable or municipal water for dust control. However, the California Water Code, Section 13551 prohibits the use of
"...water from any source of quality suitable for potable domestic use for non-potable uses, including ...industrial... uses, if suitable recycled water is available..." Water that accumulates in the sediment basins may be used for dust control. Should additional water be needed for dust control, recycled water can be purchased through the EMWD through use of a Temporary Construction Meter (TCM) attached to a recycled water hydrant located at the corner of Antelope Road and McLaughlin Road, southwest adjacent to the Project.

6.9.4 Applicable LORS and Required Permits

The LORS related to soil and water resources are briefly summarized in Table 6.9-1.

A Construction SWPPP will be developed for decommissioning and demolition activities. The California General Construction SWPPP is a category of NPDES permit; no additional NPDES permit is needed during decommissioning and demolition activities at the Project Site.

LORS	DESCRIPTION	COMMENTS
Federal		
Clean Water Act (33 USC § 1257 et seq.).	Requires states to set standards to protect water quality through the regulation of point source and certain non-point source discharges to surface water.	Compliance will be managed through use of Construction SWPPP.
State		
California Constitution, Article X, Section 2.	Requires that the water resources of the State be put to beneficial use to the fullest extent possible. The waste, unreasonable use, or unreasonable method of use of water is prohibited.	Decommissioning and demolition activities will adhere to CWC Section 13551. Water for dust control will be obtained from the sediment detention basins or recycled water purchased from the EMWD through use of a Temporary Construction Meter (TCM) attached to a recycled water hydrant located immediately southwest of the IEEC at Antelope Road and McLaughlin Road.
Porter-Cologne Water Quality Control Act of 1967, Water Code Section 13000 et seq.	Requires the State Water Resources Control Board (SWRCB) and the nine	Compliance will be managed through use of Construction SWPPP.

Table 6.9.1 LORS Applicable to Soil and Water Resources

LORS	DESCRIPTION	COMMENTS
	RWQCBs to adopt water quality criteria to protect state waters.	
California Water Code Section 13551.	Prohibits the use of "water from any source of quality suitable for potable domestic use for non- potable uses, including industrial uses, if suitable recycled water is available"	Water for dust control will be obtained from the sediment detention basins. Recycled water can be purchased through the EMWD through use of a Temporary Construction Meter (TCM) attached to a recycled water hydrant located immediately southwest of the IEEC at Antelope Road and McLaughlin Road.
The Safe Drinking Water and Toxic Enforcement Act of 1986, Health and Safety Code section 25249.5 et seq.	Prohibits the discharge or release of chemicals known to cause cancer or reproductive toxicity into drinking water sources.	Compliance will be managed through use of Construction SWPPP.
State Water Resources Control Board Resolution No. 68-16 (the "Anti-Degradation Policy").	Declares the State's policy that, among other things, the discharging of wastes will not pollute or result in a nuisance.	Compliance will be managed through use of Construction SWPPP.
Local		
County of Riverside	Specifies criteria for Grading and Erosion Control and for design of storm water facilities. Assesses a Flood Mitigation Fee to assist in providing revenue for establishing adequate community drainage facilities.	Contractor to obtain a County grading permit. Compliance will be managed through use of Construction SWPPP.
EMWD Regulations	Requires a Service Agreement for providing a host of water and wastewater services to the Project.	Recycled water to be used for dust control may be purchased through the EMWD through use of a Temporary Construction Meter (TCM) attached to a recycled water hydrant located immediately southwest of the IEEC at Antelope Road and McLaughlin Road.

LORS	DESCRIPTION	COMMENTS
SCAQMD Rule 403	Specifies requirements for Dust Control.	See California Water Code Section 13551. Water that accumulates in sediment basins can be used for dust control. Additional water can be purchased from EMWD as indicated above.

6.9.5 LORS Conformance and Impact Assessment

Demolition activities will occur on the Project Site and will have limited subsurface disturbance below the level of existing Project foundations. Certain underground facilities such as select foundations and piping within twelve (12) feet of surface elevation will be removed. No substantial earthmoving is planned related to decommissioning and demolition.

The potential for impacts to water quality from storm water and erosion will be minimized during decommissioning and demolition. Some facilities and foundations will be left in place, existing roads will be used, some underground pipelines will remain in the ground, either evacuated and capped or left for continued use by the site's new owner, and earthmoving during decommissioning and demolition will be minimized. Pipe removal activities will be completed with excavation equipment equipped to minimize subsurface disturbance.

IEEC will obtain a Construction SWPPP and implement BMPs as described in the SWPPP Plan. Therefore, there will not be significant potential for adverse impacts to soil and water resources as a result of decommissioning and demolition.

6.9.6 Proposed Conditions

IEEC will implement a modified version of COC SOIL & WATER-2 as follows:

SOIL & WATER 2: Prior to beginning site mobilization for decommissioning, the project owner shall submit a Notice of Intent for construction under the General NPDES Permit for Discharges of Storm Water Associated with Construction Activity to the State Water Resources Control Board (SWRCB). The project owner shall develop and implement a SWPPP for the decommissioning and demolition of the Project. The SWPPP shall be submitted to Riverside County for review and comment, and to the CPM for review and approval. The SWPPP shall include a final decommissioning drainage design consistent with the criteria specified by County of Riverside and specify BMPs for all on-site project facilities. BMPs shall control soil erosion from storm water drainage below the detention pond and from storm water discharge of the eastern boundary interception ditch.

Verification: No later than 30 days prior to the start of site mobilization for decommissioning, the SWPPP for Construction Activity, and a copy of the Notice

of Intent for construction under the General NPDES Permit for Discharges of Storm Water Associated with Construction Activity filed with the SWRCB, shall be submitted by the project owner to the County of Riverside Building and Safety Department for comments and to the CPM for approval. Approval of the SWPPP must be received from the CPM prior to site mobilization for decommissioning.

None of the other existing COC are applicable to the decommissioning or demolition and are not included in this Plan, and no additional conditions related to soil and water resources are proposed for decommissioning or demolition.

6.10 Geology and Paleontology

This section presents an analysis of the LORS compliance and potential impacts related to geological and paleontological resources that may result from decommissioning and demolition of the Project.

6.10.1 Background

The Project Site is located with Perris Valley. The Perris Valley consists of mostly flat desert terrain with surficial sands and silts of the Holocene Era deposited from the mountains and foothills that surround the valley. To the south are low hills and foothills. Approximately three miles to the northeast are the Lakeview Mountains, approximately two miles east are the Double Butte Mountains, and low mountains with Steele Peak lies further to the west. The Project Site was previously classified as disturbed agricultural land.

The Commission Decision concluded:

From past work on the site, no paleontological resources were discovered in the project area. Due to extensive disturbance by previous construction, there is a low probability the site contains fossil remains of paleontological importance. There is currently no evidence of geological or paleontological resources at the project site.

The Commission therefore concludes that implementation of the Conditions of Certification, below, ensure that project activities will not cause adverse impacts to either geological or paleontological resources or expose the public to geological hazards.⁴¹

The Commission Decision did not include any decommissioning and demolition conditions specifically related to paleontological resources.⁴²

The Project Site is located within the Peninsular Ranges geomorphic province at the southern end of the Perris Valley, Riverside County, California. This area, within the

⁴¹ Commission Decision, p. 255.

⁴² Commission Decision, pp. 39-40.

Peninsular Ranges, is characterized by mountains to the west and east and consists of a broad, nearly flat plain. Exploration at the Project Site encountered a surficial light brown, dense to very dense, silty sand overlying alluvium. The Project Site lies in an area which exhibits minor geologic hazards.⁴³

There are no known geologic or mineralogic resources located at or immediately adjacent to the Project Site. Prior to construction of the Project, IEEC conducted a paleontologic resources field survey and a sensitivity analysis for the Project Site and linear routes. No significant fossil localities were identified.⁴⁴

Since the Project Site lies in an area which exhibits minor geologic hazards and no known geologic, mineralogic or paleontologic resources, the potential for significant adverse impacts from geologic hazards, and to potential geologic, mineralogic, and paleontologic resources from Project decommissioning and demolition is low.

6.10.2 Applicable LORS and Required Permits

The LORS related to geological and paleontological resources are briefly summarized in Table 6.10-2.

No new or revised permits are required related to geological and paleontological resources.

LORS	DESCRIPTION	COMMENTS
Federal		
None	None	None
State		
The California Building Code (CBC), 1998 edition, is based upon the Uniform Building Code (UBC), 1997 edition.	The CBC is a series of standards that are used in project investigation, design (Chapters 16 and 18) and construction (including grading and erosion control as found in Appendix Chapter 33).The CBC supplements the UBC's grading and construction ordinances and regulations.	As no excavation is expected to go significantly below 15 feet, basic grading and erosion control of soils will be implemented. Shoring is anticipated to be needed on a minimal basis, if at all.

Table 6.10-2 LORS Applicable to Geological and Paleontological Resources

⁴³ Commission Decision, p. 254.

⁴⁴ Commission Decision, p. 254.

LORS	DESCRIPTION	COMMENTS
CEQA Guidelines Appendix G	Provides a checklist of questions that a lead agency should normally address if relevant to a project's environmental impacts. Section (V) (c) asks if the project will directly or indirectly destroy a unique paleontological resource or site or unique geological feature. Sections (VI) (a), (b), (c), (d), and (e) pose questions that are focused on whether or not the project would expose persons or structures to geologic hazards. Sections (X) (a) and (b) pose questions about the project's effect on mineral resources.	As no paleontological resources or unique geological features were previously identified during Project construction and operations, there will be a less than significant impact to any paleontological resources or unique geological features.
"Measures for Assessment and Mitigation of Adverse Impacts to Non-renewable Paleontologic Resources: Standard Procedures" (Society of Vertebrate Paleontology, 1995).	Establishes procedures and standards for assessing and mitigating impacts to vertebrate paleontological resources.	Because the soil stratigraphy of the Project Site is not cretaceous nor holocene, there is anticipated to be no paleontological resources. Therefore, procedures and standards for assessment and mitigation of impacts are not required.

6.10.3 LORS Conformance and Impact Assessment

The Project Site was substantially disturbed prior to the construction of the Project and was further disturbed by Project construction and almost 35 years of active use. No geological or paleontological resources were identified during construction. Demolition activities will be limited to the Project Site and will not have any subsurface disturbance below the level of existing Project foundations. Certain underground facilities will be left in place, and no substantial earthmoving is planned related to decommissioning and demolition. Therefore, there will not be significant adverse impacts to geological or paleontological resources during decommissioning and demolition.

The decommissioning and demolition activities will comply with all LORS applicable to geological and paleontological resources.

6.10.4 Proposed Conditions

All decommissioning and demolition work will occur within previously disturbed areas where no resources were detected during Project construction. Therefore, none of the existing COC nor any additional conditions are necessary.

6.11 Land Use

This section presents an analysis of LORS compliance and potential environmental impacts to land use that may result from the decommissioning and demolition of the Project. The land use analysis focuses on two main issues: (1) whether decommissioning and demolition of the Project is consistent with local land use plans, ordinances, and policies; and (2) whether decommissioning and demolition of the Project is compatible with existing and planned land uses.

6.11.1 Background

The Project was permitted by the CEC on December 17, 2003 and has been in operation for 16 years. The Project supplies electricity to the CAISO on a merchant basis. The Project sells both Local and System RA and bids daily into the merchant energy markets. The Project has RA commitments through December 31, 2019. One of the two turbines at the Project has been mothballed since March 2017 based on economic considerations, and IEEC has decided to cease operation of the entire Project as of December 31, 2019.

The Project is located on approximately 46 acres in Riverside County. The Project Site is bordered by a 300-foot-wide transmission line easement owned by SCE that runs along McLaughlin Road to the south, San Jacinto Road to the east, Antelope Road to the west, and the Burlington Northern & Santa Fe Railway to the north. The Project was located in the County of Riverside when it was permitted; however, the Project Site was subsequently incorporated into the City of Menifee on October 1, 2008.⁴⁵

The City of Menifee General Plan Designation for the Project Site is Menifee North Specific Plan, Heavy Industrial (HI) 0.15 – 0.50 FAR.⁴⁶ The City of Menifee has adopted the Riverside County Zoning Ordinance (County Ordinance 348). Currently, this ordinance serves as the primary zoning regulation in the City. The County Ordinance 348 zoning designation for the Project Site is M-H (Manufacturing, Heavy). The Project Site is within Area 3 of the County's Menifee North Specific Plan, which has a land use designation of "Industrial Park," and a zoning designation of "Industrial," which reflects the County's M-H zone. The Menifee North Specific Plan is both a Riverside County

⁴⁵ City of Menifee. Incorporation of the City. Available at: <u>http://cityofmenifee.us/85/History</u>.

⁴⁶ City of Menifee. City of Menifee Specific Plan Land Use Background Document and Definitions. Available at: <u>https://www.cityofmenifee.us/DocumentCenter/View/3654/Land-Use-Background-Document-and-Definitions?bidId=</u>.

Comprehensive General Plan Amendment and a County Zoning Ordinance Amendment.

The proximity of the Project Site to nearby sensitive receptors such as residential areas, schools, and churches (e.g., Romoland Elementary School, Headstart Daycare) has the potential to create air quality, public health, visual, and noise impacts to these sensitive receptors as a result of decommissioning and demolition activities. These potential impacts are addressed in greater detail in the Air Quality, Public Health, Visual Resources, and Noise sections of this Plan.

The Commission Decision concluded the following with regard to the Project's compliance with land use LORS and potential land use impacts:

"The Commission therefore concludes that construction and operation of the IEEC will not result in direct, indirect, or cumulative land use impacts. Implementation of the Condition of Certification, below, ensures that the IEEC will comply with all applicable laws, ordinances, regulations, and standards (LORS) related to land use."⁴⁷

The Commission Decision did not identify any decommissioning or demolition conditions specifically related to Land Use.⁴⁸

6.11.2 Applicable LORS and Required Permits

All decommissioning and demolition activities will be limited to the Project Site. Potentially applicable LORS fall into three categories: federal, state, and local. The only applicable federal regulations are Federal Aviation Regulations, Part 77, Section 77.13 ff, which require notification of development more than 200 feet in height for certain imaginary surface planes that extend outward and upward from the runways of designated airports. It is not anticipated that the decommissioning and demolition activities will trigger this regulation as the Project does not propose any construction over 200 feet in height. Additionally, there are no State of California land use LORS directly applicable to decommissioning and demolition of the Project. Local LORS that would apply to decommissioning and demolition activities include land use regulations from the City of Menifee General Plan and Zoning Code and are shown in Table 6.11-1.

⁴⁷ Commission Decision, p. 269.

⁴⁸ Commission Decision, pp. 39-40.

LORS	DESCRIPTION	COMMENTS
Local		
City of Menifee General Plan Adopted November, 2013.	The General Plan consists of a statement of development policies and must include a diagram and text setting forth the objectives, principles, standards and proposals of the document. As per State of California, Government Code Section 65300, a General Plan must include seven mandatory elements including Land Use, Circulation (Transportation), Housing, Conservation, Open Space, Noise, and Safety. The Land Use Element of the General Plan provides land use designations, goals, and policies for the development and conservation of land within the City of Menifee. In addition to the mandatory elements listed above, the City of Menifee has also adopted Economic Development, Community Design, and Infrastructure Elements to the City's General Plan.	The goals and policies of the Land Use, Conservation, Circulation and Infrastructure, Noise, Safety, and Economic Development Elements are applicable to the proposed decommissioning and demolition activities. However, these activities will not conflict with these elements, with the exception of the Economic Development Element. Decommissioning and demolition of the Project will be inconsistent with the Economic Development Element, since it will result in the loss of permanent jobs at the Project. This would conflict with the following Economic Development Policies: ED-1.1 : Focus economic development efforts on the primary objective of increasing the number of jobs that pay above-average wages and salaries. ED-1.2 : Diversify the local economy and create a balance of employment opportunities across skill and education levels, wages and salaries, and industries and occupations. ED-1.3 : Establish a long-term employment objective where the number of jobs in the city will be equal to or up to 10% higher than the number of employed people living in Menifee. ⁴⁹

Table 6.11-1 LORS Applicable to Land Use

⁴⁹ City of Menifee. General Plan Economic Development Element. May 2013. Available at: <u>https://cityofmenifee.us/235/Economic-Development-Element.</u>

LORS	DESCRIPTION	COMMENTS
Menifee North Specific Plan	The purpose of a specific plan is to provide detailed policies, standards, and criteria for the development or redevelopment of an area. As required by State law, specific plans generally consist of a land plan, circulation plan, development standards, design guidelines, and phasing plan and set forth detailed implementation programs necessary to serve the development. The Project site is located within the Menifee North Specific Plan, which is in both the City of Menifee and Riverside County. ⁵⁰	The Menifee North Specific Plan designation for the Project Site is Heavy Industrial (HI) 0.15 – 0.50 FAR. The HI land use designation is intended to be suitable for more intense industrial activities, such as manufacturing uses, that can generate significant impacts such as excessive noise, dust, and other nuisances. ⁵¹
Riverside County Zoning Ordinance (ORD 348)	The City of Menifee has adopted the Riverside County Zoning Ordinance (ORD 348). Currently, this ordinance serves as the primary zoning regulation in the City. ^{52,53}	The County Ordinance 348 zoning designation as M-H (Manufacturing, Heavy). The site is within Area 3 of the County's Menifee North Specific Plan, which has a land use designation of "Industrial Park" and a zoning designation of "Industrial," which reflects the County's M-H zone. The M-H zone permits electrical apparatus and components, and public utility substations and storage yards. ⁵⁴

At the time the AFC was filed, the Project Site was located in unincorporated Riverside County near the town of Romoland, but it was later annexed into the City of Menifee, approximately 30 miles southeast of the City of Riverside. The Project Site was

⁵¹ City of Menifee. Land Use Designations. Available at: <u>https://cityofmenifee.us/DocumentCenter/View/1014/Exhibit_LU-</u> 3_LandUseDesignations_20151020?bidId=.

⁵⁰ City of Menifee. Updated General Plan Land Use Map. May 2018. Available at: <u>https://www.cityofmenifee.us/DocumentCenter/View/7685/Updated-General-Plan-Land-Use-Map-May-2018</u>.

⁵² City of Menifee. Riverside County Zoning Ordinance (ORD. 348). October 17, 2018. Available at: <u>http://library.amlegal.com/nxt/gateway.dll/California/menifee_ca/riversidecountyzoningordinanceord348?f</u> <u>=templates\$fn=default.htm\$3.0</u>.

⁵³ Telephone call with Brandon Cleary, Planning Technician. City of Menifee Planning Department. May 16, 2019.

⁵⁴ City of Menifee. Riverside County Article XII M-H Zone (Manufacturing – Heavy). Available at: <u>http://library.amlegal.com/nxt/gateway.dll/California/menifee_ca/riversidecountyzoningordinanceord348?f</u> <u>=templates\$fn=default.htm\$3.0.</u>

incorporated into the City of Menifee on October 1, 2008.⁵⁵ The Project Site is located within the Menifee North Specific Plan, which is in both the City of Menifee and Riverside County.⁵⁶

6.11.3 LORS Conformance and Impact Assessment

The County of Riverside General Plan and Zoning Code have been revised and updated, and the Project Site has been incorporated into the City of Menifee since preparation of the AFC submitted to the CEC for the Project and the beginning of commercial plant operations in 2003. Although specific language and details in both land use guidance documents have changed, the Project as described in the 2003 AFC was consistent with the County's land use designation and zoning for the area at the time. Similarly, the currently proposed decommissioning and demolition of the Project is also consistent with the City of Menifee's currently adopted land use designation and zoning of the Project Site area. Additionally, the proposed decommissioning and demolition is consistent with the goals and policies of the Land Use, Conservation, Circulation and Infrastructure, Noise, and Safety elements of the City's General Plan. However, the decommissioning and demolition of the Project will result in the loss of permanent jobs at the Project.

Decommissioning the Project will result in the loss of IEEC as a business and all associated jobs at the plant. Since the Project Site will be redeveloped as a BESS, it is anticipated that some new jobs will be created by planned industrial activities. The absolute number of job loss or gain and the skills required is uncertain.

6.11.4 Proposed Conditions

No conditions related to land use are required.

6.12 Noise

This section presents an analysis of LORS compliance and potential environmental impacts from noise that may result from the decommissioning and demolition of the Project.

6.12.1 Background

Operation of the Project includes a number of noise producing sources, including the combustion turbine generators (CTG), the steam turbine generator (STG), the HRSG, boiler feedwater pumps, and the cooling towers. Secondary noise sources include auxiliary pumps, ventilation fans, motors, valves, and gas compressors. The noise

⁵⁵ City of Menifee. Incorporation of the City. Available at: <u>http://cityofmenifee.us/85/History</u>.

⁵⁶ City of Menifee. Updated General Plan Land Use Map. May 2018. Available at: <u>https://www.cityofmenifee.us/DocumentCenter/View/7685/Updated-General-Plan-Land-Use-Map-May-2018.</u>

emitted by power plants during normal operations is generally broadband, steady state in nature.

The Commission's Decision for the Project concluded:

Construction and operation of the IEEC will not increase noise levels significantly above existing ambient levels in the surrounding community.

Construction noise levels are temporary and transitory in nature and will be mitigated to the extent feasible by sound reduction devices, limiting noisy construction to daytime hours, and providing notice to nearby residences and businesses, as appropriate.

The nearest sensitive receptor to the IEEC project is located 1,000 feet from the Project site.

The Commission therefore concludes that implementation of the following Conditions of Certification-ensures that IEEC will comply with the applicable laws, ordinances, regulations, and standards on noise and vibration as set forth in the pertinent portion of Appendix A of this Decision.⁵⁷

The Commission did not identify any decommissioning and demolition conditions specifically related to Noise.⁵⁸

6.12.2 Applicable LORS and Required Permits

LORS applicable to noise during decommissioning and demolition are listed in Table 6.12-1.

There are no permits required related to noise.

6.12.3 LORS Conformance and Impact Assessment

Decommissioning and demolition activities will generate noise from the operation of demolition equipment and vehicles. Noise anticipated to occur during demolition and decommissioning activities was estimated and compared with estimated noise during operation of the Project to evaluate the potential for the decommissioning and demolition activities to increase potential impacts from noise.

⁵⁷ CEC Final Decision, pages 307 to 308.

⁵⁸ Commission Decision, pp. 39-40.

LORS	DESCRIPTION	COMMENTS
Federal		
Occupational Health and Safety Act of 1970. 29 USC Section 651 et seq. Title 29 CFR Section 1910.95	Regulates the worker noise exposure to 90 decibels (dBA) over an eight-hour work shift. Areas above 85 dBA need to be posted as high noise level areas and hearing protection will be required.	Dismantling activities will comply with these requirements.
State		
Title 8 CCR Section 5095 et seq.	Establishes California Occupational Safety and Health Administration (Cal/OSHA) employee noise exposure limits. These standards are equivalent to the Federal OSHA standards. Worker noise exposure limited to 90 dBA over an eight-hour work shift. Areas where worker noise exposure exceeds 85 dBA must be posted as a noise hazard zone and a hearing conservation program is required.	Dismantling activities will comply with these requirements.
Local		
Comprehensive Riverside County General Plan	Defines the land noise levels that are normally acceptable in residential areas as between 50 and 60 dBA. This same range is identified with respect to schools and other similar land uses.	Dismantling activities will comply with these requirements through use of mitigating measures as required.
The Menifee North Specific Plan	Identifies the maximum outdoor noise level of 65 dBA CNEL for residential land uses.	Dismantling activities will comply with these requirements, through the use of mitigating measures as required.

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Demolition noise will be generated by the use of equipment and vehicles, typically for dismantling, and for the transport of demolition material and workers to and from the Project Site. Demolition noise levels are a function of the number and type of equipment used and the timing and duration of their noise-generating activities. Table 6.12-2 provides a list of noise levels generated by various types of equipment and vehicles that could potentially be used for the demolition activities.

As shown in Table 6.12-2, maximum noise levels (Lmax) from equipment and vehicles range from approximately 70 to 90 dBA Lmax at 50 feet from the equipment.

These noise levels vary for individual pieces of equipment, based on different sizes and engines. Equipment noise levels also vary as a function of the activity level, or duty cycle. In a typical construction project, the loudest short-term noise generators tend to

be earth-moving equipment under full load, at approximately 85 to 90 dBA at a distance of 50 feet from the source. In addition to these maximum instantaneous noise levels, the magnitude of the overall demolition noise can be defined by the type of demolition activity, the various pieces of equipment operating, and the duration of their activity. Typically, short-term noise is averaged over time, such as a one-hour average, expressed as dBA Leq.

Typical low-impact (e.g., not pavement cutting or breaking, or blasting) equipment is estimated to generate maximum noise levels of short duration not to exceed 90 dBA Lmax at 50 feet, and hourly or average noise levels of approximately 80 dBA Leq at 50 feet. However, demolition will include potential concrete and material breaking/cutting activities. The high-impact demolition equipment and activities are estimated to generate maximum noise levels of short duration from 90 to 105 dBA Lmax at 50 feet, and average noise levels of approximately 90 dBA Leq at 50 feet.

EQUIPMENT	MAXIMUM NOISE LEVEL (DBA) 50 FEET FROM SOURCE
All Other Equipment (5 horsepower or less)	85
Backhoe	80
Boring Jack Power Unit	80
Chain Saw	85
Compressor (air)	80
Concrete (Diamond) Saw	90
Dozer	85
Dump Truck	84
Excavator	85
Flat Bed Truck	84
Front-End Loader	80
Generator (25 KVA or less)	70
Generator (more than 25 KVA)	82
Grader	85
Horizontal Boring Hydraulic Jack	80
Hydra Break Ram	90
Jackhammer	85
Pneumatic Tools	85
Pumps	77

Table 6.12-2 Construction/Demolition Equipment Noise Levels

EQUIPMENT	MAXIMUM NOISE LEVEL (DBA) 50 FEET FROM SOURCE
Scraper	85
Tractor	84
Vacuum Street Sweeper	80

Source: FHWA, 2006. *Highway Construction Noise Handbook, Construction Equipment Noise Levels*. **Note:** KVA = kilovolt ampere.

Traffic associated with truck hauling of demolished materials, and equipment; and construction worker daily trips will generate noise on-site and along access roadways during demolition. Haul trucks traveling to and from the Project Site will use designated truck routes, and demolition workers will travel to and from the Project Site using regional major arterials.

The collecting, sorting, and hauling of demolished materials with heavy equipment will increase the existing average daytime noise level, which no longer will include the Project operating noise, as the Project will have been taken off-line (i.e., not operational).

Noise levels from demolition activities will attenuate with distance as point sources at a rate of six dBA per doubling of distance over hard site surfaces (such as streets and parking lots).⁵⁹ A worst-case hourly average noise level of approximately 105 dBA Leq at 50 feet will attenuate to approximately 79⁶⁰ dBA Leq at 1,000 feet, which is the distance to the nearest sensitive receptor identified as Eller Park. As a result, temporary noise attenuation fences, preferential location of equipment, and use of noise suppression technology should be utilized to bring average noise levels below thresholds as advised in the County of Riverside General Plan N13.3.⁶¹ Furthermore the Noise Element of the County of Riverside General Plan States that projects should "minimize noise spillover or encroachment from commercial and industrial land uses into adjoining residential neighborhoods or noise sensitive uses N 1.6." With this attenuation, ambient noise levels during demolition will be similar to those during Project operation at the nearest sensitive receptor.

The potential for noise impacts to wildlife (including birds) was also considered. Although the Project Site does not contain any natural vegetation communities, landscaped trees and shrubs along the property boundary as well as structures within the facility itself could provide potentially suitable nesting opportunities for avian species. Potential impacts to wildlife and nesting birds is disused further in Section 4.7, Biological Resources. This section also addresses mitigation and avoidance measures

⁵⁹ FHWA, 2006. Highway Construction Noise Handbook, Construction Equipment Noise Levels.

⁶⁰ Engineering ToolBox, (2005). Inverse Square Law. [online] Available at: https://www.engineeringtoolbox.com/inverse-square-law-d_890.html [14.05.19].

⁶¹ Noise Element (Rep.). (2015, December 8). Retrieved May 29, 2019, from City of Riverside website: <u>https://planning.rctlma.org/Portals/14/genplan/general_Plan_2017/elements/OCT17/Ch07_Noise_120815</u> .pdf?ver=2017-10-11-102104-080.

to reduce impacts to less than significant levels or altogether avoid impacts to sensitive species.

As stated above, the presumed peak noise level would be 79⁶² dBA Lmax. Therefore, surrounding hourly average noise levels during demolition will not be greatly increased and would be similar to ambient levels. A worst-case hourly average noise level of other demolition activities will be approximately 105 dBA Leq at 50 feet, which will attenuate to approximately 79⁶³ dBA Leq at 1,000 feet. Finally, noise from decommissioning and demolition will occur only during daytime hours. Therefore, the decommissioning and demolition will comply with applicable noise LORS and not cause a significant impact.

6.12.4 Proposed Conditions

The Section 6.6, Worker Safety, discusses the Health and Safety Plans that must remain in place during decommissioning and demolition, including the requirement for worker hearing protection when needed. In addition the following condition is proposed:

D-Noise-1:

Temporary noise attenuation fences, preferential location of equipment, and use of noise suppression technology will be utilized as necessary to bring average noise levels below thresholds as advised in the County of Riverside General Plan N13.3.⁶⁴

No additional conditions related to noise are proposed for the decommissioning and demolition.

6.13 Socioeconomics

This section addresses the potential short- and long-term socioeconomic impacts of the Project decommissioning and demolition on local housing, employment and population, schools, medical and protective services, and the fiscal and physical capability of local agencies to meet the needs of project related population changes. It describes existing socioeconomic conditions and discusses potential impacts during decommissioning activities and once decommissioning is completed. The section covers a range of economic and demographic characteristics of the area. Environmental justice considerations are addressed separately in this section.

⁶² Engineering ToolBox, (2005). Inverse Square Law. [online] Available at: <u>https://www.engineeringtoolbox.com/inverse-square-law-d_890.html [14.05.19]</u>.

⁶³ Engineering ToolBox, (2005). Inverse Square Law. [online] Available at: https://www.engineeringtoolbox.com/inverse-square-law-d_890.html [14.05.19].

⁶⁴ Noise Element (Rep.). (2015, December 8). Retrieved May 29, 2019, from City of Riverside website: <u>https://planning.rctlma.org/Portals/14/genplan/general_Plan_2017/elements/OCT17/Ch07_Noise_120815</u> .pdf?ver=2017-10-11-102104-080.

6.13.1 Background

The Project is located approximately six miles west of the City of Hemet and approximately 30 miles southeast of the City of Riverside. The Project was located in the County of Riverside when it was permitted; however, the Project Site was subsequently incorporated into the City of Menifee on October 1, 2008.⁶⁵ The Project AFC submitted to the CEC in May 2003, included an analysis of the Project's impact on the economic base of the local area, as well as on population, housing, public services, and utilities. The study area assessed (affected area) includes Los Angeles, Orange, Riverside, San Bernardino, and Sand Diego Counties. Also included in this study were the Romoland Census Designated Place (CDP) and Sun City CDP, which were discontinued as CDPs in the 2010 census.

The Commission Decision concluded:

A large skilled labor pool in the greater Riverside County area is available for construction and operation of the project;

The project will not cause an influx of a significant number of construction or operation workers to relocate in the local area;

The project will not result in significant adverse effects to local employment, housing, schools, public utilities, or emergency;

There is no evidence of unmitigated disproportionate impacts to minorities or low-income populations;

We therefore conclude that implementation of all Conditions of Certification in this Decision and the mitigation measures identified in the evidentiary record ensures that the project will comply with all applicable laws, ordinances regulations, and standards relating to socioeconomic factors as identified in the pertinent portion of Appendix A of this Decision.⁶⁶

The Commission Decision did not identify any decommissioning and demolition conditions specifically related to socioeconomics.⁶⁷

6.13.2 Applicable LORS and Required Permits

There are no socioeconomic LORS directly applicable to decommissioning and demolition. Local LORS, including the Riverside County General Plan and the North

⁶⁵ City of Menifee. Incorporation of the City. Available at: <u>http://cityofmenifee.us/85/History</u>.

⁶⁶ Commission Decision, pp. 324-325.

⁶⁷ Commission Decision, pp. 39-40

Menifee Specific Plan, apply indirectly vis-à-vis noise and air quality, and are addressed in those sections.

No socioeconomics-related permits are required for the proposed decommissioning and demolition.

6.13.3 LORS Conformance and Impact Assessment

The following sections discuss the potential effects of decommissioning and demolition on socioeconomics. The potential for environmental justice impacts is also evaluated in this section.

6.13.3.1 Evaluation Methods and Significance Criteria

For the purposes of this evaluation, local socioeconomic impacts were determined by comparing decommissioning and demolition demands and non-operation of the Project with the existing socioeconomic resources for the study area.

Decommissioning and demolition-related impacts would be considered significant if they:

- Induce substantial growth or concentration of population;
- Displace a substantial number of people or existing housing;
- Cause a substantial decrease in employment or property values;
- Result in the substantial change (increase or decrease) of students into an impacted school;
- Cause a substantial change (increase or decrease) in the demand for public services that would affect local agencies' ability to provide public services; or
- Cause a substantial disruption or division of the physical arrangement of an established community.

Socioeconomic impacts from decommissioning and demolition could also be considered significant if they were to cause substantial change in community interaction patterns, social organization, social structures, or social institutions; cause substantial conflict with community attitudes, values, or perceptions; or cause substantial inequities in the distribution of decommissioning costs and benefits.

6.13.3.2 Existing Socioeconomic Conditions

Since the population, housing, economic, employment, public service, utility, and fiscal resources of the communities within the Project area have changed since the Project was constructed, information is provided below to describe the current socioeconomic conditions of the Project area.

For the purpose of this socioeconomic analysis, the study area is considered to be the primary residential communities of the current Project labor force. An average of 23

workers are based at the facility during normal operation. Of these workers, 80 percent live in the communities of Menifee, Perris, and Hemet.

Pursuant to Executive Order 12898, this socioeconomics analysis also addresses environmental justice to identify whether adverse human health or environmental effects are likely to fall disproportionately on minority and/or low-income populations of the community. The study area for the environmental justice analysis was delineated by a six-mile radius from the Project Site per CEC guidelines. At the time the FSA was issued the study areas included a 45.2 percent minority population based on Census 2000 data. Currently, that percentage is above 50 percent in all surrounding communities studied.

Population

Table 6.13-1 represents population estimates as of the April 2010 Census for communities in the study area. From the 2010 Census to the 2018 population estimate, the population of Riverside County increased by nearly 12 percent to 2,450,758.⁶⁸ Roughly 200,000 people live in the cities of Perris, Hemet, Winchester, Nuevo, and the surrounding unincorporated areas, or about 10 percent of the County's population overall.

Table 6.13-1	Study Area Po	pulation Counts	2010 Census
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GEOGRAPHY/SUBAREA	2010 POPULATION CENSUS
Perris	68,386
Hemet/Winchester	78,657
Nuevo	6,447
Riverside County	2,189,641

Source: https://www.census.gov/quickfacts

<u>Housing</u>

Table 6.13-2 presents study area housing estimates for communities and surrounding counties of the Project. According to the 2010 Census, there were 840,207 housing units in Riverside County. Household counts for Perris, Hemet, Nuevo, and Riverside Counties summarized in the table below are based on Census 2010 counts. Owner-occupied housing percentages are near the national average of 63 percent, and are bolstered by the County Neighborhood Stabilization Program, and participation in the HOME program through the National Affordable Housing Act. Recreational vehicle (RV) facilities and apartment housing represent the bulk of the remainder. Temporary

⁶⁸ Accessed May 16, 2019 US Census Bureau Quick Facts: Riverside County, Nuevo CDP, Hemet City, Perris City

https://www.census.gov/quickfacts/fact/table/perriscitycalifornia,nuevocdpcalifornia,hemetcitycalifornia,riv ersidecountycalifornia,US/PST045218.

housing would likely be used by workers who relocate to the area during decommissioning and demolition. Temporary housing in the form of hotel/motel rooms are present in Perris and Menifee, and many are present in Hemet. Temporary housing opportunities are available in the form of RV facilities, mobile home sites, and campgrounds.

GEOGRAPHY/SUBAREA	HOUSEHOLDS	OWNER OCCUPIED HOUSING RATE
Perris	16,582	62.6%
Hemet/Winchester	29,726	74.7%
Nuevo	1905	57.6%
Riverside County	711,724	65.0%

Table 6.13-2	Study Area Housing Estimates	, 2010 Census (Extrapolated)
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Source: https://www.census.gov/quickfacts

Economy and Employment

Table 6.13-3 presents 2010 annual average employment figures for those workers (by craft) most likely required for decommissioning and demolition as well as employment projections for the selected occupations for 2020. The region includes San Bernardino County and Riverside County for statistical purposes. As of 2010, there were relatively high numbers of construction trade workers, material moving workers, and truck drivers.

Employment projections for material moving workers and truck drivers were also relatively high, with projections for over 20 percent more occupations by 2020. Specialized positions were fewer in number, including construction managers and excavating machine operators; however, specialized machine operators are more likely to commute longer distances based on the value for work performed.

 Table 6.13-3
 Local Labor Pool by Craft Riverside Region, 2018

OCCUPATIONAL TITLE	ANNUAL AVERAGE EMPLOYMENT		EMPLOYMENT CHANGE		AVERAGE ANNUAL JOB OPENINGS		AL S
	2010	2020	Number	Percent	New Jobs	Net Replacement	Total
Construction Managers	5,000	5,490	490	9.8%	49	32	81
Construction Trades Workers	52,650	57,040	4,390	8.3%	483	1,041	1,524
Material Moving Workers	56,140	69,830	13,690	24.4%	1,369	1,687	3,056

OCCUPATIONAL TITLE	ANN AVEF EMPLO	UAL RAGE YMENT	EMPLO CHA	YMENT NGE	AV J	ERAGE ANNU OB OPENINGS	AL S
Heavy and Tractor-Trailer Truck Drivers	22,530	28,960	6,430	28.5%	643	448	1,091
Excavating/ Loading / Dragline Operators	280	300	20	7.1%	2	8	10

Source: http://www.calmis.ca.gov/file/occproj/rive\$occproj.xls.

Table 6.13-4 presents information on the labor force and unemployment rates within the study area and by community based on the EDD's preliminary labor force data for March 2019.⁶⁹ For 2019, the Riverside County labor force is estimated at 1,100,000 with an unemployment rate of 4.7 percent.⁷⁰ In February 2019, there were 20,409 individuals certified for unemployment benefits in Riverside County.⁷¹

AREA NAME	LABOR	EMPLOY-	OY- UNEMPLOYMENT		CENSU	IS RATIOS
	FORCE	MENT	NUMBER	RATE	EMPLOYED	UNEMPLOYED
Riverside County	1,100,000	1,048,600	51,400	4.7%	1.000000	1.000000
Hemet city	30,100	28,100	2,100	6.9%	N/A	N/A
Homeland CDP	3,000	2,900	200	5.0%	0.002747	0.002971
Menifee city	39,100	37,200	1,900	4.8%	N/A	N/A
Nuevo CDP	3,100	2,900	200	5.7%	0.002798	0.003427
Perris city	31,000	29,200	1,800	5.8%	N/A	N/A
Romoland CDP	800	800	0	2.7%	0.000780	0.000456

Table 6.13-4 Preliminar	y Labor Force and	Unemployment	t Rates, March 2019
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Source: Monthly Labor Force Data for Cities and Census Designated Places (CDP)

Public Services and Utilities

The County Sheriff's Department provides law enforcement and public safety services to the Project Site. The Perris sheriff's station is located at 137 North Perris Boulevard,

⁶⁹ Appendix D to Socioeconomics Section: Economic Development Department Monthly Labor Force Data for Cities and Census Designated Places (CDP) <u>https://www.labormarketinfo.edd.ca.gov.</u>

⁷⁰ Accessed May 16, 2019: EDD regional statistical information for Riverside County <u>https://www.labormarketinfo.edd.ca.gov/cgi/databrowsing/localAreaProfileQSResults.asp?selectedarea=</u> <u>Riverside+County&selectedindex=33&menuChoice=localAreaPro&state=true&geogArea=0604000065&c</u> <u>ountyName=.</u>

⁷¹ Accessed May 19, 2019 Unemployment Claims by County EDD <u>https://www.edd.ca.gov/about_edd/Quick_Statistics_Information_by_County.htm.</u>

and serves the communities of Canyon Lake, Gavilan Hills, Glen Valley, Homeland, Juniper Flats, Lake Mathews, Lakeview, Nuevo, Mead Valley, Menifee, Perris, Romoland, Winchester, and Woodcrest.

Fire protection services are provided by the Riverside County Fire Department (RCFD). RCFD Station 76 (Menifee Lakes Fire Station) located southeast of the decommissioning site, Station 7 (Menifee City Fire Station) located to the southwest, Station 101 (City of Perris County Fire Station) is to the northwest along State Route 215, and the Homeland Fire Station located directly east along State Route 74.

The nearest full-service hospital is Menifee Valley Medical Center, located south of the Project Site in Menifee. Menifee Valley Medical Center is an 84-bed hospital providing emergency services, imaging, lab, surgical, and inpatient and outpatient services.⁷²

Public elementary and middle schools near the Project Site are part of the Menifee Union School District, serving 10,200 students as of 2018.⁷³ Nearby Heritage High School, Perris Lake High School, and Paloma Valley High school are part of the Perris Union School District.

Fiscal Resources

A summary of Riverside County⁷⁴ and City of Menifee⁷⁵ expenses and revenues for the 2017 fiscal year is provided in Table 6.13-5. The Project is located in the City of Menifee, and any impacts from tax losses will be to the City and the County. Impacts to County fiscal resources from decommissioning will be temporary as the property is slated to change hands and will continue to be used as an energy facility. While the City collects more than 2/3 of its revenues from taxes, only eight percent of County revenues come from taxes, and four percent from operational licensing, permitting, etc. For the fiscal year 2018, revenues for Riverside County and City of Menifee totaled approximately \$4.84B and \$35.8MM, respectively, and expenditures totaled \$4.80B and \$33.27MM, respectively. Riverside County's key expenditures were on public protection (\$1.48MM), health and sanitation (\$1.22B), and public assistance (\$1.04B).

⁷² Accessed May 9, 2019 Menifee Valley Medical Center Services <u>http://www.menifeevalleymedicalcenter.com/pages/services?sub=Patients%20and%20Visitors.</u>

⁷³ Accessed May 9, 2019 Menifee Union School District: About Us https://www.menifeeusd.org/District/220-About-Us.html.

⁷⁴ Accessed May 14, 2019 Riverside County, Budget and Financial Information: Income Statement <u>https://countyofriverside.us/AbouttheCounty/BudgetandFinancialInformation.aspx.</u>

⁷⁵ Accessed May 14, 2019: City of Menifee, Budget and Financial Information: CAFD <u>https://cityofmenifee.us/DocumentCenter/View/6605/City-of-Menifee-FY-16-17-CAFR.</u>

EXPENSES AND REVENUES	RIVERSIDE COUNTY AMOUNT (MILLIONS)	PERCENT YOY CHANGE	MENIFEE AMOUNT (MILLIONS)
Expenses	\$4,800.1	1.7%	\$33.276
Public Protection	\$1,488.3	2.5%	\$20.700
Health and Sanitation	\$1,220.1	3.2%	\$3.378
Public Assistance	\$1,043.2	-1.2%	\$3.643
General Government	\$709.1	-1.4%	\$4.698
Public Ways and Facilities	\$172.7	10.7%	
Debt Service	\$120.7	4.1%	
Education	\$23.4	4.6%	
Recreation and Cultural Services	\$22.5	2.3%	\$0.822
Other Activity/Enterprise			
Revenues	\$4,485.3	3.3%	\$35.830
General Government	\$1,467.0	3.1%	\$8.061
Health and Sanitation	\$1,102.9	3.9%	\$1.160
Public Assistance	\$990.3	0.1%	
Public Protection	\$997.0	3.2%	
Public Ways and Facilities	\$159.3	17.6%	\$0.655
Debt Service	\$84.2	1.2%	\$0.060
Education	\$24.7	13.1%	
Recreational and Cultural Services	\$19.9	8.0%	
Other Activity/Enterprise			\$24.036

Table 6.13-5Riverside County and City of Menifee Expenses and Revenues forFY2017

Environmental Justice

Table 6.13-6 presents the minority population composition of the study area and for Riverside County. The County has a minority population of 64.6 percent, higher than Hemet, Winchester, and Nuevo, but lower than Perris. All study areas have a minority population greater than 50 percent. Furthermore, Perris and Nuevo both have Hispanic populations greater than 50 percent, while the County has a 49.1 percent Hispanic population, and the City of Hemet has a 42.7 percent Hispanic population. The median household income for Riverside County is higher than Perris or Hemet, but lower than Nuevo. The Perris City census area has 21.2 percent of its population living below the poverty level. Hemet/Winchester census area has 23.2 percent of its population living below the poverty level (23.2 percent), which is higher than the comparison area of Riverside County as a whole (12.9 percent). Nuevo has a lower percentage of population below the poverty level at 8.9 percent.

Census data used in the preparation of the 2003 FSA indicated minority percentages lower than 50 percent in the census areas within a six-mile radius of the Project. However, the 2003 FSA included focused air quality assessment for construction scenarios to evaluate the potential for environmental justice issues related to PM10 particulate matter from construction based on pockets of higher concentrations of minority population in the study area. The FSA mitigation guidelines for construction included parametric monitoring of construction dust emissions and a limitation on the construction schedule, with ambient air quality monitoring being recommended by staff for compliance assurance (see AQ-SC5 and AQ-SC6 of the FSA). Currently, the minority population in the Project environs is much higher. However, mitigation measures to address fugitive dust and emissions from demolition would be similar to the construction scenario, and, impacts would be reduced below levels of insignificance.⁷⁶

GEOGRAPHIC AREA	TOTAL POPULATION (2010)	TOTAL MINORITY (PERCENTAGE MINORITY) (2010)	MEDIAN HOUSEHOLD INCOME	POPULATION LIVING BELOW THE POVERTY LEVEL
Perris	68,386	89.7%	\$54,657	21.2%
Hemet/ Winchester	78,657	57.1%	\$37,171	23.2%
Nuevo	6,447	61.1%	\$66,895	8.9%
Riverside County	2,189,641	64.6%	\$60,807	12.9%

Table 6.13-6 Environmental Justice Characteristics

Source:

https://www.census.gov/quickfacts/fact/table/perriscitycalifornia,nuevocdpcalifornia,hemetcitycalifornia,riversidecount ycalifornia,US/PST045218

6.13.3.3 Discussion of Impacts from Decommissioning and Demolition Activities

The following subsections describe the potential impacts resulting from decommissioning and demolition, and the permanent loss of the Project, on population, housing, employment, public services, schools, and the economic base and fiscal resources of Riverside County, the City of Menifee, and/or local communities within the study area, where appropriate.

⁷⁶ FSA, p. 70.

Workforce and Population

During operation, the Project employed an average of 23 workers.⁷⁷ It is expected that some employees may be able to find employment at other nearby traditional or alternative energy generation facilities in the region. The vast majority of these workers and their families live in the Perris and Menifee areas. Based on an average household size of 3.26, a maximum of 75 people could leave the Perris/Menifee/Hemet area, representing .037 percent of the total estimated population.

Project employees were paid approximately \$1.3 million in wages, including salary, benefits, overtime, and incentives annually, and the Project plant supported \$538,109 annually in indirect income in the region.⁷⁸ While some of the IEEC plant employees may find other positions in the local area, including Perris, Menifee, and Hemet, others may have to relocate. Because the new owner will use the site for battery storage, new jobs are expected to be created that may offset all or some of the jobs lost by closure of the Project.

Decommissioning and demolition is expected to occur over a total of 12 months. The decommissioning will require an estimated average of 30 workers per day, including both IEEC employees and demolition contractor staff, over the 12-month decommissioning and demolition period. It is assumed that demolition contractor workers will commute from within Riverside County, or the surrounding counties of San Bernardino, Los Angeles, and San Diego, with some relocating temporarily. The primary trades required for decommissioning and demolition include managers, trades workers, material moving workers, heavy truck drivers, and loading machine operators. Even at the peak of decommissioning and demolition activities, the availability of key occupations in the region would be more than sufficient to meet employment needs; the decommissioning would require less than 0.01 percent of the available workforce assuming all workers came from Riverside County. Therefore, labor demand would not significantly affect the availability of labor in the region. It is anticipated that the vast majority of the workforce would commute to the site rather than relocate. Thus, impacts to population are expected to be minimal and the decommissioning would not induce substantial growth. Additionally, the decommissioning and demolition would be limited to existing site boundaries and would not displace existing populations.

Housing

Decommissioning and demolition is expected to have a less than significant impact on housing because of the relatively small number of employees employed at the Project during operation, and the limited number and term for decommissioning and demolition personnel. Some current IEEC employees are expected to find nearby employment; however, even if all workers (and their families) leave the Perris/Menifee/Hemet area, this would only marginally increase vacancy rates. Furthermore, because the Project

⁷⁷ IEEC FSA, 2003 Section 5.8, page 283 Socioeconomics.

⁷⁸ IEEC FSA, 2003 Section 5.8, page 284 Socioeconomics.

Site will be developed for battery energy storage, some of the IEEC employees and/or their families could find employment at the new facility.

As mentioned above, it is assumed that few, if any, demolition workers would permanently relocate to the communities nearest the Project Site. This assumption is based on the expectation that workers of this type of work typically commute relatively long distances to work sites, on a contract basis, and maintain a home base elsewhere. Should some workers choose to stay temporarily at a local area motel or hotel, there is sufficient transient housing in both Perris and Hemet to accommodate that demand. Additional housing opportunities are available in the form of RV, mobile home sites, and campgrounds. Should a portion of the workers relocate to the area for the duration of their assignment, impacts to available housing would be minor, as the rental vacancy rate is sufficient for workers to find nearby rental units.

Economy and Employment

As stated above, an average of 23 full-time employees were employed at the facility during normal operation including general staff and administrative support, plant maintenance, and operations staff. These employees included various technicians, skilled personnel, operators, and engineers. Upon the cessation of plant operations, these employees may lose their jobs and be forced to either find employment elsewhere or leave the labor force.

It is anticipated that most of these workers could find employment within the immediate region. However, some would be forced to leave the Perris/Menifee/Hemet area for employment elsewhere. Statistically, a loss of even 100 positions in the Perris /Menifee/Hemet area by itself would cause a negligible (less than .1 percent) change in local unemployment and would be negligible at the local and county level.It is uncertain how many workers will be employed at the BESS facility, but these will offset, to some degree, the loss of IEEC employees should those individuals leave the area or not obtain ongoing employment.

The employees who worked at the Project were paid approximately \$1.3 million in wages annually and the plant supported \$538,109 in indirect income in the immediate area. The loss of this direct and indirect income will be partially or entirely offset with jobs created by the BESS facility. During the decommissioning and demolition period, the indirect income will likely be higher due to the increased decommissioning activities. The resulting change is uncertain, but at worst would represent a slight decrease in the total income and is not a significant impact.

Project decommissioning and demolition will create a temporary, positive impact on the local economic base and fiscal resources. Wages and salaries will provide some minor additional income to the area, as will expenditures within the region for decommissioning and demolition materials and services. The payroll has been estimated at approximately \$3M over twelve months including IEEC, consultant and contractor personnel. Expenditures and local spending on decommissioning and

demolition materials and equipment is expected to be negligible as heavy equipment, trucks, and temporary labor may be sourced outside of the local area.

The minor economic benefit of decommissioning and demolition wages and salaries will create both indirect and induced secondary economic benefits in the region. However, given the relatively small number of personnel and the short timeframe for the activities, these secondary economic impacts will be negligible compared to the overall economic activity in the region.

Public Services, Utilities, and Schools

The decommissioning and demolition of the Project will not increase demands on local police, fire, medical, or other emergency services, nor will it increase the need for additional public utilities.

No significant impacts to local public services are expected during decommissioning and demolition activities. Current law enforcement, fire, and medical service capacity should be sufficient to handle emergencies at the Project Site. Communication equipment will be available on Project Site at all times to contact first responders if emergencies arise. Health and safety programs designed to mitigate hazards and comply with applicable LORS will be developed and implemented to protect worker health and safety during decommissioning and demolition activities.

Although minimal or no population impacts are expected, there will be some demands on utility services during decommissioning as a result of onsite activities.

Decommissioning and demolition will likely require potable water and electrical utility supplies and will generate wastewater and solid waste. It is anticipated that existing electrical and water services will be adequate for use considering that electrical and water service for the power block and balance of plant will not be required. Sanitary wastes generated will likely be collected in portable, self-contained toilets and hauled to an appropriate disposal site. No significant impacts are expected.

Decommissioning and demolition is expected to have an insignificant local and regional impact on schools. A large proportion of the workforce is expected to commute to the site daily. Further, workers who relocate temporarily for a work assignment typically do not bring their families with them. Romoland Elementary School, located northwest of the Project, across State Route 74, is the closest school to the Project Since the school is located approximately 1,575 feet away, decommissioning and demolition would not have any long-term impacts on the elementary school. The next nearest schools, Heritage High School and Hans Christensen Middle School are located 1.5-1.75 miles away from the Project Site, and school activities will not be affected by impacts associated with decommissioning and demolition activities (e.g., air quality).

Fiscal Resources

Estimates suggest that the Project contributed \$4MM annually-in property taxes. According to the latest Riverside County revenue information (FY2017), this represents less than one percent of the total tax revenues. The loss of taxes will be distributed among local agencies and programs within the County, as noted in the Fiscal Resources section above, tax revenues only account for 8 percent of the County's revenues overall. The decrease from the decommissioning and demolition of the Project is considered negligible and will be replaced to some extent by revenues from the new owner of the site. This is not a significant impact.

Expenditures on decommissioning and demolition materials, supplies, and equipment are expected to be limited. Riverside County and local city revenues resulting from taxes on materials, supplies, and equipment are not expected to be significant and would likely not affect budgeting or activities at the County level.

Environmental Justice

Federal guidelines for addressing environmental justice include a two-step screening process to determine whether a project could result in disproportionate impacts on low-income and minority populations. The first step is to evaluate whether the potentially affected community or area includes minority and low-income populations. If it contains these population groups, the second step is to determine whether the environmental impacts fall disproportionately on minority and low-income members of the community. In this case, a 65 percent concentration of minorities or a 13 percent concentration of people with low income (i.e., above the rate seen for Riverside County as a whole) are used as the cut-offs to indicate that there is a potential issue in a given area.

Based on the first step of the screening process described above, the proportion of lowincome populations in Perris and Hemet 12.9 percent in both cities. The proportions of minority residents in Perris is higher than in Riverside County as a whole.

In the context of decommissioning the Project, the primary environmental justice issues would typically be potential air, noise, or traffic issues that could adversely affect the health of nearby populations. As discussed in the relevant sections of this Plan, these impacts during decommissioning and demolition will be comparable to the impacts from construction and operation and can be mitigated to a level below significance by implementing the proposed mitigation measures for emissions, fugitive dust, noise, and traffic control. The decommissioning and demolition of the Project will result in a decrease in operational air quality impacts and impacts to surrounding communities from noise and traffic generation, and will not create significant socioeconomic impacts.

6.13.4 Proposed Conditions

No significant impacts have been identified and no conditions are warranted.

6.14 Traffic and Transportation

This section presents potential impacts to traffic that may result from the proposed decommissioning and demolition of the Project. Impacts are presented, and as appropriate, mitigation to reduce any potentially significant transportation impacts to a less than significant level is proposed.

6.14.1 Background

The Commission Decision concluded that with implementation of the COC, the additional traffic generated by the construction and operation of the Project would not significantly impact traffic in the area.

The addition of traffic associated with construction or operation of the IEEC Project will not have a significant effect on existing Levels of Service (LOS) at local intersections in the project vicinity.⁷⁹

The Commission did not identify any decommissioning and demolition conditions specifically related to Traffic and Transportation.⁸⁰

6.14.2 Applicable LORS and Required Permits

Table 6.14-1 describes the applicable LORS associated with traffic and transportation.

No additional permits are needed related to the decommissioning and demolition.

Table 0.14-1 LORS Applicable to Transportation
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LORS	Description	Comments
Federal		
49 CFR Chapter III, Subchapter B, Sections 350-399 on Motor Carrier Safety, Registration, and Transportation of Hazardous Materials	Establishes regulations affecting interstate motor carrier operations, routing registrations, insurance of vehicles and operational safety; describes transportation standards for radioactive and hazardous materials	Dismantling activities will comply with these requirements
State		
California Vehicle Code Division 15. Size, Weight, and Load Section 35000- 35796	Provides requirements as to the size and licensing of vehicles on public highways	Vehicles associated with the decommissioning and demolition activities will meet these requirements or obtain the required permits to exceed the requirements.

⁷⁹ Commission Decision, p. 279.

⁸⁰ Commission Decision, pp. 39-40.

LORS	Description	Comments
California Streets and Highway Code	Provides regulation pertaining to the modification of street infrastructure	Since the decommissioning and demolition activities do not propose to remove, replace, or modify any facility within road rights-of-way, these requirements are not applicable.
Local		
Riverside County CMP	 Requires a Traffic Impact Analysis (TIA) for projects that generate substantially more trip at thresholds of more than 50 daily truck trips. Requires projects that are truck intensive to study truck access routes, confirm the adequacy of existing streets to be used, safety issues related to truck traffic, and impacts to truck traffic on existing traffic on surrounding land uses. 	Since the decommissioning and demolition activities will generate 20 daily truck trips, a TIA is not required. However, activities will maintain compliance with the CMP objectives and policies.

6.14.3 LORS Conformance and Impact Assessment

Conformance with each of the LORS described in Section 6.14.2 will be assured as follows:

- The Code of Federal Regulations (CFR), Title 49, govern the transportation of goods and materials over public highways Vehicles associated with the decommissioning and demolition activities will meet these requirements.
- The California Vehicle Code provides requirements as to the size, weight, and licensing of vehicles on public highways Vehicles associated with the decommissioning activities will meet these requirements or obtain the required permits to exceed the requirements.
- The California Streets and Highway Code pertaining to the modification of street infrastructure Since the decommissioning activities do not propose to remove, replace, or modify any facility within road rights-of-way, these requirements are not applicable.

- The Riverside County CMP⁸¹ requirement for a Traffic Impact Analysis (TIA) for projects that generate substantially more trip at thresholds of more than 50 daily truck trips Since the decommissioning activities are proposed to only generate 20 truck trips or 35 Passenger Car Equivalent (PCE), a TIA is not required.
- In addition to the standard TIA requirement, projects that are truck intensive are required to study truck access routes, confirm the adequacy of existing streets to be used, safety issues related to truck traffic, and impacts of truck traffic on existing traffic on surrounding land uses.

6.14.3.1 Existing Traffic Conditions and Level of Service

Access to the Project Site is provided by California State Route (SR-74), a conventional two-lane or four-lane that connects Perris and Hemet through the City of Menifee, and residential communities throughout nearby Romoland. SR-74 begins at the interchange with Interstate 5 (I-5) in San Juan Capistrano and stretches toward Palm Desert in Riverside County, with access to the Project Site via Sherman Road that runs in a north-south direction and intersects Antelope Road which is located to the west of the Project Site. Equipment and shipment of materials may also be feasible via the Burlington Northern & Santa Fe Railway (BNSF). The BNSF runs diagonally to the east of the Project Site and intersects with San Jacinto and Ethanac Roads and parallels Russell Road and SR-74. As Russell Road eventually connects to Ethanac Road, access from the east through Ethanac Road and Antelope Road is discussed.

Antelope Road intersects with Ethanac Road which connects the Menifee Specific Plan Area to the North. Ethanac Road is a highly traveled two-lane thoroughfare that bifurcates north Menifee. Currently undergoing expansion to four-lanes, Ethanac Road will eventually be widened with anticipated increase of traffic due to development and revitalization of communities at Romoland and Riverside County. As Ethanac Road connects to Antelope Road which runs directly adjacent to the Project Site, Ethanac Road is an important access point to the Project Site. Antelope Road intersects with Ethanac Road in a "T" configuration and provides access to the industrial region and Project Site south of Ethanac Road. Antelope Road is a paved one lane at the Project Site that provides direct access to the Project area. Approximately 200 feet east of Antelope Road is one set of BNSF railroad tracks. Currently, the tracks cross Ethanac Road at grade.

Level of Service (LOS) is a quantitative measure of quality of service of a specific mode of transportation. The Highway Capacity Manual divides highway quality of service into six letter grades, "A" through "F," with "A" being the best and "F" being the worst. Currently, the LOS at the Project intersection by Antelope Road is at C, or acceptable condition to maneuver at operating speed. At Ethanac Road and Antelope Road, the LOS is projected to improve from a D to C or better following expansion with improved

⁸¹ Riverside County. Congestion Management Program. 2011, Accessible via <u>www.rctcdev.info/uploads/media_items/congestionmanagement program.original.pdf.</u>

connectivity for businesses, residents, and surrounding commercial and industrial activities.

Level of Service (LOS)	Average Control Delay (Seconds/ Vehicle) for Signalized/ Unsignalized Intersections	General Description
A	≤10/ 0 – 10	Free Flow
В	>10 - 20/ >10 - 15	Stable Flow (slight delays)
С	>20 - 35/ >15 - 25	Stable Flow (acceptable delays)
D	>35 – 55/ >25 – 35	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 - 80/ >35 - 50	Unstable flow (intolerable delay)
F	>80/ >50	Forced flow (congested and queues fail to clear)

Table 6.14-2	Level of Service Criteria for Riverside County Roadways and
Intersections	

Source: Highway Capacity Manual 2010, Transportation Research Board, 2010.

Existing traffic volumes were obtained from the Caltrans Traffic Data Branch and from the County of Riverside. Data from these agencies are the most current publicly available. They were collected by County of Riverside between 2014 and 2018. To Project traffic volume from the collection dates of 2014-2018 to current year level at 2019, a one percent annual increase was assumed.

6.14.3.2 Vehicle Trips during Demolition

Based on anticipated conditions associated with decommissioning and demolition following is activity specific estimated truck trip information:

- Mobilization and demobilization of heavy equipment 20 truckloads;
- Removal of salvage metals 1,540 truckloads;
- Removal of C&D debris 100 truckloads;
- Import of fill material 160 truckloads;
- Fuel delivery 100 truckloads;
- Total estimated Project truckloads 1,920 or 3,840 round trip truck trips.

During the 12-month decommissioning and demolition duration, 3,840 round trip truck trips will occur, or 6,758 PCE using a conversion factor of 1.76⁸². Considering approximately 280 work days, this equates to approximately 14 daily truck trips.

⁸² Transportation Research Board. Highway Capacity Manual. 2000.

Based on this review it is anticipated that the Project would result in less than 20 truck trips per day. This is below the 50 daily truck trips established by the City of Menifee to require a TIA during the heavy traffic hours. Based on regional traffic data, total estimated daily truck trips within the vicinity of the Project is greater than 13,000 trips. Thus, decommissioning and demolition represents a less than 1 percent increase over area trucking activity, which is not considered significant.

6.14.4 Proposed Conditions

The decommissioning and demolition activity over the course of the 12-month decommissioning and demolition duration would not result in significant transportation impacts.

Nevertheless, the following condition is proposed:

D-T&T-1:

A traffic management plan shall be developed to ensure compliance with the Riverside County CMP. This plan must include information regarding truck access routes, confirm the adequacy of existing streets to be used, and assess safety issues related to truck traffic.

6.15 Visual Resources

This section presents an analysis of LORS compliance and potential environmental impacts to visual resources that may result from the proposed decommissioning and demolition.

6.15.1 Background

The Project is within the City of Menifee, which also encompasses the neighboring communities of Sun City, Quail Valley, and parts of Romoland.⁸³ The surrounding area consists of diverse topographic features and distinct natural character such as valleys, mountains, and rock formations.⁸⁴ The regional landscape consists of broad, flat alluvial plains that are punctuated by small, rocky hills, and bordered by treeless buttes that rise up to 300 feet or more above the valley floor. The valleys are typically surrounded by arid, undeveloped hill lands, and much of the flat land on the plains is devoted to a mix of irrigated and dry-farmed field crops. Developed communities within the immediate Project vicinity include Romoland, Perris, and Sun City. These areas exhibit landscape characteristics typical of a built urban environment. Electric transmission infrastructure is also a prominent presence in the regional landscape with SCE's 500 kV Valley Substation serving as the hub of the regional transmission and distribution system.

⁸³ City of Menifee, California. Available at: <u>https://www.cityofmenifee.us/85/History</u>.

⁸⁴ City of Menifee, California. September 4, 2014. Community Design Background Document & Definitions. Available at: <u>https://www.cityofmenifee.us/DocumentCenter/View/1059/3_CD_Background-Document_HD0913_edited?bidId=</u>.

The existing community is currently characterized by agricultural, residential, commercial, and industrial uses.⁸⁵ Although much of the Project vicinity landscape has a rural or quasi-rural appearance, it is, in reality, a landscape that is in transition to a more uniformly urbanized level of development. Indeed, much of the area's now-open agricultural lands will likely be converted to suburban density residential and commercial uses as well as industrial use. Such conversion is already starting to take place in the Interstate 215 (I-215) corridor with the construction of residential tract developments.

The Project Site is located within Menifee near the communities of Romoland and Sun City in the County of Riverside. The 46-acre site is bounded by Ethanac Road and the Burlington Northern & Santa Fe Railway (BNSF) on the north, McLaughlin to the south, San Jacinto Road to the east, and Antelope Road on the west.

The Project includes the natural gas-fired generating facility located on the Project Site as well as electrical transmission, natural gas, water, and wastewater source and discharge connections under the CEC's jurisdiction. The off-site linear facilities will remain after decommissioning and demolition.

The visual impact evaluation includes two categories for assessment: visual settings and visual changes. Visual settings criteria consist of visual quality, viewer concern, viewer exposure, and visual sensitivity. The visual changes criteria include contrast, dominance, and view blockage. These criteria are evaluated from the perspective of specified view areas or Key Observation Points (KOPs).

COC adopted to mitigate visual impacts of the Project include: VIS-1 through VIS-8. COC VIS 1 thru VIS-3 and VIS-6 thru VIS-8 mitigate impacts of Project-specific structure to levels of no significance. Measures VIS-4 and VIS-5 to mitigate the night lighting impacts of the Project to levels of no significance.

The Commission Decision concluded the following with regard to the Project's compliance with visual resources LORS and potential visual resources impacts:

The Commission therefore concludes that implementation of the mitigation measures contained in the Conditions of Certification and otherwise described in Conditions of Certification and otherwise described the evidentiary record ensure that the IEEC will not result in significant adverse direct or cumulative impacts to visual resources.⁸⁶

The Commission Decision did not identify any decommissioning or demolition conditions specifically related to Visual Resources.⁸⁷

⁸⁵ City of Menifee, California. April 5, 2016. Land Use Background Document and Definitions. Available at: <u>http://www.cityofmenifee.us/DocumentCenter/View/3654/Land-Use-Background-Document-and-Definitions?bidld=</u>.

⁸⁶ Commission Decision, p. 290.

⁸⁷ Commission Decision, pp. 39-40.

6.15.2 Applicable LORS and Required Permits

KOPs are evaluated using only the Local LORS for the Project Site. The local LORS consist of Riverside County Comprehensive General Plan, Menifee North Specific Plan, Sun City/Menifee Valley Community Plan, and City of Perris General Plan. Federal and State LORS do not apply due to the property being on private land and no state roads or highways being designated or eligible under the State Scenic Highway. However, the roads surrounding the Project Site, SR-74 and I-215 are designated Eligible County Scenic Highways; therefore, local LORS would apply. In addition, local LORS were found to be applicable to the enhancement and/or maintenance of visual quality and the protection of views.

Decommissioning and demolition activities will occur only at the Project Site. LORS potentially applicable to visual resources in this area are shown in Table 6.16-1.

LORS	DESCRIPTION	COMMENTS		
Local				
Riverside County Zoning Ordinance; Ordinance 655	Ordinance implements the light pollution policies of the Riverside County Comprehensive General Plan	Decommissioning and demolition activities will not occur during night-time hours. Some night-time lighting with existing facility lights will be used for the purposes of maintaining site security.		
Sun City/Menifee Valley Community Plan; Policy (d): Lighting	Night lighting shall be provided in industrial areas for security and shall be directed away from adjacent properties	The Project incorporates directional shielding and light management procedures and technology (see also COC VIS-5).		
Sun City/Menifee Valley Community Plan; Policy (a) and (d): Visually Sensitive Road Corridors	(a) Within [660 feet of] scenic road corridors, trees and other roadside landscaping shall be utilized to protect and enhance the view from the road; (d) The design and appearance of new land uses within scenic road corridors shall be compatible with the scenic setting or environment. All appurtenant equipment and storage areas shall be screened as needed to make them compatible with the scenic setting or environment.	The existing roadside landscaping consisting of trees, shrubs and groundcovers will remain to continue providing screening and visual character to the surrounding area; is a net benefit to the surrounding area.		

Table 6.16-1 LORS Applicable to Visual Resources

6.15.3 LORS Conformance and Impact Assessment

Decommissioning and demolition activities will occur during the daylight hours; therefore, substantial night lighting of the Project Site will not be necessary. Existing facility lighting operable after separation from the 500 kV backfeed, as well as temporary lighting, as necessary, will be used for the purposes of maintaining site security at night, and will be used in accordance with the lighting and shielding requirements of the existing COC.

Decommissioning and demolition of the Project will result in the elimination of certain of the above ground portions of the power plant and the removal of the resulting waste from the Project Site. Other structures will be left in place for use by the new owners. Since other industrial facilities dominate the Project area landscape, the visual character of the Project area will remain substantially unchanged following decommissioning and demolition of the Project.

Decommissioning and demolition of the Project will not result in a significant adverse impact to visual resources.

6.15.4 Proposed Conditions

Decommissioning and demolition of the Project will eliminate structures that currently impact visual resources in the area, and will therefore result in a positive impact. Existing facility fencing will screen the decommissioning and demolition activities from public view to the extent feasible. Existing perimeter landscaping will not be materially affected by decommissioning and demolition, and existing signage will be removed. Existing lighting, supplemented with temporary lighting as necessary, will be used during decommissioning and demolition. Based on the foregoing, the existing COC are not relevant to decommissioning and demolition and no conditions related to visual resources are required. No significant impacts to visual resources will result from decommissioning and demolition.
APPENDIX A AIR QUALITY AND GREENHOUSE GAS CALCULATIONS

NARRATIVE

Appendix C consists of a series of Tables designed to calculate both criteria pollutant and greenhouse gas (GHG) emissions associated with the demolition of the Inland Empire Energy Center (IEEC). Emissions are calculated, as described in the IECC Decommissioning Plan, for both diesel-fueled mobile off-road equipment, as well as gasoline-fueled and diesel-fueled on-road vehicles.

A list of these Tables and their contents is shown below:

Table C-1 NOx and VOC Emission Factor Calculations – Mobile Off-Road Vehicles

Table C-2 PM, CO and SOx Emission Factor Calculations – Mobile Off-Road Vehicles

Table C-3 Hourly, Daily and Annual Emission Rates - Mobile Off-Road Equipment

Table C-4 Compliance with 2020 Fleet Standards for Mobile Off-Road Equipment

 Table C-5 GHG Emissions from Mobile Off-Road Vehicles

Table C-6 Criteria Pollutant Emissions from On-Highway Vehicle Tailpipes

Table C-1 GHG Emissions from On-Highway Vehicle Tailpipes

Table C-8 Summary of Annual Emissions from Demolition Operations

Appendix C also contains a series of Attachments that include the California Air Resources Board (CARB) Executive Orders for each of the engines found in the mobile off-road equipment that is planned to be utilized at the Project.

NOx and VOC Emission Factor Calculations - Mobile Off-Road Vehicles

Note:	For Tie	r 2 and Tier	3 Engines marked v	with *, assume NOx	=	95%	of NMHC + NC	Dx value fo	und in the A	RB Executive Order
			Executive	EPA Engine		NOx Emiss	sion Factor	Maxi	mum	NOx Emission Factor
	Vehicle Type	HP	Order - ARB	Family Name		g/kw-hr	g/hp-hr	HP	FUEL	Pounds/Gallon
1	Excavator 1	433	U-R-005-0359	AKLXL15.2ED7	*	3.325	2.479	560	27.86	0.1099
2	Excavator 2	359	U-R-005-0395	DKLXL11.0DDA		1.800	1.342	362	18.00	0.0595
3	Excavator 3	359	U-R-005-0439	HKLXL11.0DDC		0.250	0.186	362	17.86	0.0083
4	Excavator 4	355	U-R-003-0058	BVSXL12.8T4I		1.800	1.342	355	17.57	0.0598
5	Excavator 5	288	U-R-003-0061	CVSXL12.8T41		1.800	1.342	288	14.43	0.0591
6	Skidsteer 1	85	U-R-025-0311	7KBXL03.8AAD	*	6.080	4.534	85	4.66	0.1824
7	Skidsteer 2	85	U-R-025-0456	AKBXL03.8AAD	*	3.990	2.975	85	4.53	0.1231
8	Compactor 1	156	U-R-022-0214	JPKXL04.4MUI		0.28	0.209	157	8.57	0.0084

Note: For Tier 2 and Tier 3 Engines marked with *, assume VOC =

of NMHC + NOx value found in the ARB Executive Order

			Executive	EPA Engine		VOC Emiss	sion Factor	Maxi	mum	VOC Emission Factor
	Vehicle Type	HP	Order - ARB	Family Name		g/kw-hr	g/hp-hr	HP	FUEL	Pounds/Gallon
1	Excavator 1	433	U-R-005-0359	AKLXL15.2ED7	*	0.175	0.130	560	27.86	0.0058
2	Excavator 2	359	U-R-005-0395	DKLXL11.0DDA		0.005	0.004	362	18.00	0.0002
3	Excavator 3	359	U-R-005-0439	HKLXL11.0DDC		0.250	0.186	362	17.86	0.0083
4	Excavator 4	355	U-R-003-0058	BVSXL12.8T4I		0.010	0.007	355	17.57	0.0003
5	Excavator 5	288	U-R-003-0061	CVSXL12.8T41		0.020	0.015	288	14.43	0.0007
6	Skidsteer 1	85	U-R-025-0311	7KBXL03.8AAD	*	0.320	0.239	85	4.66	0.0096
7	Skidsteer 2	85	U-R-025-0456	AKBXL03.8AAD	*	0.210	0.157	85	4.53	0.0065
8	Compactor 1	156	U-R-022-0214	JPKXL04.4MUI		0.01	0.209	157	8.57	0.0084

5%

PM, CO and SOx Emission Factor Calculations - Mobile Off-Road Vehicles

			Executive	EPA Engine	PM Emiss	ion Factor	Maxi	mum	PM Emission Factor
	Vehicle Type	HP	Order - ARB	Family Name	g/kw-hr	g/hp-hr	HP	FUEL	Pounds/Gallon
1	Excavator 1	433	U-R-005-0359	AKLXL15.2ED7	0.130	0.097	560	27.86	0.0043
2	Excavator 2	359	U-R-005-0395	DKLXL11.0DDA	0.010	0.007	362	18.00	0.0003
3	Excavator 3	359	U-R-005-0439	HKLXL11.0DDC	0.002	0.001	362	17.86	0.0001
4	Excavator 4	355	U-R-003-0058	BVSXL12.8T4I	0.010	0.007	355	17.57	0.0003
5	Excavator 5	288	U-R-003-0061	CVSXL12.8T41	0.010	0.007	288	14.43	0.0003
6	Skidsteer 1	85	U-R-025-0311	7KBXL03.8AAD	0.350	0.261	85	4.66	0.0105
7	Skidsteer 2	85	U-R-025-0456	AKBXL03.8AAD	0.320	0.239	85	4.53	0.0099
8	Compactor 1	156	U-R-022-0214	JPKXL04.4MUI	0.02	0.015	157	8.57	0.0084
			Executive	EPA Engine	CO Emiss	ion Factor	Maxi	imum	CO Emission Factor
	Vehicle Type	HP	Order - ARB	Family Name	g/kw-hr	g/hp-hr	HP	FUEL	Pounds/Gallon
1	Excavator 1	433	0 U-R-005-0359	AKLXL15.2ED7	0.400	0.298	560	27.86	0.0132
2	Excavator 2	359	0 U-R-005-0395	DKLXL11.0DDA	0.400	0.298	362	18.00	0.0132
3	Excavator 3	359	0 U-R-005-0439	HKLXL11.0DDC	0.040	0.030	362	17.86	0.0013
4	Excavator 4	355	0 U-R-003-0058	BVSXL12.8T4I	0.100	0.075	355	17.57	0.0033
5	Excavator 5	288	0 U-R-003-0061	CVSXL12.8T41	0.100	0.075	288	14.43	0.0033
6	Skidsteer 1	85	0 U-R-025-0311	7KBXL03.8AAD	1.600	1.193	85	4.66	0.0480
7	Skidsteer 2	85	0 U-R-025-0456	AKBXL03.8AAD	0.900	0.671	85	4.53	0.0278
8	Compactor 1	156	0 U-R-022-0214	JPKXL04.4MUI	0.030	0.022	157	8.57	0.0009

The SOx Enission Factor for all engines is calcualted based on the California Air Resources Board (ARB) requiring all diesel fuel utilized in Califonia to have a maximum sulfur content of 15 PPM. Noting that 1 pound of Sulfur yields 2 pounds of SOx, the SOx Emission Factor is calculated as: 7.0 pounds of fuel/gallon x (15/1,000,000) x (2 lbs SOx/lb of S) = 0.00021 Pounds/Gallon

Hourly, Daily and Annual Emission Rates - Mobile Off-Road Equipment

	Vehicle Type	нр 🗌	HOURLY	FUEL	DAILLY FUEL		ANNUAI	L FUEL	
1	Excavator 1	433	21.54	Gallon	130	Gallon	23,400	Gallon	
2	Excavator 2	359	17.85	Gallon	105	Gallon	18,900	Gallon	
3	Excavator 3	359	17.71	Gallon	105	Gallon	18,900	Gallon	
4	Excavator 4	355	17.57	Gallon	100	Gallon	18,000	Gallon	
5	Excavator 5	288	14.43	Gallon	90	Gallon	16,200	Gallon	
6	Skidsteer 1	85	4.66	Gallon	15	Gallon	2,700	Gallon	
7	Skidsteer 2	85	4.53	Gallon	15	Gallon	2,700	Gallon	
8	Compactor 1	156	8.52	Gallon	32	Gallon	1, 440	Gallon	
							102,240		

		HOURLY EMISSIONS (lbs)			s)	D	AILY E	MISSIO	NS (lbs)	A	NNUAL	EMISS	ONS (te	ons)	
Vehicle Type	HP	NOx:	VOC	PM	CO	SOx	NOx	VOC	PM	CO	SOx	NOx	VOC	PM	CO	SOx
1 Excavator 1	433	2.37	0.12	0.093	0.28	0.005	14.28	0.75	0.56	1.72	0.027	1.29	0.07	0.050	0.15	0.0025
2 Excavator 2	359	1.06	0.00	0.006	0.24	0.004	6.25	0.02	0.03	1.39	0.022	0.56	0.00	0.003	0.12	0.0020
3 Excavator 3	359	0.15	0.15	0.001	0.02	0.004	0.87	0.87	0.01	0.14	0.022	0.08	0.08	0.001	0.01	0.0020
4 Excavator 4	355	1.05	0.01	0.006	0.06	0.004	5.98	0.03	0.03	0.33	0.021	0.54	0.00	0.003	0.03	0.0019
5 Excavator 5	288	0.85	0.01	0.005	0.05	0.003	5.32	0.06	0.03	0.30	0.019	0.48	0.01	0.003	0.03	0.0017
6 Skidsteer 1	85	0.85	0.04	0.049	0.22	0.001	2.74	0.14	0.16	0.72	0.003	0.25	0.01	0.014	0.06	0.0003
7 Skidsteer 2	85	0.56	0.03	0.045	0.13	0.001	1.85	0.10	0.15	0.42	0.003	0.17	0.01	0.013	0.04	0.0003
8 Compactor 1	156	0.07	0.07	0.072	0.01	0.002	0.27	0.27	0.27	0.03	0.007	0.01	0.01	0.006	0.00	0.0002
TOTALS	2120	6.96	0.44	0.276	1.01	0.022	37.56	2.25	1.24	5.04	0.124	3.36	0.18	0.09	0.45	0.011
	HP	NOx	VOC	PM	со	SOx	NOx	VOC	РМ	co	SOx	NOx	VOC	РМ	co	SOx

RANGE OF HP 25-49 600-750 50-74 75-99 100-174 175-299 300-599 >750 HP x 2020 NOxTARGET 4.1 4.2 3.4 3.1 2.9 2.8 2.9 4.5 NOx Vehicle Type HP Excavator 1 1 433 2.8 1212 2 Excavator 2 359 2.8 1005 3 Excavator 3 359 2.8 1005 4 Excavator 4 355 2.8 994 5 Excavator 5 288 2.9 835 6 Skidsteer 1 85 3.4 289 7 Skidsteer 2 85 3.4 289 Compactor 1 156 8 3.1 484 TOTALS Fleet Target NOx Emission Factor = 2.88 2120 6114 Weighted HP x NOx HP Engine Tier Vehicle Type Model Year Actual g/hp-hr Excavator 1 Tier 3 1 433 2010 2.48 1074 2 Excavator 2 359 2013 Tier 4 I - Alt 1.34 482 3 Excavator 3 359 2016 Tier 4 Final 0.19 67 4 Excavator 4 355 2011 Tier 4 - Alt 1.34 477 Excavator 5 2012 Tier 4 I - Alt 387 5 288 1.34 6 Skidsteer 1 85 2007 Tier 2 4.53 385 7 Skidsteer 2 Tier 3 85 2010 2.98 253 Compactor 1 156 2018 Tier 4 Final 33 8 0.21 TOTALS 2120 3156

COMPLIANCE WITH 2020 FLEET STANDARDS FOR MOBILE OFF-ROAD VEHICLES

Actual Fleet NOx Emission Factor = 1.49

Percentage Below Fleet Standard for 2020 = 48.4%

TABLE C-5 GHG EMISSIONS FROM MOBILE OFF-ROAD VEHICLES

1 GHG EMISSION FACTORS FOR DIESEL FUEL

	Heat Value of Diesel Fuel		0.138	MM BTU/GALLON	
	EN	ISSION FACTOR CALCUL	ATIONS		
C02	FACTOR	CH4	FACTOR	N20	FACTOR
KG/MM BTU	KG/ 1000 GALLON	G/MM BTU	KG/ 1000 GALLON	G/MM BTU	KG/ 1000 GALLON
73.96	10206.48	3	0.414	0.6	0.0828
Tota	I Fuel Consumption - All Off-Roa	d Vehicles	102,240	GALLON/YEAR	
		EMISSION CALCULATIO	DNS		
CO2 EMISSIC	NS (Metric Tons)	CH4 EMISSIO	NS (Metric Tons)	N2) EMISSIC	ONS (Metric Tons)
10	043.51	(0.04		0.01
CO2 EQUIVAL	ENT (Metric Tons)	CO2 EQUIVALE	ENT (Metric Tons)	CO2 EQUIVAL	ENT (Metric Tons)
10	043.51	(0.89		1.90
Total GH	IG Emissions from all Mobile Off	-Road Vehicles	1,046	METRIC TON C02e	

CRITERIA POLLUTANT EMISSIONS FROM ON-HIGHWAY VEHICLE TAILPIPES

VEHICLE TYPE	NUMBER	OF TRIPS	1-WAY	NO	x EMISSION	IS		VOO	C EMISSIO	NS		CO	EMISSION	S
	DAILY	ANNUAL	(Miles)	E Factor	DAILY	ANNUAL	E	Factor	DAILY	ANNUAL		E Factor	DAILY	ANNUAL
				g/mile	pounds	tons		g/mile	pounds	tons	1	g/mile	pounds	tons
Passenger Car, Gas Powered	10	2600	15	0.0508	0.034	0.004	(0.0148	0.0098	0.0013		0.8309	0.550	0.071
Light Duty Passenger Truck	15	3900	15	0.0534	0.053	0.007	(0.0219	0.0217	0.0028		0.1690	0.168	0.022
Work Truck (8.5K - IOK GVWR)	1	260	15	2.1215	0.140	0.018	(0.0816	0.0054	0.0007		0.4669	0.031	0.004
Work Truck (IOK - 14 GVWR)	2	360	15	1.8571	0.246	0.022	(0.0759	0.0100	0.0009		0.4252	0.056	0.005
Medium Duty 2-Axle Truck	1	10	20	2.9267	0.258	0.013	(0.1596	0.0141	0.0001		0.5575	0.049	0.000
Heavy Duty 5-Axle Truck	20	1900	80	4.8640	34.314	1.630	(0.1828	1.2896	0.0613		0.6958	4.908	0.233
				TOTAL	35.045	1.694		TOTAL	1.351	0.067	Г	TOTAL	5.762	0.336
				NOX	POUNDS	TONS		VOC	POUNDS	TONS		CO	POUNDS	TONS
				Emissions			Fr	missions			E	missions		
VEHICLE TYPE	NUMBER	OF TRIPS	1-WAY	PM	0 EMISSIO	NS	F	PM2	.5 EMISSI	ONS	F	SO	x EMISSION	IS
	DAILY	ANNUAL	(Miles)	E Factor	DAILY	ANNUAL	LE	Factor	DAILY	ANNUAL	L	E Factor	DAILY	ANNUAL
				g/mile	pounds	tons		g/mile	pounds	tons		g/mile	pounds	tons
Passenger Car, Gas Powered	10	2600	15	0.0018	0.001	0.000		0.0017	0.0011	0.0001		0.0028	0.002	0.000
Light Duty Passenger Truck	15	3900	15	0.0070	0.007	0.001		0.0067	0.0066	0.0009		0.0029	0.003	0.000
Work Truck (8.5K - IOK GVWR)	1	260	15	0.0177	0.001	0.000	(0.0169	0.0011	0.0001		0.0046	0.000	0.000
Work Truck (IOK - 14K GVWR)	2	360	15	0.0177	0.002	0.000		0.0170	0.0022	0.0002		0.0050	0.001	0.000
Medium Duty 2-Axle Truck	1	10	20	0.0992	0.009	0.000		0.0949	0.0084	0.0000		0.0095	0.001	0.000
Heavy Duty 5-Axle Truck	20	1900	80	0.0874	0.617	0.029		0.0836	0.5899	0.0280		0.0137	0.097	0.005

TOTAL 0.637 0.031TOTAL 0.609 0.029TOTAL 0.1030.005 POUNDS POUNDS TONS PM 2.5 TONS SOx POUNDS TONS PM10 DAILY ANNUAL Emissions DAILY ANNUAL DAILY ANNUAL Emissions Emissions

GHG EMISSIONS FROM ON-HIGHWAY VEHICLE TAILPIPES

VEHICLE TYPE	ANNUAL	1-WAY	CO2 EN	IISSIONS		CH4 EN	ISSIONS		N20 EM	ISSIONS	Г	ANNUALC02e
	TRIPS	(Miles)	E Factor	ANNUAL	[E Factor	ANNUAL	[E Factor	ANNUAL		
			g/mile	Metric tons		g/mile	Metric tons		g/mile	Metric tons		Metric Tons
Passenger Car, Gas Powered	2600	15	286.2783	22.33		0.0037	0.00029		0.0053	0.00042		22.46
Light Duty Passenger Truck	3900	15	301.8314	35.31		0.001016	0.00012		0.0474	0.00555		37.04
Work Truck (8.5K - IOK GVWR)	260	15	482.3014	3.76		0.003792	0.00003		0.0758	0.00059		3.95
Work Truck (IOK - 14K GVWR)	360	15	531.5955	5.74		0.003525	0.00004		0.0836	0.00090		6.02
Medium Duty 2-Axle Truck	10	20	1002.845	0.40		0.007414	0.00000		0.1576	0.00006		0.42
Heavy Duty 5-Axle Truck	1900	80	1451.693	441.31		0.008491	0.00258		0.2282	0.06937		462.87
TOTALS				508.86 ANNUAL Metric tons			0.00306 ANNUAL Metric tons			0.07689 ANNUAL Metric tons		532.76 ANNUAL Metric tons

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SUMMARY OF ANNUAL EMISSIONS FROM DEMOLITION OPERATIONS

							GHG
		CRITERIA P	OLLUTANT EM	ISSION RATES (T	ons/Year)		Metric Tons
SOURCE OF EMISSIONS	VOC	CO	NOx	SOx	PM10	PM2.5	C02e
All Mobile Off-Road Equipment	0.184	0.452	3.362	0.011	0.093	N/A	1,046
All On-Road Vehicles	0.067	0.336	1,694	0.005	0.029	0.0280	533
	0.001	0.000		0.000	0.020	0.0200	
Total All Demolition Emissions	0.251	0.787	5.056	0.016	0.123	0.028	1,579
	TONS	TONS	TONS	TONS	TONS	TONS	Metric Tons
	VOC	CO	NOx	SOx	PM10	PM2.5	C02e

EXCAVATOR 1

CARB EXECUTIVE ORDER

U-R-005-0359

SWAIR RESOURCES BOARD

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (titers)	FUEL TYPE	USEFUL LIFE (hour*)
2010	AKLXL15.2ED6	15.2	Diesel	8000
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT	APPLICATION
Engin	Engine Control Module, Direct Diesel Injection, Turbocharger, Charge Air Cooler, Exhaust Gas Recirculation		Loader, Dozer, Generator and Ot	her Industrial Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED	EMISSION			E	EXHAUST (g/kw-h	OF	OPACITY (%)			
POWER CLASS	STANDARD CATEGORY		НС	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
225 ≤ kW < 450	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	· 20	15	50
		CERT			3.6	0.4	0.15	11	4	16

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

day of December 2009.

Annette Hebert, Chief Mobile Source Operations Division

fittachment | of 1 12-(k-2011)

Engine Model Summary Template

0-R-001- 135 X

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (Ibsrtir) @ peak HP (for diesels only)	S.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	B.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
AKLXL15.2ED6	3C01	SAA6D140E-5	518@2Q00	270	181	1601@1400	326	153	EMITC CAC EGR DFILECM
AKLXL15.2ED6	3C02	SAA6D140E-5	357@1900	204	128	1331@1250	279	116	EM,TC,CAC,EGR,DF1,ECM
AKLXL15.2ED6	3C03	SAA6D140E-5	496@1800	281	170	1619@1350	322	146	EM,TC,CAC,EGR,Dn,ECM
AKLXL15.2ED6	3C04	SAA6D140E-5	433@1800	251	150	1435@1400	290	130	EMITC CACLEGR DR ECM
AKLXL15.2ED6	3C05	SAA6D140E-5	360@1900	205	130	1353@1300	285	123	EM TC CAC EGR DFILECM
AKLXL15.2ED6	3C06	SAA6D140E-5	452@2000	238	160	1497@1400	303	143	EM,TC,CAC,EGR,DFLECM
AKLXL15.2ED6	3C07	SAA6D140E-5	453@2000	243	163	1541@1400	316	149	EM,TC,CAC,EGR,DR,ECM
AKLXL15.2ED6	3C08	SAA6D140E-5	407@2000	225	151	1468@1400	305	144	EM,TC,CAC,EGR,DR,ECM
AKLXL15.2ED6	6DTA15KCM-3	SAA6D140E-5	496@1800	281	170	1619@135Q	322	146	EM,TC,CAC,EGR,DFI,ECM
AKLXL15.2ED6	3G01	SAA6D140E-5	578@1800	334	201	·		_	EMTC CAC EGR DFLECM
~									
		-							

EXCAVATOR 2

CARB EXECUTIVE ORDER

4

U-R-005-0395

	alifornia Environmental Projection Agency	
t£≪/	AIR RESOURCES BOAR	D

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)			
2013	DKLXL11.0DDA	11.0	Diesel	8000			
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION				
Ele Charg Diesel	ctronic Direct Injection, le Air Cooler, Exhaust G Oxidation Catalyst, Perio and Engine Control I	Furbocharger, as Recirculation, dic Trap Oxidizer, Module	Loader and Other Indus	strial Equipment			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION			OPACITY (%)						
	STANDARD CATEGORY		нс	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
130 ≤ kW ≤ 560	Interim Tier 4 / ALT NOx	STD	0.19	2.0	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.005	1.8		0.4	0.01			

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

day of July 2012.

Annette Hebert, Chief Mobile Source Operations Division

Attachment f ag (

Engine Model Summary Template

U-R-005-0395-6-18-2012

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuol Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rale: mm/stroke@peak torque	S.Fuel Rate: (lbs/hr)@peak to	9.Emission Control quepevice Per SAE J1930	
DKLXL11.0DDA	4C01	SAA6D125E-6	333@2000	176	118	12?7@1400	243	114	OCEM.TC.CAC.EGR.DFI.ECM	f>JbK
DKLXL11.0DDA	4C02	SAAGD125E-6	362@1900	198	126	1114@1400	215	101	EM, TC, CAC, EGR, DFI, ECM	_].
DKLXL11.0DDA	4C03	SAA6D125E-6	274@2000	149	100	964@1450	192	93	EM,TC,CAC,EGR,DFI,ECM	
DKLXL11.0DDA	4C04	SAA6D125E-G	404@2000	221	142	1259@1400	251	117	EM,TC,CAC,EGR,DFI,ECM	V

EXCAVATOR 3

CARB EXECUTIVE ORDER

U-R-005-0439

California Environmental Protection Agency
051 Air Resources Board

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2017	HKLXL11.0DDC	11.0	Diesel	8000
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT A	APPLICATION
Ele Charg Diesel Oxie Control Mo	ectronic Direct Injection, ge Air Cooler, Exhaust G dation Catalyst, Periodic odule, Selective Catalytic Ammonia Oxidation (Furbocharger, as Recirculation, Trap Oxidizer, Engine Reduction-Urea, and Catalyst	Loader, Dozer, Off-R	Road Truck

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED	EMISSION		EXHAUST (g/kw-hr)					OPACITY (%)		
CLASS	CATEGORY		NMHC	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
130 ≤ kW ≤ 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.01	0.25		0.04	0.002			

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

day of December 2016.

Annette Hubert, Chief Emissions Compliance, Automotive Regulations and Science Division

Pagel

Engine Model Summary Template

tj = C_005-DY37 11/18/2016

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rale: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (Ibs/hr) @ peak HP (for diesels only)	G.Torque @ RPM (SEA Gross)	7.Fuel Rale: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torqu	9.Emission Control epevice Per SAE J1930	
HKLXL11.0DDC	5C01	SAA6D125E-7	333@2Q00	176	118	1237@1400	239	108)C^
HKLXL11.0DDC	5C02	SAA6D125E-7	362@1900	201	125	1114@1400	217	98	EM.TC.CAC.EGR.OH.ECM.SCR.U. AMOX. prox. 00	
HKLXL11 ODDC	5C03	SAA6D125E-7	267@1900	152	94	938@1400	186	83	EM,TC,CAC,EGR,DFI,ECM, SCR-U, AMOX, PTOX, CC	
HKLXL11.0DDC	5C04	SAA6D125E-7	274@2000	• 149	99	964@1450	187	88	EM,TC,CAC,EGR,DFI,ECM, SCR-U, AMOX, PIOX, 99	
HKLXL11.0DDC	5C05	SAA6D125E-7	405@2000	216	139	1259@1400	244	111	EM,TC,CAC,EGR,ON,ECM, SCR-U, MOX, PTOX, CC	

EXCAVATOR 4

CARB EXECUTIVE ORDER

U-R-003-0058

Attachment lag!

Engine Model Summary_Template

V-tf~od3-oirS [1_-7-0b

Engine Family	1.Engine Code 2.En	gine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm ³ /stroke @ peak Hi (for diesel only)	5.Fuel Rate: > (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mnvVstroke@peak torque	0.Fuel Rale: (lbs/hr)@peak toro	9.Emission Control queDevice Per SAE J1930
BVSXL12.8T4I	13 :6713: 20	D13H	441@1900	248 A 4%	157 ± 4%	1741@1200	335 1.4%	134 A 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
BVSXL12.8T4	")Refto 13-6	D13H	432 1900	243 ± 4%	154 ± 4%	1706@1200	328 ± 4%	131 ± 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
BVSXL12.8T4I	13-8.13-22	D13H	288@1700	179 ± 4%	101 ± 4%	1165@ J 300	226 ± 4%	98 ± 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
BVSXL12.8T4I	13-9, 13-25	D13H	355@1800	206 A 4%	123 A 4%	1328(@j1350	257 ± 4%	116 ± 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
BVSXL12.8T4I	13-12, 13-23	D13H	261@1900	151 ± 4%	96 ± 4%	1380@1050	263 ± 4%	92 ± 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
BVSXL12.8T4I	**)Ref to 13-12	D13H	261@1900	151 ± 4%	96 ± 4%	1058@105Q	206 ± 4%	72 ± 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
BVSXL12.8T4I	***)ReftoJ3-12	D13H	261@1900	151±4%	96 a 4%	1121@105P	218 ± 4%	76 ± 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
BVSXL12.8T4I	13-13, 13-24	D13H	286@1900	164 ± 4%	104 A 4%	1497@1000	290 ± 4%	97 ± 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
BVSXL12.8T4I	**)Ref to 13-13	D13H	286@190Q	164 ± 4%	104 ± 4%	1184@1000	232 ± 4%	77 ± 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
BVSXL12.8T4I	***)Refto 13-13	D13H	286@1900	164 A 4%	104 ± 4%	1195@1000	233 ± 4%	78 ± 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
BVSXL12.8T4I	13-14, 13-26	D13H	331@1900	186 ± 4%	118 ± 4%	1646@1100	313 ± 4%	115 ± 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
BVSXL12.8T4I	**)Ref to 13-14	D13H	33101900	186 ± 4%	118 ± 4%	1305@1100	250 ± 4%	92 ± 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
BVSXL12.8T4I	***)Ref to 13-14	D13H	331@1900	186 ± 4%	118 ± 4%	1335@1100	256 ± 4%	94 ± 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
BVSXL12.8T4I	13-15, 13-27	D13H	382@1900	211 ± 4%	134 ± 4%	1646@1100	313 ± 4%	115 ± 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
BVSXL12.8T4I	∧)Refto 13-15	D13H	354@1900	198 A 4%	125 A 4%	1646@1100	314 A 4%	115 A 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
BVSXL12.8T4I	***)Ref to 13-15	D13H	354@1900	198 A 40%	125 A 4%	1350@1100	258 A 4%	95 A 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
BVSXL12.8T4I	****)Ref to 13-15	D13H	354@1900	198 A 4%	125 A 4%	1401@1100	268 a 4%	98 a 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
	•) Test engine								
neterio ali da la constanza de la constanza de la constanza da la constanza da la constanza da constanza da con	**) MultiTorgue Curve	Level 1						Canal Concerning and the second s	
	***)MultiJorque Curve	Level 2							an an and a statement and the set of the set of the statement of the set of the set of the set of the set of th

****)MultiTorque Curve Level 3

CalifitU Eavinnmtnlal PrMtc&m Agt*:j	VOLVO CONSTRUCTION EQUIPMENT	EXECUTIVE ORDER U-R-003-0058
K AIR RESOLIRCES BOARD	٨D	New Off-Road
	AB	Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT is ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)			
2011	BVSXL12.8T4I	12.8	Diesel	8000			
SPECIAL	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION				
Ele Charg Smoke	e Air Cooler, Electronic e Air Cooler, Electronic e Puff Limiter, Exhaust G Periodic Trap Oxid	Turbocharger, Control Modules, as Recirculation, dizer	Loaders, Articulated Hau Other Industrial E	ller, Excavators, quipment			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION		EXHAUST (g/kw-hr)					OPACITY (%)		
	CATEGORY		нс	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
130 ≤ kW ≤ 560	Tier 4 / ALT NOx	STD	0.19	2.0	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.01	1.8		0.1	0.01			

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

day of December 2010.

nette Hebert, Chief bile Source Operations Division

EXCAVATOR 5

CARB EXECUTIVE ORDER

U-R-003-0061

California Environmental ProUclion Agency	VOLVO CONSTRUCTION FOUIPMENT	EXECUTIVE ORDER U-R-003-0061
28 AIR RESOURCES BOARD	AB	New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT is ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)			
2012	CVSXL12.8T4I	12.8	Diesel	. 8000			
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION				
Ele Charg Smoke	ectronic Direct Injection, le Air Cooler, Electronic Puff Limiter, Exhaust G Periodic Trap Oxi	Turbocharger, Control Modules, Bas Recirculation, dizer	Loaders, Articulated Hau Other Industrial E	iler, Excavators, quipment			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER	EMISSION				EXHAUST (g/kw-	OPACITY (%)				
CLASS	STANDARD CATEGORY		НС	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
130 ≤ kW ≤ 560	Interim Tier 4 / ALT NOx	STD	0.19	2.0	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.02	1.8		0.1	0.01			

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this ____

day of October 2011.

Annette Hebert, Chief Mobile Source Operations Division

Attachment (of 1

Engine Model_Summary_Template

U-R-003-0061 1Q~2/Z01

Engine Family	1.Engine Code 2.En	gine Model	3.BHP@RPM (SAE Gross)	4,Fuel Rate: mm ³ /stroke @ peak HF (for diesel only)	5.Fuel Rate: P (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rale: mmJ/stroke@peak torque	B.Fuel Rate: (lbs/hr)@peak tore	9.Emission Control queDevice Per SAE J1930
CVSXL12.8T4I	1 1, 3-20	D13H	441@1900	248 ± 4%	157 ± 4%	1741@1200	335 ± 4%	134 ± 4%	EM,ECM,TC,CAC,EGR,SPL,DPF fc4>
CVSXL12.8T4I	;*)Ref to 13-6	D13H	432@1900	243 ± 4%	154 ± 4%	1706@1200	328 ± 4%	131 ± 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
CVSXL12.8T4I	13-8, 13-22	D13H	288@1700	17914%	10114%	1165@1300	226 1 4%	98 ± 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
CVSXL12.8T4I	13-9, 13-25	D13H	355@1800	20614%	12314%	1328@1350	25714%	11614%	EM,ECM,TC,CAC,EGR,SPL,DPF
CVSXL12.8T4I	13-12, 13-23	D13H	261@1900	151 1 4%	96 1 4%	1380@1050	26314%	92 1 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
CVSXL12.8T4I	**)Ref to 13-12	D13H	261@1900	15114%	96 1 4%	1058@1050	20614%	72 1 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
CVSXL12.8T4I	***)Ref to 13-12_	різн	261@1900	151 1 4%	96 1 4%	mi @1050	21814%	76 1 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
CVSXL12.8T4I	13-13, 13-24	D13H	286@1900	16414%	104 1 4%	1497@1000	29014%	97 1 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
CVSXL12.8T4I	**)Ref to 13-13	D13H	286@1900	164 1 4%	104 1 4%	1184@1000	23214%	77 1 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
CVSXL12.8T4I	***)Ref to 13-13	D13H	286@1900	164 1 4%	104 1 4 %	1195@1000	23314%	78 1 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
CVSXL12.8T4I	13-14, 13-26	D13H	331@1900	18614%	11814%	1646@1100	31314%	11514%	EM,ECM,TC,CAC,EGR,SPL,DPF
CVSXL12.8T4I	**)Ref to 13-14	D13H	331@1900	186 14%	118 1 4%	1305@1100	25014%	92 1 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
CVSXL12.8T4I	***)Ref to 1?- 4	D13H	331@1900	18614%	118 1 4%	1335@ \ 100	25614%	9414%	EM,ECM,TC,CAC,EGR,SPL,DPF
CVSXL12.8T4I	13-15, 13-27	D113H	382@1900	21114%	13414%	1646@1100	313 🖬 4%	11514%	EM,ECM,TC,CAC,EGR,SPL,DPF
CVSXL12.8T4I	**)Ref to 13-15	D13H	354@1900	19814%	12514%	1646@1100	314 1 4%	11514%	EM,ECM,TC,CAC,EGR,SPL,DPF
CVSXL12.8T4I	***)Ref to 13-15	D13H	354@1900	19814%	12514%	1350@1100	25814%	95 1 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
CVSXL12.8T4I	****)Ref to 13-15	D13H	354@1900	198 1 4%	2251.4%	1401@1100	268 ± 4%	98 1 4%	EM,ECM,TC,CAC,EGR,SPL,DPF
	*) Test engine								
	MultiTorque Curve	Level 1							
	***)MultiTorque Curve	Level 2							
	•••••)MultiTorque Curve	e Level 3							

SKIDSTEER 1

CARB EXECUTIVE ORDER

U-R-025-0311

Cali/omia E.HrirvameauU Proittiion Agtrtcy

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFI (hours)			
2007	7KBXL03.8AAD	3.769	Diesel	8000			
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION				
D	Direct Diesel Injection, Tu	urbocharger	Telescopic Material Handler and Other Industrial Equipmer				

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED EMISSION POWER STANDARD CLASS CATEGORY				E	EXHAUST (g/kW-h	OPACITY (%)				
			НС	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
37 ≤ kW < 75	Tier 2	STD	N/A	N/A	7.5	5.0	0.40	20	15	50
		CERT			6.4	1.6	0.35	6	3	13

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

day of December 2006.

Annette Hebert, Chief Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: KUBOTA Corporation

Engine category: Nonroad CI

EPA Engine Famty: 7KBXL03.8AAD

Mfr Family Name: NA

Process Code: Running Change

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5 Fuel Rate: (Ibs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torqu	9.Emission Control e Device Per SAE J1930	
V3800-DI-T-ES01	V3800-DI-T-ES	97.6@2600	65.0	37.8	247.2@1500	72.5	24.3	EM DOT	TO
V3800-DI-T-ES02	V3800-DI-T-ES	97.6@2600	65.0	37.8	239.7@1500	70.5	23.6	EM ,	
V3800-DI-T-ES03	V3800-DI-T-ES	94.7@2400	66.3	35.6	239J®1500	70.5	23.6	EM	
V3800-DI-T-ES04	V3800-DI-T-ES	90.8@2200	66.7	32.8	239.7®1500	70.5	23.6	EM	
V3800-DI-T-ES05	V3800-DI-T-ES	82.7@2100	64.7	30.4	239.7@1500	72.2	24.2	EM /	
V3800-DI-T-ES06	V3800-DI-T-ES	98.7@2600	66.5	38.7	238.4@1500	70.5	23.6	EM /	
V3800-DI-T-ES07	V3800-DI-T-ES	85.0@2400	60.7	32.6	228.6@1700	68.0	25.8	EM	
V3800-DI-T-ES08	V3800-DI-T-ES	88.6@2600	60.0	34.9	2)+3.4@1500	63.0	21.1	EM	
V3800-DI-T-ES09	V3800-DI-T-ES	92.0@2400	65.2	35.0	232.3@1600	70.4	25.2	EM	
V3800-DI-T-ES10	V3800-DI-T-ES	82.6@2200	61.6	30.3	228 6@1500	70.2	23.5	em J-	•
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EO# # R- 025 - A)

SKIDSTEER 2

CARB EXECUTIVE ORDER

U-R-025-0456

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t£≪∪	R RESOURCES BOARD

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)			
2010	AKBXL03.8AAD	3.769	Diesel	8000			
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION				
Meo Ele	chanical Direct Injection, ctronic Control Module (Exhaust Gas Recirc	Turbocharger, Some Model), ulation	Tractor, Compressor, Generator Set, Other Industrial Equipment				

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED EMISSION				E	EXHAUST (g/kW-ł	OPACITY (%)				
POWER CLASS	CATEGORY		HC	NOx	NMHC+NOx	со	РМ	ACCEL	LUG	PEAK
56 ≤ kW < 75	Tier 3	STD	N/A	N/A	4.7	5.0	0.40	20	15	50
		CERT			4.2	0.9	0.32	10	3	20

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

day of December 2009.

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Annette Hebert, Chief Mobile Source Operations Division

Engine Model Summary Form

KUBOTA Corporation Manufacturer: Nonroad CI Engine category: EPAEngine Famty: AKBXL03.8AAD Mfr Family Name: N/A . Process Code: **New Submission**

Attachment prige V •* 1

0-£-0>5-04NU

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	S Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	S.Fuel Rate: (lbs/hr)@peak torq	9.Emission Contro Device Per SAE J19	I 30
V3800-DI-T-ET01	V38QO-DFT-ET	99.2@2600	67.0	38.9	261.8@1400	80.0 .	25.0	T /s EMEGR	MufeUift<4 D
V3800-DI-T-ET02	V3800-DI-T-ET	99.2@2600	67.0	38.9	239.7@1600	73.0	26.1	EM_EGR	
V3800-DI-T-ET03	V3800-DI-T-ET	98.7@2600	67.5	w= 39.2	238.2@1600	73.0 ,	26.1	EM,EGR	
V3800-DI-T-ET04	V3800-DI-T-ET	88.6@2600	60.5	35.2	213.2@1600	66.5	23.8	EM,EGR	
V3800-DI-T-ET05	V3800-DI-T-ET	92.0@2400	66.0	35.4	232.3@1600	72.0	25.8	EMEGR	
V3800-DI-T-ET05e	V3800-DI-T-ET	92.0@2400	66.0	35.4	232.3@1600	72.0	25.8	EM,Eiectronic	⇒ fckffc
V3800-D1-T-ET06	V380Q-DI-T-ET	85.0@2400	59.0 v.	31.7.	228.6@1600	70.0	25.0	EMEGR	
V3800-DI-T-ET07	V3800-DI-T-ET	81.0@2400	57.0	30.6	217.6@1600	67.0	24.0	EMEGR	
V3800-DI-T-ET08	V3800-DI-T-ET	75.0@2400	54.0	29.0	202.1@1600	- 64.0	22.9	EM,EGR	
V3800-DI-T-ET09	V3800-DI-T-ET	82.6@2200	61.0	30.0	228.6@1600	71.0	25.4	EM,EGR	
V3800-DI-T-ET10	V3800-DI-T-ET	89.4@2600	· 61.5	35.7	216.1@1600	67.5	24.1	EMEGR	-
V3800-DI-T-ET11	V3800-DI-T-ET	90.0@2400	65.0	34.9	228.6@1600	70.0	25.0	V EM,EGR	
							10-3-3- 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-		
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COMPACTOR 1

CARB EXECUTIVE ORDER

U-R-022-0214

Pursuant to the authority vested in California Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)			
2018	JPKXL04.4MU1	4.4	Diesel	8000			
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS					
Electron Cool Recircu Catalytic I	ic Direct Injection, Turbo er, Engine Control Modu Ilation, Diesel Oxidation Reduction-Urea, Ammon	charger, Charge Air le, Exhaust Gas Catalyst, Selective ia Oxidation Catalyst	Crane, Loaders, Tractor, Dozer Generator S	r, Pump, Compressor, Set			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION		EXHAUST (g/kw-hr)					OPACITY (%)		
	CATEGORY		NMHC	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Tier 4 Final	STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.01	0.28	·	0.03	0.02			

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

____ day of December 2017.

Annette Hebert, Chief Emissions Compliance, Automotive Regulations and Science Division

Engine Family	1 Fngine Code	2 Engine Model	3 BHP@RPM (SAE Gross)	4 Fuel Rate mm/stroke @peak HP (for diesel only)	5 Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6 Torque @ RPM (SEA Gross)	7 Fuel Rate mm/stroke@peak torque	8 Fuel Rate (lbs/hr)@peak torgu	9 Emission Control cnevice Per SAE J1930	
JPKXL04 4MU1	Cert Test 1	4068/2200	174@2200	133	64	553@1400	162	50	DDI TAA ECM DOC EGR SCR AMOX EPR	
JPKXL04 4MU1	1	4068/2200	174@2200	133	64	553@1400	162	50	DDI TAA ECM DOC EGR SCR AMOX Ef ³ R	
JPKXL04 4MU1	2	4070/2200	157@2200	125	60	504551400	148	45	DDI TAA ECM DOC EGR SCR AMOX EPR	10 40 10 10 100 100 100 100 100
JPKXL04.4MU1	3	4186/2200	150@2200	119	57	479@1400	139	43	DDI TAA ECM DOC EGR SCR AMOX EPR	
JPKXL04.4MU1	4	3992/2200	141@2200	116	56	465@1400	136	42	DDI TAA ECM DOC EGR SCR AMOX EPR	

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Engine Model Summary Template

Engine Family	1 Engine Code	2.Engine Model	3 BHP@RPM (SAE Gross)	4 Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6 Torque @ RPM (SEA Gross)	7.Fuel Rate mm/stroke@peak torque	8 Fuel Rate: (lbs/hr)@peak torgu	9.Emission Control epevice Per SAE J1930	
JPKXL04.4MU1	Cert Test 5	4526/1800	173⑤1800	154	61	505@1800	154	61	DDI TAA ECM DOC EGR SCR AMOX EPR	
JPKXL04.4MU1	5	4526/1800	173⑤1800	154	61	505@1800	154	61	DDI TAA ECM DOC EGR SCR AMOX EPR	- 48 g - 20 g

T-AA = TC + CAC

APPENDIX B PHASE I ENVIRONMENTAL SITE ASSESSMENT W/O APPENDICES


PHASE I ENVIRONMENTAL SITE ASSESSMENT OF

INLAND EMPIRE ENERGY CENTER, LLC 26226 ANTELOPE ROAD MENIFEE, CALIFORNIA 92585

ATC PROJECT NO. NPGEP19001

MAY 31, 2019

Prepared by:

ATC Group Services LLC 25 Cupania Circle Monterey Park, California 91755 Phone: 323-517-9780 Fax: 737-207-8260 Prepared for:

Mr. Mark Mellana, Managing Director GE Power 901 Main Avenue Norwalk, Connecticut 06851

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1.0 EXECUTIVE SUMMARY

1.1 General Information

Project Information:

Inland Empire Energy Center, LLC NPGEP19001

Consultant Information:

 ATC Group Services LLC

 25 Cupania Circle

 Monterey Park, California 91755

 Phone:
 323-517-9780

 Fax:
 737-207-8260

 Inspection Date:
 May 9, 2019

 Report Date:
 05/31/2019

Site Information:

Inland Empire Energy Center, LLC 26226 Antelope Road Menifee, California 92585 County: Riverside Latitude, Longitude: 33.738 Site Access Contact: Mr. Be

33.738988, -117.169876 Mr. Ben Kling with GE Power

Client Information:

GE Power Mr. Mark Mellana, Managing Director 901 Main Avenue Norwalk, Connecticut 06851

Site Assessor

Steve Anderson Senior Scientist

Project Manager

C. Rod

Gwen C. Reed Program Manager

Environmental Professional Statement:

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in Section 312.10 part of 40 CFR 312. We have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Steve Anderson - Senior Scientist

1.2 Findings and Conclusions Summary

ATC Group Services LLC (ATC) has performed a Phase I Environmental Site Assessment (ESA) of the property in conformance with the scope and limitations of American Society for Testing and Materials (ASTM) Standard Practice E1527-13. Any exceptions to, or deletions from, this practice are described in Section 2.0 of this report. This assessment has revealed no evidence of *recognized environmental conditions* in connection with the property. The table below provides a summary of report findings and conclusions.

Report Section		Further Action?	De minimis Condition	REC and/or	Historical REC	ASTM Non -	Description
				CREC		Scope Condition	
4.0	User Provided Information	No					
5.1.1	Federal Database Findings	No					
5.1.2	State and Tribal Database	No					
	Findings						
5.1.3	Local Environmental	No					
	Record Sources						
5.3	Historical Records	No					See note 1
	Sources						
6.2	Hazardous Substance Use,	No					
	Storage, and Disposal						
6.3	Underground Storage	No					
	Tanks						
6.4	Aboveground Storage	No					See note 2
	Tanks						
6.5	Other Petroleum Products	No					
6.6	Polychlorinated Biphenyls	No					
	(PCBs)						
6.7	Unidentified Substance	No					
	Containers						
6.8	Nonhazardous Solid Waste	NO					
6.9	Wastewater	NO					
6.10	Waste Pits, Ponds and	NO					
6 1 1	Drains and Sumps	No					
6.12	Sontic Systems	No					
6.12	Stormwater Management	No					
0.15	Svstem	NO					
6.14	Wells	No					
7.0	Subsurface Vapor	No					
	Migration						
8.0	Interviews	No					
9.1	Asbestos-Containing	No					
	Material (ACM)						
9.2	Radon	No					
9.3	Lead in Drinking Water	No					
9.4	Lead-Based Paint (LBP)	No				X	See note 3
9.5	Mold Screening	No					
9.6	Additional User Requested	No					
	Services						

Note 1: Due to the presence of former agricultural activity on the property between at least 1938 and 2002, it is possible that environmentally persistent pesticides and herbicides may have been used on the property in the past. A 2005 Baseline investigation by URS (see Section 5.3.9) included surface and subsurface sampling for pesticides and herbicides in which low concentrations of various pesticide and herbicide compounds were identified at concentrations well below Environmental Protection Agency (EPA) and

California Department of Toxic Substances Control (DTSC) screening levels in use at that time. The amount of mixing, grading and cut and fill operations necessary to prepare the property for development has likely altered and diluted agricultural chemicals further in the developed portions of the property. Accordingly, the former use of pesticides and herbicides on the property is not considered to represent a *recognized environmental condition* at this time. However, it is possible that additional sampling for pesticides and herbicides may be required prior to any redevelopment of the property following decommissioning.

Note 2: Numerous aboveground storage tanks (ASTs) are present at the property. These range in size from a 2,100,000-gallon process water tank to 240-gallon ASTs for waste oil and sodium chloride. Most ASTs appear to be stored within secondary containment. No indications of releases were identified near the ASTs observed on-site.

Note 3: Based on the age of the property improvements (post 2006), it is unlikely that lead-based paint (LBP) has been used in the offices and other commonly occupied areas; however, in industrial settings, painted equipment such as ASTs, piping, and fire pump equipment, may represent an exception and have elevated levels of lead. As the areas with painted equipment, such as the Water Treatment Building and fire pump room, are not slated for demolition, testing for lead is not recommended at this time. Nonetheless, lead-safe practices should be practiced when conducting any work that might disturb painted surfaces. Lead-based paint lies outside of the scope of ASTM and is therefore not considered to represent a *recognized environmental condition*. All painted surfaces at the property appeared to be in good condition.

1.3 Significant Data Gap Summary

Data gaps may have been encountered during the performance of this Phase I ESA and are discussed within the section of the report where they were encountered. However, according to ASTM Standard Practice E1527-13, data gaps are only significant if "other information and/or professional experience raises reasonable concerns involving the data gap." The following table is a summary of significant data gaps identified in this report.

SIGNIFICANT DATA GAP SUMMARY						
Report Section	Description					
3.5 Current Uses of Adjoining Properties	No significant data gaps identified.					
4.2 Environmental Liens or Activity and Use Limitations	No significant data gaps identified.					
(AULs)						
5.1 Standard Environmental Records	No significant data gaps identified.					
5.2 Physical Setting Sources	No significant data gaps identified.					
5.3 Historical Records Sources	No significant data gaps identified.					
6.1 Methodology and Limiting Conditions	No significant data gaps identified.					
7.0 Subsurface Vapor Migration	No significant data gaps identified.					
8.0 Interviews	No significant data gaps identified.					

1.4 Recommendations

Based on information collected for this Phase I ESA, ATC offers no recommendations for further action at this time.

2.0 INTRODUCTION

2.1 Purpose

The purpose of this Phase I ESA was to identify *recognized environmental conditions* in connection with the property at the time of the site reconnaissance. The scope of work for this Phase I ESA may also include certain potential environmental conditions beyond the scope of ASTM Standard Practice E1527-13 as listed below. This report documents the findings, opinions and conclusions of the Phase I ESA.

2.2 Scope

This Phase I ESA was conducted in general accordance with the ASTM Standard Practice E1527-13, consistent with a level of care and skill ordinarily practiced by the environmental consulting profession currently providing similar services under similar circumstances. Significant additions, deletions or exceptions to ASTM Standard Practice E1527-13 are noted below or in the corresponding sections of this report. The scope of this assessment included an evaluation of the following:

- Physical setting characteristics of the property through a review of referenced sources such as topographic maps and geologic, soils and hydrologic reports.
- Usage of the property, adjoining properties and surrounding area through a review of referenced historical sources such as land title records, fire insurance maps, city directories, aerial photographs, prior reports and interviews.
- Observations and interviews regarding current property usage and condition including: the use, treatment, storage, disposal or generation of hazardous substances, petroleum products, hazardous wastes, nonhazardous solid wastes and wastewater.
- Usage of adjoining and surrounding area properties and the likely impact of known or suspected releases of hazardous substances or petroleum products from those properties in, on, or at the property.
- Information in referenced environmental agency databases and local environmental records, within the specified approximate minimum search distance from the property.
- Potential for subsurface vapor migration in, on or at the property as described in Section 7.0.

The scope of the assessment also included consideration of the following potential environmental issues or conditions that are beyond the scope of ASTM Standard Practice E1527-13:

- Visual observation of suspect asbestos-containing materials (ACM), consisting of providing an opinion on the condition of suspect ACM on the property based upon visual observation during the site reconnaissance. No sampling of suspect ACM was conducted.
- Radon document review, consisting of the review of published radon data with regard to the potential for elevated levels of radon gas in the surrounding area of the property. No radon sampling was conducted.
- Lead in drinking water data review, consisting of contacting the water supplier for information regarding whether or not the potable water provided to the property meets the drinking water standards for lead.
- Visual observation of suspect lead-based paint (LBP), consisting of providing an opinion on the potential for LBP based on the construction date of buildings on the property and visual observation of the condition of suspect LBP.
- Wetlands document review, consisting of a review of a current National Wetlands Inventory map of the surrounding area to note if the property is identified on the map as having a wetland.

- Flood plain document review, consisting of a review of a reasonably ascertainable flood plain map of the surrounding area to note if the property is identified on the map as being located within a flood plain.
- Regulatory Agency File and Records Review, consisting of conducting a file review (i.e., via Freedom
 of Information Act (FOIA) request or alternative method/source) for the property and/or one adjoining
 property at one regulatory agency, as warranted by the findings of the ESA. If ATC determines that
 additional Regulatory Agency File and Records Reviews are warranted, ATC will advise Client and
 seek written authorization for the additional services and fees.
- Mold screening consisting of visual observation of certain heating, ventilation and air conditioning (HVAC) system areas and other readily accessible building areas likely to become subject to water damage, plumbing leaks, and flooding. The mold screening did not include destructive methods of observation. No sampling or laboratory analyses were conducted. The mold screening service as described herein was limited in scope and by the time and cost considerations typically associated with performing a Phase I ESA. No method can guarantee that a hazard will be discovered if evidence of the hazard is not encountered within the performance of the mold screening as authorized and that opinions and conclusions must, out of necessity, be extrapolated from limited information and discrete, non-continuous data points. Unidentified mold or other microbial conditions may exist on the property.

2.3 Significant Assumptions

The assumptions in this report were not considered as having a significant impact on the determination of *recognized environmental conditions* associated with the property.

2.4 Limitations and Exceptions

ATC has prepared this Phase I ESA report using reasonable efforts to identify *recognized environmental conditions* associated with hazardous substances or petroleum products in, on, or at the property. Findings contained within this report are based on information collected from observations made on the day(s) of the site reconnaissance and from reasonably ascertainable information obtained from certain public agencies and other referenced sources.

The ASTM Standard Practice E 1527-13 recognizes inherent limitations for Phase I ESAs, including, but not limited to:

- Uncertainty Not Eliminated: a Phase I ESA cannot wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property.
- Not Exhaustive: a Phase I ESA is not an exhaustive assessment of the environmental conditions on a property.
- Past Uses of the Property: a Phase I ESA does not require review of standard historical sources at less than five year intervals. Therefore, past uses of the property may not be discovered.

Users of this report may refer to ASTM Standard Practice E 1527-13 for further information regarding these and other limitations. This report is not definitive and should not be assumed to be a complete and/or specific definition of all conditions above or below grade. Current subsurface conditions may differ from the conditions determined by surface observations, interviews and reviews of historical sources. The most reliable method of evaluating subsurface conditions is through intrusive techniques, which are beyond the scope of this report. Information in this report is not intended to be used as a construction document and should not be used for demolition, renovation, or other property construction purposes. Any use of this report by any party, beyond the scope and intent of the original parties, shall be at the sole risk and expense of such user.

ATC makes no representation or warranty that the past or current operations at the property are, or have been, in compliance with all applicable federal, state and local laws, regulations and codes. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions

present of a type or at a location not investigated. Regardless of the findings stated in this report, ATC is not responsible for consequences or conditions arising from facts not fully disclosed to ATC during the assessment.

An independent data research company provided the government agency databases referenced in this report. Information on surrounding area properties was requested for approximate minimum search distances and is assumed to be correct and complete unless obviously contradicted by ATC's observations or other credible referenced sources reviewed during the assessment. ATC shall not be liable for the database firm's failure to make relevant files or documents properly available, to properly index files, or otherwise to fail to maintain to produce accurate or complete records.

ATC makes no warranty, guarantee or certification regarding the quality, accuracy or reliability of any prior report provided to ATC and discussed in this Phase I ESA report. ATC expressly disclaims any and all liability for any errors or omissions contained in any prior reports provided to ATC and discussed in this Phase I ESA report.

ATC used reasonable efforts to identify evidence of aboveground and underground storage tanks and ancillary equipment on the property during the assessment. "Reasonable efforts" were limited to observation of accessible areas, review of referenced public records and interviews. These reasonable efforts may not identify subsurface equipment or evidence hidden from view by things including, but not limited to, snow cover, paving, construction activities, stored materials and landscaping.

Any estimates of costs or quantities in this report are approximations for commercial real estate transaction due diligence purposes and are based on the findings, opinions and conclusions of this assessment which are limited by the scope of the assessment, schedule demands, cost constraints, accessibility limitations and other factors associated with performing the Phase I ESA. Subsequent determinations of costs or quantities may vary from the estimates in this report. The estimated costs or quantities in this report are not intended to be used for financial disclosure related to FASB Statement No. 143, FASB Interpretation No. 47, Sarbanes/Oxley Act or any United States Securities and Exchange Commission reporting obligations, and may not be used for such purposes in any form without the express written permission of ATC.

ATC is not a professional title insurance or land surveyor firm and makes no guarantee, express or implied, that any land title records acquired or reviewed in this report, or any physical descriptions or depictions of the property in this report, represent a comprehensive definition or precise delineation of property ownership or boundaries.

The Environmental Professional Statement in Section 1.1 of this report does not "certify" the findings contained in this report and is not a legal opinion of such *Environmental Professional*. The statement is meant to document ATC's opinion that an individual meeting the qualifications of an *Environmental Professional* was involved in the performance of the assessment and that the activities performed by, or under the supervision of, the *Environmental Professional* were performed in conformance with the standards and practices set forth in 40 CFR Part 312 per the methodology in ASTM Standard Practice E 1527-13 and the scope of work for this assessment.

Per ASTM Standard Practice E 1527-13, Section 6, User Responsibilities, the User of this assessment has specific obligations for performing tasks during this assessment that will help identify the possibility of *recognized environmental conditions* in connection with the property. Failure by the User to fully comply with the requirements may impact their ability to use this report to help qualify for *Landowner Liability Protections* (LLPs) under CERCLA. ATC makes no representations or warranties regarding a User's qualification for liability protection under any federal, state or local laws or regulations.

In accordance with the ASTM Standard Practice E 1527-13, this report is presumed to be valid for a six month period. If the report is older than six months, the following information must be updated in order for the report to be valid: (1) regulatory review, (2) site visit, (3) interviews, (4) specialized knowledge, and (5) environmental liens. Reports older than one year may not meet ASTM Standard Practice E 1527-13 and therefore, the report must be updated to reflect current conditions and property-specific information.

Other limitations and exceptions that are specific to the scope of this report may be found in corresponding sections.

2.5 Special Terms and Conditions (User Reliance)

This report is for the use and benefit of, and may be relied upon by, GE Power, Inland Empire Energy Center, LLC, and any of its affiliates and their respective successors and assigns, in connection with a commercial real estate transaction involving the property. No third party is authorized to use this report for any purpose. Any use by or distribution of this report to third parties, without the express written consent of ATC, is at the sole risk and expense of such third party.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The property consists of an irregularly-shaped parcel, approximately 43.14 acres in area, located at 26226 Antelope Road, Menifee, California. A legal description was not provided to ATC; however, based on information contained on the Assessor's parcel map, the property appears to consist of lots 742, 743, 744, 745, 746, 749, 750, 751, 752, and 753 of the Romola Farms 6A, tract as recorded in Book 14, Pages 63-65, in the office of the county recorder of Riverside County, California, Excepting therefrom, the south 95 feet of Lots 746 and 749, and the south 132 feet of Lot 753. The Assessor's Parcel Number for the property is 331-180-022.

3.2 Surrounding Area General Characteristics

The surrounding area is generally level and developed with a mixture of vacant land, commercial and industrial uses. The specific adjacent property uses are discussed in Section 3.5.

3.3 Current Use of the Property

The property is developed with a power generation plant and associated buildings, sheds, equipment, and internal roadways and parking areas.

3.4 Description of Property Improvements

The following table provides general descriptions of property improvements										
ΤΤΟ ΙΛΙΙΛΙΜΙΝΑ ΤΩΝΙΟ ΝΓΛΥΙΛΟΕ ΛΟΝΟΓΩΙ ΛΟΕΡΠΝΤΙΛΝΕ ΑΓ ΝΓΛΝΟΠΥ ΙΜΝΓΛΥΟΜΟΝΤΕ						~~~~	m ray dala a		fallowing	
	wements	errv im	nronei	ons or	nescrir	deneral	nrovines	tanie	TOILOWING	INP
			propor			gonora	provideo	lubic	1011011110	1110

PRO	PROPERTY IMPROVEMENTS						
Size of Property (approximate)	43.14 acres (per Assessor)						
General Topography of Property	Generally level						
Adjoining and/or Access/Egress Roads	Antelope Road to the west and an unpaved road to the east and						
	northeast.						
Paved or Concrete Areas (including parking)	Gravel-paved yard over most of the developed area. Asphalt-paved						
	parking and selected drive areas. Concrete-paved pads and						
	foundations locally.						
Unimproved Areas	Unpaved areas around the perimeter, north of the main plant area,						
	water retention basins, and selected drive areas.						
Landscaped Areas	Lawn, shrubbery and trees located around the perimeter, lining the						
	entrance roadway, parking lots, and near the administration building.						
Surface Water	None apart from intermittent quantities in the water retention basins.						
Potable Water Source	Eastern Municipal Water District						
Sanitary Sewer Utility	Eastern Municipal Water District						
Storm Sewer Utility	City of Menifee						
Electrical Utility	Southern California Edison (SCE)						
Natural Gas Utility	Southern California Gas						
Current Occupancy Status	100% occupied						
Unoccupied Buildings/Spaces/Structures	There are undeveloped areas at the northern end of the property,						
	but all are under the control of one occupant.						
Number of Occupied Buildings	Three principal buildings with numerous pieces of equipment and						
	smaller structures.						
Building Name or General Building	Inland Empire Energy Center (power plant)						
Description							
Number of Floors	Administration Building: two; Water Treatment Building and						
	Warehouse: one						
Total Square Feet of Space (approximate)	Administration Building: 20,520 (estimated); Water Treatment						
	Building: 10,920 (per IEEC); North Warehouse: 11,250 (per IEEC)						
Construction Completion Date (year)	Northern warehouse: Between 2005 and 2006; Remaining						
	structures: Between 2006 and 2009						
Construction Type	Metal						

PHASE I ENVIRONMENTAL SITE ASSESSMENT Inland Empire Energy Center, LLC 26226 Antelope Road Menifee, California

Interior Finishes Description	Administration Building: Walls: wallboard/joint compound or ceramic tile; Floors: carpeting, ceramic tile, resilient floor tile, and unfinished concrete; Ceilings: wallboard/joint compound or acoustical ceiling panels; Water Treatment Building: Walls: wallboard/joint compound or metal; Floors: resilient floor tile or unfinished concrete; Ceilings: wallboard/joint compound or exposed metal beams with insulating pads; Warehouse: metal walls and ceilings with an unfinished concrete floor.
Exterior Finishes Description	Painted metal
Cooling System Type	Roof-mounted electric package units
Heating System Type	Roof-mounted electric package units
Emergency Power	Two diesel-fueled emergency generators (with internal fuel tanks) located at the western ends of Power Generation Units 1 and 2.

3.5 Current Uses of Adjoining Properties

Current uses of the adjoining properties were observed to be as described in the following table.

CURRENT USES OF ADJOINING PROPERTIES										
Direction From	Address	Occupant(s) Name	Current Use	Potential Environmental						
Property				Conditions						
Northwest,	None	No signage	Gravel-paved lot	None						
beyond										
Antelope Road										
North	26100 Antelope	Redi-Mix Concrete /	Commercial/ Industrial	This facility is listed as an						
	Road	Holiday Trucking		aboveground storage tank						
				(AST) facility and is registered						
				on the California Environmental						
				Reporting System (CERS).						
North, beyond a	28261 State	Datatronics	Industrial	This site is listed as a Resource						
railroad right	Highway 74			Conservation and Recovery Act						
-of-way and				(RCRA) Large-Quantity						
Matthews Road				Generator and is registered on						
				CERS.						
Northeast,	28261 State	Ahern Equipment	Commercial/Industrial	This site is listed under current						
beyond a	Highway 74	Rentais		and former tenants as a RCRA						
railroad right				Small-Quantity Generator,						
-of-way and				RCRA Non-Generator, an AST						
Matthews Road				facility, and is registered on						
Fast	None	Vacant	Unimproved	Vero.						
South beyond a	None	Vacant / SCE	High voltage tower	None						
stormwater	None		right-of-way	None						
channel			Ingin-ol-way							
Southwest.	None	Vacant	Unimproved	None						
beyond a										
stormwater										
channel and										
Antelope Road										
West, beyond	26311 Antelope	RV Storage of	Commercial	None						
Antelope Road	Road	Murrieta Valley								
West, beyond	None	Vacant (three lots)	Unimproved	None						
Antelope Road										
West, beyond	None	No signage	Commercial/ Industrial	This address is listed as a						
Antelope Road		(equipment yard)		RCRA Non-Generator.						

4.0 USER PROVIDED INFORMATION

The following section summarizes information (if any) provided by GE Power and Inland Empire Energy Center, LLC (User) with regard to the Phase I ESA. Documentation may be found in Appendix D or where referenced in this report.

4.1 Title Records

The User provided no title records information.

4.2 Environmental Liens or Activity and Use Limitations (AULs)

The User provided no information regarding property environmental liens or activity and use limitations (AULs). ATC contracted Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut, to perform an environmental lien search for the property. According to EDR, no environmental liens or AULs (such as engineering controls, land use restrictions or institutional controls) were identified for the property. A copy of the report is included in Appendix L. The review of the environmental lien and AUL search did not identify past uses indicating *recognized environmental conditions* in connection with the property.

4.3 Specialized Knowledge or Experience of the User

The User provided no information regarding recognized environmental conditions at the property.

4.4 Significant Valuation Reduction for Environmental Issues

The User provided no information regarding a significant valuation reduction for environmental issues associated with the property.

4.5 Owner, Property Manager, and Occupant Information

The User identified the owner as the Inland Empire Energy Center, LLC, which is also the occupant. The User did not identify a specific property Manager; however, the User identified Mr. Ben Kling with GE Power as the site contact.

4.6 Reason For Performing Phase I ESA

The User indicated that this ESA was being performed in connection with a decomissioning of the property facility.

4.7 Other User Provided Documents

Per the ASTM Standard Practice E 1527-13, ATC obtained the documents listed below from the User. Further discussion may be found in Section 5.3.9 and other relevant sections of this report.

OTHER USER PROVIDED DOCUMENTS								
Title	Date (if known)	Author and/or Source (if known)						
Phase I Environmental Site	May 14, 2001	Foster Wheeler Environmental Corporation						
Assessment, Inland Empire Energy								
Center, 26226 Antelope Road,								
Romoland, California								
Final Amended Geotechnical Report,	April 2005	GZA GeoEnvironmental, Inc.						
Inland Empire Energy Center,								
Romoland, California								
Phase II Baseline Investigation, GE	May 5, 2005	URS Corporation						
Energy, GE Inland Empire Energy								
Center, 26226 Antelope Road,								
Romoland, California								

5.0 RECORDS REVIEW

5.1 Standard Environmental Records

The regulatory agency database report discussed in this section, provided by EDR of Shelton, Connecticut, was reviewed for information regarding reported use or release of hazardous substances and petroleum products on or near the property. Unless otherwise noted, the information provided by the regulatory agency database report and other sources referenced in this report, were considered sufficient for *recognized environmental condition (REC), controlled recognized environmental condition (REC), controlled recognized environmental condition (REC), controlled recognized environmental conducting supplemental agency file reviews. ATC also reviewed the "unmappable" (also referred to as "orphan") listings within the database report, cross-referencing available address information and facility names. Unmappable sites are listings that could not be plotted with confidence, but are potentially in the general area of the property, based on the partial street address, city, or zip code. Any unmappable site that was identified by ATC as being within the approximate minimum search distance from the property, based on the site reconnaissance and/or cross-referencing to mapped listings, is included in the discussion within this section. The complete regulatory agency database report may be found in Appendix E.*

SUMMARY OF FEDERAL, STATE AND TRIBAL DATABASE FINDINGS								
Regulatory Database	Target	Search	< 1/8	1/8 -	1/4 -	1/2 - 1	> 1	Total
	Property	Distance		1/4	1/2			Plotted
		(Miles)						
National Priority List (NPL)		1	0	0	0	0	NR	0
Superfund Enterprise		0.5	0	0	0	NR	NR	0
Management System (SEMS)								
Superfund Enterprise		0.5	0	0	0	NR	NR	0
Management System Archive								
(SEMS-ARCHIVE)								
Corrective Action Report		1	0	0	0	0	NR	0
(CORRACTS)								
RCRA - Treatment, Storage		0.5	0	0	0	NR	NR	0
and Disposal (RCRA-TSDF)								
RCRA - Large Quantity	Х	0.25	1	0	NR	NR	NR	2
Generators (RCRA-LQG)								
RCRA - Small Quantity		0.25	1	2	NR	NR	NR	3
Generators (RCRA-SQG)								
RCRA - Non Generators / No		0.25	0	3	NR	NR	NR	3
Longer Regulated (RCRA								
NonGen / NLR)								
Engineering Controls Sites List		0.5	0	0	0	NR	NR	0
(US ENG CONTROLS)								
Sites with Institutional Controls		0.5	0	0	0	NR	NR	0
(US INST CONTROL)								
Emergency Response		TP	NR	NR	NR	NR	NR	0
Notification System (ERNS)								
Facility Index System/Facility	Х	TP	NR	NR	NR	NR	NR	6
Registry System (FINDS)								
Integrated Compliance	Х	TP	NR	NR	NR	NR	NR	1
Information System (ICIS)								
Enforcement & Compliance	Х	TP	NR	NR	NR	NR	NR	1
History Information (ECHO)								
State Response Sites (CA		1	0	0	0	0	NR	0
RESPONSE)								
EnviroStor Database (CA		1	0	1	0	1	NR	2
ENVIROSTOR)								
Leaking Underground Fuel		0.5	0	0	1	NR	NR	1
Tank Report (GEOTRACKER)								
(CA LUST)								

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Regulatory Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	Total Plotted
Active UST Facilities (CA UST)		0.25	0	0	NR	NR	NR	0
Hazardous Substance Storage Container Database (CA HIST UST)		0.25	0	1	NR	NR	NR	1
SWEEPS UST Listing (CA SWEEPS UST)		0.25	0	1	NR	NR	NR	1
Facility Inventory Database (CA CA FID UST)		0.25	0	0	NR	NR	NR	0
Aboveground Petroleum Storage Tank Facilities (CA AST)	Х	0.25	1	2	NR	NR	NR	4
Statewide SLIC Cases (GEOTRACKER) (CA CPS-SLIC)		0.5	0	0	0	NR	NR	0
Solid Waste Information System (CA SWF/LF (SWIS))		0.5	0	0	2	NR	NR	2
Voluntary Cleanup Program Properties (CA VCP)		0.5	0	0	0	NR	NR	0
California Hazardous Material Incident Report System (CA CHMIRS)	Х	TP	NR	NR	NR	NR	NR	4
NPDES Permits Listing (CA NPDES)	Х	TP	NR	NR	NR	NR	NR	1
California Integrated Water Quality System (CA CIWQS)	Х	TP	NR	NR	NR	NR	NR	2
CERS HÁZ WASTE (CA CERS HAZ WASTE)	Х	0.25	3	2	NR	NR	NR	6
CalEPA Regulated Site Portal Data (CA CERS)	Х	TP	NR	NR	NR	NR	NR	2
California Environmental Reporting System (CERS) Tanks (CA CERS TANKS)	Х	0.25	1	2	NR	NR	NR	4
Emissions Inventory Data (CA EMI)	Х	TP	NR	NR	NR	NR	NR	1
Facility and Manifest Data (CA	Х	TP	NR	NR	NR	NR	NR	8
EDR Exclusive Historical Cleaners (EDR Hist Cleaner)		0.125	0	NR	NR	NR	NR	0
EDR Exclusive Historical Auto		0.125	0	NR	NR	NR	NR	0
Risk Management Plans	Х	TP	NR	NR	NR	NR	NR	2
Leaking Underground Storage Tanks on Indian Land (INDIAN LUST R9)		0.5	0	0	0	NR	NR	0
Underground Storage Tanks on Indian Land (INDIAN UST R1)		0.25	0	0	NR	NR	NR	0
Voluntary Cleanup Priority Listing (INDIAN VCP R1)		0.5	0	0	0	NR	NR	0

5.1.1 Federal Database Findings

The property is listed on the following federal databases searched for this assessment:

Inland Empire Energy Center, GE Centerline Installation, The Conco Co., Total Western NA Inc., Industra Service Corp, TIC-The Industrial Co. at Inland Empire 26226 Antelope Road **Databases:** RCRA Large-Quantity Generator (LQG), FINDS, ECHO, US AIRS **Approximate Distance from the Property**: Not Applicable (N/A) (Property) **Assumed Groundwater Gradient**: N/A **Regulatory Data Summary**: The property is listed as a RCRA LQG. The wastes generated included aqueous solutions with less than 10% organic residue, off-specification, aged or surplus inorganics, oxygenated solvents, waste oil and mixed oil, unspecified oil-containing waste, other organic solids, liquids with pH less than 2 with metals, ignitable waste, corrosive waste, reactive waste, barium, chromium, lead, methyl ethyl ketone, tetrachloroethylene, trichloroethylene, spent non-halogenated solvents. No violations were identified. The facility is listed on the US AIRS list. US AIRS is an administrative database serving as a repository for information regarding airborne pollution. The entries for US AIRS listed by EDR provided no specific information regarding emissions at the property. The property is listed on the Enforcement

Compliance History Online (ECHO). ATC reviewed information for the property is listed on the Enforcement Compliance History Online (ECHO). ATC reviewed information for the property on the ECHO website, https://ech.epa.gov, and determined that the property has had no violations for the past three years or enforcement actions for the last five years, the intervals tracked by the system. The property is listed in the Federal Index System (FINDS). FINDS is a research aid that lists other databases where information about a given site may be found. In this case, FINDS listed the RCRA, US AIRS, and several state databases that will be discussed in Section 5.1.2.

Discussion: Based on the absence of violations, the RCRA waste generation activities at the property are not considered to represent an environmental concern to the property. Based on their administrative nature, the FINDS, ECHO, and US AIRS databases are not considered to represent a concern to the property.

The following adjacent properties are listed on federal databases, identified as follows:

Datatronics 28151 Highway 74 Databases: RCRA LQG

Approximate Distance from the Property: Adjacent to the north, beyond a railroad track and Matthews Road

Assumed Groundwater Gradient: Cross- to downgradient

Regulatory Data Summary: This facility is a large-quantity generator of RCRA-managed waste. The wastes were identified by EDR as non-halogenated solvents, corrosive wastes, ignitable wastes, empty containers less than 30 gallons in size, unspecified organic liquid mixtures, and off-specification, aged, or surplus organics. There were no reported violations.

Discussion: Based on the absence of violations and the cross- to downgradient location, the presence of this RCRA LQG facility adjacent to the property is not considered to represent an environmental concern to the property.

Ahern Equipment Rentals / Matthews International Corp.

28261 Highway 74

Databases: RCRA Non-Generator / RCRA small-quantity generator

Approximate Distance from the Property: Adjacent to the northeast, beyond a railroad track and Matthews Road

Assumed Groundwater Gradient: Cross-gradient

Regulatory Data Summary: Ahern Equipment Rentals (Ahern) is a RCRA non-generator of RCRA-managed waste. Non-generators no longer generate RCRA waste. EDR did not report what types of waste were formerly generated. No violations were reported. The same address was once occupied by Matthews International Corp., a RCRA small-quantity generator. The types of waste generated were not reported by EDR; however, no violations were reported.

Discussion: Based on the absence of violations and the cross-gradient location, the presence of this RCRA small-quantity generator, is not considered to represent an environmental concern to the property.

Sahara Scaffold, Inc. 26245 Antelope Road Databases: RCRA Non-Generator Approximate Distance from the Property: Adjacent to the west, beyond Antelope Road Assumed Groundwater Gradient: Cross- to downgradient Regulatory Data Summary: This facility is listed as a RCRA non-generator. Non-generators

Regulatory Data Summary: This facility is listed as a RCRA non-generator. Non-generators no longer generate RCRA waste. EDR did not report what types of waste were formerly generated. No violations were reported.

Discussion: Based on the absence of violations and the cross- to downgradient location, the presence of this RCRA non-generator, is not considered to represent an environmental concern to the property.

Based on distance, assumed groundwater gradient, current regulatory status, and/or the absence of reported releases, none of the remaining sites listed in the federal agency databases are considered to represent a likely past, present or material threat of release in, on, or at the property. Given the physical setting characteristics of the property and surrounding area supplemental agency file reviews were deemed unnecessary.

5.1.2 State and Tribal Database Findings

The property is listed on the following state and/or local databases searched for this assessment:

Inland Empire Energy Center, Bigge Crane, Brewer Crane, Marley Cooling Tower, Titan Contracting & Leasing Co.

26226 Antelope Road

Databases: CHMIRS, AST, HAZNET, NPDES, EMI, CERS, CIWQS, RMP

Approximate Distance from the Property: N/A (Property)

Assumed Groundwater Gradient: N/A

Regulatory Data Summary: The property is listed eight times on the California Hazardous Materials Incident Reporting System (CHMIRS) for spill incidents occurring between 2006 and 2011. Most were small (30 gallons or less) of hydraulic oil caused by broken equipment lines. The largest and most recent of the releases, was a 340-gallon release of aqueous ammonia in March of 2011 that resulted from a ruptured hose during a delivery. The release was reported as immediately contained and cleaned up. The facility is listed on the AST database. The number of ASTs, their contents, and or total capacity were not reported by EDR. The property and certain subcontractors were listed on the Facility and Manifest Data (HAZNET) database as having generated manifested wastes. A partial list of the wastes generated included off-specification, aged, or surplus organics, other organic solids, waste oil and mixed oil, hydrocarbon solvents, and unspecified oil containing waste. One presumed contractor associated with the property address, Titan Contracting and Leasing Co., is listed as having a National Pollutant Discharge Elimination System (NPDES) permit. EDR provided no additional details regarding this permit. The facility is listed on the Emissions Inventory (EMI) database. EMI tracks facilities whose air emissions reach certain thresholds. EDR provided emissions statements for the years 2006 through 2016. The property is also registered on the California Environmental Reporting System (CERS). CERS is a computerized platform for business to submit forms or required reports to agencies and that allows agencies to share that information. CERS is not accessible to the general public. EDR indicated that the property had several violations issued by the Riverside County Department of Environmental Health in October of 2014. These violations were generally for failure to provide certain types of information as required or take certain required steps per the Risk Management Plan. EDR noted that compliance was achieved the following month for all items. The property is listed on the California Integrated Water Quality System (CIWQS) as having been issued a construction related NPDES permit in June of 2005, which was terminated in August of 2005. No other details were available, but this coincides generally with early construction activity at the facility and is not considered to represent a concern. EDR also indicated that the facility is listed as having a Risk Management Plan (RMP), which is certified by the State of California.

Discussion: Based on the small-scale and or remediated nature, none of the eight CHMIRS releases are considered to represent an environmental concern to the property. During the site reconnaissance, ATC observed numerous ASTs in a variety of sizes and contents. None were observed to have associated releases. HAZNET does not track violators and the presence of a site on this database does not necessarily indicate that a problem exists at that facility. Based on the wastes reported, the HAZNET listings are not considered to represent a concern to the property. The presence of a facility on the EMI database does not

necessarily indicate that a problem exists at this facility. Accordingly, the EMI listing is not considered to represent an environmental concern to the property.

The following adjacent properties are listed on state databases, identified as follows:

Holiday Trucking 26100 Antelope Road #2 Databases: AST Approximate Distance from the Property: Adjacent to the north

Assumed Groundwater Gradient: Cross- to downgradient

Regulatory Data Summary: This facility is listed as a registered AST site. No additional information was available regarding the number or contents of AST(s) at this facility.

Discussion: Based on the downgradient component of its location and the absence of this site from other databases that track releases, the presence of this facility on the AST database is not considered to represent an environmental concern to the property.

Ahern Rentals Inc.

28261 East Highway 74

Databases: AST

Approximate Distance from the Property: Adjacent to the northeast, beyond a railroad track and Matthews Road

Assumed Groundwater Gradient: Cross-gradient

Regulatory Data Summary: This facility is listed as a registered AST site. No additional information was available regarding the number or contents of AST(s) at this facility.

Discussion: Based on the cross-gradient location and the absence of this site from other databases that track releases, the presence of this facility on the AST database is not considered to represent an environmental concern to the property.

Based on distance, assumed groundwater gradient, current regulatory status, and/or the absence of reported releases, none of the remaining sites listed in the state, tribal, or local agency databases are considered to represent a likely past, present or material threat of release in, on, or at the property. Given the physical setting characteristics of the property and surrounding area additional file reviews were deemed unnecessary.

5.1.3 Local Environmental Record Sources

Riverside County Department of Environmental Health (RCDEH)

Based on the assumption that the records made available to ATC by the User through an online data room would be representative of those on file with the RCDEH, together with the fact that significant releases were not reported at the property by EDR, a separate file search for RCDEH records of the property was not conducted by ATC.

California Environmental Protection Agency, Department of Toxic Substances Control (DTSC)

According to the DTSC EnviroStor website, http://www.envirostor.dtsc.ca.gov/public, the DTSC has no files for the property.

Regional Water Quality Control Board (RWQCB)

According to the RWQCB GeoTracker website, http://geotracker.waterboards.ca.gov, no leaking underground storage tank (LUST) or Spills, Leaks, Investigations and Clean-Ups (SLIC) cases are located on the property.

South Coast Air Quality Management District (SCAQMD)

According to information contained on the SCAQMD website, http://www.aqmd.gov, the SCAQMD has a total of 67 entries for permitted equipment, rejected permit applications, Title V permit renewal applications, and changes of title, all from various years. The types of equipment listed included cooling towers, electric

generators, turbine engines utilizing other fuel, natural gas boilers, selective catalytic reduction, and tanks with other aqueous solutions.

The facility had six prior notices of violation, the most recent of which was dated October 2015 for inaccurate NOx emissions due to the calculation protocols not being accurately programed into the CEMS software. Compliance was achieved along with each of the earlier five violations. The review of information on the SCAQMD website did not reveal *recognized environmental conditions* at the property.

Department of Planning and Zoning

According to a zoning map posted to the City of Menifee website, https://www.cityofmenifee.us, the property is within the Menifee North Specific Plan.

5.2 Physical Setting Sources

5.2.1 Topography

According to the United States Geological Survey (USGS) 7.5-Minute Series Topographic Map of the *Romoland, California* Quadrangle, the pre-development elevation of the property ranged approximately between 1,439 and 1,448 feet above mean sea level. The area has a slope to the west-southwest. A copy of the topographic map is included in Appendix A.

5.2.2 Geology

The property is located in the Perris-South Subbasin of the San Jacinto Groundwater Basin and is situated on older alluvial fan deposits of middle to late Pleistocene age that were derived from erosion of the local highlands. The maximum depth of valley fill in the western San Jacinto Basin is approximately 900 feet. Six borings advanced on the property by URS in 2005 to depths between 70 and 80 feet below ground surface (bgs) classified the subsurface generally as alternating beds of silty sand, sand, and clayey silt. Generally the clay content increased with depth (USGS, 2003a; USGS, 2003b; California Geological Survey, 2006).

5.2.3 Soils

According to the United States Department of Agriculture (USDA) Soil Conservation Service publication *Soil Survey, Western Riverside Area, California*, 1971, the soil type most prevalent at the property is the Exeter Sandy Loam, 2-8 percent slopes, eroded. Exeter soils are over 60 inches deep, are well-drained, and have moderate subsoil permeability. In a typical profile, they have brown, slightly acidic sandy loam surface layers about 16 inches thick. The subsoil is brown, neutral to slightly alkaline, heavy (i.e., are dense and clay-rich) loam to a depth of approximately 37 inches where a silica-cemented hardpan layer is sometimes present to a depth of approximately 50 inches. Below this is a dark brown coarse sandy loam.

A 2005 Geotechnical report of the property prepared by GZA GeoEnvironmental, Inc. described the upper five feet of soil in several borings generally as light brown to brown, dense, fine to coarse sand with traces of silt.

5.2.4 Hydrology

According to a 2005 subsurface investigation of the property conducted by URS prior to development, the depth to groundwater as measured in six temporary monitoring wells evenly distributed over the property ranged from 65 to 72 feet below ground surface. The primary direction of groundwater flow was toward the northwest, with a secondary gradient across the southern half of the property to the south-southwest. A northwest gradient is consistent with a regional groundwater flow diagrams in an earlier study reviewed by ATC (USGS, 2003).

Estimated groundwater levels and/or flow direction(s) may vary due to seasonal fluctuations in precipitation, local usage demands, geology, underground structures, or watering operations.

5.2.5 Other Physical Setting Sources

Flood Plain Map

According to information provided by the Federal Emergency Management Agency (FEMA) website, https://msc.fema.gov/portal, an irregular area approximating the southern half of the property is located in flood zone X, or areas outside of 500-year flood risk. The approximate northern half of the property is in flood zone X (shaded), areas of 0.2% annual chance flood, areas of 1% annual chance flood with average depths of less than one foot or with drainage areas of less than one square mile, and areas protected by levees from 1% annual chance flood. The community/panel number for the Flood Insurance Rate Map for the property is 06037C 1700F and the effective date is September 26, 2008. A copy of the flood plain map is included in Appendix L.

Wetlands Map

According to the United States Fish and Wildlife Service (USFWS) Wetlands Mapper website, http://www.fws.gov/wetlands/Data/Mapper.html, no wetlands are present on the property. The nearest plotted wetland is a patch of artificially flooded hydrophyllic vegetation located approximately 315 feet north of the property. A similar patch of vegetation is plotted approximately 630 feet southeast of the property. The wetland map plots two small artificially flooded ponds located approximately 580 feet south and 0.35 mile east of the property. These nearby wetlands, which were not observed during the site reconnaissance, are not considered to have an adverse environmental impact to the property. A copy of the National Wetlands Inventory map is included in Appendix L.

5.3 Historical Records Sources

The table presented below summarizes the findings of the research pertaining to historical property and surrounding area uses.

Intervals (greater than five years) were encountered during the research of historical use information for the property and surrounding area. However, based on the review of reasonably ascertainable historical sources, these intervals did not have an impact on the determination of *recognized environmental conditions* for this ESA and are therefore not considered to be *significant*.

HISTORICAL USE SUMMARY									
Period Property Historical		Surrounding Area	Source(s)	Intervals/Comments					
	Uses	Historical Uses							
Prior to 1940	Vacant	Vacant	Aerial Photograph	A 1901 topographic map					
	Agricultural	Agricultural	Topographic Map	is the earliest record					
				identified. One 36-year					
				data gap (1902-1937).					
				Possible use change					
				from vacant to					
				agriculture.					
1940 - 1960	Agricultural	Agricultural, vacant,	Aerial Photographs	One seven-year data					
		commercial,	Topographic Maps	gap (1954-1960). No					
		residential,		use changes from					
		institutional, industrial		agriculture across the					
				data gap.					
1961 - 1980	Agricultural	Agricultural, vacant,	Aerial Photographs	No data gaps.					
		commercial,	Topographic Maps						
		residential,	City Directory						
		institutional, industrial							
1981 - 2000	Agricultural	Agricultural, vacant,	Aerial Photographs	No data gaps					
		commercial,	City Directories						
		residential,							
		institutional, industrial							

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Period	Property Historical	Surrounding Area	Source(s)	Intervals/Comments
	Uses	Historical Uses		
2001 - present	Agricultural	Agricultural, vacant,	Aerial Photographs	No data gaps.
	Industrial	commercial,	Topographic Map	Construction of the
		residential,	City Directories	current power plant and
		institutional, industrial	Building Department	associated structures
			Record	began circa 2006.
			Property Tax Record	
			Prior Reports	

5.3.1 Aerial Photographs

ATC reviewed available aerial photographs of the property and surrounding areas provided by EDR. Available aerial photographs ranged from 1938 to 2016. The following are descriptions and interpretations from the aerial photograph review.

AERIAL PHOTOGRAPH SUMMARY			
Year	Scale	Property Comments	Surrounding Area Comments
1938, 1949, 1953, 1961, 1967, 1978, 1985, and 1989	1"=500'	The property is under cultivation.	Apart from a few commercial or industrial buildings to the north across the railroad tracks and Matthews Road, the adjacent parcels on all sides are under cultivation, except for the 1989 photograph, where the east-adjacent parcel appears to be vacant land and, on the south-adjacent parcel, in addition to being farmed, a high voltage tower is discernible.
1997	1"=500'	The property is under cultivation.	The adjacent property to the north is shown as developed with the asphalt plant. Several industrial buildings and a paved yard are located to the north, beyond the railroad tracks and Matthews Road. An agricultural field is located beyond the tracks and Matthews Road to the northeast. The adjacent parcels to the east and south are under cultivation. A high voltage tower is present on the south-adjacent parcel as well.
2002	1"=500'	The property is under cultivation.	The current cement plant is now present on the north-adjacent parcel as well. Industrial buildings and a vacant parcel are located beyond the railroad tracks and Matthews Road to the north and northeast, respectively. Adjacent to the east is a vacant parcel, on the northwestern corner of which is an area of dark soil or gravel, possibly from the asphalt plant's activities. Adjacent to the south are high voltage lines and a tower on a parcel that appears to be under cultivation. Adjacent to the west are two fenced properties, one of which has numerous parked vehicles and the other has an area of dark brown soil, the purpose of which is unclear. Adjacent to the west of the southern end of the property is an agricultural field.

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Year	Scale	Property Comments	Surrounding Area Comments
Year 2006 2009 and 2012	Scale 1"=500'	Property Comments The property facility is under construction. The northern warehouse appears to be present along with a number of other sheds and buildings on the northwestern portion of the property.	Surrounding Area Comments Adjacent to the north are the current cement and asphalt plants. Adjacent to the north and northeast, beyond the railroad tracks and Matthews Road, are industrial buildings and their yard and a vacant parcel. Adjacent to the south is undeveloped land. The high voltage tower is not discernible. Adjacent to the west, beyond Antelope Road, are two fenced lots, once of which is an equipment yard, while the other is of unknown activity. Farther to the south is a vacant area. Adjacent to the northwest, beyond Antelope Road, is a gravel-paved lot with numerous parked vehicles.
	1 =500	the property appears very similar to its current appearance.	Aujacent to the north are the cement and asphalt plants. Adjacent to the north and northeast, beyond the railroad tracks and Matthews Road are industrial buildings, their paved yards, and a small vacant area. Adjacent to the east is vacant land, on the northwest corner of which is a large gravel-paved area with several gray stockpiles. Adjacent to the south is vacant land, along with two high voltage towers. Adjacent to the west, beyond Antelope Road are various fenced lots, most of which appear unoccupied except for a lot across from the northern end of the property, which appears to be used as a parking lot, and the eastern half of the current RV storage lot, which is present in the 2012 aerial photograph.
2016	1"=500'	The property appears essentially as it does currently.	Apart from the absence of an equipment yard currently present on the west-adjacent site, but nearly unoccupied in the 2016 photograph, The adjoining parcel on all sides appear essentially as they do currently.

Due to the presence of former agricultural activity on the property between at least 1938 and 2002, it is possible that environmentally persistent pesticides and herbicides may have been used on the property in the past. A 2005 Baseline investigation by URS (see Section 5.3.9) included surface and subsurface sampling for pesticides and herbicides in which low concentrations of various pesticide and herbicide compounds were identified at concentrations well below EPA and DTSC screening levels in use at that time. The amount of mixing, grading and cut and fill operations necessary to prepare the property for development has likely altered and diluted agricultural chemicals further in the developed portions of the property. Accordingly, the former use of pesticides and herbicides on the property is not considered to represent a *recognized environmental condition* at this time. However, it is possible that additional sampling for pesticides may be required prior to any redevelopment of the property following decommissioning. Copies of the aerial photographs are included in Appendix F.

5.3.2 Fire Insurance Maps

ATC requested copies of historical Sanborn Fire Insurance Maps (Sanborn Maps) depicting the property and surrounding area from EDR. According to EDR, Sanborn Map coverage of the property is not available. A copy of EDR's "unmapped property" letter is included in Appendix G.

5.3.3 Property Tax Files

According to information on file with the Riverside County Assessor, the current owner of the property is Inland Empire Energy Center LLC, which acquired title in 2015. No prior owners were named. The review of tax files did not identify *recognized environmental conditions* at the property.

5.3.4 Recorded Land Title Records

The acquisition of recorded land title records was not required by the scope of work for the Phase I ESA.

5.3.5 Historical USGS Topographic Maps

ATC reviewed available historical USGS Topographic Quadrangles for information regarding past uses of the property. Topographic maps were reviewed for the years 1901, 1942, 1943, 1947, 1953, 1973, 1979, and 2012. ATC's findings by year are as follows:

No developments are shown on the property on any of the map editions reviewed.

On all of the map editions except those of 1901 and 2012, a school is shown north of the property, beyond the railroad tracks and Matthews Road. A small non-adjacent structure is shown a short distance to the north of the property on the southeast corner of Ethanac Road and Antelope Road on all map editions except for 2012. The 2012 map edition typically depicts no features of development except for streets. The remaining adjacent parcels on all sides are shown as undeveloped.

The review of historical USGS Topographic Quadrangles did not identify specific past uses indicating *recognized environmental conditions* at the property or the surrounding area. Copies of topographic maps are included in Appendix G.

5.3.6 City Directories

ATC reviewed historical city directories at the Riverside Main Library. ATC also consulted a City Directory Image Report prepared by EDR. EDR reviewed city directories at approximate five-year intervals between 1975 and 2014 for indications of current and adjacent property use. ATC's findings from both sources are summarized as follows.

CITY DIRECTORY SUMMARY			
Year	Property Comments	Surrounding Area Comments	
1975, 1981, 1985, 1989, 1990,	Antelope Road: No listings.	Antelope Road: No listings near the	
1992, 1995, and 1998		property.	
2003-04	Antelope Road: No listings.	Antelope Road: 26100-Western Rock	
		Co.; 26245-Address listed, occupant not	
		given.	
2005	Antelope Road: No listings.	Antelope Road: No listings near the	
		property.	
2007-08	Antelope Road: 26226-Conoco Cement	26100-Address listed, occupant not	
	Co, GE Energy, Inland Empire Energy	given.	
	Center, Titan Contracting, Top Grade		
	Construction, Total Western Inc.		
2010	Antelope Road: 26226-Agate	Antelope Road: No listings near the	
	Incorporated, General Electric	property.	
	Company, Top Grade Construction.		
2011-12	Antelope Road: 26226-Address listed,	Antelope Road: No adjacent listings.	
	occupant not given.		

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Year	Property Comments	Surrounding Area Comments	
2014	Antelope Road: 26226-General Electric	Antelope Road: No listings near the	
	Company.	property.	

The review of historical city directories did not reveal *recognized environmental conditions* at the property. A copy of the EDR City Directory Image Report is included in Appendix G.

5.3.7 Building Department Records

ATC attempted to review available historical building permits at the City of Menifee Building Department. However, ATC was informed that they had no records pertaining to the property address. ATC attempted to review building permits for the property online on the Riverside County Transportation and Land Management Agency website, http://onlineservices.rctlma.org, where there was a record that a Conditional Use Permit had been issued for the property on January 28, 2008. No specifics about the permit were listed. ATC submitted a request to review specific permits pertaining to the property at the Riverside Department of Building and Safety; however, a response has not yet been received. A report addendum will be prepared if the response contains relevant information; however, based on information reviewed from other historical sources, ATC does not anticipate that the pending records review will contain information that would alter the conclusions of this report. The data gap created by the pending agency response is therefore not considered to be *significant*.

5.3.8 Zoning/Land Use Records

Historical zoning information was not readily ascertainable; however, based on a review of historical aerial photographs, the property was likely zoned for agriculture from the late 1930s until the early 2000s.

5.3.9 Prior Reports

ATC was provided with portions of three prior reports by the User. The first report, entitled *Phase I Environmental Site Assessment, Inland Empire Energy Center,* was prepared by Foster Wheeler Environmental Corporation (Foster Wheeler) and dated May 14, 2001. This report was prepared prior to construction of the current power plant. Foster Wheeler did not identify current or past hazardous materials use at the property and made no recommendations for additional investigation.

ATC generally concurs, but notes that the potential for pesticide or herbicide applications to be present on the property was not discussed.

The second report, entitled *Final Amended Geotechnical Report, Inland Empire Energy Center, Romoland, California*, was prepared by GZA GeoEnvironmental, and dated April 2005. This report provided information regarding subsurface soil characteristics obtained from soil boring logs.

The third report, entitled *Phase II Baseline Investigation, GE Energy, GE Inland Empire Energy Center, 26226 Antelope Road, Romoland, California*, was prepared by URS Corporation (URS) and dated May 5, 2005. As part of a pre-development investigation, URS collected surface and subsurface soil samples from 20 boring locations evenly distributed across the property. URS converted six of the borings to temporary groundwater wells to collect groundwater samples for analysis. URS collected one surface water sample and one sediment sample from a drainage ditch along Antelope Road where a sheen had been observed on the water's surface.

A total of 20 surface samples and 25 subsurface samples were selected for analysis from the 20 soil borings. Surface samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260B, semi-volatile organic compounds (SVOCs) by EPA Method 8270C, priority pollutant metals by EPA methods 6010B and 7471A, polychlorinated biphenyls (PCBs) by EPA Method 8082, organochlorine pesticides by EPA Method 8081A, and chlorinated herbicides by EPA Method 8151A. Subsurface soil samples were generally analyzed similarly, although there were individual exceptions where selected analyses were not conducted. Two subsurface samples, collected from Boring 3 at 30 feet and Boring 5 at 51 feet, were analyzed for 1,4-dioxane. A number of locations had to be re-sampled at a later date due to procedural errors.

Groundwater samples were analyzed using the same tests with the addition of perchlorate using EPA Method 314.0, once more with selected exceptions.

The surface water and sediment were analyzed by the same tests as the groundwater samples, with the exception that the sediment was not analyzed for perchlorate. A low concentration of perchlorate (not stated) was identified in the surface water sample and arsenic was the only contaminant identified in the sediment sample. URS concluded that the observed sheen was unlikely to be from a petroleum source.

The results of soil and groundwater analyses generally identified low concentrations of selected VOCs, SVOCs, pesticides, herbicides, perchlorate, and metals in the various media tested. No PCBs or 1, 4-dioxane were detected in any of the samples. Nearly all compounds identified were reported to be below the screening standards utilized, which included the California Office of Environmental Health Hazard Assessment (OEHHA) soil screening levels and the EPA preliminary remediation goals (PRGs) for industrial soil. For groundwater, the standards included EPA, California Department of Health Services (DHS) Maximum Contaminant Levels (MCLs) and California Public Health Goals (PHGs). Some VOCs were attributed laboratory contaminants, while others URS offered no explanation for a possible source. The most notable finding in surface soils was for arsenic, which ranged from 0.765 milligrams per kilogram (mg/kg) to 1.19 mg/kg. The OEHHA SSL for arsenic in commercial and industrial soil was stated as 0.24 mg/kg. URS pointed out that natural occurrences of arsenic vary widely and often exceed desired screening levels.

Notable findings in groundwater included five samples with detectable amounts of perchlorate, with one sample at a concentration of 6.1 micrograms per liter (ug/L), slightly exceeding the California PHG of 6.0 ug/L. One groundwater sample had a benzo (A) pyrene concentration of 2.3 ug/L. The MCL for this compound was reported by URS as 0.2 ug/L; however, it was not identified in the overlying soil samples. Pesticides were not detected in groundwater, but certain herbicides were identified at low levels. However, the herbicide MCPP was identified in two groundwater wells at concentrations of 4,500 ug/L and 210 ug/L. URS indicated that there is no established MCL for MCPP.

The findings summarized above are necessarily a cursory discussion which were themselves broadly summarized in the report text provided to ATC. The tables that would have identified the concentration of each analyte at each sample point were not included in the portions of the report provided to ATC. However, the overall conclusion of URS's study was that there were no reporting requirements and no required response actions. URS made no further recommendations.

ATC makes no warranty, guaranty or certification regarding the quality, accuracy or reliability of any prior report provided to ATC and discussed in this Phase I ESA report. ATC expressly disclaims any and all liability for any errors or omissions contained in any prior reports provided to ATC and discussed in this Phase I ESA report.

Based on the low concentrations reported in most instances, and the lack of an obvious on-site source, apart from pesticide and herbicide use, ATC does not regard the findings to represent a *recognized environmental condition*; however, the screening standards employed by URS have generally been replaced or updated by later standards compiled by the DTSC Human and Ecological Risk Office (HERO) and/or the RWQCB. If the property, or portions of it, are planned for redevelopment, ATC considers it probable that new soil sampling, particularly for pesticides and herbicides, would likely be a requirement of the development agency. Copies of the portions of the prior reports reviewed are included in Appendix H.

5.3.10 Other Historical Sources

No other historical sources were reviewed.

6.0 SITE RECONNAISSANCE

ATC assessor Mr. Steve W. Anderson conducted the site reconnaissance on May 9, 2019. ATC was accompanied during the site reconnaissance by Mr.Ben Kling, Plant Manager with GE Power. Mr. Kling has been familiar with the property for approximately 13 years. The following is a summary of visual and/or physical observations of the property on the day of the site visit. Photographs can be found in Appendix C.

6.1 Methodology and Limiting Conditions

The site reconnaissance consisted of visual and/or physical observations of: the property and improvements; adjoining sites as viewed from the property; and, the surrounding area based on visual observations made during the trip to and from the property. Unimproved portions of the property (if any) were observed along the perimeter and in a general grid pattern in safely accessible areas. Building exteriors were observed along the perimeter from the ground, unless described otherwise. Access was unavailable to the roof of the water treatment building and north warehouse. Otherwise, there were no access restrictions encountered at the property. The weather during the site reconnaissance was sunny and mild. There were no visibility restrictions due to weather conditions.

6.2 Hazardous Substance Use, Storage, and Disposal

ATC reviewed the property for hazardous materials storage and use, as well as indications that such materials may have been spilled or dumped. As mentioned previously, the property is developed with a power plant along with various support structures and equipment. A complex site, chemical use and storage occurs in many areas and a comprehensive itemization of chemical use is not feasible from a single walk through; however, the major areas of chemical use and storage at the property observed by ATC were as follows:

Administration Building: The Administration building is divided into three major areas. The northern end of the building contains offices. Minor amounts of cleaning supplies in retail-sized containers were observed beneath the sink in the lunch room. The office has two floors and one hydraulic elevator is present. No oil stains were observed in the elevator service room. South of the office area is a shop area. One flame-resistant cabinet located against one wall contained several grease guns, small bottles of brake cleaner and various aerosol cans. Housekeeping in the shop area was very good with no stains or floor drains. The remainder of the building is a large warehouse area. Generally non-chemical items are stored here, but two stacked flame-resistant cabinets were observed, which contained six one-gallon cans of alcohol, tubes of caulk, various aerosol cans, and small containers of adhesive and paint.

South of the Administration building are three large ASTs containing water, one of which is used for fire suppression. On the south side of this AST is a small metal room containing a 300-gallon diesel AST that fuels the fire pumps. The AST is within secondary containment. No indications of staining were observed in the room.

Water Treatment Building: At the northwestern corner of the Water Treatment building is a small laboratory. Small bottles of various chemicals used to test water were observed primarily beneath the sink. A floor drain was observed in the room. No staining was observed. A small room adjacent to the lab on the east contained banks of batteries. The batteries are used in conjunction with control room operations and water treatment controllers. Farther south in the warehouse is an array of pipes and tanks. ATC noted the presence of a 55-gallon drum of a corrosive cleaning solution, and several containers of what appeared to be water treatment chemicals. All of the containers were stored on secondary containment trays. Farther toward the south wall were several large polyethylene ASTs within concrete berms. One AST was empty while the others contained an anti-scale solution and biocide. Two more ASTs, one of which was located within a berm, contained sodium chloride.

Along the eastern exterior wall of the Water Treatment building, were an 8,500-gallon AST of sodium hypochlorite (bleach) and two 2,000-gallon ASTs of sodium bisulfite. Four smaller ASTs (approximately 1,000 gallons each) of dechlorinating solution are stationed against the exterior southern wall of the building.

A short distance southeast from this point are two 16,000-gallon bermed ASTs containing an ammonia solution. Farther east, directly south of one of the electricity generation units, is another bermed area with six ASTs, which included two 6,000-gallon ASTs of sulfuric acid, two 8,500-gallon ASTs of sodium hypochlorite, a 1,000-gallon AST containing Gengard GN-7000, and a 550-gallon AST containing Spectrus BD 1500. These chemicals are dedicated to cleaning up the long row of cooling towers.

On the eastern side of the property are two racks, each with six tubular ASTs of hydrogen gas.

Hazardous Waste Area: A short distance east-northeast of the Unit 1 turbine is the hazardous waste area consisting of two pole-sheds facing each other from opposite ends of a concrete pad. The southern shed was divided into sub-areas, within which were different sorts of compressed gasses. In one compartment were seven empty propane cylinders and canisters. Seven full propane forklift fuel canisters were stored in a rack in the adjacent area. Nearby were seven oxygen and a similar number of acetylene cylinders chained to opposite sides of their area. Also stored in their respective areas were three salvage drums, seven empty 55-gallon drums, and two empty dollies.

North of this shed was a larger pole shed divided into two sub-areas. On the right-hand side was a 240-gallon waste oil tank. Across from the AST were two 55-gallon drums of used oil filters and a drum full of used sorbent. The fenced area on the left-hand side contained approximately 35 55-gallon drums, most of which contain various oils, with at least two containing a citrus cleaner. Several smaller five-gallon containers are stored along with the drums on a narrow spill-catching mat. However, no indications of spills were observed. In the northwest corner of this area were five flame-resistant cabinets containing aerosol cans of paint, small containers of alcohol, adhesive, and grease tubes. Also present in the cabinets were three five-gallon gasoline containers, one five-gallon container for diesel, and two gallons of alcohol.

Between the northern and southern sheds was a 480-gallon diesel AST. No stains were present near the AST.

Turbine Area: The central portion of the property is occupied by two natural gas fueled turbines, known simply as Unit 1 and Unit 2. A small fenced enclosure is located along the southern fence line of the property. This enclosure is occupied by Southern California Gas and serves as a distribution point for the turbines. The location of the pipeline bringing natural gas in to the property is not known; however, a natural gas pipeline marker was observed just outside the eastern fence line close to the southeast corner of the facility. The turbines are identical in layout. Various ASTs are located within, or adjacent to the framework. These include a 50,000-gallon condensate tank, additional ammonia ASTs, fuel drain tanks, and a wash water drain tank. Two lube oil ASTs totaling approximately 15,878 gallons are located in the north-central portion of each Unit, no staining was observed. At the western exterior end of each turbine Unit are diesel-fueled emergency generators. The fuel for each generator is contained in a 3,500-gallon belly tank. No staining was observed near the generators.

Northern Warehouse: Located on the north-central portion of the property is a metal warehouse structure, used, for the most part, for the storage of non-chemical items; however, large numbers of compressed gas cylinders were observed stored along one wall.

Hazardous waste generated at the property appears to consist primarily of waste oil, oily rags and pads, and universal waste. According to Mr. Kling, Clean Harbors is the hazardous waste vendor and Safety Kleen removes universal wastes. Reportedly, each firm comes on an as-needed basis.

6.3 Underground Storage Tanks

ATC did not identify visual or documentary evidence of current or former underground storage tanks (USTs) at the property.

6.4 Aboveground Storage Tanks

Numerous ASTs are present at the property. These range in size from a 2,100,000-gallon process water tank to 240-gallon ASTs for waste oil and sodium chloride. Most ASTs appear to be stored within secondary containment. No indications of releases were identified near the ASTs observed on-site.

6.5 Other Petroleum Products

Apart from what was discussed in Section 6.2 and what might be contained inside hydraulic equipment and transformers, ATC did not observe other petroleum products on-site.

6.6 Polychlorinated Biphenyls (PCBs)

According to Mr. Kling, a total of 19 privately-owned transformers are present on the property, although it is unclear if this total includes a pad-mounted switch and transformer located at the far northwestern corner of the property, that appear to be typical of SCE equipment. Based on the age of the property improvements, it is unlikely that any of the transformers on-site contain PCBs.

Another potential source of PCBs is the ballasts of fluorescent lights. Fluorescent lighting is present in the property buildings. Based on the age of the property improvements (post-2006), it is unlikely that PCB-containing ballasts are present. As part of normal maintenance, ballasts should be inspected for labeling indicating their PCB content. In general, any ballast not specifically labeled as not containing PCBs is presumed to contain them and will require special disposal practices when eventually discarded.

PCBs have also been used as an additive in hydraulic oil. One hydraulic elevator is present in the Administration building and containers of hydraulic oil were observed in various areas of the property. Based on the age of the property improvements, it is unlikely that the elevator or any of the oil supplies purchased for use at the property contain PCBs.

6.7 Unidentified Substance Containers

ATC did not observe unidentified substance containers at the property.

6.8 Nonhazardous Solid Waste

Non-hazardous solid waste is disposed of in a standard dumpster located by the Administration building. Additionally a large roll-off dumpster is located near the North Warehouse. According to Mr. Kling, Waste Management empties the standard dumpster twice per week and removes the large roll-off as needed.

6.9 Wastewater

Wastewater at the property consists of storm runoff, condensates from various processes, sanitary sewage, and unusable brine. Sanitary sewage is conveyed off-site to the municipal sewer system. The brine is piped off-site to the Santa Ana Watershed Project Authority where it is transported to a water treatment plant operated by the Orange County Sanitation District. Stormwater is conveyed to two large stormwater retention basins located near the southeastern and southwestern corners of the property, where it is removed, filtered, treated, and re-introduced into the system as process water. Water derived from sources such as condensate or drains inside of berms is treated through the oil/water separator before being returned to the system as process water.

6.10 Waste Pits, Ponds and Lagoons

As mentioned previously, there are two large stormwater retention basins at the southeastern and southwestern corners of the property.

6.11 Drains and Sumps

Floor drains were noted in several areas of building interiors. Storm drains were noted locally in the yard areas. None of the drains were observed to have associated staining. Grated catch basins (essentially sumps) are located in many AST berms as well as the bermed hazardous materials area. No associated stains were observed in association with these basins.

6.12 Septic Systems

ATC did not observe evidence of a septic system at the property.

6.13 Stormwater Management System

Stormwater is conveyed from building roofs by exterior downspouts. Storm drains located in the yard convey stormwater to the retention basins, where it is ultimately recycled for use as process water.

6.14 Wells

ATC did not observe wells of any type on the property.

7.0 SUBSURFACE VAPOR MIGRATION

ATC conducted a limited screening for potential vapor encroachment conditions (VECs) that may affect the property. The VEC screening focused on the current and historical usage of the property and also utilized the aforementioned regulatory agency database report provided by EDR to evaluate identified Chemicals of Concern (COCs), including petroleum hydrocarbons. To identify the area of concern (AOC) for contaminated sites with non-petroleum hydrocarbon COCs, ATC utilized the approximate minimum search distance defined by ASTM E 2600-10 of 1,760 feet (1/3 mile) from the property boundary for COC-contaminated sites. For sites contaminated with petroleum hydrocarbon COCs, ATC utilized the AOC approximate minimum search distance of 528 feet (1/10 mile). The AOC was adjusted accordingly based on review of physical setting characteristics, known release information, property and land features, groundwater flow direction, and soil type, et al.

ASTM's Vapor Encroachment guidance indicates that when groundwater flow direction can be estimated or determined, the cross-gradient or downgradient radius distances can be significantly reduced. Reduced AOC distances may be calculated when considering groundwater flow direction by utilizing the following default distances, which were determined using the Buonicore Methodology: (non-petroleum hydrocarbon COCs) 1,760 feet in the upgradient direction; 365 feet in the cross-gradient direction; and 100 feet in the downgradient direction and (petroleum hydrocarbon COCs) 528 feet in the upgradient direction; 165 feet in the cross-gradient direction; 165 feet in the cross-gradient direction; if Light, Non-Aqueous Phase Liquid, (LNAPL i.e. floating product) is suspected; 95 feet in the cross-gradient direction if no LNAPL is suspected; 100 feet in the downgradient direction (LNAPL suspected); and 30 feet in the downgradient position (LNAPL not suspected).

The screening was further refined by evaluating the Critical Distance (CD) factor. The CD is the upper distance a vapor may migrate through soil in the vadose zone assuming the path of least resistance is directly from the closest boundary of the contaminated media (i.e. groundwater or soil) to the nearest property boundary. For non-petroleum hydrocarbon COCs, the CD is 100 feet. For LNAPL petroleum hydrocarbon COCs, the CD is also 100 feet. For dissolved petroleum hydrocarbon COCs, the CD is 30 feet.

ATC reviewed potential sources of COCs from the facilities reported on the EDR database report.

No vapor encroachment conditions were identified on the property or from the surrounding area.

8.0 INTERVIEWS

The persons identified in the table below were interviewed to obtain information regarding *recognized environmental conditions* in connection with the property.

Not included in this listing are those governmental employees that were contacted solely for the purpose of retrieving public information pertaining to the property and who would not be expected to have first-hand knowledge of *recognized environmental conditions* at the property.

Pertinent information from the interviews is discussed in applicable sections of this report with details documented (including failed attempts to interview) on Record of Communication forms in Appendix J.

INTERVIEW SUMMARY				
Role	Name	Title/Company	Years Assoc.	Interview Type
			With Property	
Escort / Tenant	Mr. Ben Kling	Plant Manager / Inland Empire Energy	13 years	In Person
representative		Center		

9.0 OTHER ENVIRONMENTAL CONDITIONS

9.1 Asbestos-Containing Material (ACM)

A limited asbestos survey was not a part of the scope of services for this ESA. Readily accessible suspect ACMs observed at the property included (but are not necessarily limited to) wallboard/joint compound, resilient floor tile, flooring mastics, and acoustical ceiling panels. Although not observed directly, other materials that potentially contain asbestos include duct wrap, insulation, and gaskets. Based on the age of the property improvements (post-2006), it is unlikely that ACM is present; however, prior to any renovation or demolition activity, an asbestos survey should be conducted of any suspect ACMs likely to be disturbed. All suspect ACMs appeared to be in good condition.

9.2 Radon

Radon is a naturally occurring colorless, odorless gas that is a by-product of the decay of radioactive materials potentially present in bedrock and soil. The EPA guidance action level for annual residential exposure to radon is 4.0 picoCuries per liter of air (pCi/L). The guidance action level is not a regulatory requirement for private owners of commercial real estate, but is commonly used for comparison purposes to suggest whether further action at a building may be prudent.

ATC's review of published radon data indicates that the property is located in a county designated by the EPA as Zone 2. Zone 2 areas have a predicted radon concentration of greater than or equal to 2.0 pCi/L and less than or equal to 4.0 pCi/L. According to statistical data provided by EDR, an EPA survey of 12 sites in Riverside County revealed none with radon concentrations in excess of 4.0 pCi/L. Additionally, a state survey of six sites located within the same zip code as the property identified none with radon concentrations in excess of 4.0 pCi/L. Based on these statistics, and the fact that the structures are non-residential, radon is not considered to represent an environmental concern at the property and no additional investigations are recommended at this time.

9.3 Lead in Drinking Water

According to a recent annual water-quality report, the potable water supplied to the property neighborhood, meets all state and federal standards for drinking water, including those for lead.

9.4 Lead-Based Paint (LBP)

Based on the age of the property improvements (post 2006), it is unlikely that LBP has been used in the offices and other commonly occupied areas; however, in industrial settings, painted equipment such as ASTs, piping, and the fire pump equipment, may represent an exception and have elevated levels of lead. As the areas with painted equipment, such as the Water Treatment Building and fire pump room, are not slated for demolition, testing for lead is not recommended at this time. Nonetheless, lead-safe practices should be practiced when conducting any work that might disturb painted surfaces. Lead-based paint lies outside of the scope of ASTM and therefore not considered to represent a *recognized environmental condition*. All painted surfaces at the property appeared to be in good condition.

9.5 Mold Screening

ATC conducted a screening survey for mold conditions at the property. The screening consisted of limited interview, document review (if applicable) and physical observation. ATC spoke with Mr. Ben Kling, Plant Manager at the property since construction activity began circa 2006 (or approximately 13 years). Mr. Kling indicated that there have been no roof leaks significant water-intrusion events, or past occurrences of mold during the time he was associated with the property. Accordingly, there was no prior mold documentation for ATC to review.

During the site reconnaissance, ATC did not observe suspect mold at the property. Minor water stains, most likely from HVAC equipment were noted locally in the Administration building.

9.6 Additional User Requested Services

No additional User requested services were included in the scope of work for this ESA.

10.0 REFERENCES

ASTM International, ASTM Designation E 1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, November 2013.

ASTM International, ASTM Designation E 2418-06, *Standard Guide for Readily Observable Mold and Conditions Conducive to Mold in Commercial Buildings: Baseline Survey Process*, March 2006.

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Riverside, City of, Public Library, city directory review.

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Riverside, County of, Transportation and Land Management Agency website, http://onlineservices.rctlma.org.

South Coast Air Quality Management District, website: https://xappprod.aqmd.gov/find.

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United States Geological Survey, Open-File Report 03-102, *Geologic Map of the Romoland 7.5' Quadrangle, Riverside County, California*, 2003a, online edition.

United States Geological Survey, Water Resources Investigations Report 03-4039, *Tracing Reclaimed Water in the Menifee, Winchester, and Perris-South Ground-Water Subbasins, Riverside County, California*, 2003b.

URS Corporation, Phase II Baseline Investigation, GE Energy, GE Inland Empire Energy Center, 26226 Antelope Road, Romoland, California, May 5, 2005.

11.0 TERMINOLOGY

The following provides definitions and descriptions of certain key terms that may be used in this report. Italics indicate terms that are defined by ASTM Standard Practice E 1527-13. The Standard Practice should be referenced for further detail (such as the precise wording), related definitions or additional explanation regarding the meaning of these or other terms.

recognized environmental condition(s) (REC) - the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

material threat - a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the environmental professional (EP), is threatening and might result in impact to public health or the environment. An example might include an aboveground storage tank system that contains a hazardous substance and which shows evidence of damage such that it may cause or contribute to tank integrity failure with a release of contents to the environment.

de minimis condition - is a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of the appropriate governmental agencies. An example might include a release of *hazardous substances* or *petroleum products* that could reasonably and foreseeably result in a concentration exceeding the applicable regulatory agency risk-based residential standards or substantial damage to natural resources. The risk of that exposure or damage would represent a threat to human health or the environment. If an enforcement action would be less likely than not, then the condition is considered to be generally not likely the subject of an enforcement action. A condition determined to be *de minimis* is not a *REC* or *controlled recognized environmental condition (CREC).*

historical recognized environmental condition (HREC) - a past release of any *hazardous substances* or *petroleum products* that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a *HREC*, the environmental professional (EP) must determine whether the past release is a *REC* at the time the assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a *REC* at the time the Phase I ESA is conducted, the condition will be reported in Section 1.2 the Findings and Conclusions Summary table as a *REC*.

controlled recognized environmental condition (CREC) - a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitation, institutional controls, or engineering controls). Per E1527-13, a CREC will be reported in the Section 1.2 Findings and Conclusions Summary table as a CREC and a REC.

migrate/migration - refers to the movement of *hazardous substances* or *petroleum products* in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface.

business environmental risk (BER) - refers to a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated per the ASTM standard.
APPENDIX C BIOLOGICAL RESOURCES MITIGATION IMPLEMENTATION AND MONITORING PLAN (BRMIMP) ADDENDUM

INLAND EMPIRE ENERGY CENTER BIOLOGICAL RESOURCE MITIGATION IMPLEMENTATION AND MONITORING PLAN (BRMIMP)

BRMIMP ADDENDUM

Date Prepared: August 26, 2019

1. BACKGROUND

The Inland Empire Energy Center (IEEC) was constructed and operated under a Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) dated November 2005, submitted to and approved by the California Energy Commission (CEC). This BRMIMP, including the associated mitigation measures, were applicable for plant construction and operation, not specifically for permanent closure. Section 9.0 of the BRMIMP sets forth measures required for permanent closure, specifically as follows:

A permanent closure plan will be prepared by IEEC, LLC 12 months prior to closure activities. It will include take avoidance and mitigation requirements applicable to the sensitive biological resources in the area at that time. The plan will also include reclamation of areas where facilities would be removed, including transmission conductors and all other power plant facilities. In order to restore wildlife habitat and promote the re-establishment of wildlife species, drought tolerant native plants will be established using a native plant seed mix.

This BRMIMP Addendum (August 2019) has been prepared to meet the requirements described above in Section 9 of the current BRMIMP (Nov 2005). This Addendum will be included as an Appendix to the IEEC Decommissioning and Demolition Plan that has been prepared for the permanent closure of the IEEC facility.

The following sections address take avoidance and mitigation procedures applicable to special-status species and protected biological resources that may be present within the IEEC generating station property boundary. These measures are proposed to mitigate potential impacts to these resources during permanent closure of the IEEC.

2. PERMANENT CLOSURE OVERVIEW

As described in the IEEC Decommissioning and Demolition Plan (Plan) the facility is an existing two (2) unit 750 MW natural gas-fired, combined-cycle generating facility located in Riverside County, California. The Project was permitted by the California Energy Commission (CEC) on December 17, 2003. Commercial operation began in June of 2009 with Unit 1. Operation of Unit 2 followed in May 2010. Unit 1 is operational, scheduled for permanent closure on January 1, 2020. Unit 2 was mothballed in March 2017 and will achieve permanent closure status upon receipt of CEC approval for the IEEC Decommissioning and Demolition Plan.

Upon completion of demolition activities, Nova Power, LLC (Nova) will acquire the project site to develop a battery energy storage system (BESS). The BESS will require a similar industrial operational footprint as the IEEC generating station.

Decommissioning and Demolition are considered two separate and distinct activities;

- Decommissioning activities completed to place the IEEC plant in a zero-energy and environmentally neutral state. To include all activities associated with preparation of the plant for demolition;
- Demolition physical removal through use of mechanical means of above and below grade structures, utilities, equipment and associated appurtenances.

Anticipated decommissioning and demolition activities are discussed in detail in Section 4.0 of the Plan and will be completed in consecutive phases. In summary the following scope will be completed:

- Removal of above-grade structures associated with Unit 1, Unit 2 and the cooling tower including support systems and appurtenances;
- Removal of subsurface concrete pads, sumps, piping and structure (outside the power block footprint) within 12' of grade;
- Certain facilities and equipment will remain to support future BESS operations including perimeter fencing, storm water drainage and fire protection systems, subsurface duct banks, administration and wastewater treatment buildings, north warehouse, and the switchyard with interconnects and transformers.

At the completion of demolition activities, site grade will be returned to datum elevation as shown on existing drawings and sloped to existing storm water drains to prevent accumulation and ponding of rainwater. All areas excavated during demolition will be backfilled with existing site material, and imported clean engineered fill if necessary, to maintain the required site grade.

3. REGULATORY SETTING

In particular, this document has been prepared to provide further detail regarding requirements and specific procedures to comply with applicable federal and state regulations and permits as well as to identify specific mitigation measures pertaining to nesting birds encountered during decommissioning and demolition activities that were not specified previously in the BRMIMP.

There are a number of federal and state laws that protect birds and their nesting activities including: Federal Endangered Species Act, the Federal Migratory Bird Treaty Act (MBTA), Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250 and Amendments) State of California Regulations; State of California Regulations Section 2050 et seq. – California Endangered Species Act, Local Regulations and Policies Multiple Species Habitat Conservation Plan (MSHCP).

4. **DEFINITIONS**

Designated Biologist (DB): the roles and responsibilities of the DB are described in section 3.2.3 of the BRMIMP (November 2005). Per BIO-1 of the BRMIMP; The project owner shall submit the resume, including contact information, of the proposed Designated Biologist to the CPM for approval prior to the start of any site or related facilities mobilization.

Special Status Species: Species that are considered sufficiently rare that they require special consideration and/or protection and have been listed as rare, threatened or endangered by the Federal and/or State governments.

Active Nest: The U.S. Fish and Wildlife Service (USFWS. 2003. Migratory Bird Permit Memorandum, Subject: Nest Destruction. Issued: April 15, 2003. <u>http://www.fws.gov/policy/m0208.pdf</u>.) has clarified that federal regulations do not pertain to the destruction of nests alone (without birds or eggs), provided that possession of the nests does not occur and the activities do not otherwise result in take of migratory birds covered by the Migratory Bird Treaty Act (MBTA). The California Department of Fish and Wildlife (CDFW) has not provided clarification on the regulations pertaining to nesting birds. California Fish and Game Code 3503 provides protection of nests and eggs from "needless" destruction.

Therefore, for purposes of this document, <u>non-raptor, non-special-status species nests without eqgs or</u> <u>chicks are considered inactive</u>. For raptors and special-status species, a nest is considered active upon initiation of construction or when raptors exhibit "nest decorating" behavior. The initiation of nest construction will be determined by the Designated Biologist (DB) based upon field observations of the activity at each nest.

Inactive Nest: Non-raptor and non-special-status species nests that are under construction <u>will be</u> <u>considered inactive until eggs are present within the nest</u>. Non-listed special-status nests will be considered active during the nest building phase. A previously active nest becomes inactive when it no longer contains viable eggs and/or living young, and is not being used by a bird as part of the reproductive cycle (eggs, young, fledging young still dependent upon nest). Egg in-viability will be inferred if eggs are present or believed present, but the adult birds have stopped brooding the eggs or have abandoned the nest, based upon repeated observations of inactivity at the nest location when required. In some cases, a nest can be abandoned by the bird constructing it and become inactive prior to egg laying. In such cases, determination that the nest is inactive is made on a case-by-case basis based on consistent observations and the determination of the DB.

3. ENVIRONMENTAL COMPLIANCE MONITORING AND REPORTING

3.1 SURVEYS AND MONITORING

In order to minimize impacts to nesting birds during decommissioning and demolition activities; preconstruction surveys, monitoring and regular site checks of active project areas will be conducted by the DB.

Surveys and monitoring will be conducted as three distinct tasks:

- Pre-Decommissioning Nest Identification Survey
- Pre-Demolition Surveys
- Monitoring

The Pre-Decommissioning Nest Identification Survey will take place in September 2019. This survey will collect baseline data of the project site that will used to identify the location of inactive nests for removal, active nests for inventory and monitoring, and identify potential "high risk" nesting sites.

Pre-demolition surveys will be completed prior to each phase of decommissioning and demolition activities. Major phased activities include removal of the cooling water tower, removal of Units 1 and 2, removal of balance of plant (BOP) structures and equipment, and site-wide backfill placement and final grading.

On site monitoring will vary within and outside of nesting bird season. Within nesting bird season monitoring will minimize the potential that project activities will cause active nest failures as well as to minimize or avoid construction delays. Outside of nesting bird season monitoring will be conducted as needed to ensure the project maintains compliance.

Decommissioning and demolition represent high hazard operations. Safety of all personnel will be the primary focus of the project. The DB will complete pre-construction surveys, monitoring and regular site checks using binoculars or similar equipment to assess conditions within D&D exclusion zones, as necessary to comply with the site Health and Safety Plan.

Further details for each above-mentioned tasks are included in Section 4 below.

3.2 REPORTING

During demolition activities, reporting requirements will include the following:

- Pre-Demolition Survey Report
- Monthly Monitoring Report
- Incident & Wildlife Observation Report Form (see Attachment A)

<u>Pre-Demolition Surveys</u> - A pre-demolition survey data form (see Attachment A) has been developed to assist in the performance of pre-construction surveys and maintenance of a pre-construction survey database. The DB will maintain these forms and will provide copies to the CEC CPM upon request

Pre-Demolition survey results will be included in Monthly Biological Monitoring Reports that will be sent to the CEC CPM. A summary of these reports will be included in the Post-construction Report. The Monthly Biological Monitoring Report will include descriptions of the following:

- Survey methodologies
- Flagging and signage of construction areas and roads
- Flagging of avoidance areas
- Special-status biological resources observed
- Impact avoidance measures implemented

<u>Monthly Monitoring Reports</u> – These reports will be prepared by the DB and will be provided to the CEC CPM and IEEC, LLC construction management on or before the tenth day of every month during construction.

These reports will include the following information:

- Areas and activities monitored
- Incident & Wildlife Observation Report and resolution of each reported situation
- Construction and monitoring activities planned for the next month
- Agency consultation

• "Compliance" section in the report showcasing that project is in full compliance with all aspects of the BRMIMP

Records maintained by the DB (or designee) at the project site will include the following:

- Pre-demolition survey data forms (see Appendix C for report form)
- Project maps with special-status species occurrence locations
- Copies of Incident & Wildlife Observation Reports (see Appendix C for report form)
- Copies of all reports prepared for environmental compliance activities
- Copies of permits and approvals with conditions monitored by the DB (or designee)
- Background biological information, including the Biological Assessment and the BRMIMP and its revisions
- Current contact list for all environmental compliance personnel, IEEC, LLC and contractor representatives, and regulatory agency representatives

The DB will prepare and submit an Annual Compliance Report to the CEC CPM at the completion of the IEEC Decommissioning and Demolition project.

4. MITIGATION MEASURES

Compliance and Mitigation Measures contained within the current BRMIMP (Nov 2005) are not applicable to permanent facility closure, including BIO 6 which does not consider future industrial use of the project site. Specific protective measures, applicable to planned plant demolition activities, have been developed and are discussed in additional detail in Section 4 of this addendum.

4.1 BIOLOGICAL SPECIFIC PERMANENT CLOSURE MEASURES

4.1.2 NESTING BIRD MANAGEMENT

Pre-Decommissioning Nest Identification Survey

After the completion of the 2019 avian nesting season (August 31¹) an inspection of the Project will be completed by the DB to identify avian nesting activities. Inactive non-special-status species nests will be removed (see details below for Non-Special-Status Species Nest Removal procedure). If inactive nests associated with Raptors or special-status species are identified these nests will be removed after receipt of CDFW and CEC approval (see details below for Special-Status Species/Raptor Nest Removal procedure).

Pre-Demolition Surveys

Decommissioning activities proposed during the 2020 nesting season (February 1 through August 31), will require pre-demolition surveys. The DB will conduct a pre-demolition survey in each phase of the proposed disturbance area. This survey will include all buildings, structures and systems scheduled for demolition within each phase. Avoidance areas will be established using the criteria described in this BRMIMP addendum.

The pre-demolition nesting bird surveys will be completed no more than three (3) days prior to project demolition activities within in each phase.

¹ As accepted by Western Riverside County Multiple Species Habitat Conservation Plan and the County of Riverside Planning Department, Environmental Programs Division

If nesting activity is observed during the pre-demolition nesting bird surveys, appropriate avoidance measures will be adopted to avoid any potential impacts to nesting birds. Standard avoidance is to establish designated areas ("buffers") surrounding each nest, where most project activities will not be authorized until nesting is completed.

The DB will determine the appropriate buffer area around active nest(s) and provisions for buffer exclusion areas along with demolition activity limits. Unless restricted by the DB, construction vehicles would be allowed to move through a buffer area with no stopping or idling. The DB will determine, evaluate, and modify buffers as appropriate based on species tolerance and behavior, the potential disruptiveness of construction activities, and existing conditions. The active nest site and applicable buffer would remain in place until nesting activity concluded.

Buffer Reductions

Implemented buffers for non-special-status species may be reduced to smaller buffers on a case by case basis as determined by the DB as described below:

 For project activities of any disturbance level that are inconsistent with established buffer distances, the SCE Biologist and DB will evaluate the proposed activity on a case by case basis. Where appropriate, they may work with the construction team to revise a buffer reduction request to minimize potential impacts to nesting birds. A reduced buffer distance, as outlined below, may be implemented if recommended by the DB.

Monitoring

Prior to initial disturbance activities within each phase of demolition the DB will conduct a pre-demolition survey for all locations scheduled to be demolished. Once a work area has been established monitoring can be reduced to weekly site checks. During these site checks the monitor can spot check "high risk" nesting locations that were identified in the Pre-Decommissioning Nest Identification Survey.

Within nesting bird season full time monitoring will only be required when work has potential to impact active nests or occurs near nest buffers.

Nest Removal

Removal of inactive special status species or raptor nests that will be impacted by Project demolition activities:

- After completion of the Pre-Decommissioning Nest Identification Survey a notification will be sent out to CDFW and CEC providing details of the nest location, reason for nest removal, and nest removal schedule prior to nest removal of special status species or raptor nests. Upon receipt of CDFW/CEC approval the DB will complete the following:
 - The DB will observe the nest for up to four hours (breeding season) or up to two hours (nonbreeding season) during favorable conditions (good visibility; low wind) to determine whether there is any activity at the nest site. If additional time is necessary due to challenging or unforeseen conditions, the DB will take additional time or modify observation methods to ensure they acquire suitable information regarding nest status;
 - Removal of all inactive raptor nests will be documented on a monitoring report and sent via e-mail to the CEC, USFWS, and CDFW.

Removal of Non-Special-Status Species nests that will be impacted by Project demolition activities:

- For these species, nests being constructed, but not containing eggs or chicks, are considered inactive;
- After the DB confirms that the nest is inactive, the nest will be removed and nesting material will be scattered to discourage reuse by birds;
- No nests will be taken off site or collected. The nest location will be subsequently monitored to
 detect any re-nesting attempts. Initial re-nesting attempts on project elements or equipment will
 be deterred until the bird selects an alternative nest site. Nesting Bird Deterrent Methods are
 described in greater detail below;

Nesting Bird Deterrent Methods

Implementation of deterrent methods within and adjacent (in the case of mooring balls on adjacent structures) to active construction areas may reduce the potential for an active nest to restrict decommissioning and demolition activities. Effective nesting bird deterrent methods within active work areas will reduce the likelihood that demolition will result in the take of an active nest.

The following includes standard types of nesting bird deterrents that may be implemented.

- Removal of vegetation from areas that would be directly disturbed by demolition prior to the nesting season;
- Create disturbance by removing or moving equipment, vehicles, and materials on a daily basis within an active demolition area;
- Use of mooring balls placed in inactive nests, directly on structures, or in other potential nest locations;
- Installation of appropriate-sized mesh netting on construction equipment and materials in staging areas or work areas;
- Use of wire spikes placed on towers, substations, or other facilities to discourage birds from perching and nesting on these structures;
- Installation of visual deterrents such as tangle guard bird repellent ribbon in active construction areas, yards, substations, and on materials and equipment;
- Covering straw wattle and other potential nesting materials in active construction areas;
- Wrapping, stuffing, or covering ends of pipes or other materials within which birds could nest;
- Managing construction yard trash in a manner to reduce potential point food sources in active demolition and work areas, yards, and substations.

5. STEPHENS' KANGAROO RAT AVOIDANCE AND MINIMIZATION

For construction of the IEEC, the USFWS indicated that compliance with the regional incidental take permit (Riverside County Habitat Conservation Agency, Stephens' kangaroo rat habitat conservation plan [HCP]) would ensure compliance for this species. These requirements were incorporated into the BRMIMP to ensure that any related impacts were reduced to levels that are less than significant. For demolition activities this addendum provides further detail for avoidance and minimization of impacts to Stephens' kangaroo rat.

The primary means through which the Riverside County Habitat Conservation Agency implements the Stephens' kangaroo rat HCP is by core reserve land management. However, the project will not impact suitable or historic Stephens' kangaroo rat habitat therefore no additional fee payment to the Stephens' kangaroo rat HCP is required to mitigate for loss of habitat.

Since construction and operation of the plant, one species, a kangaroo rat classified as "probably *Dipodomys stephensi*" was reported by plant personnel in May 2006. This individual was compensated for by fee payment into the HCP for Stephens' kangaroo rat. Any accidental take of this species as a result of demolition activities will additionally be compensated for by this prior fee payment into the Stephens' kangaroo rat HCP.

The DB will monitor and report habitat suitability, sightings and incidental take events to CEC and Riverside County HCA during decommissioning and demolition activities.

ATTACHMENT A

FORMS

Inland Empire Energy Center Project Pre-Construction Biological Survey Form

Date (mmddyy)	Observer		Start Time	End Time	Page	_of
Visibility (circle one): Good	Fair Poor					
Precipitation (circle one)	none light rain	rain	other	to make the set of the day of the set of the	r	

Description of Area Surveyed (attach map or include GPS coordinates):

Habitat Description:

Species Observed (attach additional sheet if necessary):

Plants	Animals

Site Information:

Overall habitat quality (circle one)	Excellent	Good	Fair	Poor
Current land use:		· · · · · · · · · · · · · · · · · · ·		
Surrounding land use:				
Visible disturbance:				
Threats:			<u></u>	
Comments:				

Photographs:

Subject	Location

Inland Empire Energy Center Project Incident & Wildlife Observation Report Form

Reporting Employee:		Date	
Wildlife Observation	To be filled out by pers injured wildlife, or othe	sonnel who find active nest sites and burrows, dens, and c r biological resources during daily construction activities	lead or
Location of obs	servation:		
Condition of w	ldlife (alive, injured, dea	ad?):	
Species:			
Possible cause	of injury or death:		
Action Taken (Where is the animal cur	rently?)	
Is the resource	in danger of project (or	r other) impacts?	
Comments:			<u> </u>
Contact Biolog the project area	ical Monitor or Designa that could be disturbed. 3101 OGIST: Dwight Mud	ted Biologist for questions and to report any wildlife, nest	t, or den in
Incident Repor	To be completed for an	ny deviation from approved environmental protection measured	sures.
Location of Inc	ident:		
Nature of Incid	ent:		
Action Taken:			
If work stoppag	ge was required, what w	vas the reason?	
Time work was	stopped:	Time work was restarted:	······
Area included	n work stoppage:		
Name of Const	ruction Supervisor noti	ified regarding Incident:	
Has condition	been corrected?	If so, how?	
Does the incid	ent require follow-up or	inspection?	
Signature of pe	erson reporting incident	t: Date:	
Signature of C	onstruction Compliance	e Manager: Date:	

APPENDIX D SOCIOECONOMIC/MONTHLY LABOR FORCE DATA

Employment Development Department Labor Market Information Division http://www.labormarketinfo.edd.ca.gov (916) 262-2162

Monthly Labor Force Data for Cities and Census Designated Places (CDP) March 2019 - Preliminary Data Not Seasonally Adjusted

	Labor	Employ-	Unemployr	nent	Census	Ratios
Area Name	Force	ment	Number	Rate	Emp	Unemp
Riverside County	1,100,000	1,048,600	51,400	4.7%	1.000000	1.000000
Banning city	11,400	10,700	700	5.7%	N/A	N/A
Beaumont city	22,200	21,300	900	4.0%	N/A	N/A
Bermuda Dunes CDP	3,900	3,700	200	4.1%	0.003542	0.003092
Blythe city	6,100	5,800	300	4.7%	0.005514	0.005597
Cabazon CDP	1,500	1,300	200	10.5%	0.001241	0.002952
Calimesa city	3,400	3,200	200	4.8%	0.003092	0.003222
Canyon Lake city	5,700	5,500	200	3.3%	0.005224	0.003595
Cathedral City city	26,200	25,300	900	3.5%	N/A	N/A
Cherry Valley CDP	3,500	3,300	100	4.0%	0.003167	0.002691
Coachella city	19,800	18,000	1,900	9.5%	N/A	N/A
Corona city	84,900	81,800	3,100	3.6%	N/A	N/A
Desert Hot Springs city	11,600	11,000	600	5.5%	N/A	N/A
East Hemet CDP	8,000	7,400	600	7.8%	0.007052	0.012162
Eastvale City city	32,200	31,100	1,100	3.3%	N/A	N/A
El Cerrito CDP	2,400	2,300	100	3.1%	0.002194	0.001443
Hemet city	30,100	28,100	2,100	6.9%	N/A	N/A
Highgrove CDP	2,200	2,000	200	8.0%	0.001941	0.003446
Home Gardens CDP	5,600	5,400	200	3.5%	0.005160	0.003827
Homeland CDP	3,000	2,900	200	5.0%	0.002747	0.002971
Idyllwild Pine Cove CDP	1,400	1,300	0	1.8%	0.001274	0.000475
Indian Wells city	1,800	1,800	0	2.6%	0.001696	0.000931
Indio city	40,400	38,500	1,900	4.8%	N/A	N/A
Jurupa Valley city	48,400	46,300	2,100	4.3%	N/A	N/A
La Quinta city	19,000	18,300	700	3.7%	N/A	N/A
Lake Elsinore city	30,300	28,900	1,400	4.7%	N/A	N/A
Lakeland Village CDP	5,900	5,400	400	7.5%	0.005186	0.008530
Lakeview CDP	1,100	1,000	100	5.7%	0.000998	0.001220
March AFB CDP	300	300	0	4.8%	0.000265	0.000270
Mecca CDP	3,400	3,300	200	4.7%	0.003106	0.003101
Menifee city	39,100	37,200	1,900	4.8%	N/A	N/A
Moreno Valley city	95,500	90,700	4,800	5.1%	N/A	N/A
Murrieta city	55,700	53,600	2,200	3.9%	N/A	N/A
Norco city	11,900	11,400	500	4.4%	N/A	N/A
Nuevo CDP	3,100	2,900	200	5.7%	0.002798	0.003427
Palm Desert city	24,700	23,800	900	3.8%	N/A	N/A
Palm Springs city	23,000	22,100	900	3.9%	N/A	N/A
Perris city	31,000	29,200	1,800	5.8%	N/A	N/A
Rancho Mirage city	6,500	6,200	200	3.7%	0.005944	0.004684

Data Not Seasonally Adjusted

	Labor	Employ-	Unemployment		Census Ratios	
Area Name	Force	ment	Number	Rate	Emp	Unemp
Riverside city	155,300	148,700	6,600	4.3%	N/A	N/A
Romoland CDP	800	800	0	2.7%	0.000780	0.000456
San Jacinto city	19,100	17,900	1,200	6.3%	N/A	N/A
Temecula city	55,700	53,600	2,000	3.6%	N/A	N/A
Thousand Palms CDP	2,900	2,800	100	3.5%	0.002629	0.001928
Valle Vista CDP	6,600	6,300	300	5.0%	0.005975	0.006398
Wildomar city	17,700	17,000	800	4.3%	N/A	N/A
Winchester CDP	1,200	1,100	100	7.9%	0.001040	0.001807
Woodcrest CDP	8,400	8,100	300	4.1%	0.007707	0.006686

CDP is "Census Designated Place" - a recognized community that was unincorporated at the time of the 2012-2016 5-Year American Community Survey (ACS).

Notes:

1) Data may not add due to rounding. All unemployment rates shown are calculated on unrounded data.

2) These data are not seasonally adjusted.

3) N/A = Estimate created by Bureau of Labor Statistics

Methodology:

Monthly city labor force data are derived by multiplying current estimates of county employment and unemployment by the relative employment and unemployment shares (ratios) of each city at the time of the 2010-2014 American Community Survey. Ratios for cities were developed from special tabulations based on ACS employment, unemployment, and population and Census population from the Bureau of Labor Statistics. For smaller cities and CDPs, ratios were calculated from published census data.

Monthly CDP's labor force data are derived by multiplying current estimates of county employment and unemployment by the relative employment and unemployment shares (ratios) of each CDP at the time of the 2012-2016 ACS survey. Ratios for CDPs' were developed from special tabulations based on ACS employment and unemployment from the Bureau of Labor Statistics.

This method assumes that the rates of change in employment and unemployment since the 2010-2014/2012-2016 American Community Survey are exactly the same in each city and CDP as at county level (i.e., that the shares are still accurate). If this assumption is not true for a specific city or CDP, then the estimates for that area may not represent the current economic conditions. Since this assumption is untested, caution should be employed when using these data.