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PETITION TO AMEND

**SOLAR ENERGY GENERATING SYSTEMS (SEGS)
IX AND X**

(89-AFC-01C)

REMOVAL OF SEGS X FROM PROJECT

LSA

September 2020

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REMOVAL OF SEGS X FROM PROJECT

Submitted to:

California Energy Commission

Submitted by:

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Project No. TGL2003

LSA

September 2020

EXECUTIVE SUMMARY

Pursuant to Section 1769 of the California Energy Commission (CEC) Siting Regulations, Luz Solar Partners, IX, Ltd. (also referred to herein as “Petitioner”) petitions the CEC for approval to amend the Commission Decision for the Solar Energy Generating Systems (SEGS) IX and X project (referred to herein as “Project”) to reflect the removal of SEGS X from the Project. The CEC certified the SEGS IX and X Project in February 1990 (89-AFC-1C). Construction was completed for SEGS IX and the facility went online in October 1990; however, construction for SEGS X was initiated but the facility was never built and did not become operational. The Petitioner does not intend to complete construction and operation of the solar thermal facility. The Petitioner proposes to remove SEGS X from the Project so that the site may be utilized as a potential solar photovoltaic (PV) project site in the future.

This Petition to Amend (PTA) addresses the proposed removal of SEGS X from the Commission Decision and demonstrates that the proposed removal of SEGS X from the Project will not result in a significant effect on the environment or to public health and safety. Although, the proposed amendment will result in changes and/or deletions of conditions in the Project CEC Commission Decision, the Project will continue to comply with all applicable laws, ordinances, regulations, and standards (LORS).

Section 1.0 of this PTA describes the project background and provides an overview of the proposed amendment. Section 2.0 provides a complete description of the proposed amendment and the necessity for the proposed change. Section 3.0 provides an analysis of the potential environmental effects of the proposed amendment and the Project’s continued compliance with all applicable LORS. Section 4.0 provides an assessment of potential effects of the proposed amendment on the public and property owners, and Section 5.0 provides a list of property owners within 1,000 feet of the Project site.

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APPENDIX

A: REVISIONS TO CONDITIONS OF CERTIFICATION

LIST OF ABBREVIATIONS AND ACRONYMS

AFC	Application for Certification
APN	Assessor's Parcel Number
BLM	Bureau of Land Management
CEC	California Energy Commission
CEQA	California Environmental Quality Act
EPA	U.S. Environmental Protection Agency
kV	kilovolt
LORS	Laws, Ordinances, Regulations, and Standards
MDAQMD	Mojave Desert Air Quality Management District
MW	megawatt
Petitioner	Luz Solar Partners, IX. Ltd.
Project	Solar Energy Generating Systems IX and X Project
PTA	Petition to Amend
PV	photovoltaic
SCE	Southern California Edison
SEGS	Solar Energy Generating System

SECTION 1.0 INTRODUCTION

1.1 BACKGROUND

The California Energy Commission (CEC) certified the Solar Energy Generating Systems (SEGS) IX and X project (Project) in February 1990 (89-AFC-1C). Construction for SEGS IX was completed and the facility went online in October 1990; however, the SEGS X facility was never built. In 1991, the SEGS owner was unable to fully finance the SEGS X project, and construction was halted after portions of the concrete foundations and solar racking piers in the central and southwest portions of the project site were built. SEGS IX generates a peak of 80 megawatts (MW) of solar thermal electricity to the Southern California Edison (SCE) transmission grid using fields of parabolic mirrors. Heat from the mirrors is concentrated on tubes of heat transfer fluid, which is circulated to steam boilers to produce electricity.

Both SEGS IX and X are owned and operated by LUZ Solar Partners, IX, Ltd. The Project is located near Harper Lake in San Bernardino County, California (refer to Figure 1, Project Location). The project sites are approximately 400 acres each.

Pursuant to Section 1769 of the CEC Siting Regulations, Luz Solar Partners, IX, Ltd. (also referred to herein as “Petitioner”) hereby petitions the CEC for approval to amend the Commission Decision for SEGS IX and X to remove SEGS X from the Project.

1.2 DESCRIPTION OF PROPOSED AMENDMENT

The proposed amendment to the SEGS IX and X certification would be limited to the removal of SEGS X from the Project.

This Petition to Amend (PTA) addresses the following:

- Demonstration that the proposed removal of SEGS X from the Project will not result in a significant effect on the environment or to public health and safety;
- Description of changes and/or deletions to the Project CEC Commission Decision conditions of certification that will result from the proposed removal of SEGS X from the Project; and
- Demonstration that the proposed removal of SEGS X from the Project will not cause the project to be noncompliant with any applicable laws, ordinances, regulations, or standards (LORS).

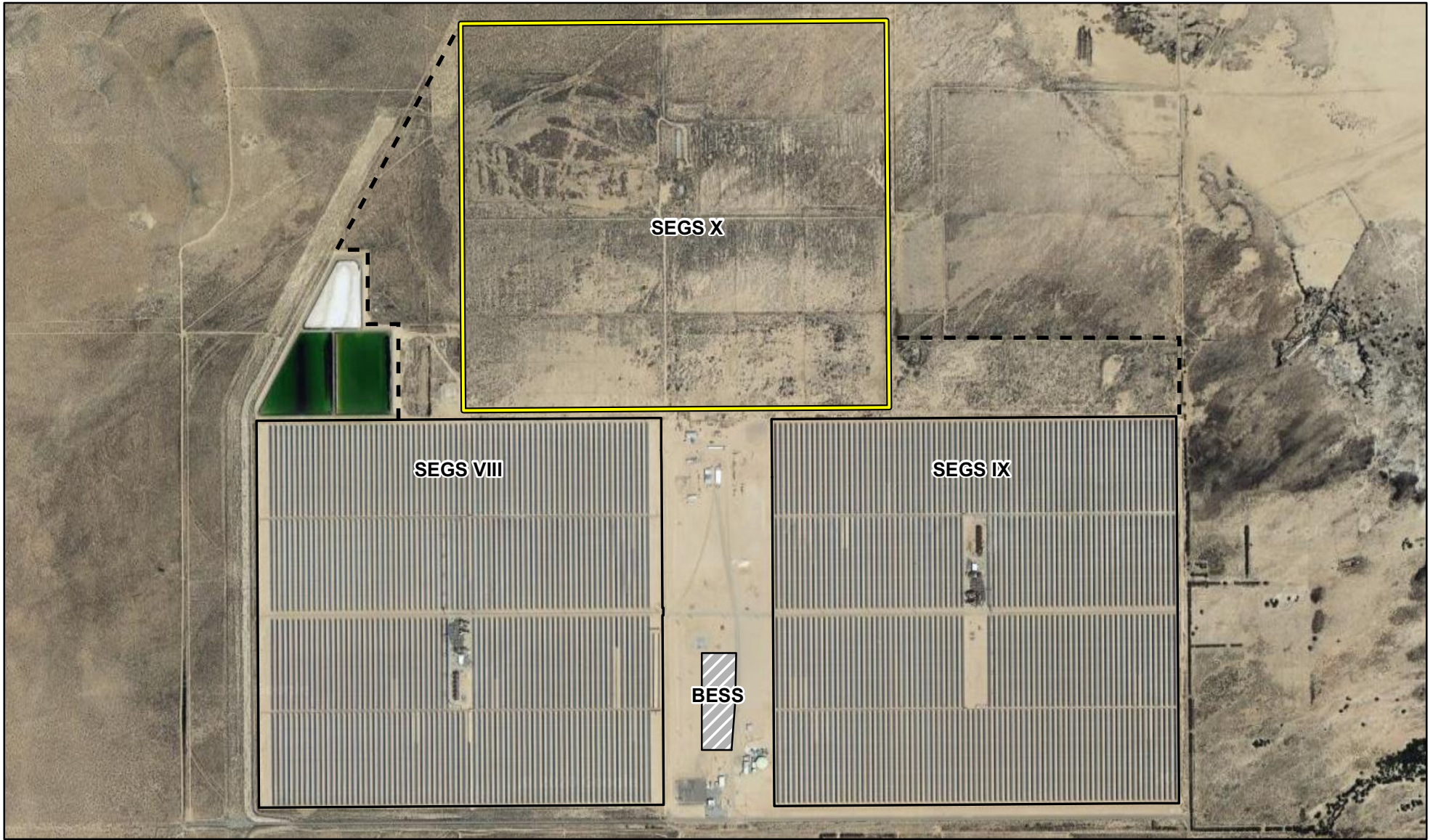
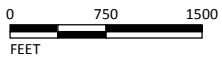


FIGURE 1

LSA

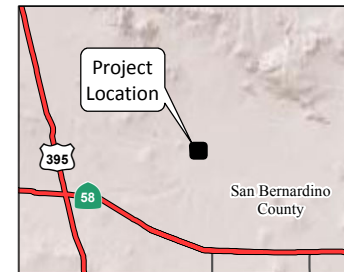
LEGEND

- SEGS X Project Footprint
- SEGS Shared Facilities Area



SOURCE: Google Maps (9/2015); Luz Solar Partners X, LLC (6/2020)

I:\TGL2003\GIS\MXD\Project_Location.mxd (9/9/2020)



SEGS X
Project Location

1.3 SUMMARY OF ENVIRONMENTAL IMPACTS

Section 1769 (a)(1)(E) of the CEC Siting Regulations requires that an analysis be conducted to address impacts that the proposed amendment to the certification may have on the environment and proposed measures to mitigate significant adverse impacts. Section 1769 (a)(1)(F) requires a discussion of the impacts of the proposed amendment on the facility's ability to comply with applicable LORS.

The proposed amendment to the SEGS IX and X certification to remove SEGS X from the Project will not result in any additional impacts beyond those already identified in the original Commission Decision and approved amendments. Section 3.0, below, herein discusses the potential impacts of the proposed amendment on the environment, as well as the consistency of the proposed amendment with LORS. Section 3.0 concludes that there will be no significant or adverse environmental impacts associated with the removal of SEGS X from the Project and that the Project will continue to comply with all applicable LORS. Additionally, the Petitioner will comply with applicable LORS for future use/ development of the SEGS X site after its removal from the Project license.

1.4 CONSISTENCY OF AMENDMENT WITH LICENSE

Section 1769 (a)(1)(D) of the CEC Siting Regulations requires a discussion of the consistency of each proposed project revision with the assumptions, rationale, findings, or other basis of the Commission Decision and whether the revision is based on new information that changes or undermines the basis of the Commission Decision. Also required is an explanation of why the amendment to the certification should be permitted.

Consistent with the CEC Siting Regulations Section 1769(a)(1)(A), Section 2.0 herein includes a description of the proposed amendment, as well as the necessity for the amendment. As set forth in the following sections, the proposed amendment does not undermine the assumptions, rationale, findings, or other basis of the Commission Decision for the Project.

SECTION 2.0 DESCRIPTION OF PROPOSED CHANGE

Consistent with Sections 1769(a)(1)(A) and (B) of the Siting Regulations, this section includes a complete description of the proposed amendment to the SEGS IX and X certification as well as a discussion of the necessity for the proposed amendment. Consistent with Sections 1769(a)(1)(C) and (D) of the Siting Regulations, this section explains that the Petitioner was unaware of the need for the proposed amendment prior to certification of SEGS IX and X, and that the proposed amendment is not based on new information that changes or undermines the assumptions, rationale, findings, or other basis of the Commission Decision.

2.1 PROPOSED PROJECT AMENDMENT

The Petitioner proposes to remove SEGS X from the SEGS IX and X Project certification license. Construction on the SEGS X facility was suspended in 1991 due to lack of financing, and the Petitioner does not intend to complete construction and operation of the solar thermal facility as licensed. The Petitioner proposes to remove SEGS X from the Project so that the site may be utilized as a potential solar photovoltaic (PV) and battery energy storage project site in the future. SEGS IX will continue to operate as licensed, and the removal of SEGS X from the Project will have no effect on SEGS IX operational activities.

2.1.1 Other Agency Notifications

Since SEGS X was never fully constructed, the current permits and agreements for the Project are held under SEGS IX [including the U.S. Environmental Protection Agency (EPA) Hazardous Waste identification, the Mojave Desert Air Quality Management District (MDAQMD) permit, and the Bureau of Land Management (BLM) water provision agreement, etc.]. No notifications to other agencies would be required with the removal of the SEGS X from the Project.

2.1.2 Schedule

There will not be demolition or equipment removal activities associated with the removal of SEGS X from the Project license. Control of the property will remain with the current project owner for future use of the site for a potential solar PV project. Permitting of the site for future solar PV use may be initiated with the County of San Bernardino before the end of this year; however, a schedule has not yet been determined.

2.1.3 Facilities Remaining Onsite

As previously discussed, there will not be demolition or equipment removal activities associated with the removal of SEGS X from the Project license. All existing equipment and facilities on the SEGS X site will remain in place for potential future use. These include:

- Five (5) unfinished power block foundations;
- Concrete tracker foundations located on 100 acres of the southwest portion of the site;
- A few smaller unfinished concrete foundations;

- Miscellaneous construction debris including wooden crates, concrete forms, and rebar found in the power block area;
- Wood electrical poles (some carrying 34.5 kilovolt [kV] live conductors); and
- Site perimeter fencing and desert tortoise fencing.

2.1.4 Site Restoration

Site restoration is not needed. The SEGS X site will remain in an “as-is” condition until such time the site is permitted for future use as a solar PV project. As described above, the existing facilities on site will remain in place. No demolition or equipment removal activities will occur with the removal of SEGS X from the Project license.

2.1.5 Mitigation Measures

Removal of SEGS X from the Project license will not involve any significant adverse environmental impacts (see Section 3.0, Environmental Analysis of the Proposed Change), and mitigation measures are not necessary.

2.2 NECESSITY OF PROPOSED CHANGE

Sections 1769 (a)(1)(B) and 1769 (a)(1)(C) of the CEC Siting Regulations require a discussion of the necessity for the proposed amendment to the project and whether this amendment is based on information that was known by the Petitioner during the certification proceeding.

The proposed amendment is necessary to remove SEGS X from the CEC license since construction was suspended in 1991 due to lack of financing, and the Petitioner does not intend to complete construction and operation of the solar thermal facility as licensed. Additionally, the removal of SEGS X from the license is necessary so that the site may be utilized in the future as a potential solar PV project site. It was not known during the certification process for SEGS IX and X that SEGS X funding would not be available to complete construction and operation. The proposed amendment to remove SEGS X from the CEC license does not change or undermine the assumptions, rationale, findings, or other basis of the Commission Decision.

SECTION 3.0 ENVIRONMENTAL ANALYSIS OF THE PROPOSED CHANGE

The only change being requested in this PTA is to remove SEGS X from the Project. There would be no changes to the environmental baseline or to the environmental effects of the Project to any of the environmental disciplines.

For all disciplines, a possible indirect, future consequence of removal of SEGS X from the license is that the Project owner may proceed with development plans for the property, and implementation of these plans could have adverse environmental or public health and safety effects. Such actions, however speculative, would be subject to permitting requirements of the County of San Bernardino, including review under the California Environmental Quality Act (CEQA). For this reason, there would be no foreseeable adverse environmental effects resulting from the removal of SEGS X from the CEC Project license.

The removal of SEGS X from the CEC License will not result in any potentially significant impacts to the environment or public health and safety, and the Project will remain in compliance with all applicable LORS. Table A provides a summary of the environmental analysis for the removal of SEGS X from the Project by environmental resource topic area considered in the Commission Final Decision. The proposed amendment will require changes and/or deletions to the existing Conditions of Certification. However, those changes and/or deletions only consist of removing references to SEGS X. Suggested revisions to the Conditions of Certification are provided in redline strikeout in Appendix A, and are summarized by resource in Table A, below.

3.1 LAWS, ORDINANCES, REGULATIONS, AND STANDARDS

The Commission Decision certifying SEGS IX and X concluded that the Project is in compliance with all applicable laws, ordinances, regulations, and standards (LORS). The Project, as amended with the proposed change in this PTA to remove SEGS X from the Project license, will continue to comply with all applicable LORS.

Table A: Environmental Analysis Summary

Environmental Resource	Summary of Environmental Analysis	Changes/Deletions to Conditions of Certification
3.1 Air Quality	Removal of SEGS X from the license will result in a net benefit because of the construction and operational-related emissions that would otherwise occur to construct and operate the facility will not occur.	AQ 1-5, AQ 1-6, AQ 1-8, AQ 1-11 (Verification Only), AQ 1-12, AQ 1-16, AQ 1-17, AQ 1-18 (Verification Only), AQ 1-20 (Verification Only), AQ 1-21 (Verification Only), AQ 1-26 (Verification Only), AQ 1-30 (Verification Only), AQ 1-32, AQ 1-34, AQ 1-35, AQ 1-36, AQ 1-38, AQ 1-40, and AQ 1-41
3.2 Biological Resources	Removal of SEGS X from the license will not have an adverse effect on biological resources. Permanent habitat impacts of 336 acres were mitigated through a purchase of 1,680 acres (5:1 ratio) of dedicated mitigation land for both Mojave ground squirrel and desert tortoise. The property boundary fence and desert tortoise fence around the SEGS X site will remain in place.	BIO-1, BIO-3, BIO-4, BIO-7, BIO-8, BIO-12, BIO-13 (Verification Only), and BIO-14
3.3 Cultural Resources	Removal of SEGS X from the license will not involve ground-disturbing activities. Therefore, there will be no effect on cultural resources.	CUL-9, CUL-10, CUL-11, CUL-12, CUL-13 (Verification Only), CUL-14, CUL-15, CUL-16, CUL/PAL-17, and CUL/PAL-18
3.4 Geology and Paleontological Resources	Removal of SEGS X from the license will not involve ground-disturbing activities. Therefore, there will be no effect on geology and paleontological resources.	PAL-1, PAL-2, PAL-3, PAL-4, PAL-5, PAL-6, PAL-7, PAL-8, CUL/PAL-17, and CUL/PAL-18
3.5 Hazardous Materials	Removal of SEGS X from the license will not involve the use of hazardous materials.	<i>See 3.13 Waste Management</i>
3.6 Land Use	Removal of SEGS X from the license will not result in any change to the land use associated with the project site. The Project property has a General Plan land use designation of RL, Rural Living, which is consistent with the Renewable Energy and Conservation Element (RECE) of the County of San Bernardino General Plan. The site will remain in a zone appropriate for renewable energy use.	No Changes or Deletions
3.7 Noise	Removal of SEGS X from the license will not result in generation of noise from construction or operational activities. Therefore, there will be no effect on noise.	No Changes or Deletions
3.8 Public Health	There will be no effect on public health resulting from removal of SEGS X from the license.	PH-4, PH-3 (Delete Condition), and PH-5
3.9 Socioeconomics	The local economy and tax base will not receive economic benefits, which would otherwise accrue from construction and operation of SEGS X. However, there will be no change in effect from the current condition on socioeconomics associated with the removal of SEGS X from the license.	SOCIO-1 (Delete Condition), SOCIO-4, SOCIO-5, SOCIO-6, SOCIO-7, and SOCIO-8

Table A: Environmental Analysis Summary

Environmental Resource	Summary of Environmental Analysis	Changes/Deletions to Conditions of Certification
3.10 Soils and Water Resources	There will be no change to drainage facilities or water quality resulting from removal of SEGS X from the license. Since removal of SEGS X from the license will not result in changes to current site conditions, there will be no effect on soil and water resources.	WATER-1 (Verification Only), WATER-2, WATER-4, WATER-7, WATER-8, and WATER-11 (Delete Condition)
3.11 Traffic and Transportation	Removal of SEGS X from the license will not generate any traffic. Therefore, there will be no effect on traffic and transportation.	TRAFFIC-3, TRAFFIC-4, TRAFFIC-6, and TRAFFIC-7
3.12 Visual Resources	The SEGS X site will remain in its existing condition. Therefore, there will be no effects to visual resources resulting from removal of SEGS X from the license.	VIS-2
3.13 Waste Management	Removal of SEGS X from the license will not generate waste.	WASTE-1, WASTE-2, WASTE-4, WASTE-7, and WASTE-9
3.14 Worker Safety and Fire Protection	There are no substantial health and safety risks resulting from removal of SEGS X from the license. Oversight of the SEGS X property will continue to be provided by the project owner.	WS&FP-1 and WS&FP-4

SECTION 4.0 POTENTIAL EFFECTS ON THE PUBLIC AND PROPERTY OWNERS

This section addresses potential effects of the SEGS IX and X proposed amendment set forth in this PTA on nearby property owners, the public, and parties in the application proceeding, pursuant to Section 1769(a)(1)(I) of the CEC Siting Regulations.

The SEGS IX and X project, as amended, will not differ in potential effects on adjacent landowners as compared with the previously approved project. SEGS IX and X would continue to have no significant environmental effects and would remain in compliance with applicable LORS. Therefore, the proposed change set forth in this PTA will have no adverse effects on nearby property owners, the public, or other parties to the application proceeding.

SECTION 5.0 LIST OF PROPERTY OWNERS

As required by the Section 1769(a)(1)(H) of the CEC Siting Regulations, a list of property owners potentially affected by the proposed change is provided herewith. A list of property owners within 1,000 feet of the Project site boundary is provided in Table B, below. Fewer properties are potentially affected by the proposed change than the owners listed in the Application for Certification (AFC) because the proposed change does not affect the natural gas or electrical transmission lines.

Table B: List of Property Owners Within 1,000 Feet of the Project Site

APN	OWNER NAME	MAILING ADDRESS	CITY, STATE, ZIP CODE
049009101	COOLEY, SCOTT M SEP PROP TR 02/12/97	15900 KENNEDY RD	LOS GATOS CA 95032
049009109	TRIANGLE H 049009109 TRUST	15900 KENNEDY RD	LOS GATOS CA 95032
049010108	BUREAU OF LAND MANAGEMENT	22835 CALLE SAN JUAN DE LOS LAGOS	MORENO VALLEY CA 92553
049010119	SOUTHERN CALIFORNIA EDISON COMPANY		
049010154	HIGH DESERT LAND ACQUISITION LLC	700 UNIVERSE BLVD	JUNO BEACH FL 33408
049010154	HIGH DESERT LAND ACQUISITION LLC	700 UNIVERSE BLVD	JUNO BEACH FL 33408
049010155	ALL AMERICAN VENTURES INC	43450 HARPER LAKE RD	HINKLEY CA 92347
049010155	ALL AMERICAN VENTURES INC	43450 HARPER LAKE RD	HINKLEY CA 92347
049010156	ALL AMERICAN VENTURES INC	43450 HARPER LAKE RD	HINKLEY CA 92347
049010156	ALL AMERICAN VENTURES INC	43450 HARPER LAKE RD	HINKLEY CA 92347
049010156	ALL AMERICAN VENTURES INC	43450 HARPER LAKE RD	HINKLEY CA 92347
049011114	HIGH DESERT LAND ACQUISITION LLC	700 UNIVERSE BLVD	JUNO BEACH FL 33408
049012143	HIGH DESERT LAND ACQUISITION LLC	700 UNIVERSE BLVD	JUNO BEACH FL 33408
049012144	HIGH DESERT LAND ACQUISITION LLC	700 UNIVERSE BLVD	JUNO BEACH FL 33408
049012146	ABENGOA SOLAR LLC	1901 AVENUE OF THE STARS STE	LOS ANGELES CA 90067
049012147	ABENGOA SOLAR LLC	3030 N CENTRAL AVE STE 808	PHOENIX AZ 85012
049013117	ABENGOA SOLAR LLC	3030 N CENTRAL AVE STE 808	PHOENIX AZ 85012
049018365	ABENGOA SOLAR LLC	1901 AVENUE OF THE STARS STE	LOS ANGELES CA 90067
049018449	ABENGOA SOLAR LLC	1901 AVENUE OF THE STARS STE	LOS ANGELES CA 90067
049022332	ALL AMERICAN VENTURES INC	43450 HARPER LAKE RD	HINKLEY CA 92347
049022333	HIGH DESERT LAND ACQUISITION LLC	700 UNIVERSE BLVD	JUNO BEACH FL 33408
049022333	HIGH DESERT LAND ACQUISITION LLC	700 UNIVERSE BLVD	JUNO BEACH FL 33408
049022334	ABENGOA SOLAR LLC	1901 AVENUE OF THE STARS STE	LOS ANGELES CA 90067
049022338	ABENGOA SOLAR LLC	1901 AVENUE OF THE STARS STE	LOS ANGELES CA 90067

APPENDIX A

REVISIONS TO CONDITIONS OF CERTIFICATION

SEGS IX (89-AFC-01C)
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89-AFC-01C Order 01-0510-09 TN 21007

1-1 Deleted

89-AFC-01C Order 01-0510-09 TN 21007

- 1-2**
- a. The project owner shall apply NO_x emission controls to one (1) of the Clark TLA Internal Combustion (I.C.) engines at the Southern California Gas Company's Newberry Springs natural gas compressor station. Those modifications will take the form of any combination of new cylinder heads with pre-combustion chambers, new intake and outlet manifolds and turbocharger to achieve and maintain a NO_x level of 2 grams per brake horsepower-hour (gm/BHP-hr).
 - b. The project owner shall prepare a plan that includes:
 1. a description of the modification work to be done on the selected I.C. engine, including vendor guarantee documentation, and
 2. a schedule of milestones that the work will be performed. All modifications shall be complete by June 1, 1991.
 - c. The project owner shall establish that the emission reduction credits realized by installation of NO_x emission controls to one of the internal combustion engines at Newberry Springs cannot be applied or utilized by any other stationary source.

Verification: The project owner shall submit to the CPM within 90 days after CEC certification the plan described in Condition **1-2b**.

The project owner shall submit to the CPM documentary evidence that the U.S. Environmental Protection Agency determines that the emission reduction credits cannot be applied to or utilized for any other stationary source.

- 1-3**
- a. Luz shall have source tests performed on the modified I.C. engine within 60 days of completion of all modifications. Source testing will be performed by an ARB approved laboratory and will follow EPA test methods in measuring NO_x, CO, CO₂, and O₂.
 - b. Luz shall have periodic source tests performed on the modified I.C. engine to verify the emission mitigation. Those periodic source tests will occur every two years from the anniversary date of the original source test or on a schedule mutually agreed upon by the SBCAPCD, Luz and the CPM.

Verification: Luz shall furnish to the SBCAPCD Executive Officer and the CPM a written report of the results of all source tests within 60 days of each test.

- 1-4**
- a. Luz shall treat by June 1, 1991, the following roads as shown in Figure A with Magnesium Chloride (MgCl) (or equivalent as approved by the CPM) dust-suppressant to reduce fugitive dust emissions:
 - Santa Fe Rd. - 8.7 miles (25 trips) (217.5 VMT)

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- Hoffman/Lockhart Rd. - 4.0 miles (15 trips) (60 VMT)
 - Helendale Road from highway 58 to Helendale for a length that will account for 108 vehicle miles traveled per day. In determining the length of road to be treated, new traffic generated by the Luz projects, its employees, dependents or visitors shall not be counted.
- b. Luz shall reapply the MgCl dust suppressant along the entire length of both roads annually in amounts needed to obtain a 70% reduction in fine particulates. Luz shall also inspect and maintain the dust suppression on these roads on a regular maintenance schedule (no less than once a month) and reapply the dust suppressant, if necessary, to ensure that this level of control is maintained.

Verification: The CEC Staff and CPM shall have access to Santa Fe, Hoffman and Helendale roads to verify compliance with Conditions **1-4a** and **1-4b**.

For Condition **1-4b**, Luz shall notify the CPM when the annual re-application of the MgCl dust suppressant will occur.

In the Annual Compliance Report, Luz shall provide documentation (such as purchase orders for materials and work orders) that verifies the annual application of the dust suppressant and the regular maintenance schedule.

Sixty (60) days following certification, Luz shall submit its methodology & figures for the traffic count on Helendale Road and submit a report indicating the length of road to be treated.

- 1-5** After particulate matter compliance testing of the SEGS IX ~~and X~~ heaters as required by Condition **1-28**, the CEC CPM may revise the PM emission limit of the SEGS IX ~~and X~~ heaters in Condition **1-24** downward to a figure mutually agreed upon by Luz and CEC Staff.

Verification: Within 60 days of submittal of the compliance source testing results to the CPM, Luz and the CEC Staff shall hold a workshop to agree upon a revised PM emission figure for Condition **1-24**.

- 1-6** a. Based on the original PM permit level contained in Condition **1-24** or a new lower figure described in Condition **1-5**, the fugitive dust suppression needed to fully mitigate the fine particle emission from the HTF heaters shall be obtained by treating additional unpaved road surfaces other than the road surfaces described above in Condition **1-4**. The additional length of road treated with dust suppressant like that specified in Condition **1-4** shall be determined based on three VMT per day for every pound per day permitted PM emissions for the SEGS Units IX ~~& X~~ HTF heaters. The first road for dust treatment under this condition shall be any remaining portion of Helendale Road from Highway 58 to Helendale that is not required to be treated in compliance with Condition **1-4**. Luz, with the concurrence of CEC staff, will determine the identity and length of any additional road necessary for fugitive

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dust treatment. In determining the length of road to be treated, new traffic generated by the Luz project, its employees, dependents and-visitors shall not be counted.

- b. The length of road will be treated within 30 days after Luz and the CEC Staff has determined what length of road to be treated. Luz shall then follow the requirements of Condition 1-4b for the annual and regular maintenance of this section of road.

Verification: Within 30 days after a revised PM level for the heaters is incorporated into the Commission Decision, CEC Staff will notify Luz of the length of unpaved Harper Lake area roads that will need to be treated.

For Condition **1-6b**, refer to Verification for Condition **1-4**.

- 1-7** Luz shall submit a source test protocol for measuring PM and emissions from the cooling tower drift.

Verification: The source test protocol shall be submitted to the SBCAPCD and the CEC CPM for approval thirty (30) days prior to the scheduled tests.

- 1-8** The SEGS IX ~~and X~~ cooling towers drift rate (determined by these compliance tests as defined below) shall not exceed 0.0005 percent based on a maximum design circulation rate of 56,100 gallons per minute.

A test procedure plan for particulate testing must be submitted to the SBCAPCD and the CPM for approval thirty (30) days prior to the scheduled tests.

Within 60 days after achieving the initial startup of the heater assembly at ~~both~~ SEGS IX ~~and X~~, Luz shall conduct a compliance test in accordance with test procedures and protocols approved by the SBCAPCD and CEC CPM.

Luz shall furnish the SBCAPCD and the CEC CPM the written results of such compliance test within 45 days after testing.

Luz shall provide written notice of the compliance test to the SBCAPCD and CEC CPM 10 days prior to the test so that an observer(s) may be present. The compliance test will include, but will not be limited to, a test of selected cells for:

- Drift rate, as percent of water circulation rate,
- Water quality, as TDS in ppmv and chemical analysis,
- Emission rates, in pounds/hour for PM. and PM10.

Luz shall also conduct compliance tests every five years to verify the maintenance of the drift and emission rates.

Verification: Luz shall comply with all requirements of the above condition and provide written results of such compliance source tests to the SBCAPCD and the CEC CPM within 45 days after testing.

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1-9 Between sunset and sunrise, Luz shall not perform groundwork construction activities (grubbing, grading, or compacting of soil) in conjunction with other construction activities (solar field concrete placement, solar field erection, power block construction and other support equipment activities). This condition does not apply to the operation of water wagons to control fugitive dust. Luz shall install a continuous air quality monitor(s) at a site to be selected by the CEC CPM and the San Bernardino County Air Pollution Control District, to record levels of nitrogen dioxide (NO₂).

Verification: In the weekly activity report, Luz shall include the schedule of daily work activities. Luz shall specifically identify all construction activities scheduled between sunset and sunrise.

Luz shall submit weekly monitoring data to the CEC CPM no later than 10 days after the NO₂ monitoring data is collected. Also refer to Verification to Condition **1-20**.

1-10 Beginning on March 1, 1990, and ending on December 31, 1992, Luz shall collect the following information from the operation of the SEGS VIII heaters:

- A reporting of occurrences when the daily NO_x emissions from SEGS VIII is above 300 lb/day.
- An explanation of the circumstances of why the NO_x emissions were above 300 lb/day.

The explanation will include information, where available, on wind speeds where loss of efficiency or solar panel stow was necessary, solar insolation related to cloud cover, equipment malfunction of the solar collection systems such that additional heater use was necessary, forced operation by SCE was necessary, and additional gas consumption based solely on economic (revenue generating) reasons.

This Condition is not to be construed as-a revised NO_x level for SEGS VIII, but rather as a collection of data.

Verification: Luz will provide in to the CPM monthly reports of data requirements specified above.

1-11 Applicable District Rules. Luz is required to meet and comply with all applicable rules and regulations of the San Bernardino County Air Pollution Control District (SBCAPCD). Concurrent with filing a petition for a variance to the SBCAPCD Hearing Board, excluding petitions for variance per SBCAPCD Rule 430(c), Luz shall submit-that petition for CPM review and approval.

Verification: In the Annual Compliance Report, Luz shall provide the CPM a statement attested to by the responsible Luz agent that the SEGS IX ~~and X~~ project is in compliance with all air quality terms and conditions of certification.

Luz shall also submit to the CPM a summary of all Luz-SBCAPCD correspondence relative to any non-compliance or potential non-compliance if not otherwise provided.

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Luz shall submit to the CPM all petitions for variances as prescribed by Condition **1-11**.

1-12 Other Applicable Regulations. The owner and operator of SEGS IX ~~and X~~ shall assure that the construction and operation of the proposed stationary source SEGS IX ~~and X~~ is in compliance with all applicable provisions of federal (specifically, but not limited to, 40 CFR Section 60.7, 40 CFR Section 60.8, 40 CFR Section 60.13, 40 CFR Section 60.47a, 40 CFR Section 60.48a and 40 CFR Section 60.49a) and state air quality regulations, as well as those of the SBCAPCD.

Verification: In the Annual Compliance Report, Luz shall provide the CPM status reports for the Code of Federal Regulation Requirements discussed above.

1-13 Permit Conditions: The New Source Review and SBCAPCD permits are considered by the SBCAPCD to be specific limitations for this proposed project. Any changes to the operations which change emissions will be subject to a separate and independent SBCAPCD and CPM review. Also, SBCAPCD required emission controls cannot be changed without the SBCAPCD's Executive Officer and CPM approval.

Verification: Sixty (60) days before implementing any major change identified above, Luz shall submit to the SBCAPCD and the CPM the design details of the proposed change and a discussion of the potential change in air emissions from the project. Luz shall receive written approval from the CPM prior to instituting said change.

[89-AFC-01C Order 91-0320-09f](#)

[89-AFC-01C Order 01-0510-09 TN 21007](#)

1-14 Best Available Control Technology (BACT) Requirement. The project owner shall be required to install and maintain heater burners to control NO_x emissions and CO emissions accepted and shown by the MDAQMD current Permits to Operate. This requirement is more restrictive than BACT (80 ppmv) for NO_x as previously determined by the MDAQMD. BACT for this particular application is ~~100 ppm~~ and shall be verified by annual compliance test and maintained by good engineering practice and proper operating technique. Compliance with emission limits (lbs/hr) shall be met when the load level is equal to or greater than 20 percent of design capacity. As BACT for cooling tower particulate emissions control, the project owner shall be required to install drift eliminators designed for 0.0005 percent maximum drift rate.

Written approval from the MDAQMD's Executive Officer and the CPM is necessary prior to installing any change in previously approved BACT or more stringent controls specified herein. Such changes will be, in general, limited to revisions, which reduce emissions and/or improve air quality beyond the levels presented in this review.

Verification: Sixty (60) days before implementing any change to the NO_x emissions control equipment, use of the equipment, or control efficiencies, the project owner shall

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submit to the MDAQMD and the CPM the design details (including "Approved for Construction" drawings), operation procedure changes, or control efficiency changes. The project owner shall not precede with any changes described above until written approval is received from the CPM. The project owner shall submit to the CPM copies, when they are available, of the purchase orders maintenance records for the cooling tower drift eliminators that includes the specification of 0.0005 percent maximum drift.

1-15 Design Changes. Any substantial changes to the design, as permitted, must be submitted to the SBCAPCD and the CPM for approval prior to incorporation into the facility design, construction and/or operation. A substantial change, as defined in this condition, includes any modifications to the design or operation of the air emissions control system (AECS), continuous emissions monitoring system (CEMS), or the air emissions computer control system (CCS).

Verification: Sixty (60) days before implementing any change to the oil heater system, emergency generator, emergency fire pump or cooling tower, Luz shall submit to the SBCAPCD and the CPM the design details of the proposed change (including "Approved for Construction" drawings), and a discussion of the potential change in air emissions.

Luz shall not proceed with any changes described above until receiving written approval from the CPM.

1-16 Luz shall apply water as a dust palliative to the areas of ground in between the rows of solar arrays during the normal mirror washing activities.

Verification: Luz shall make the SEGS IX ~~and X~~ site available for inspection by the SBCAPCD, CARB, and CEC staff.

1-17 Notification of Commencement of Construction and Startup. Luz must notify the SBCAPCD Executive Officer and the CPM in writing of the anticipated date of initial start-up (as defined in 40 CRF 60.2{o}) of each functional subsystem or facility at SEGS IX ~~and X~~ and the actual date of commencement of construction and start-up.

Verification: Luz shall submit copies in the Monthly Construction Reports of correspondence between Luz and the SBCAPCD Executive Officer of the anticipated date of initial start-up not less than thirty (30) days prior to such date.

Luz shall also notify the CPM in the Monthly Construction Reports of the actual dates of commencement of construction and start-up within fifteen (15) days after such dates.

1-18 Facilities Operation. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of the Commission Decision's Conditions of Certification shall, at all times, be maintained in good working order and operated as efficiently as possible consistent with minimum air pollutant emissions, and with the levels specified herein.

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Verification: Luz shall make the SEGS IX ~~and X~~ site available for inspection by the SBCAPCD, CARB, and CEC staff.

1-19 Malfunction/Breakdown Provisions. The SBCAPCD shall be notified of any process anomaly, malfunction of any air pollution control equipment, or malfunction of process equipment which results in a violation of applicable SBCAPCD rules, emission limits or conditions required herein. Notification shall be made promptly, and in accordance with SBCAPCD regulations (generally within one hour of the malfunction or within one hour of the time the malfunction reasonably should have been detected). The estimated time for repair or correction of the malfunction shall be reported as soon as possible thereafter. Typically, the SBCAPCD expects repairs to be completed within 24 hours or within a time determined to be reasonable by the SBCAPCD Executive Officer. In the event equipment repairs cannot be accomplished promptly, the owner/operator must either shut down the equipment, or petition the SBCAPCD Hearing Board with an amendment pending correction of the malfunction of the process or control equipment. Luz shall also notify in writing the CPM of the petition to the SBCAPCD Hearing Board. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense for any violations of the Commission Decision or of any law or regulations which such malfunction may cause.

Verification: Luz shall notify the SBCAPCD, per the requirements of the SBCAPCD rules and regulations, of any malfunction described above.

In the Annual Compliance Report, Luz shall submit a summary of all malfunctions reported to the SBCAPCD and the appropriate actions taken. This information shall include, but not be limited to: a complete description of the malfunction including equipment failure(s) or procedural deviations, the time and day the malfunction occurred, the duration of the malfunction, the pollutant(s) and quantity of emissions as a result of the malfunction, and the mitigation measures employed to correct the malfunction. In the event Luz petitions the SBCAPCD Hearing Board for an amendment, Luz shall submit copies of the application for an amendment to the CEC CPM.

1-20 Right to Entry. The Executive Officer of the SBCAPCD, the Executive Officer of the California Air Resources Board, the Administrator of the Environmental Protection Agency, and the Executive Officer of the California Energy Commission and/or their authorized representatives, upon the presentation of credentials, shall be permitted:

- a. To enter upon the premises where the source is located or any location where records are required to be kept under the terms and conditions of the Commission Decision's Conditions of Certification or Permit to Operate; and

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- b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of the Commission Decision's Conditions of Certification, or Permit to Operate; and
- c. To inspect any equipment, operation, or method required in the Commission Decision's Conditions of Certification, or Permit to Operate; and
- d. To test for or otherwise sample emissions from the source.

Verification: Luz shall make the SEGS IX ~~and X~~ site and records available for inspection by the SBCAPCD, CARB, EPA and CEC during both construction and operation of the project.

1-21 Transfer of Ownership. In the event of any changes in control or ownership of facilities to be constructed or modified, the Commission Decision/Permit to Operate shall be binding on all subsequent owners and operators. Luz shall notify the succeeding owners and operators of the existence of the Commission Decision/Permit to Operate and its conditions by letter, with a copy forwarded to the SBCAPCD and the CPM.

Verification: If control or ownership of SEGS IX ~~and or SEGS X~~ is transferred to new owners or operators, Luz shall notify the CPM in writing within 10 days of that change of ownership or operation responsibility. Luz shall forward copies of the notification to succeeding owners and include the appropriate Commission Decision/Permit to Operate correspondence to the SBCAPCD and the CPM.

1-22 Severability. The provisions of the Commission Decision are severable, and, if any provision of the Commission Decision is held invalid, the remainder of the Commission Decision shall not be affected thereby.

Verification: No Verification.

[89-AFC-01C Order 91-0320-09f](#)
[89-AFC-01C Order 01-0510-09 TN 21007](#)

1-23 Emission Limits - Installation and Testing Phase.

- a. During the plant installation, start up and acceptance testing phase, which shall continue through the completion of the MDAQMD's required compliance tests, the project owner shall be required to apply the best commonly accepted heater operating procedures and techniques to comply with emission limits of Tables A and B and statutory limits set forth in the MDAQMD Rules and Regulations..

**TABLE A
Emission Concentrations/Factors (Vendor Supplied)**

ITEM	PARTICULATE	NOX	SOX	CO
HTF Heater	5 lb/10 ⁶ scf natural gas per EPA AP-42 ^a	25 ppm	Negligible	35 pm

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Diesel Generator	.25 gm/hp-hr	8.0 gm/hp-hr	Negligible	1.4 gm/hp-hr
Diesel Fire Pump	.25 gm/hp-hr	8.0 gm/hp-hr	Negligible	1.4 gm/hp-hr
Cooling Tower	.0005 % drift rate	0	0	0

TABLE B
Hourly Emissions Pounds per Hour at Maximum Continuous Rating

ITEM	PARTICULATE	NOX	SOX	CO
HTF Heater	5.2 ^{ab}	30.6	Negligible	30.0
Diesel Generator	1.0	31.7	Negligible	5.6
Diesel Fire Pump	0.1	3.5	Negligible	0.6
Cooling Tower	3.5	0	0	0

- b. HTF heater operations in excess of 16 hours per day at maximum rating may be allowed for acceptance testing and other testing required by Southern California Edison (SCE) as a prerequisite for connection to the SCE power grid. The project owner is required to submit a letter that delineates the required testing and must obtain MDAQMD Executive Officer and CPM approval prior to the proposed tests.
- c. The emission estimates are based on an emission factor of 25 ppm NOx. These emission factors are volumetric measures, which are corrected to 3 percent oxygen on a dry basis. The NOx emission limit, per in pounds per hour, based on these special conditions, will be verified by compliance source tests which shall be conducted in strict accordance with all the requirements of a compliance test as defined by federal and state methods.
- d. If the 25 ppm limit is met during the engineering source tests, the MDAQMD and the CPM shall accept the test results as a demonstration/verification of compliance.
- e. Emissions during the installation, acceptance, and testing phase shall be minimized and all instances of known or suspected emissions in excess of the total for the aggregate project as shown in **Table IIIA**, which are a result of installation/maintenance shall be reported as a breakdown, Rule 430, and in writing to the MDAQMD in a monthly summary letter report. Planned operations such as acceptance tests, demonstration of firm operation or any other testing or acceptance procedure that will cause a known exceedance of Table IIIA emissions as specified above shall be reported to the MDAQMD and the CPM in writing at least 15 days prior to the scheduled start of the test or procedure. The project owner may not commence with the subject test or procedure until written approval is granted by the CPM. Fuel usage will be recorded and reported as required by Condition **1-24**.

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- f. If the initial compliance test indicates that the gas fired HTF heater (using the Alzeta Pyrocore burner) emissions do not comply with the NO_x emission limit of 25 ppm, the project owner shall be required to submit a report, within 60 days of submission of the compliance test report, describing the cause of the higher emission concentration and a plan which identifies appropriate technical changes of measures and the schedule that will be undertaken based on the Alzeta Pyrocore burner technology, to reach the NO_x emission limit. Upon approval by the MDAQMD's Executive Officer and the CPM, the project owner shall implement the approved changes contained in that plan.

Verification: Refer to verification to Conditions **1-28**, **1-29** and **1-30**.

For Condition **1-23b**, the project owner must provide written notification to the CPM and receive written approval from the CPM prior to the proposed test.

For Condition **1-23e**, the project owner must provide written notification to the CPM at least 15 days prior to the test or procedure and receive written approval from the CPM prior to the proposed test or procedure.

For Conditions **1-23f**, the project owner shall submit, if necessary, to the MDAQMD and the CPM, the report described above within 60 days of the submission of the compliance test report.

[89-AFC-01C Order 91-0320-09f](#)

[89-AFC-01C Order 01-0510-09 TN 21007](#)

1-24 Operational Phase. Upon completion of the installation, startup and acceptance testing phases, which includes the MDAQMD's required performance tests, the operation of the heaters, diesel generator and fire pump, and cooling tower shall conform to the emission concentration factors and hourly, daily and annual emissions contained in **Tables I, II and IIIA & IIIB**.

The operation of the cooling tower will be restricted to no more than 4000 hours per calendar year.

Verification: Refer to Verification to Condition **1-29**. The project owner shall provide in each quarterly report daily number of hours of operation of the cooling tower induced draft fans.

TABLE I
EMISSION CONCENTRATIONS/FACTORS (VENDOR SUPPLIED)

ITEM	PARTICULATE	NO _x	SO _x	CO
HTF Heater	5 lb/10 ⁶ scf natural gas per EPA AP-42 ^a	67 ppm	negligible	350 ppm
Diesel Generator	.25 gm/hp-hr	8.0 gm/hp-hr	negligible	1.4 gm/hp-hr
Diesel Fire Pump	.25 gm/hp-hr	8.0 gm/hp-hr	negligible	1.4 gm/hp-hr

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Cooling Tower	.0005 % drift rate	0	0	0
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a This figure subject to revision per the requirements of Condition 1-5.

TABLE II
HOURLY EMISSIONS POUNDS PER HOUR AT MAXIMUM CONTINUOUS RATING

ITEM	PARTICULATE	NO _x	SO _x	CO
HTF Heater	5.2 ^{ab}	81.2	negligible	248
Diesel Generator	1.0	31.7	negligible	5.6
Diesel Fire Pump	0.1	3.5	negligible	0.6
Cooling Tower	2.8	0	0	0

a Particulate from the natural gas fired HTF Heaters are assumed to be 100 percent PM10.

b This figure subject to revision per the requirements of Condition 1-5.

TABLE IIIA
DAILY AND ANNUAL MAXIMUM HEATER EMISSION SUMMARY
FOR SEGS IX

Emission Rate	Particulate	NO _x	CO
Lb/day ^a	83.2	580	550
Ton/year ^b	2.6	27.9	26.5

a Based on maximum of 16 hours per day of operation of the RTF heaters at maximum continuous rating.

b Based on maximum of 1000 hours operation of the HTF heater at maximum continuous rating.

TABLE IIIB
DAILY AND ANNUAL MAXIMUM COOLING TOWER EMISSION SUMMARY

Emission Rate	Particulate
Lb/day ^a	45
Ton/year ^b	5.6

a Based on maximum of 16 hours per day of operation of the cooling tower,

b Based on maximum of 4000 hours of operations of the cooling tower.

1-25 The Commission's Decision Conditions of Certification only allow the use of commercial grade natural gas as a fuel for the HTF heater.

Verification: Refer to Verification to Condition 1-24.

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1-26 Opacity Limit. Prior to the date of startup and thereafter, individual pieces of fuel burning equipment shall not discharge, or cause the discharge into the atmosphere of any emissions which exhibit an opacity of 10 percent or greater for any period or periods aggregating more than six minutes in any one hour, or exhibit an opacity of 20 percent or greater for any period or periods aggregating more than three minutes in any one hour.

Verification: Luz shall provide the SBCAPCD and the CEC staff access to the SEGS IX ~~and X~~ project site to verify/monitor visible emissions.

89-AFC-01C Order 01-0510-09 TN 21007

1-27 Continuous Emission Monitoring (CEM). The owner/operator must install and operate in-stack CEM equipment for NO_x and O₂ as required by 40 CFR Part 60, Subpart Da and Appendix B. The systems shall meet the applicable EPA monitoring performance specifications of 40 CFR 60.13, Appendix B.

Verification: At least 90 days prior to installation of the Continuous Emission Monitoring system, the project owner shall submit to the MDAQMD an emissions monitoring system plan demonstrating compliance with CFR requirements listed above. The project owner shall submit the annual relative accuracy test audit (RATA) results to the CPMM either with the annual source test results or in the annual report.

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89-AFC-01C Order 01-0510-09 TN 21007

1-28 Compliance Tests. Within sixty (60) days after achieving maximum electrical generation capability, but not more than 180 days after initial startup, the owner or operator of SEGS IX shall conduct a compliance test on each installed unit to determine/verify the emissions with regard to compliance with the MDAQMD rules and Permit to Operate conditions. The project owner shall also perform annual compliance test in accordance with the MDAQMD Compliance Test Procedural Manual.

Standard EPA test methods or CARB Method I-100 shall be used to conduct the compliance test for particulate (PM₁₀), NO_x, CO, CO₂ and O₂. A test procedure plan must be submitted to the MDAQMD for approval thirty (30) days prior to the scheduled tests. Results shall be reported in concentration units (parts per million at standard conditions specified in applicable rules), pounds per hour, pounds per unit of fuel, and pounds per hour at the maximum hourly fuel rate. All volumetric concentrations (e.g., ppm) units shall be on a dry basis corrected to 3 percent oxygen.

Compliance tests on the SEGS IX heaters for particulate will be conducted with the initial compliance testing and every five years thereafter or more often if required by the MDAQMD.

Verification: The owner(s) or operator(s) shall notify the MDAQMD Executive Officer and the CPM 30 days prior to the compliance test to afford the MDAQMD Executive Officer the opportunity to have an observer present. The owner or operator shall make available to

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the MDAQMD Executive Officer and the CPM such records as may be necessary to determine the conditions of the compliance tests.

The project owner shall furnish the MDAQMD Executive Officer and the CPM a written report of the results of each compliance test within 45 days from the completion of the test, but not later than six (6) weeks prior to the expiration date of the MDAQMD Permit to Operate. If the project owner submits a test plan for alternate test procedures, the project owner shall not conduct such compliance tests until written approval is received from the MDAQMD.

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1-29 Monitoring Plan/Reporting Requirements. The project owner is required to have a Monitoring Plan, approved by the MDAQMD prior to startup, for the monitoring and recording of all natural gas consumed at the site, and the hours of operation for SEGS IX. Also this plan shall include quarterly reporting procedures of emission data from the continuous emission monitoring systems (CEMS) to verify compliance. A section of the Monitoring Plan shall address the requirement that the BTU's generated as a result of burning fossil fuel in each unit (heater) shall not exceed 25 percent of the energy supplied to each individual power block on an annual basis. This section shall, at a minimum, show a projection of how this 75 solar/25 fossil fuel ratio will be attained for the year on a month by month basis.

In reporting fuel consumption the actual fuel use shall be compared with the projection and the projection shall be updated based on the actuals. The actual hours of operation and therms used per day for the HTF heater shall be presented and the equivalent hours of operation at maximum continuous rating shall be calculated and presented. System specific natural gas flow or totalizing meters shall be certified, and recertified, in accordance with the servicing utility company's schedules for the same or equivalent meters.

The Monitoring Plan shall describe the daily operating parameters that will be recorded, the method of recording and sample calculations of the use of this data to verify compliance with MDAQMD requirements.

The Monitoring Plan shall include a reporting format and a schedule for reporting and submitting quarterly reports of daily plant operations to the MDAQMD. This plan shall include, in addition to the fuel use data indicated above, the following emissions data: daily total pounds of emissions and the maximum emissions in both ppm, (at 3% O₂, dry) and pounds/hour for the continuously monitored (CEM) pollutant NO_x; quarterly total tons emitted for NO_x based on CEM data and particulate and CO based on results of Compliance Test data and fuel consumption; number of exceedances of the permit condition limits and, for each exceedance, the number of hours of exceedance and the maximum value associated with the exceedance.

The First Quarterly Report shall cover all operations from start-up to the end of the calendar quarter. Subsequent quarterly reports shall be by calendar quarter.

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Verification: Thirty (30) days prior to the startup of the SEGS IX heaters, the project owner shall submit a Monitoring Plan for approval by the MDAQMD and the CPM for the information required above.

The project owner shall submit quarterly reports that include the data required above, to the MDAQMD. Each quarterly report shall be delivered to the MDAQMD no later than 30 days following the end of the reported quarter.

1-30 Operating Logs. Luz is required to maintain the appropriate daily operating logs and charts at the site, and retain them for a period of not less than one year, and to make available such records for inspection by the SBCAPCD, CARB and CEC staff on request. Logs shall provide all information as required by the monitoring plan of Condition **1-29**.

Verification: Luz shall make the daily operating logs available at the site of SEGS IX ~~and X~~ for inspection by the SBCAPCD, CARB, and CEC staff.

1-31 Luz shall continue to monitor ambient air quality at the site beyond the required minimum of one year, until sufficient data has been gathered to verify the modeling inputs to the satisfaction of the SBCAPCD's Executive Officer.

Verification: Luz shall submit in the quarterly compliance reports to the CPM the ambient monitoring data summary reports. Luz may cease submitting the ambient monitoring data only after receiving written approval to do so by the SBCAPCD Executive Officer.

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1-32 The control of fugitive dust during construction and operation shall be in compliance with SBCAPCD Rules 401, 402 and 403 as required. Luz is required to submit a dust control plan for the construction and operational phases. This plan must be approved by the SBCAPCD's Executive Officer prior to the initiation of any construction or operation of SEGS IX ~~and X~~.

Verification: Refer to Condition **1-20**. Luz shall submit the dust control plan described above to the SBCAPCD and CEC CPM and receive approval from the SBCAPCD prior to commencement of construction of SEGS IX ~~and X~~.

1-33 The Diesel Generator Set and Diesel Fire Pump shall use only low sulfur diesel fuels, which contain 0.5 percent or less sulfur by weight.

Verification: Luz shall include in the Annual Compliance Reports submitted to the CPM, records of fuel oil purchased that shall include sulfur content, and quantity and Btu content of the fuel oil.

1-34 Control of Unregulated Pollutants. Hexavalent chromium compounds, used as corrosion inhibitors, shall not be used in the cooling tower water circulating system. The heat transfer fluid (HTF) which is an eutectic mixture of biphenyl (26.5 percent) and diphenyl oxide (73.5 percent) may decompose to yield

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benzene, a listed Toxic Air Contaminant (TAC). Since leaks, spills and venting of the ullage HTF tank can release the HTF into the atmosphere, appropriate precautionary measures and prompt response, as required in the "Safety Plan" developed by Luz and approved by the SBCAPCD and the CPM, shall be strictly adhered to.

In addition, because the identification of toxic or hazardous substances is an ongoing process, new control strategies and regulations are being developed and implemented which may impact existing permitted facilities. Should such substances be identified as emissions from the SEGS IX ~~and X~~ facilities, the SBCAPCD may, and the CPM will require that Luz provide additional analysis, data, or demonstration of compliance with such applicable regulations.

Verification: For verification of cooling tower corrosion inhibitor compounds, refer to **Public Health Condition 6**.

For HTF containment, refer to **Public Health Conditions 1 and 2**. If current non-criteria substances become regulated as toxic or hazardous substances and are used or emitted by Luz, Luz shall submit to the CPM a plan demonstrating how compliance will be achieved and maintained with such regulations.

Luz shall submit this plan concurrent with the first required submission to any governmental agency and within the time specified in any new toxic substance control regulations. This plan is subject to SBCAPCD approval.

1-35 Permit to Operate. Approval, denial, or modification of Permits to Operate for the SEGS IX ~~and X~~ equipment will be made after verification that installed equipment is the same or equivalent equipment to that which was evaluated and approved in the SBCAPCD DOC and the Commission Decision.

In addition, appropriate source testing is required to determine whether the approved installed equipment can be operated in compliance with the Rules and Regulations of the San Bernardino County Air Pollution Control District, and the General and Specific conditions specified in the SBCAPCD DOC.

Verification: Luz shall submit copies of the PTO for SEGS IX ~~and X~~ to the CPM within 15 days after receipt of the PTO from the SBCAPCD.

89-AFC-01C Order 91-0320-09f

1-36 The NOx emission controls of the Alzeta Pyrocore burners for SEGS IX ~~and the Coen burners and flue gas recirculation for SEGS X~~ shall be fully operational upon startup of the heaters and shall be enforced by conditions including, but not limited to, the emission limits of Condition **1-37**.

Verification: Refer to verification to Condition **1-23**.

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1-37 Emission Limits. The NO_x emissions (as NO₂) and CO from the aggregate of all equipment at SEGS VIII and IX shall be limited to 547 pounds per day, for each pollutant, calculated on a rolling annual average. (Day is defined as any 24-hour period beginning at midnight.) The annual emissions of NO_x (as NO₂) shall not exceed 55.8 tons calculated on a rolling annual average. Sources of emissions included and subject to this limitation shall include the following:

1. HTF Heaters for SEGS VIII and IX.
2. Diesel Generator Set for SEGS VIII and IX.
3. Diesel Fire Pumps for SEGS VIII and IX.

NO_x emissions are restricted to the values in **Tables I, II, and III** of this Commission Decision and shall be calculated as follows:

- a. For the HTF heaters, NO_x emissions shall be determined using the CEM data for NO_x and flue gas flow rates for the aggregate of the four heaters sub-units at each SEGS.
- b. For the diesel generator sets, and diesel fire pumps, NO_x emissions shall be determined using EPA Test Method 7, and calculated and recorded daily based on actual hours of operation of that day.

CO and particulate emissions are restricted to the values in **Tables I, II, and III** of this Commission Decision and shall be calculated based on compliance test results, fuel use data, and hours of operation.

Compliance with this emission limit shall be determined by using the CEM and fuel use data, and calculating an arithmetic average of the previous 365 days of emissions as defined in Condition **1-39**.

Verification: The project owner shall submit quarterly reports that include the data required above, to the MDAQMD and the CPM.

1-38 Missing CEM data. For any period during which the heaters at SEGS IX ~~and X~~ have combusted fuel, but for which the CEM system was not operative, NO_x emissions shall be determined using the previous 24 hours of emissions data during which the heaters were operational to calculate an average emissions concentration (in pounds/million BTU). This average rate, and fuel use data for the period of missing data, shall be used to calculate the emissions for that period. The above section does not provide defense for any violations of the 40 CFR 60 requirements.

Verification: Luz shall submit quarterly reports that include the data required above to the SBCAPCD, and copies of these quarterly reports in the Annual Compliance Report to the CPM.

89-AFC-01C Order 01-0510-09 TN 21007

1-39 Notification and Record Keeping. The project owner shall meet all applicable requirements of 40 CFR 60.7, and the following additional requirements:

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1. The project owner shall notify EPA and the MDAQMD by telephone and submit a written report of all excess emissions to EPA every calendar quarter for the first two years of HTF heater operation.
2. For the purpose of this condition, excess emissions shall be defined as any excess over the 547 pounds per day limit as defined in Condition **1-37**.
3. Excess emissions as defined in Condition **1-37**, and as measured by the CEM systems, shall be considered a violation of this permit for the purposes of MDAQMD and EPA enforcement.
4. The project owner shall maintain a file of the CEM data, all fuel use records, and all records and copies of source tests performed on any emissions unit at the SEGS IX site. All information shall be recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurement, calculations, reports and records. EPA, MDAQMD, and the CEC CPM or their designated representatives shall be granted access to these records upon request.

Verification: Refer to verifications for Conditions **1-19**, **20** and **30**.

1-40 Prevention of Significant Deterioration (PSD) regulations. EPA has exempted the SEGS VIII, ~~and IX~~ projects based on information provided by Luz and the Determination of Compliance issued by the SBCAPCD. Any change in equipment or conditions that increases the project's potential to emit above the applicable PSD threshold (100 tons per year) will require a full review of the source as though construction has not yet commenced on the source.

Should EPA determine, in the future, based on new or revised information, that the SEGS VIII, ~~and IX~~ projects are a major source or major modification, then the owners of the SEGS IX ~~and-X~~ project will have to immediately apply for a federal PSD permit. All requirements of the PSD regulations will have to be satisfied even though construction may be complete. In the event, for example, that vendor guaranteed emissions rates are not achieved, it will still be Luz's responsibility to comply with all PSD regulations or continued operation of SEGS IX ~~and-X~~ prior to receiving a final PSD permit may subject the SEGS IX ~~and-X~~ project to federal enforcement action pursuant to Section 113 of the Clean Air Act.

Verification: In the event that there is alteration of any equipment at SEGS IX ~~and-X~~ with the potential to result in changes in air emission rates, refer to verification to Condition **1-13**. If Luz fails to meet the 100 tons per year PSD limit, Luz shall notify the EPA, SBCAPCD and CEC CPM within 30 days after the rolling annual average period applicable to the 100 ton limit.

1-41 Luz shall not fire or operate the SEGS Units IX ~~or-X~~ HTF heaters until the cause of the SEGS Unit VIII January 10, 1990 accident has been determined and design deficiencies, if any, have been corrected. LUZ must obtain in writing

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concurrence from the San Bernardino County Fire Department and the CEC CPM that design deficiencies, if any, have been corrected and that the burners meet all safety standards. Luz then must request in writing and receive in writing permission from the SBCAPCD prior to any operation or firing of the heaters.

Verification: In the weekly activity reports, Luz shall submit all documentation between Luz and the San Bernardino County Fire Department and between Luz and the SBCAPCD concerning the SEGS Unit VIII fire, design changes (if any), and the operational status of the SEGS Unit IX ~~and X~~ heaters.

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BIOLOGICAL RESOURCES CONDITIONS OF CERTIFICATION

1 Luz shall enter into an agreement with the California Department of Fish and Game (CDFG) in which Luz will provide for the purchase, enhancement, and management of suitable Mohave ground squirrel habitat to compensate for that eliminated or subject to long-term disturbance as a result of construction of SEGS IX & X and any ancillary facilities. Such compensatory lands are to be at least equivalent to that originally found on the SEGS sites in their ability to support Mohave ground squirrel populations and are to be acquired at a ratio of 5 acres for each acre permanently lost and 2 acres for each acre temporarily disturbed on non-cultivated land. Habitat shall be dedicated for this purpose in perpetuity. Funds to purchase habitat shall include sufficient funds to undertake enhancement measures deemed appropriate to the site by the CDFG (such as fencing, trash removal, reseeding) and to provide for continued management (e.g., patrolling) and maintenance activities (e.g., fence mending) in perpetuity. Such management and maintenance shall be provided for by means of an endowment of principal in an amount sufficient to generate annual income at reasonably achievable interest rates or yields sufficient to provide for these activities.

Luz shall also provide for the purchase, enhancement, and management of off-site habitat for desert tortoises at a ratio of 5 acres for each acre permanently lost, 2 acres for each acre temporarily disturbed on non-cultivated land (see above discussion for the Mohave ground squirrel). This habitat shall be dedicated for this purpose in perpetuity.

Staff estimates there will be 336 acres of permanent habitat loss. Temporary habitat loss for both the Mohave ground squirrel and the desert tortoise shall be monitored throughout project construction and assessed at an appropriate time that will be determined by the CEC Compliance Program Manager (CPM) in consultation with the CDFG. Staff believes it will be feasible to identify habitats for compensation which will satisfy requirements for both the Mohave ground squirrel and the desert tortoise. In cases where habitat is to satisfy the needs of both species, the amount shall be based on the animal with the greatest need as specified by the CDFG and provided for in the agreement between the CDFG and Luz, but subject to Bureau of Land Management (BLM) and U.S. Fish and Wildlife Service (USFWS) concurrence.

The habitat shall be dedicated to the purpose of supporting Mohave ground squirrel, desert tortoise and other native wildlife and plants in perpetuity and the title of ownership of all suitable habitat parcels shall be transferred to the CDFG according to the schedule adopted in the agreement. Luz shall set aside funds for the enhancement, management, and maintenance of the habitat purchased. Management and maintenance funding is to be guaranteed in perpetuity.

In determining the necessary amount of funding, the following costs shall include, but not be limited to:

1. the cost of identification and purchase of appropriate parcels if not purchased by Luz;

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2. the cost of perimeter fencing to exclude sheep and other domestic livestock;
3. the cost of posting the property;
4. the cost of enhancements to the habitat (debris removal, restoration of disturbed sites);
5. the cost of maintaining improvements (e.g., fence repair); and
6. the cost of periodic patrols to exclude trespassers and to monitor the integrity of the fencing and other conditions.

The estimated management and maintenance cost per acre shall be provided through initial funding of an endowment.

Luz shall notify the CEC CPM when proposed compensation parcels are presented to the CDFG for title transfer and identify the location of each parcel.

Luz shall notify the CEC CPM each time a parcel is identified, reviewed by the CDFG, the BLM, the USFWS, and jointly approved for transfer of title to the CDFG.

Verification: Within 30 days after the CEC Decision on the SEGS IX & X project, Luz shall enter into an agreement with the CDFG. Within five (5) days after all parties have signed the agreement, but no later than 35 days after the CEC Decision on the SEGS IX & X project, Luz shall provide the CEC CPM a signed copy of the agreement with the CDFG. Luz will notify the CEC CPM each time a parcel is identified, reviewed by the CDFG, the BLM, the USFWS, and jointly approved for transfer of title to the CDFG.

- 2 Luz shall not begin site preparation until a qualified biologist has been designated to advise on the implementation of these conditions of certification, and to supervise or conduct mitigation, monitoring, and other biology compliance efforts.

The designated biologist shall be responsible for providing the project construction engineer with advice regarding biological resource mitigation implications of any surface disturbing action to be carried out for this project. Until an action, which shall conform to the certified project design, is reviewed and approved by the designated biologist, work cannot proceed. Any such approvals shall be documented in writing.

Luz shall assure that the designated biologist meet the following minimum qualifications:

1. a bachelor's degree in biological science, zoology, botany, ecology, or a closely related field and
2. current certification of a nationally recognized biological society, such as the Ecological Society of America or the Wildlife Society or a minimum of three years experience in field biology.

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The biologist must demonstrate to the satisfaction of the staff appropriate education and experience for the biological tasks. The supervising construction or operation engineer will act on the advice of the biologist to ensure conformance with the Biological Resources Mitigation Implementation Plan (BRMIP) and the terms and conditions of CEC certification.

At least 30 days before starting site preparation, Luz shall provide to the CEC CPM for review and approval, the name, qualifications, address, and telephone number of the designated biologist. If there is to be a subsequent change in who the designated biologist will be, Luz shall obtain approval of the new biologist by submitting to the CEC CPM the name, qualifications, address, and telephone number of the proposed replacement. An interview by the CEC CPM may be required.

Verification: At least 30 days prior to site preparation, Luz will submit to the CEC CPM the name, qualifications, address, and telephone number of the individual selected as the designated biologist. If there is to be a change in who the designated biologist will be, Luz will submit the name, qualifications, address, and telephone number of the proposed replacement.

- 3** Prior to any surface disturbance on SEGS Unit IX ~~& X~~ or on areas where ancillary project facilities exist, the designated biologist shall conduct or supervise the designation of off-limit areas where surface disturbance is to be avoided. Such areas shall be defined by temporary taping or flagging in conjunction with posting signs prohibiting entrance of construction crews.

Surface disturbance of any native habitats shall be strictly controlled so as to minimize impacts. Parking areas and temporary construction yards shall be sited on previously disturbed habitat to the maximum extent feasible.

Any surface disturbance to be carried out for this project that is not reflected in the certified project design and has not previously been reviewed for biological resource implications and approved by the designated biologist in consultation with the CEC CPM, shall not proceed until said biologist determines that the disturbance will cause no significant impacts and, in consultation with the CEC CPM approves the action to be taken.

All such approvals shall be documented in writing by the designated biologist who, in turn, shall notify the CEC CPM through weekly activity reports when such approved actions are scheduled to take place.

Verification: Prior to initiating actions necessary for implementing this condition of certification, Luz will notify the CEC CPM via a Weekly Activity Report as required through the Compliance General Provisions.

- 4** Off-road travel by Luz personnel, contractors, and subcontractors, shall be prohibited in all native habitats considered sensitive biological areas associated with the project during construction and operation. Such areas shall be posted

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prior to initiation of construction. Limitation of off-road travel and reasons for restrictions shall also be discussed in the employee environmental awareness program.

Off-road travel restrictions shall apply to native habitats adjacent to the SEGS Unit IX ~~& X~~ project site and to native habitats on all other Luz property. Restrictions shall also be extended to the area of the Harper Lake wetlands.

Notwithstanding the above restrictions governing off-road travel, the designated biologist and/or personnel under his or her supervision, in carrying out appropriate duties, may travel off-road as is necessary to successfully complete assigned tasks.

Verification: Prior to initiating actions necessary for implementing this condition of certification, Luz will notify the CEC CPM via a Weekly Activity Report as required through the Compliance General Provisions.

- 5** Desert tortoise salvage and relocation shall be conducted within all areas with appropriate habitat that are to be disturbed for drainage system construction.

Prior to tortoise salvage and relocation, the designated biologist shall have obtained a Memorandum of Understanding from the CDFG along with federal approval through a Section 7 Consultation or other appropriate federal authorization and all actions necessary for implementing this requirement shall be subject to all limitations and guidelines set forth in the aforementioned approvals.

Verification: Prior to initiating actions necessary for implementing this condition of certification, Luz will notify the CEC CPM via a Weekly Activity Report as required through the Compliance General Provisions.

- 6** A permanent tortoise-proof fence shall be constructed around the project facility. The design and installation of the fence shall be reviewed and approved by the CEC CPM in consultation with the CDFG, the BLM, and the USFWS.

Verification: Prior to initiating actions necessary for implementing this condition of certification, Luz will notify the CEC CPM via a Weekly Activity Report as required through the Compliance General Provisions.

- 7** Speed limits on and near SEGS Unit IX ~~& X~~ shall be posted and limits shall be developed with consideration for potential wildlife mortalities. Speed limits shall vary depending on the type of road and the degree of visibility. Speed limits shall be set in consultation with the CDFG. Speed bumps or other effective speed control devices should be considered for long-term control.

Speed limits shall be established for SEGS Unit IX ~~& X~~ and for all Luz-owned property in the Harper Lake area.

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Verification: Prior to initiating actions necessary for implementing this condition of certification, Luz will notify the CEC CPM via a Weekly Activity Report as required through the Compliance General Provisions.

- 8** Luz shall develop an employee environmental awareness program to provide construction and operation employees with information to encourage awareness and preservation of the desert ecosystem and the key species and resources found at the Luz facilities and in the western Mojave Desert.

In addition to Luz's proposed employee environmental awareness program, Luz shall have each of its own employees, as well as employees of contractors and subcontractors, who participate in the environmental awareness program sign an affidavit declaring that the individual understands and will adhere to the guidelines set forth in the program material. These records shall be maintained by Luz for each employee as long as the individual employee works on the SEGS IX & X project, and be made available for review by the CEC CPM.

Luz shall continue using the reporting form it developed for observations of sensitive species by employees on the job. This form is the same form developed for the SEGS VIII project. These completed observation forms shall be maintained by Luz for the life of the project and be made available for review by the CEC CPM.

Verification: Luz will maintain and make available copies of affidavits signed by all its employees, its contractor's employees and its subcontractor's employees for as long as the employees work on the SEGS IX & X project. Copies of the reporting forms for observation of sensitive species will also be maintained and made Available for review.

- 9** Luz shall develop a strict trash and litter control program. Trash control is expected to increase a sense of responsibility in the work area and foster environmental awareness among employees. A litter control program shall consist of supplying an adequate number of covered trash and litter receptacles in all appropriate locations (including the water truck, water stations, and site exits) and encouraging employee use through the environmental awareness program, posters, and other means. Trash and litter disposal shall be in covered dumpsters or buried to avoid attracting ravens and thereby increasing the potential for raven predation on young tortoises.

Verification: Prior to initiating actions necessary for implementing this condition of certification, Luz will notify the CEC CPM via a Weekly Activity Report as required through the Compliance General Provisions.

- 10** Lands that have been temporarily disturbed during project construction activities shall be restored and revegetated at an appropriate time that will be determined by the CEC CPM. Restoration seed mixes and methods shall be keyed to the type of habitat where the disturbance has occurred. The seed mixture designated for planting at any given time of the year shall be purchased and taken delivery of

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no later than 60 days prior to planting time in the year it is scheduled to be planted. Each aspect of project construction involving temporary habitat disturbance shall have habitat restoration work begun as soon as possible after completion of that particular phase of work.

Native desert habitats disturbed by project related actions shall be reclaimed to provide native plant species, including shrubs, that are valuable for wildlife utilizing those habitats.

Temporary disturbances to the abandoned farmlands shall be restored by planting dryland grasses, including the annual species which are presently found in the area. Any disturbances to other habitats shall be restored accordingly. Full details of reclamation planning, monitoring to determine success, and potential remedial action in case of failure, shall be finalized once specific temporary disturbance areas are identified, but activities shall follow good reclamation practice including the following steps:

- any construction debris or other waste materials shall be disposed of in an appropriate manner;
- soil shall be ripped to relieve compaction, then dished and leveled if necessary, to prepare a seedbed;
- a seed mixture consisting of plants adapted to the area and useful to wildlife species present shall be drill planted or broadcast. Fertilization will be used as appropriate; and
- the seed mixture designated for planting at any given time of the year, shall be purchased and taken delivery of no later than 60 days prior to planting time in the year it is scheduled to be planted.

Verification: Prior to initiating actions necessary for implementing this condition of certification, Luz will notify the CEC CPM via a Weekly Activity Report as required through the Compliance General Provisions.

[89-AFC-01C Order 00-0426-10 TN 14662](#)

[89-AFC-01C Order 05-1103-02 TN 36082](#)

11 To minimize potential wildlife impacts associated with the evaporation ponds, Luz shall implement the following design and operational criteria:

- a. construct evaporation ponds as small as possible;
- b. construct evaporation ponds with interior bank slopes at a 2.5:1 ratio;
- c. construct and operate the evaporation ponds so that 3 feet of water depth is attainable while allowing for the required freeboard expected to be incorporated in the Regional Water Quality Control Board's waste discharge permit;
- d. operate the evaporation ponds so that the water surface does not fall below the point where the interior slope meets the bottom of the pond;

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- e. build the perimeter fence with the bottom flush with the ground surface;
- f. maintain the fenced area around the evaporation ponds free of all vegetation;
- g. if selenium concentration in aquatic invertebrates inhabiting the evaporation ponds, as determined by a certified laboratory's analysis of annual samples collected in August by Luz, exceeds 4 parts per million (dry weight) (or any other alternative level required by the CDFG), immediately notify the CEC CPM and the CDFG, and if recommended by the CDFG, begin a program of hazing (frightening) birds off the ponds utilizing methods acceptable to the CDFG;
- h. take actions recommended by the CEC CPM in consultation with the CDFG, if for any reason, conditions at the evaporation ponds are considered to be detrimental to wildlife;
- i. monitor the evaporation ponds for the general level of waterfowl and shorebird use, wildlife mortalities, and perimeter fence integrity by visual inspection on a weekly basis and maintain, and make available upon request by the CEC CPM or the CDFG, orderly and accurate written records of inspection results;
- j. monitor the evaporation ponds on a quarterly basis for two consecutive days each quarter to quantify the number, species, and condition of birds using the ponds and report the findings within two weeks of the end of each quarter to the CDFG; and
- k. The project owner shall, in cooperation with the SEGS VIII project owner, allow the Bureau of Land Management (BLM) to pump up to 75 acre feet of water per year, as described in the Harper Lake Water Agreement (Agreement), which was finalized on April 12, 2005. The water will be used for maintenance of the Harper Lake wetlands. The project owner has provided \$60,000 to the BLM to construct a water well and water conveyance system as specified in the Agreement.

Verification: No later than December 16, 2005, the project owner shall provide photo-documentation of the BLM well along with its latitude and longitude, the well number as assigned by the Watermaster's local designation and state well number designation, and submit this information in writing to the CPM. At the same time it reports its annual water usage to the Mojave River Basin Watermaster, the project owner shall submit to the CPM the annual record of water pumped by BLM.

- 12** Luz shall submit a detailed BRMIP to the CEC CPM for review and approval before initiating any clearing, earth moving, or other construction activities on SEGS IX ~~& X~~. The BRMIP shall include details for designing and implementing Biology Conditions of Certification **3** through **11**.

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BIOLOGICAL RESOURCES CONDITIONS OF CERTIFICATION

Verification: At least 60 days prior to commencing site preparation activities, Luz will submit the draft BRMIP to the CEC CPM for review and approval in consultation with the CDFG. Site preparation will not begin until the final BRMIP is approved.

13 Luz shall implement the monitoring and mitigation measures contained in the approved BRMIP and Commission Decision.

Verification: The approved BRMIP will be submitted to the CEC CPM prior to site preparation on SEGS IX ~~& X~~.

In a monthly compliance status report, Luz will notify the CEC CPM, in writing, of successfully satisfying each condition in the BRMIP.

If any conditions of the plan are not successfully satisfied, Luz will submit proposed corrective actions within 30 days to the CEC CPM for comment and approval.

The Luz designated biologist will include comprehensive statements in the Annual Compliance Report verifying activities conducted in compliance with the approved BRMIP and portions of the CEC decision pertinent to biological resources.

Luz will report any adverse impacts on rare, threatened, or endangered species by telephone to the CEC CPM within two working days during the normal work week or by the end of the next working day following a weekend or holiday and shall submit a follow-up written report within 10 days after contact with CEC CPM.

14 Luz shall, in a timely manner, arrange for access by the CEC CPM or designated representative to inspect or monitor conditions of biological resources, impacts, mitigation measures, and study areas prior to and during preconstruction, construction and operation activities on the SEGS Unit IX ~~& X~~ site and adjacent areas. The access shall be provided upon request and at the times necessary to conduct biological field observations.

Verification: Luz shall provide to the CEC CPM a letter of authorization to conduct site visits as specified above.

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CIVIL ENGINEERING CONDITIONS OF CERTIFICATION

- 1 Luz shall design, construct, and inspect the SEGS Unit IX ~~and X~~ project in accordance with pertinent portions of the design criteria of this testimony, under the section titled "Project Evaluation" (Summary of Proposal) and with the LORS also identified in this testimony, under the section titled "Applicable Laws, Ordinances, Regulations, and Standards".

Verification: Fourteen (14) days prior to the start of commercial operation, Luz shall submit to the CEC CPM a statement of verification, signed by the responsible civil engineer, stating that all design, construction, and inspection requirements of the applicable LORS and the Commission's Decision have been met for the area of civil engineering.

- 2 Luz shall assign to the project a qualified and responsible civil engineer registered in California who shall:
- be directly responsible for the construction of the proposed civil works and related facilities. These include, but are not limited to, site preparation, grading, excavations, and compaction;
 - be directly responsible for the design and construction of the proposed civil structures (secondary containment facilities, foundations, drainage facilities, underground utilities, culverts, site access roads, and sanitary sewer systems);
 - prepare, stamp, and sign all plans, calculations, and specifications for erosion and sedimentation control structures, foundations, and all the related civil works facilities at the plant site, to comply with the Commission's Decision;
 - monitor construction progress to ensure compliance with the design intent;
 - provide consultation to the responsible construction engineer, during the construction phase of the project, and recommend changes in the design of the civil works facilities and changes in the construction procedures; and,
 - be responsible for the conformance of all civil work construction with applicable LORS, Luz proposed criteria, and approved plans and specifications.

If the civil engineer is subsequently reassigned or replaced, Luz shall, within ten (10) days, submit the name, qualifications, and registration number for the new engineer to the CEC CPM, for approval, and to the CBO.¹

The tasks performed by the responsible civil engineer may be divided between two or more engineers, as long as each engineer is responsible for a particular

¹ CBO is the City or County Chief Building Official, his or her representative or the Commission's duly appointed representative

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segment of the project (e.g. proposed earthwork, related civil works, civil structures eta).

Each segment of the project cannot have more than one responsible civil engineer (Business and Professions Code, Chapter 7, Division 3).

Verification: At least fourteen (14) days prior to the start of site preparation, Luz shall submit to the CEC CPM, for approval, and to the CBO the name, qualifications, and registration number of the responsible civil engineer assigned to the project to perform the duties set forth above.

- 3** Luz shall assign to the project a qualified civil engineer registered in California and fully competent and proficient in soil mechanics, who shall:
- review all the soils engineering reports, and engineering geology reports, and prepare a final soils grading report;
 - prepare the soils engineering reports required by chapter 70 of the 1985 edition of the Uniform Building Code (UBC);
 - be present, as required, during site grading and earthwork to provide consultation and monitor compliance with the requirements set forth in Chapter 70 of the 1985 edition of the UBC;
 - recommend field changes to the responsible civil engineer and to the construction engineer;
 - review geotechnical report, field exploration report, laboratory tests, and engineering analyses detailing the nature and extent of the site soils that may be susceptible to rapid settlement or collapse when saturated under load;
 - prepare reports on foundation investigation to comply with Chapter 29, Subchapter 2905 Sections b,c, and d of the 1985 edition of the UBC.

If the civil engineer is subsequently reassigned or replaced, Luz shall, within ten (10) days, submit the name, qualifications, and registration number for the new engineer to the CEC CPM, for approval, and to the CBO.

This civil engineer shall be authorized to halt earthwork and to require changes, if site-conditions are unsafe or do not conform with predicted conditions used as a basis for design of earthwork or foundations. (Business and Professions Code; Chapter 7, Division 3; UBC 1985 edition, chapters 29 and 70; San Bernardino County Ordinance No. 2815; Title 8, CCR, Section 405 et seq).

Verification: At least fourteen (14) days prior to the start of site preparation, Luz shall submit to the CEC CPM, for approval, and to the CBO the name, qualifications, and registration number of the responsible civil engineer assigned to the project to perform the duties set forth above.

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CIVIL ENGINEERING CONDITIONS OF CERTIFICATION

4 Prior to the start of site grading, Luz shall obtain approval from the CBO, for the following:

- the proposed drainage structures, and the grading plan to conform to the requirements of San Bernardino County Ordinance No. 2815;
- erosion and sedimentation-control plan (combined grading plan); and
- the calculations, and specifications signed and stamped by the responsible civil engineer.

Luz shall provide a statement to the CEC CPM, signed by the responsible civil engineer confirming that the proposed grading-plan, erosion and sedimentation control plan (combined grading plan), drainage structures, calculations, and specifications comply with the applicable LORS and with the civil engineering criteria and requirements set forth in the Commission's Decision and have been approved by the CBO.

Verification: At least fourteen (14) days prior to the start of site grading, Luz shall submit notification, to the CEC CPM attesting that the CBO has approved the Grading Plan, and the Sedimentation Control Plan, and also that the CBO has approved, for construction, the Drainage Structures.

5 Prior to the start of construction of each major structure foundation or civil works facilities, Luz shall obtain approval from the CBO of the following:

- the proposed final design plans, including the soil classifications and design bearing capacity evaluations (ASTM D698, D1556, and D1557); and
- calculations, specifications, soil reports, and quality control procedures, signed by the responsible civil engineer, verifying the accuracy of the bearing capacity and foundation settlement values.

Verification: At least thirty (30) days prior to the start of construction of each major structure foundation, Luz shall submit written notice to the CEC CPM, in the weekly activities report, verifying that the proposed design plans, calculations, and specifications comply with the civil engineering criteria, the Commission's Decision, and that the CBO has approved, for construction, the structure foundations.

6 After the construction of each major structure foundation, Luz shall submit to the CEC CPM a statement that the CBO has approved the final as-built plans. The responsible civil engineer shall submit a signed statement indicating that the work was done according to the final approved plans, and that the structure foundations are adequate for their intended functions. If site geotechnical condition necessitate modifications in foundation design, the responsible civil engineer shall provide a statement to the CEC CPM of the CBO's approval of the foundation modifications.

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Verification: Within thirty (30) days after construction of the structure foundations, Luz shall file with the CEC CPM a copy of the CBO's review, comments, and approvals in the next Monthly Compliance Report.

Luz shall submit a statement to the CEC CPM, signed by the responsible civil engineer, if site geotechnical conditions requiring modifications in foundation redesign.

- 7** Luz shall make payments to the CBO for plan check and review equivalent to the fees listed in Chapter 70, section 7007a and 7007b, and table 70-A and 70-B of the 1985 edition of the UBC. If San Bernardino County has adjusted the UBC fees by Code or Ordinance, Luz shall pay the adjusted fees (UBC 1985, sections 7007a and 7007b, Tables 70-A and 70-B).

Verification: Luz shall make payments to the CBO at the time of submittal of the plans, calculations, and specifications, and the soils report.

Luz shall send a copy of the transmittal letter to the CEC CPM in the next Monthly Compliance Report.

- 8** All plant site grading operations shall be subject to inspection by the CBO and the CEC CPM or designate. If Luz's inspector discovers that work is not being done in accordance with the approved plans, the discrepancies shall be reported immediately to the CBO, the CEC CPM, and Luz responsible civil engineer. Luz shall prepare a written report, detailing the discrepancies and non-compliance items and send copies to the CBO and the CEC CPM (CCR, Title 8, Chapter 4, Division of Industrial Safety; UBC 1985 edition Chapters 29 and 70).

Verification: Within five (5) days of the discovery of the discrepancies, Luz shall prepare an NCR to be included in the daily reports. These reports will be referenced to the CoC No. **10** below, and will be included in the weekly activities report.

- 9** Luz's responsible civil engineer shall, as appropriate, stop all earthwork and construction in the affected areas when Luz's engineering geologist identifies unforeseen adverse geologic conditions. Luz shall prepare and submit, within five (5) days, modified plans, specifications, and calculations to the CBO based on these new conditions. Luz shall obtain approval from the CBO in order to resume earthwork and construction in the affected areas.

Verification: Luz shall provide a copy of such approval to the CEC CPM, in the weekly activities report.

- 10** Luz shall submit a weekly construction progress report to the CBO, and the CEC CPM containing the test reports, and all Conforming and nonconforming inspection reports.

Verification: Luz shall prepare and submit the construction progress report to the CEC CPM and to the CBO in the weekly activities report.

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CIVIL ENGINEERING CONDITIONS OF CERTIFICATION

- 11** After construction of the finish grading, erosion and sedimentation control facilities, Luz shall file with the CEC CPM the CBO's approval of the final as-graded plans, and as-built plans for the erosion and sedimentation control facilities. The responsible civil engineer shall provide a signed statement to the CEC CPM stating that the installation of the drainage facilities and their protective devices and all erosion control measures were completed in accordance with the final approved combined grading plans and that the facilities are adequate for their intended function.

Verification: Within thirty (30) days after construction of the drainage facilities and their protective devices and all erosion control measures have been completed in accordance with the final approved combined grading plan, Luz shall file with the CEC CPM a copy of the CBO's review, Comments and approvals in the next Monthly Compliance Report.

- 12** Prior to the start of construction of the concrete or earth lined spill containment facilities for the power block and chemical storage areas, Luz shall obtain approval from the CBO, of the plans, calculations, and specifications for the concrete or earth lined spill containment facilities. The design, plans, and calculations shall be signed and stamped by the responsible civil engineer.

Verification: At least thirty (30) days prior to the start of construction of the spill containment facilities, Luz shall submit written notice to the CEC CPM stating that the spill containment facilities meet the applicable civil engineering requirements, the Commission's decision, and have been approved by the CBO for construction.

- 13** After construction of the spill containment facilities, Luz shall submit to the CEC CPM a statement that the CBO has approved the final as-built plans, and a signed statement by the responsible civil engineer that the-work was done in accordance with the final approved plans and that the spill containment facilities are adequate for their intended use.

Verification: Within thirty (30) days after completion of the spill containment facilities, Luz shall file with the CEC CPM a copy of the CBO's review, comments, and approvals in the next Monthly Compliance Report.

- 14** Prior to the start of construction of the transmission line pole towers, foundations, and guy anchors, Luz shall obtain approval from the CBO of the design plans, calculations, and specifications, for the transmission line pole towers, foundations, and guy anchors. The design plans and calculations shall be signed and stamped by the responsible civil engineer.

Verification: At least -thirty (30) days prior to the start of construction of the transmission line pole towers, foundations, and guy anchors, Luz shall submit written notice to the CEC CPM stating that these facilities meet the applicable civil engineering requirements, the Commission's decision, and have been approved by the CBO for construction.

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CIVIL ENGINEERING CONDITIONS OF CERTIFICATION

- 15** After construction of the transmission line pole towers, guy anchors, and foundations, Luz shall file with the CEC CPM the CBO's approval of the final as-built plans and a signed statement by the responsible civil engineer that the work was done in accordance with the final approved plans and that the facilities are adequate for their intended function.

Verification: Within thirty (30) days after construction of the transmission line pole towers, guy anchors, and foundations, Luz shall file with the CEC CPM a copy of the CBO's review, comments, and approvals in the next Monthly Compliance Report.

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CULTURAL/PALEONTOLOGICAL RESOURCES CONDITIONS OF CERTIFICATION

Paleontology

- 1 Prior to the start of construction (defined as any construction-related vegetation clearance, ground disturbance and preparation, and site excavation activities) on ~~each of~~ the Luz SEGS Unit IX ~~and X~~ projects, Luz shall provide the California Energy Commission (CEC) Compliance Project Manager (CPM) with the following information: the name, telephone number, resume, and indication of availability for its designated paleontologic resources specialist.

The resume shall include the qualifications of their designated specialist (e.g., someone with a graduate degree in geology or paleontology and paleontological field experience).

The CEC CPM will review the qualifications of, and must approve in writing, Luz's designated paleontologic resources specialist prior to the start of construction on ~~each of~~ the Luz SEGS Unit IX ~~and X~~ projects. After CEC CPM approval, the paleontologic specialist shall be available to prepare a monitoring and mitigation plan described below. The designated specialist shall also be available to conduct pre-construction mitigation and provide monitoring and mitigation, as needed, during all construction activities associated with the Luz SEGS Unit IX ~~and X~~ projects.

Verification: Prior to the start of construction on ~~each of~~ the Luz SEGS Unit IX ~~and X~~ projects, Luz shall submit to the CEC CPM for review and written approval, the name, resume, telephone number, and indication of availability for its designated paleontologic resources specialist.

- 2 Prior to the start of construction, the designated paleontologic resources specialist shall prepare and implement a monitoring and mitigation plan to minimize potential impacts to paleontologic resources. The plan shall be submitted to the CEC CPM for review and written approval prior to the start of construction on each project.

The plan shall include, but not be limited to, the following elements:

- a. A provision that if, during monitoring of construction activities, the designated paleontologic specialist determines the likelihood of encountering fossil resources is slight, monitoring can be discontinued in that locality;
- b. A discussion of specific measures proposed to mitigate impacts to particular types of paleontologic resources which may be discovered during earth moving activities;
- c. A provision that construction will not begin until the designated paleontologic resources specialist has completed the construction management/resource specialist sign-off procedure, certifying that all necessary mitigation of impacts to known paleontologic resources has

SEGS IX (89-AFC-01C)
CULTURAL/PALEONTOLOGICAL RESOURCES CONDITIONS OF CERTIFICATION

been completed in those areas which will be directly affected by the construction and operation of each SEGS project;

- d. A provision that the designated paleontological resource specialist shall have the certified authority to halt or redirect construction at any time necessary to protect known or previously unknown paleontological resources and their locational context. The halting or redirection of construction shall remain in effect until the designated paleontological resources specialist has met with Luz construction managers, determined how the resources will be protected when construction resumes, and has completed the construction management/resource specialist sign-off procedures;
- e. A provision that if fossil resources are encountered during construction activities, work in the immediate vicinity of the find shall be halted until the designated paleontologic specialist can determine the significance and sensitivity of the find. The designated paleontologic specialist shall act in accordance with the procedures set forth in the monitoring and mitigation plan; Luz, or its designated representative, shall inform the CEC CPM within one working day of the discovery of any potentially significant resources and discuss the specific measure(s) proposed to mitigate potential impacts to the resources. The designated paleontologic resources specialist, representatives of Luz, and the CEC CPM shall meet within five working days of the notification of the CEC CPM, if necessary, to discuss the disposition of any finds and any mitigation measures already implemented or to be implemented. All necessary and required data recovery and mitigation shall be completed within ten days after discovery of the previously unknown paleontological resources;
- f. A provision that all vertebrate fossil remains will be collected and any invertebrate fossil remains will be sampled. All fossil materials found shall be mapped, prepared, identified, and removed for analysis and duration in the retrievable storage collection at the San Bernardino County Museum in Redlands, California;
- g. A provision that the CEC CPM and staff shall have unrestricted and unannounced access to the Luz SEGS Unit IX ~~and X~~ sites and the SEGS unit VIII-XII project areas, at any time during preconstruction and construction activities, to observe paleontologic resources monitoring and data recovery activities;
- h. A provision that the CEC CPM and staff shall have unrestricted access to and open communication with the designated paleontologic resources specialist(s) any time;
- i. A provision ensuring completion of the necessary analysis of paleontologic resource materials found during surveys, data recovery, and mitigation activities for the SEGS Unit IX ~~and X~~ projects;

SEGS IX (89-AFC-01C)
CULTURAL/PALEONTOLOGICAL RESOURCES CONDITIONS OF CERTIFICATION

- j. A provision ensuring the preparation of a final paleontologic resources report;
- k. A provision that original and/or original-quality copies of the final paleontological resources report will be filed with the appropriate museums, paleontological information repository(ies), and CEC CPM; and,
- l. A provision for curation of all paleontological resource materials collected during survey, data recovery, and mitigation for the SEGS projects.

Verification: Prior to the start of construction on ~~each of~~ the Luz SEGS Unit IX ~~and X~~ projects, Luz shall submit a monitoring and mitigation plan for paleontological resources to the CEC CPM for review and written approval.

- 3** In the monthly Compliance Report Luz shall provide the CEC CPM with information copies of any communications initiated or received by Luz, related to paleontologic monitoring or paleontologic mitigation work being conducted at the Luz SEGS Units IX ~~or X~~ sites or in the SEGS Units VIII-XII project area. Such communications may include oral or written contacts with the designated paleontologic specialists, San Bernardino County representatives, staff of the San Bernardino County Museum, Luz contractors or sub-contractors, and/or other parties interested in the monitoring and mitigation work.

Verification: In the Monthly Compliance Report Luz shall provide the CEC CPM with information copies of all communications initiated or received by Luz related to any paleontologic resources monitoring or mitigation work being conducted at the Luz SEGS Unit IX ~~and X~~ sites or the SEGS Units VIII-XII project area.

- 4** Luz will have the designated paleontologic specialist available to monitor construction activities at the SEGS Unit IX ~~and X~~ sites or in the SEGS Units VIII-XII project area, on an as-needed basis, as defined in the CEC-approved monitoring and mitigation Plan for paleontological resources.

Verification: After CEC approval of the designated specialist, Luz shall maintain copies of its contract(s) with the designated paleontologic resources specialist(s) in its compliance files.

- 5** Luz shall ensure the recovery, preparation for analysis, and analysis of all collected paleontologic resource materials encountered during surveys, data recovery, and mitigation activities at the Luz SEGS Unit IX ~~and X~~ sites and in the SEGS Unit VIII-XII project area.

Verification: LUZ shall maintain in its compliance files copies of signed contracts or agreements with the museum(s), university(ies), or other appropriate research specialists which will ensure the necessary recovery, preparation for analysis, and analysis of paleontologic resource materials collected during surveys, data recovery, and mitigation for the SEGS Unit IX ~~and X~~ projects.

SEGS IX (89-AFC-01C)
CULTURAL/PALEONTOLOGICAL RESOURCES CONDITIONS OF CERTIFICATION

- 6** LUZ shall ensure preparation of a final paleontological resources report by the designated paleontological resources specialist. Luz shall submit the draft final report to the CEC CPM for review, comment, and approval within 90 days following completion of the data recovery and mitigation work. The final report shall include (but not be limited to) the survey report(s), methodology, and recommendations; site records and maps; determinations of sensitivity and significance; data recovery and other mitigation activities; results and findings of any special analyses conducted on recovered resource materials and data; and research questions answered or raised by the data from the SEGS Unit IX ~~and X~~ projects.

Verification: A copy of the draft final paleontological resources report shall be submitted to the CEC CPM for review and approval within 90 days following completion of the data recovery and mitigation work by the designated paleontological resources specialist for the SEGS Unit IX ~~and X~~ projects.

- 7** Luz shall submit an original or an original-quality copy of the approved final paleontological resources report to the appropriate paleontological information repository(ies) and one copy of the original to the CEC CPM.

The report copy sent to the information repository shall include the following:

- clean and reproducible original copies of all text;
- originals of any topographic maps showing site and resource locations;
- original or clear copies of drawings of paleontological resource materials found during surveys, data recovery, or mitigation; and
- photographs (including a set of negatives, if possible) of paleontological resource materials found and evaluated during the SEGS Unit IX ~~and X~~ projects.

Verification: Luz shall maintain in its compliance files, copies of all documentation related to the filing of the original materials and final paleontological resources report with the appropriate paleontological information repository(ies).

- 8** Luz shall ensure the duration of all significant paleontological resource materials collected during surveys, data recovery, and mitigation for the SEGS Unit IX ~~and X~~ projects.

Verification: Luz shall maintain in its compliance files, copies of signed contracts or agreements with the museum(s), university(ies), or other appropriate public repository(ies) by which Luz has provided for curation for paleontologic resource materials collected during surveys, data recovery, and mitigation for the SEGS Unit IX ~~and X~~ projects.

Prehistoric and Historic Resources

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CULTURAL/PALEONTOLOGICAL RESOURCES CONDITIONS OF CERTIFICATION

- 9 Prior to the start of construction on ~~each of~~ the Luz SEGS Unit IX ~~and X~~ projects, Luz shall provide the CEC CPM with the following information: the name, telephone number, resume, the specialty area(s) of current certification by the Society of Professional Archaeologists (SOPA), and indication of availability for its designated cultural resources specialist. The resume shall include the qualifications of their designated specialist (e.g., someone with a graduate degree in anthropology, history, or cultural resource management, appropriate cultural resource field experience, and current SOPA certification).

The CEC CPM will review the qualifications of, and must approve in writing, Luz's designated cultural resources specialist prior to the start of construction on the Luz SEGS Unit IX project. After CEC CPM approval, the cultural resources specialist shall be available to prepare a monitoring and mitigation plan described below. The designated specialist shall also be available to conduct pre-construction mitigation and provide monitoring and mitigation, as needed, during all construction activities associated with the Luz SEGS Unit IX ~~and X~~ projects.

Verification: Prior to the start of construction on ~~each of~~ the Luz SEGS Unit IX ~~and X~~ projects, Luz shall submit to the CEC CPM for review and written approval, the name, resume, telephone number, the specialty area(s) of current certification by the Society of Professional Archaeologists (SOPA), and indication of availability for its designated cultural resources specialist.

- 10 Prior to the start of construction, the designated cultural resources specialist shall prepare and implement a monitoring and mitigation plan to minimize potential impacts to cultural resources. The plan shall be submitted to the CEC CPM for review and written approval prior to the start of construction on ~~each of~~ the Luz SEGS Unit IX ~~and X~~ projects.

The plan shall include, but not be limited to, the following elements:

- a. A provision that the designated cultural resources specialist be on call to inspect any potentially significant cultural resources found during construction in areas of sensitivity identified in the monitoring and mitigation plan;
- b. A discussion of specific measures proposed to mitigate impacts to particular types of cultural resources which may be discovered during construction;
- c. A provision that construction will not begin until the designated cultural resources specialist has completed the construction management/resource specialist sign-off procedure, certifying that all necessary mitigation of impacts to known cultural resources has been completed in those areas which will be directly affected by the construction and operation of the SEGS Unit IX ~~and X~~ projects;
- d. A provision that the designated cultural resource specialist shall have the certified authority to halt or redirect construction at any time necessary to

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CULTURAL/PALEONTOLOGICAL RESOURCES CONDITIONS OF CERTIFICATION

protect known or previously unknown cultural resources and their locational context. The halting or redirection of construction shall remain in effect until the designated cultural resources specialist has met with Luz construction managers, determined how the resources will be protected when construction resumes, and has completed the construction management/resource specialist sign-off procedures.

- e. A provision that if potentially significant cultural resources are encountered during construction, work in the immediate vicinity of the find shall be halted until the designated cultural resources specialist can determine the significance and sensitivity of the find. Luz's designated cultural resources specialist shall act in accordance with the procedures set forth in the monitoring and mitigation plan; Luz, or its designated representative, shall inform the CEC CPM within one working day of the discovery of any potentially significant resources and discuss the specific measure(s) proposed to mitigate potential impacts to the resources. The designated cultural resources specialist, representatives of Luz, and the CEC CPM shall meet within five working days of the notification of the CEC CPM, if necessary, to discuss the disposition of any finds and any mitigation measures already implemented or to be implemented. All necessary and required data recovery and mitigation shall be completed before construction resumes in the vicinity of the previously unknown cultural resources;
- f. A provision that the CEC CPM and staff shall have unrestricted and unannounced access to the Luz SEGS Unit IX ~~and X~~ sites and the SEGS Units VIII-XII project areas, at any time during pre-construction and construction activities, to observe cultural resources monitoring and data recovery activities;
- g. A provision that the CEC CPM and staff shall have unrestricted access to and open communication with the designated cultural resources specialist(s) at any time;
- h. A provision that if human remains are encountered, work in the immediate vicinity shall stop and the county coroner and the CEC CPM shall be notified immediately. Work in the vicinity of the find shall remain stopped until the coroner has determined if the remains are Native American in origin and any necessary mitigation measures have been implemented. If the remains are determined to be of Native American origin, the Native American Heritage Commission and appropriate Native American representatives shall be notified immediately. Any necessary mitigation measures shall be discussed and agreed upon by the interested parties and approved by the CEC CPM;
- i. A provision ensuring the necessary analysis of all cultural resource materials found during surveys, data recovery, and mitigation activities for the SEGS Unit IX ~~and X~~ projects. Such analyses could include lithic

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CULTURAL/PALEONTOLOGICAL RESOURCES CONDITIONS OF CERTIFICATION

sourcing, rim hydration testing of obsidian specimens, pollen analysis of milling stones, carbon dating of organic materials, or flotation sampling of materials caught in fine mesh screening of earth samples from resource sites:

- j. A provision ensuring the preparation of a final cultural resources report;
- k. A provision that original and/or original-quality copies of the final cultural resources report will be filed with the appropriate regional Archaeological Information Center(s) and the CEC CPM;
- l. A provision for curation of all cultural resource materials collected during surveys, data recovery, and mitigation for the SEGS Unit IX project.

Verification: Prior to the start of construction on ~~each of~~ the Luz SEGS Unit IX ~~and X~~ projects, Luz shall submit a monitoring and mitigation plan for cultural resources to the CEC CPM for review and written approval.

11 In the Monthly Compliance Report Luz shall provide the CEC CPM with information copies of any communications initiated or received by Luz, related to cultural resources monitoring or cultural resources mitigation work being conducted at the Luz SEGS Unit IX ~~or X~~ sites or in the SEGS Units VIII-XII project area. Such communications may include oral or written contacts with the designated cultural resources specialists, San Bernardino County representatives, staff of the San Bernardino County Museum, Luz contractors or sub-contractors, and/or other parties interested in the monitoring and mitigation work.

Verification: In the Monthly Compliance Report Luz shall provide the CEC CPM with information copies of all communications initiated or received by Luz, related to any cultural resources monitoring or mitigation work being conducted at the Luz SEGS Unit IX ~~and X~~ sites or in the SEGS Units VIII-XII project area.

12 Luz will have the designated cultural resources specialist available to monitor construction activities at the SEGS Unit IX ~~and X~~ sites or in the SEGS Units VIII-XII project area, on an as-needed basis as defined in the monitoring and mitigation plan for cultural resources.

Verification: After CEC approval of the designated specialist, Luz shall maintain copies of its contract(s) with the designated cultural resources specialist(s) in its compliance files.

13 Luz shall ensure completion of the necessary analysis of the cultural resource materials found during the surveys, data recovery, and mitigation activities for the SEGS Unit IX ~~and X~~ projects. Such analyses could include lithic sourcing, rim hydration testing of obsidian specimens, pollen analysis of milling stones, carbon dating of organic materials, or flotation sampling of materials caught in fine mesh screening of earth samples from resource sites.

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CULTURAL/PALEONTOLOGICAL RESOURCES CONDITIONS OF CERTIFICATION

Verification: Luz shall maintain in its compliance files copies of signed contracts or agreements with the museum(s), university (ies), or other appropriate research specialists which will ensure completion of the necessary analysis of cultural resource materials collected during surveys, data recovery, and mitigation for the SEGS Unit IX project.

- 14** Luz shall ensure the preparation of a final cultural resources report by the designated cultural resources specialist. Luz shall submit the draft final report to the CEC CPM for review and approval within 90 days following completion of the data recovery and mitigation work. The final report shall include (but not be limited to) the survey report(s), methodology, and recommendations; site records and maps; determinations of sensitivity and significance; data recovery and other mitigation activities; results and findings of any special analyses conducted on recovered resource materials and data; and research questions answered or raised by the data from the SEGS Unit IX ~~and X~~ projects.

Verification: A copy of the draft final cultural resources report shall be submitted to the CEC CPM for review and approval within 90 days following completion of the data recovery and mitigation work by the designated cultural resources Specialist for the SEGS Unit IX ~~and X~~ projects.

- 15** Luz shall submit an original or original-quality copy of the approved final cultural resources report to the appropriate regional Archaeological Information Center(s) and one copy of the original to the CEC CPM. The report copy sent to the information center shall include the following: clean and reproducible original copies of all text; originals of any topographic maps showing site and resource locations; original or clear copies of drawings of cultural resource materials found during surveys, data recovery, or mitigation; original or clear copies of any architectural drawings or plans illustrating prehistoric or historic structures, design details, or site layouts; and photographs (including a set of negatives, if possible) of cultural resource materials found and evaluated during the SEGS Unit IX ~~and X~~ projects.

Verification: Luz shall maintain in its compliance files, copies of all documentation related to the filing of the original materials and final cultural resources report with the appropriate regional Archaeological Information Center(s).

- 16** Luz shall ensure the curation in a public repository, of all cultural resource materials collected during surveys, data recovery, and mitigation for the SEGS Unit IX ~~and X~~ projects.

Verification: Luz shall maintain in its compliance files, copies of signed contracts or agreements with the museum(s), university (ies), or other appropriate public repository(ies) by which Luz has provided for duration of cultural resource materials collected during surveys, data recovery, and mitigation for the SEGS Unit IX ~~and X~~ projects.

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CULTURAL/PALEONTOLOGICAL RESOURCES CONDITIONS OF CERTIFICATION

Paleontologic and Archaeological Resources

17 Luz shall, on a weekly basis, provide the CEC CPM and the designated paleontologic and cultural resources specialists with copies of updated and current work schedules for forthcoming activities related to construction of the Luz SEGS Unit IX ~~and-X~~ projects and other activities taking place in the SEGS Units VIII-XII project area.

Verification: Luz shall, in its Weekly Activity Report provide the CEC CPM and the designated paleontologic and cultural resources specialists with copies of updated and current work schedules for forthcoming activities related to construction of the Luz SEGS Unit IX ~~and-X~~ projects and other activities taking place in the SEGS Units VIII-XII project area.

18 Luz shall prepare a paleontologic and cultural resources awareness training program for presentation to all of its personnel and the personnel of its contractors or subcontractors who may be involved with ground clearance, earth moving and excavation, or project construction. The program is intended to develop an awareness of and sensitivity to project impacts on potentially significant cultural and paleontological resources. This training may include development of the ability to recognize potentially significant cultural and paleontologic resources and may be incorporated into the videotape presentation on the overall environmental protection plan.

Prior to the start of construction on ~~each of~~ the Luz SEGS Unit IX ~~and-X~~ projects, Luz shall submit to the CEC CPM for review and written approval, a copy of the written and video materials to be used in its training program and shall also make a demonstration presentation of its cultural and paleontologic resources training program to the CEC CPM. Within 30 days of receipt of the materials and viewing the program, the CEC CPM shall respond as to the program's adequacy.

Verification: Prior to the start of construction on ~~each of~~ the Luz SEGS Unit IX ~~and-X~~ projects, Luz shall submit a copy of the written materials to be used in its training program to the CEC CPM and staff.

Prior to the start of construction Luz shall present its cultural and paleontologic resources training program to the CEC CPM and staff and receive approval of the program from the CEC CPM.

19 Prior to the start of construction, Luz shall present its CEC CPM-approved paleontologic and cultural resources awareness training program to all of its personnel and the personnel of its contractors or subcontractors who may be involved with vegetation clearance, ground disturbance, other earth moving and excavation, or project construction. The paleontologic and cultural resources training program may be incorporated into the videotape presentation on the overall environmental protection plan.

SEGS IX (89-AFC-01C)
CULTURAL/PALEONTOLOGICAL RESOURCES CONDITIONS OF CERTIFICATION

The paleontologic and cultural resources awareness program shall be presented at the time of hire or prior to the start of construction. All personnel receiving the presentation shall sign an affidavit that they have received and understood the training program and will comply with the requirements. Luz shall keep the affidavits in its compliance files.

Verification: Each month throughout the pre-construction and construction period, Luz shall submit to the CEC CPM a list of persons newly employed at the Luz SEGS Units VIII-XII projects during the previous month and a statement verifying that all the new employees have signed paleontological and cultural resource training affidavits on file and available for periodic audit by the CEC CPM.

20 Luz shall initiate and implement a construction management/resource specialist sign-off procedure by which the project construction manager(s) and field construction crew leaders shall be required to receive the authorized signature of the designated paleontologic and cultural resources specialists certifying that the area in which pre-construction and construction activities are to begin has been cleared for such activity.

Verification: Luz shall maintain copies of all signed-off clearance forms in its compliance files and available for periodic audit by the CEC CPM.

**SEGS IX (89-AFC-01C)
DECOMMISSIONING CONDITIONS OF CERTIFICATION**

89-AFC-01C Order 96-0327-03 TN 2550

As a result of the SEGS Unit IX project, the existing environment of Harper Lake will be changed significantly, including land disturbance and visual aesthetics.

In the future, the project owner will be faced with a decision to decommission the Harper Lake facility, SEGS Unit IX. Decommissioning is to mean and be defined as removing a project from service at the end of its operations. Options for decommissioning could range from deactivation and mothballing, to removal of all equipment and appurtenant facilities and restoring the site to its natural state.

To ensure that decommissioning will be completed in a manner which protects public health and safety, is environmentally acceptable, and is consistent with local and/or regional plans in effect at the time, the following Conditions of Certification are imposed on the project owner. By filing a decommissioning plan for CEC approval, and proceeding with decommissioning as per the accepted plan, environmental impacts, local agency concerns, and public health and safety concerns should be minimized.

89-AFC-01C Order 96-0327-03 TN 2550

1 In its first Annual Report after commencement of commercial operations, the project owner shall submit a security and maintenance plan to the CEC CPM that establishes contingency procedures in the event of any unforeseen interruption of business and shall establish a dedicated security and maintenance fund in the amount of \$51,638. This plan shall provide for removal, disposal or storage of all hazardous and toxic materials and chemicals associated with SEGS Unit IX. This plan shall discuss all currently applicable laws, ordinances, regulations and standards (LORS) associated with the safe removal, storage or disposal of these materials. The plan shall also include a description of procedures for notification of regulatory agencies. The Commission must review and approve both the plan and the means for establishing the security and maintenance fund.

The fund shall be deposited in an interest-bearing Special Deposit Fund Account of the California Energy Commission and is to be used by the Commission only in the event of an unexpected shutdown of the SEGS IX facility. The fund may be used by the Commission if, after 30 days following cessation of operation of the facility, no action has been taken by the project owner, or any other entity assuming responsibility for the SEGS IX facility, to remove all hazardous and toxic materials and chemicals from the site. The fund shall be used by the Commission for the purposes of removal and disposal of all hazardous and toxic materials and for the provision of site security pursuant to the security and maintenance plan. All principal and accrued interest in the fund shall be returned to the owner upon the determination of the CEC CPM that all elements of the security and facility maintenance plan have been completed, or SEGS IX reaches the end of its operating life without an unforeseen interruption of operation.

SEGS IX (89-AFC-01C) DECOMMISSIONING CONDITIONS OF CERTIFICATION

The project owner shall maintain a \$500,000 pollution remediation insurance policy or equivalent indemnification, which includes coverage for the cost of heat transfer fluid spill clean up.

The project owner shall annually demonstrate the current allowable economic uses of the heat transfer fluid.

Verification: The project owner shall deposit \$51,638 in the account designated by the CEC CPM within 30 days of adoption of this Amendment to the Commission Decision.

The project owner shall submit documentation to the CEC CPM in the annual compliance report, which verifies that a \$500,000 pollution remediation insurance policy or equivalent indemnification is in force for the next year, which includes coverage for the cost of heat transfer fluid (HTF) spill clean-up.

The project owner shall submit a brief statement in the annual compliance report regarding the current allowable uses of the .heat transfer fluid, including economic uses. If the Commission determines that the value of the heat transfer fluid does not assure adequate site neutralization, the Commission may evaluate alternative measures to assure that sufficient resources exist for site neutralization.

89-AFC-01C Order 96-0327-03 TN 2550

2 Prior to commencing decommissioning activities for SEGS Unit IX, the project owner shall file a decommissioning plan with the California Energy Commission (CEC) Compliance Project Manager (CPM). The decommissioning plan shall:

- identify and discuss the proposed decommissioning activities and schedule for the power plant site, transmission line corridor, and all appurtenant facilities constructed as a part of, or because of, the project;
- identify all applicable laws, ordinances, regulations, standards, (LORS) and local/regional plans applicable at that time;
- discuss how the specific proposed decommissioning activities will comply with those identified LORS and plans;
- contain an analysis of all decommissioning alternatives considered, including restoration of the site to its preconstruction, natural state; and
- discuss the reasons for selecting the preferred proposal.

Prior to submittal of the decommissioning plan, a pre-filing workshop shall be held with the project owner and CEC staff, and other interested parties, for the purpose of determining the specific contents of the plan. The project owner shall be responsible for requesting the CEC CPM to schedule the pre-filing workshop.

In the event that significant issues are associated with the plan's approval, or the desires of local officials or interested parties are inconsistent with the plan, the CEC may hold workshops and/or public hearings as part of its approval procedure.

SEGS IX (89-AFC-01C)
DECOMMISSIONING CONDITIONS OF CERTIFICATION

The project owner shall not commence decommissioning activities of the SEGS Unit IX until approval of the decommissioning plan is obtained from the CEC. The project owner shall comply with any requirements incorporated by the CEC as a condition of the decommissioning plan.

Verification: At least (12) months prior to commencing decommissioning activities at the SEGS Unit IX facilities, the project owner shall file the above described decommissioning plan with the CEC CPM.

At least six (6) months prior to filing the decommissioning plan with the CEC CPM, the project owner shall request, in writing, that the CEC staff schedule a pre-filing workshop to determine specific contents and scope of the decommissioning plan.

[89-AFC-01C Order 96-0327-03 TN 2550](#)

3 Deleted

SEGS IX (89-AFC-01C)
ELECTRICAL ENGINEERING CONDITIONS OF CERTIFICATION

- 1 Luz shall not begin any electrical construction until plans have been reviewed and approved by the CBO. These plans, together with design changes and design change notices shall remain on the site at all times. Luz shall request that the CBO inspect the installation to ensure compliance with the requirements of applicable LORS.

Verification: Luz shall submit electrical inspection reports to the CEC CPM in the monthly compliance report.

Prior to the initial turbine roll, Luz shall submit to the CEC CPM a statement signed by the CBO that the electrical equipment has been installed in accordance with approved drawings. The following activities shall be reported in the weekly activities report:

1. Receipt or delay of major electrical equipment.
 2. Testing or energization of major electrical equipment.
 3. The number of electrical drawings approved, submitted for approval and the number still to be submitted.
- 2 Luz shall submit to the CBO three copies of items a and b for review and one copy of item c:
 - a. Final design plans to include:
 - one-line diagrams for the 220 kV, 13.8 kV, 4.16 kV and 480 V systems;
 - system grounding drawings;
 - general arrangement or conduit drawings; and
 - other plans as required by the CBO.
 - b. Final calculations to establish:
 - short-circuit ratings of equipment;
 - ampacity of feeder cables;
 - coordination study calculations for fuses, circuit breakers and protective relay settings;
 - system grounding requirements;
 - lighting energy calculations; and
 - other calculations as required by the CBO.
 - c. A signed statement by the registered electrical engineer certifying that the proposed final design plans and specifications conform to conditions 1 and 2.

SEGS IX (89-AFC-01C)
ELECTRICAL ENGINEERING CONDITIONS OF CERTIFICATION

Verification: Thirty (30) days before start of electrical equipment installation, LUZ shall submit to the CEC CPM a copy of the transmittal letter to the CBO, verifying that copies of the items listed above were transmitted to the CBO.

- 3 The California registered electrical engineer, responsible for the electrical design of SEGS IX, shall sign and stamp all design drawings, plans, specifications, calculations and applicable quality control documents. The engineer's name, signature, registration number and registration expiration date shall appear on all the above documents. A statement containing the engineer's name, registration number and registration expiration date shall be sent to the CBO and the CEC CPM.

Verification: LUZ shall submit the statement to the CBO and the CEC CPM no later than thirty (30) days after certification.

- 4 Luz shall design, construct and install the electrical equipment in accordance with the applicable LORS identified in the section entitled Compliance with Applicable LORS.

Verification: Prior to the start of commercial operation of SEGS Unit IX, Luz shall submit to the CEC CPM a statement that the design, manufacturing and installation requirements of all applicable LORS have been met.

Luz shall also provide a statement that Industry Standards have been followed.

- 5 Prior to the start-up, operation, or testing of the SEGS Unit IX ~~& X~~ project, Luz shall design and install a system or facilities to automatically shut down and render the power plant safe in the event of an emergency.

Verification: Within Thirty (30) days after certification Luz shall submit to the CEC CPM and the CBO the final design plans, specifications, calculations and quality control procedures for the installation of the above system or facilities for approval.

Prior to the start-up, operation, or testing of the SEGS Units IX ~~& X~~ project Luz shall submit a statement to the CEC CPM that the above system or facilities have been installed and are operational.

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GEOLOGICAL RESOURCES CONDITIONS OF CERTIFICATION

- 1 Luz shall assign to the project an engineering geologist(s), certified by the State of California, to carry out the duties required by the Uniform Building Code (UBC), section 7006(c), 1985 edition. If the engineering geologist(s) is subsequently replaced, Luz shall, within 10 days, submit for approval the name(s) and license number(s) of the newly assigned individual to the CEC CPM.

Verification: No later than 60 days following certification, Luz shall submit to the CEC Compliance Project Manager (CPM) and the CBO for approval the name of the certified engineering geologist(s) assigned to the project. The CEC CPM will notify Luz of approval/disapproval within 20 days of receipt, by the CEC CPM, of the submittal. Notification of approval/disapproval for replacement personnel will be given by the CEC CPM within 10 days of receipt of the notice of personnel change.

- 2 The assigned engineering geologist shall be responsible to carry out the duties required by UBC section 7006(c), 1985 edition, including:
- a. prepare the "Engineering Geology Report" required by UBC section 7006(c):

"Section 7006(c) Plans and Specifications. When required by the building official, each application for a grading permit shall be accompanied by two sets of plans and specifications, and supporting data consisting of a soils engineering report and engineering geology report. The plans and specifications shall be prepared and signed by a civil engineer when required by the building official."

That report shall contain that information described in UBC section 7006(f):

"Section 7006(f) Engineering Geology Report. The engineering geology report required by Subsection (c) shall include an adequate description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and opinions and recommendations covering the adequacy of sites to be developed by the proposed grading."

"Recommendations included in the report and approved by the building official shall be incorporated in the grading plans or specifications."
 - b. monitor geologic conditions during construction and approve actual mitigation measures used to protect the facilities from geologic hazards.
 - c. prepare the final "Geologic Grading Report" after completion of grading as required by UBC section 7015(a)3;

Section 7015(a)3. "A geologic grading report prepared by the engineering geologist, including a final description of the geology of the site and any new information disclosed during the grading and the effect of same on recommendations incorporated in the approved grading plan. He shall

SEGS IX (89-AFC-01C)
GEOLOGICAL RESOURCES CONDITIONS OF CERTIFICATION

render a finding as to the adequacy of the site for the intended use as affected by geologic factors."

Verification:

- a. Within 10 days of submittal of the application(s) for grading permit(s) to the County Chief Building Official (CBO), other designated authority or CEC's duly authorized representative, Luz shall submit a signed statement to the CEC CPM stating that the Engineering Geology Report has been submitted to the CBO as a supplement to the plans and specifications and that the recommendations contained in the Report are incorporated into the plans and specifications;
- b. Within 90 days following completion of final grading, Luz shall submit a copy of the geologic grading report required by UBC section 7015(a)3 to the CEC CPM.

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LAND USE CONDITIONS OF CERTIFICATION

- 1** Luz shall simultaneously submit a copy to the CEC CPM of any letter initiating a change in San Bernardino County land use plans, permits, or ordinances, and describe the reasons for requesting said action(s). Luz shall maintain a copy of any approved change in its compliance files.

Verification: In its next Monthly or Annual Compliance Report, whichever occurs first, Luz shall reference and verify that a letter containing the above information was sent to the CEC CPM.

- 2** Luz shall notify the CEC CPM of any claim against the Department of Defense (DOD), which exceeds the \$12,000 property damage limit contained within the Avigation Easement.

Verification: In its next Monthly or Annual Compliance Report, whichever occurs first, Luz shall include a copy of the claim filed against the DOD.

SEGS IX (89-AFC-01C)
MECHANICAL ENGINEERING CONDITIONS OF CERTIFICATION

- 1 Luz shall design, construct and operate SEGS Unit IX ~~and X~~ in accordance with the applicable LORs and legally required industry standards identified herein under the section entitled compliance with Applicable LORS.

Prior to the start of any increment of construction, Luz shall obtain CBO approval of all proposed final design plans, specifications, calculations and quality assurance/quality control (QA/QC) procedures. Upon completion of any increment of construction, Luz shall request the CBO's inspection approval of said construction.

The responsible engineer in charge, registered to practice mechanical engineering in the State of California, shall sign the documents and submit a signed statement to the CBO certifying that the mechanical calculations, plans, specifications and documents submitted to the CBO conform to all applicable LORS.

Verification: Thirty (30) days prior to the start of any increment of construction, Luz shall transmit to the CEC CPM in the next Weekly Progress Report a copy of CBO approval of the proposed final design plans, specifications, calculations and quality control procedures for that increment of construction of SEGS Unit IX, including a copy of the signed and stamped engineer's certification.

Luz shall transmit a copy of the CBO's inspection approvals to the CEC CPM in the Monthly Construction Report following completion of any inspection.

- 2 Luz shall design and install all piping, other than domestic and refrigeration, to the appropriate code:
- American National Standards Institute (ANSI) B31.1 (Power Piping Code),
 - ANSI B31.2 (Fuel Gas Piping Code),
 - ANSI B31.3 (Chemical Plant and Petroleum Refinery Piping Code) or ANSI B31.8 (Gas Transmission and Distribution Piping Code), and
 - National Fire Protection Association (NFPA).

Prior to the start of any increment of construction, Luz shall obtain CBO approval of the proposed final design drawings, specifications, calculations, and applicable quality control procedures for each plant piping system.

The CBO may require Luz, as necessary, to employ special inspectors to report directly to the CBO to monitor shop fabrication or equipment installation.

The responsible engineer, registered to practice mechanical engineering in the State of California, shall submit a signed and stamped statement to the CBO that the proposed final design plans, specifications, and calculations conform with all of the piping requirements set forth in the Commission Decision.

The responsible engineer also shall submit a signed and stamped statement to the CBO that all of the other piping systems, except domestic and refrigeration,

SEGS IX (89-AFC-01C)
MECHANICAL ENGINEERING CONDITIONS OF CERTIFICATION

have been designed, fabricated, and installed in accordance with all applicable ordinances, regulations, laws, and industry standards.

Upon completion of construction of any piping system, Luz shall request the CBO's inspection approval of said construction.

In addition, Luz shall submit to the CEC CPM for information, concurrently with submittal to the CBO for approval, design plans, specifications, calculations, and quality control procedures for the following principal piping systems:

- a. condensate/feedwater system;
- b. steam system;
- c. natural gas supply system;
- d. heat transfer fluid system;
- e. fire water system; and
- f. acid and caustic system.

Verification: Thirty (30) days prior to the start of any increment of construction, Luz shall transmit to the CEC CPM in the next Weekly Progress Report a copy of CBO approval of the proposed final design plans, specifications, calculations and quality control procedures for that increment of construction of piping systems for SEGS Unit IX, including a copy of the signed and stamped engineer's certification of conformance with Decision requirements.

Luz shall submit to the CEC CPM the above listed design plans, specifications, calculations and quality control procedures for information in the Weekly Progress Report following Luz' submittal of these same documents to the CBO for approval.

Luz shall submit to the CEC CPM a copy of the signed and stamped engineer's certification of compliance with applicable LORs and standards in the Weekly Progress Report following submittal of same to the CBO. Luz shall transmit a copy of the CBO's inspection approvals to the CEC CPM in the Monthly Construction Report following completion of any inspection.

- 3** Luz shall ensure that all pressure vessels are designed, fabricated and installed in accordance with American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Section I or Section VIII, and CCR, Title 8, Chapter 4, including those prefabricated vessels furnished by vendors.

Prior to the intended start of fabrication, installation or construction, whichever comes first, Luz shall obtain the CBO's approval of all proposed final design plans, specifications, calculations, and quality control procedures for each pressure vessel. In addition, the responsible design engineer, registered to practice mechanical engineering in the State of California, shall stamp and sign all pressure vessel drawings, specifications, and calculations. The responsible design engineer shall submit a statement to the CBO that the proposed final design plans, specifications, and calculations conform to all of the requirements

SEGS IX (89-AFC-01C)
MECHANICAL ENGINEERING CONDITIONS OF CERTIFICATION

set forth in the CCR, Title 8 and ASME Boiler and Pressure Vessel Code Section VIII.

For all pressure vessels installed in the plant, Luz shall submit to the CBO and Cal/OSHA, prior to installation, certified code papers and other documents required by LORs and legally required standards. Luz shall request written notification from the CBO that the plan check and installation are in accordance with the code requirements.

In addition, Luz shall request Cal/OSHA to verify the proper implementation of the above codes through on-site inspection.

Upon completion of construction or installation of any pressure vessel, Luz shall request the CBO's inspection approval of said construction or installation.

Verification: Thirty (30) days prior to the intended start of fabrication, construction, or installation of any pressure vessel, whichever comes first, Luz shall transmit to the CEC CPM in the next Weekly Progress Report a copy of the CBO's approval of the calculations, specifications, and quality control procedures (including a copy of the signed and stamped engineer's certification).

Luz shall send copies of CBO and Cal/OSHA comments and approvals to the CEC CPM in the following Monthly Construction Progress Report. Luz shall transmit a copy of the CBO's inspection approvals to the CEC CPM in the Monthly Construction Report following completion of any inspection.

- 4** Luz shall ensure that the gas-fired HTF heater is designed, fabricated and installed in accordance with American Petroleum Institute (API) Standard 560. Prior to the intended start of fabrication, installation or construction, whichever comes first, Luz shall obtain the CBO's approval of all proposed final design plans, specifications, calculations, and quality control procedures. In addition, the responsible design engineer, registered to practice mechanical engineering in the State of California, shall stamp and sign all drawings, specifications, and calculations. The responsible design engineer shall submit a statement to the CBO that the proposed final design plans, specifications, and calculations conform with all of the requirements set forth in API 560.

Luz shall provide a periodic inspection program for CEC CPM review and approval. Upon completion of any increment of construction, Luz shall request the CBO's inspection approval of said construction.

Verification: Thirty (30) days prior to the intended start of fabrication, construction, or installation, whichever comes first, Luz shall transmit to the CEC CPM in the next Weekly Progress Report a copy of the CBO's approval of the calculations, specifications, and quality control procedures (including a copy of the signed and stamped engineer's certification).

Luz shall send copies of CBO comments and approvals to the CEC CPM in the following Monthly Construction Progress Report. Luz shall transmit a periodic inspection

SEGS IX (89-AFC-01C)
MECHANICAL ENGINEERING CONDITIONS OF CERTIFICATION

program to the CEC CPM as soon as it is available for approval. Luz shall transmit a copy of the CBO's inspection approval to the CEC CPM in the Monthly Construction Report following completion of inspection.

- 5** Luz shall design and install all heating, ventilating, air conditioning, and refrigeration systems within buildings and related structures in accordance with the Uniform Mechanical Code and other applicable standards, ordinances and laws.

Prior to the intended start of construction of any such system, Luz shall obtain CBO approval of final design plans, specifications, calculations, and quality control procedures for each system. The final plans, specifications, and calculations shall include approved criteria, assumptions, and methods used to develop the design.

In addition, the responsible mechanical design engineer, registered to practice mechanical engineering in the State of California, shall sign and stamp all plans, drawings, and calculations and submit a signed statement to the CBO that the proposed final design plans, specifications, and calculations conform with all applicable standards, ordinances, and laws. Upon completion of any increment of construction, Luz shall request the CBO's inspection approval of said construction.

Verification: Thirty (30) days prior to the start of construction of any heating, ventilating, air conditioning, or refrigeration system, Luz shall transmit to the CEC CPM, in the following Weekly Progress Report, a copy of the CBO's approval of the required HVAC and refrigeration calculations, plans, and specifications (including a copy of the signed and stamped statement from the design engineer certifying compliance with the applicable standards, ordinances, and laws).

Luz shall send copies of CBO comments and approvals to the CEC CPM in the next monthly Construction Progress Report. Luz shall transmit a copy of the CBO's inspection approvals to the CEC CPM in the Monthly Construction Report following completion of any inspection.

- 6** Luz shall design, fabricate, and install:
- a. Plumbing in accordance with Title 24, CCR, Division 5, Part 5, and the Uniform Plumbing Code.
 - b. Potable water system in accordance with Title 24, CCR, Division 5, Part 5, Article Pro, and the Uniform Plumbing Code.
 - c. Drainage system including sanitary drain and waste system in accordance with Title 24, CCR, Division 5, Part 5, Articles P4, P5, P6, and P7, and the Uniform Plumbing Code.
 - d. Toilet rooms and number of toilet rooms in accordance with the Uniform Plumbing Code, Appendix C, and Title 24, CCR, Part 2.

SEGS IX (89-AFC-01C)
MECHANICAL ENGINEERING CONDITIONS OF CERTIFICATION

- e. Energy conservation system in the control and maintenance building in accordance with Title 24, CCR, Division 5, Chapter 2-53, Part 2.
- f. Temperature and ventilation systems in accordance with Title 24, CCR, Division 5, Chapter 2-53, Part 2.

Prior to the intended start of each increment of construction, Luz shall obtain the CBO's approval of all final design plans, specifications, calculations, and quality control procedures for each of the above mechanical systems, including water and sewer connection permits issued by the city or county. The final plans, specifications, and calculations shall clearly reflect the inclusion of approved criteria, assumptions, and methods used to develop the design.

In addition, the responsible mechanical design engineer, registered to practice mechanical engineering in the State of California, shall stamp and sign all plans, drawings, and calculations and submit a signed statement to the CBO that the proposed final design plans, specifications, and calculations conform with all of the requirements set forth in the Commission Decision. Upon completion of any increment of construction, Luz shall request the CBO's inspection approval of said construction.

Verification: Thirty (30) days prior to the start of construction of any of the above systems, Luz shall submit a copy of the CBO's approval of the final design plans, specifications, and calculations (including a copy of the signed and stamped statement from the design engineer certifying compliance with the applicable standards, ordinances, and laws) to the CEC CPM in the following Weekly Progress Report.

Luz shall transmit a copy of the CBO's inspection approvals to the CEC CPM in the Monthly Construction Report following completion of any inspection.

- 7** Luz shall not fire or operate of the heat transfer fluid (HTF) heaters and their components until approval is granted by the California Energy Commission (CEC) Compliance Project Manager (CPM) and the San Bernardino County Air Pollution Control officer (APCO), and in consultation with the San Bernardino County Fire Department.

Verification: Prior to any firing or operation of the HTF heaters Luz shall submit a letter, to the abovementioned agencies, requesting approval to operate the HTF heaters.

SEGS IX (89-AFC-01C)
NOISE CONDITIONS OF CERTIFICATION

- 1 Luz shall develop and submit to the San Bernardino County Department of Environmental Health for approval a noise complaint resolution procedure for handling public complaints during both the construction and operational phases of the project. The procedure shall include, at a minimum, logging of complaints, identification of contact personnel, a schedule for responding to complainants, and investigations to resolve the complaint. The intent of this procedure shall be for Luz to promptly document and determine the nature and cause of the complaint and take immediate and reasonable measures to eliminate its cause.

Verification: Not later than 60 days after certification, Luz shall submit to the San Bernardino County Department of Environmental Health, a procedure for handling public complaints. Luz shall request that the San Bernardino County Noise Regulatory Officer, within 15 days of receipt of the procedure, notify Luz and the CEC CPM regarding its acceptability.

- 2 Luz shall conduct a project traffic and community noise survey within 60 days (or other time period acceptable to the CEC Commission CPM) of the unit reaching an output rating of 80 percent or greater under normal plant operating conditions. The community noise sampling, unless otherwise specified will be monitored at locations acceptable to the CEC CPM and San Bernardino County Department of Health. The noise levels (day and night) shall be measured for a period of at least 24 hours at each location, under the above operating conditions. The hourly Leq and the statistical descriptors, L10, L50, L90, Lmax, and frequency distribution in 1/3 octave bands shall be reported. Based upon complaints or any significant changes in noise emissions due to changes at the Luz facility, additional surveys may be required by San Bernardino County Department of Environmental Health or the CEC CPM during the live of the project. Luz shall notify the CEC CPM of complaints received in the Monthly or Annual Compliance Report(s).

Luz shall prepare and submit to the San Bernardino County Department of Environmental Health for approval a report(s) on the survey(s) which will be used for comparison with pre-project background noise levels and projected plant noise levels. In the event that the measured levels substantially exceed (greater than 3 dB, or equal to or greater than the County Noise Standard) the projected levels, the report shall contain a detailed mitigation plan, which Luz will implement following review and approval by the San Bernardino County Department of Environmental Health.

Verification: Within 60 days (or another time period acceptable to the CEC CPM) of Luz reaching an output rating of 80 percent or greater, Luz shall conduct the above described noise survey. Within 30 days of completing the noise survey, Luz shall submit the noise survey report to the San Bernardino County Department of Environmental Health. The County shall notify Luz and the Commission CPM in writing, within 30 days of receipt of the report about the acceptability of the survey, and if further mitigation-is required.

SEGS IX (89-AFC-01C)
NOISE CONDITIONS OF CERTIFICATION

Luz shall notify the CEC CPM of the County's action in the next Monthly Compliance Report and include a statement of actions on any complaints received during that reporting period.

- 3 Luz shall conduct occupational noise surveys to identify the noise hazardous areas in the facility. The surveys shall be conducted after full commercial operation is reached. The surveys shall be conducted by a qualified person in accordance with the provisions of Title 8 of the California Code of Regulations, Sections 5095-50100 (Article 105) and Title 29, Code of Federal Regulations, Part 1910. The survey(s) results shall be used to determine the magnitude of employee noise exposure. Luz shall prepare and submit to the CEC CPM a report on the survey(s) results and proposed mitigation measures, if necessary, that will be employed to comply with California and Federal regulations.

Verification: The above noise surveys shall be conducted within 90 days (or another time period acceptable to the CEC CPM) after commercial operation is reached but no more less than 180 days after the unit has reached at least 50 percent of rated output. Within 60 days of the occupational noise surveys, Luz will submit the above report on the survey to the CEC CPM. Luz shall make this report available to Cal/OSHA upon request.

- 4 Luz shall maintain all internal combustion engine driven equipment used for the project in good working order and shall equip such equipment with appropriate mufflers to minimize noise emissions. Construction activity utilizing such equipment shall be limited to daylight hours to the extent feasible.

Verification: No later than 60 days after certification, Luz shall place in their compliance file a letter which certifies that all internal combustion engine drive equipment has been fitted with and will be operated with mufflers that minimize noise emissions.

Luz shall notify the CEC CPM of the filing of this letter in the next Monthly Compliance Report.

SEGS IX (89-AFC-01C)
PUBLIC HEALTH CONDITIONS OF CERTIFICATION

89-AFC-01C Order 91-0320-09f

- 1 Luz shall provide the CEC CPM with a complete description of operating procedures, start-up procedures, emergency shutdown procedures, and related operator training programs prior to operation of the heaters. The operating procedures should also address errors that could result from operation of different heater designs by the same personnel in the same control room.

Verification: Luz shall provide the CEC CPM with the above descriptions at least 90 days prior to start-up, for review and comment. Luz shall also incorporate any staff recommendations regarding procedures and training in the final procedures and training programs.

89-AFC-01C Order 91-0320-09f

- 2 Luz shall provide a proposed inspection and maintenance plan and schedule based on industrial experience or vendor recommendations for all system components critical to safe operation of the heaters. The plan shall describe procedures that will be followed to track failure rates in order to maintain the availability of critical system components at the facility by replacement or refurbishment before they become unreliable. Luz shall also implement the inspection and maintenance program to minimize failures of critical system components.

Verification: Luz shall submit a preliminary inspection and maintenance plan and schedule for components of critical systems to the CEC CPM at least 90 days prior to start-up. Luz shall also provide yearly status reports on equipment failures and the effectiveness of inspection and maintenance procedures on critical systems.

89-AFC-01C Order 91-0320-09f

- ~~3 Luz shall use redundant design for the following SEGS X critical safety systems, including redundant sensors, PLCs, and actuated devices, and Luz shall incorporate any CEC staff recommendations for firing rate/HTF flow control system modifications based on CEC staff's review:~~

~~Pilot Gas Pressure Purpose: Prevention of low pilot gas pressure possible failed "light off".~~

~~Instruments: Pressure switch low, connected to the PLC.~~

~~Location: Pilot gas header~~

~~Set point: Trip at 2 psig~~

~~Operation: Close gas valves~~

~~Flame Detector Purpose: Detection of burner "flame out".~~

~~Instruments: Two flame detectors per burner for a total of eight per heater, connected to the PLC.~~

~~Location: On the side walls of the fire box.~~

~~Set point: Both flame detectors sense loss of flame.~~

~~Operation: Close the gas valves.~~

~~Smoke Detector Purpose: Detection of smoke in air preheater ductwork.~~

SEGS IX (89-AFC-01C)
PUBLIC HEALTH CONDITIONS OF CERTIFICATION

~~Instruments: One smoke detector per heater, connected to the PLC.
Location: In flue gas duct, at the outlet of the air preheater.
Set point: "Smoke".
Operation: Close the gas valves. Stop the air fans and close respective dampers. Closes the main inlet HTF valve.~~

~~Box Temperature Purpose: Prevention of high fire box temperature.
Instruments: Temperature transmitter at each fire boxes top section, two per heater, connected to the PLC.
Location: On fire box top section.
Set point: 1300 F (1)
Operation: Close the gas valves.~~

~~Combustibles in Flue Gas Purpose: Prevention of pilot gas ignition if combustibles are in the flue gas.
Instruments: Combustion analyzers in the flue gas duct at each of the 4 heaters connected to the respective PLC's.
Location: Flue gas duct prior to the ID fan.
Set point: 0 ppm
Operation: Close the gas valves~~

~~Firing Rate Limitation (Gas Valve Limitation) Purpose: Determines the maximum gas pressure for any given HTF flow. This limits the fuel to the burner and prevents a condition where the HTF might overheat.
Instruments: Pressure (on gas header) and flow transmitters (on HTF header), connected to DCS. Fuel gas control valve connected to the DCS.
Location: ON the gas header to the burners and on the HTF inlet header.
Set point: From 0.5 to 10 Psig corresponding with an HTF flow of 10 to 100 percent.
Operation: Based on the HTF flow, the DCS calculates the maximum allowable gas pressure.~~

~~Low Flow Purpose: Detection of low HTF flow.
Instruments: Redundant flow sensors connected to redundant PLCs.
Location: At heater outlet.
Set point: 30% HTF flow.
Operation: Close gas supply valve.~~

~~**Verification:** Luz shall inform the CEC CPM when final P and ID diagrams are available for the proposed heaters. These shall be available for CEC staff review and comment no later than 90 days prior to heater operation.~~

- 4 Sixty days prior to operation of SEGS IX ~~and X~~ Luz shall develop and implement a personal protective equipment program and a respiratory protection plan for the operation of the SEGS IX ~~and X~~ facility, which contains sufficient detail for review by Cal/OSHA and the CEC CPM. Luz shall revise these plans as necessary based on comments made by Cal/OSHA and the CEC CPM and shall submit the

SEGS IX (89-AFC-01C)
PUBLIC HEALTH CONDITIONS OF CERTIFICATION

revised plan for approval by the CEC CPM, Luz shall also purchase and install all required equipment and conduct all required training of personnel.

Verification: Sixty days prior to commencement of operation at SEGS IX ~~and X~~, Luz shall:

1. provide a copy of a detailed personnel protective equipment program and a respiratory protection plan, applicable to the operation of SEGS IX ~~and X~~, to the CEC CPM and Cal/OSHA;
 2. forward a copy of comments made by Cal/OSHA to the CEC CPM; and,
 3. submit modified plans to the CEC CPM which reflect all CEC and Cal/OSHA comments.
- 5** Luz shall, at all times, ensure that protective equipment and procedures described in the personnel protective equipment program and the respiratory protection plan, or recommended in material safety data sheets, be followed when handling materials listed in **Tables 7-1** and **7-2** of the Safety Plan for the Harper Lake facilities. All procedures and equipment necessary to comply with vendor recommendations shall be in place prior to construction of SEGS IX ~~and X~~.

Verification: Luz shall provide to the CEC CPM a list of equipment purchased, and specific procedures that will be used in handling of all the materials listed in **Tables 7-1** and **7-2** of the Safety Plan, prior to construction of SEGS IX ~~and X~~.

Luz shall notify the CEC CPM in the Weekly Activity Report when installed equipment is ready for inspection.

- 6** Luz shall use only the materials listed in **Public Health: Table 2** for treatment of cooling tower water. Luz may use materials other than those listed in **Table 2** if written approval is obtained from the CEC CPM.

Verification: Luz shall obtain written approval from the CEC CPM prior to storage or use of any material not listed in **Public Health: Table 2** for treatment of cooling tower water.

- 7** Luz shall not store, handle, or otherwise use any chemical listed as extremely hazardous by the Environmental Protection Agency without an approved Risk Management and Prevention Program (RMPP), and/or prior approval of the San Bernardino County Department of Environmental Health Services (SBCDEHS) and the CEC CPM.

Verification: Luz shall inform the SBCDEHS and the CEC CPM of its intent to store or use a reportable quantity of an extremely hazardous material at least 6 months prior to on-site storage or use unless prior approval has been obtained from the SBCDEHS and the CEC CPM.

SEGS IX (89-AFC-01C)
PUBLIC HEALTH CONDITIONS OF CERTIFICATION

Luz shall also submit all requests made to the SBCDEHS to store or use such materials to the CEC CPM concurrently.

SEGS IX (89-AFC-01C)
QUALIFYING FACILITY STATUS CONDITIONS OF CERTIFICATION

- 1** The facility shall be operated in accordance with the requirements of Title 18 CFR, section 292.204(b)(2). Total energy input into the SEGS Unit IX project shall be monitored continuously by Luz. Monitored data shall include electrical energy deliveries to the purchasing utility, solar energy input, natural gas energy input, total energy input, monthly and annual plant availability, monthly and annual plant equivalent availability, and the monthly and annual capacity factor for each utility period (peak, mid-peak and off-peak).

Verification: Luz shall include, in the annual compliance report, a report signed by the project operations supervisor under whose supervision the data were obtained and the report prepared, attesting to the veracity of the data and showing each of the above parameters, by month, for SEGS Unit IX.

SEGS IX (89-AFC-01C)
RELIABILITY CONDITIONS OF CERTIFICATION

- 1 Luz shall have in place a comprehensive preventive- and restorative-maintenance program having the following features:
- an inventory management plan for assurance that adequate spare parts are on hand;
 - maintenance tools, factory repair manuals, and repair facilities adequate to perform on-site repair and maintenance of equipment;
 - a training program for mechanics and maintenance personnel in the operation and maintenance of plant systems and major equipment;
 - optimized scheduling of preventive maintenance; and
 - QA/QC control over purchase specification and acceptance of spare parts and equipment.

Verification: Within 180 days after the Commission Decision, Luz shall provide a statement signed by the project manager attesting to compliance with the condition. The statement shall be submitted to the CEC CPM.

- 2 Luz shall maintain monthly data sets of the following information:
- a. logs of equipment failure data and operational data for all major equipment, including SCA's, turbine-generator, gas-fired HTF heaters, condenser and cooling towers, pumps, and major valves and control devices. These logs shall include mean time between failures (MTBF), mean downtime (MDT), monthly and annual availability, and equipment availability and Capacity factors.
 - b. time of plant start-up and shut-down and duration of operation;
 - c. forced outage durations and causes;
 - d. average daily solar insolation;
 - e. net solar energy delivered to the steam generator; and
 - f. net natural gas consumed for steam generation and for HTF evening-hour temperature maintenance; and
 - g. monthly and annual availability, and equipment availability and capacity factors.

Verification: Luz shall include the information (**2b-2g**) listed above in each Annual Compliance Report to the CEC CPM. Upon request, Luz shall make available to the CEC CPM the information in item **2a**.

SEGS IX (89-AFC-01C)

INDUSTRIAL SAFETY AND FIRE PROTECTION CONDITIONS OF CERTIFICATION

- 1** Luz shall submit a SEGS Unit IX ~~and X~~ Safety Plan to the San Bernardino County Environmental Health Services Department and to the California Department of Industrial Relations, Division of Occupational Safety and Health (Cal-OSHA) for review and comment regarding compliance of the Plan with County requirements and with the provisions of Title 8, CCR, Section 1509 (Construction Safety Orders, Accident Prevention Program) and Section 3203 (General Industry Safety Orders, Accident Prevention Program) and Title 29, CFR 1910 respectively. Any and all comments by the County and Cal-OSHA shall be incorporated into the Plan. Luz shall implement the Safety Plan consistent with comments and requirements of San Bernardino County and Cal-OSHA.

Verification: At least 10 days prior to beginning any construction, Luz shall submit to the CEC CPM a letter containing San Bernardino County's and Cal-OSHA's comments regarding the compliance of the Safety plan with County requirements and with Title 8, CCR, sections 1509 and 3203 respectively, and a statement verifying that any and all comments or recommendations by the County and Cal-OSHA have been incorporated into the SEGS Unit IX Safety Plan.

The CEC CPM shall be accorded access to the project area, facilities, and all safety records at any reasonable time during construction and operation of the facility to verify implementation of the plan.

- 2** Luz shall obtain a final certificate of occupancy or suitable waiver from the San Bernardino County Forestry and Fire Warden Department. Within thirty (30) days of completion of construction, Luz shall request a final fire inspection.

Verification: At least 10 days prior to first turbine roll, Luz shall submit to the CEC CPM a copy of the final certificate of occupancy issued by the San Bernardino County Forestry and Fire Warden Department.

- 3** Luz shall submit copies of all reports related to the investigation of the January 10, 1990 SEGS Unit VIII fire and explosion. Luz shall incorporate all modifications to the project design and procedures which are required or ordered by the CEC CPM or the San Bernardino County Air Pollution Control Officer (APCO). Luz shall not fire or begin operation of the HTF heaters until this condition has been satisfied, the design and procedural changes implemented and approval is granted by the CEC CPM and the APCO in consultation with the San Bernardino County Fire Department.

Verification: Within thirty (30) days after certification, Luz shall submit to the CEC CPM a report(s) on the cause of the January 10, 1990 SEGS Unit VIII fire & explosion. Before Luz fires or operates the HTF heaters Luz shall incorporate the CEC recommendations and provide the CEC CPM with a statement that all CEC recommendations have been incorporated.

SEGS IX (89-AFC-01C)

INDUSTRIAL SAFETY AND FIRE PROTECTION CONDITIONS OF CERTIFICATION

- 4 Luz shall submit a report on its emergency response to the SEGS Unit VIII January 10, 1990 heat transfer fluid (HTF) heater fire to the San Bernardino County Environmental Health Services Department, San Bernardino County Fire Department, California Department of Industrial Relations, Division of Occupational Safety and Health (Cal-OSHA) and the California Energy Commission (CEC) Compliance Project Manager (CPM) for review and comment. Comments on the report will be incorporated in the SEGS Units IX ~~& X~~ Safety Plan/Emergency Response Plan.

Verification: Thirty (30) days after certification, Luz shall submit to the abovementioned agencies a copy of the emergency response report. Prior to delivery of HTF or natural gas to the facilities, Luz shall submit to the CEC CPM a letter containing the agencies comments regarding the emergency response report and a statement verifying that any and all comments or recommendations by the agencies have been incorporated into the SEGS Unit IX ~~and X~~ Safety Plan.

The CEC CPM shall be accorded access to the project area, facilities, and all safety records at any reasonable time during construction and operation of the facility to verify implementation of the Plan.

89-AFC-01C Order 91-0320-09f

- 5 Luz shall, prior to firing or operation of any of the HTF heaters, design and install fire monitoring and/or protection systems/equipment throughout the power block area, and devise and put into operation appropriate fire prevention/protection procedures. Such systems/equipment shall be capable of detecting, alarming, managing and/or snuffing fires on or near the HTF heaters and other power block equipment and facilities. All such systems/equipment and procedures shall satisfy all applicable LORS and all requirements of the San Bernardino County Fire Warden.

Verification: Sixty (60) days prior to first firing or operation of any of the HTF heaters, Luz shall submit to the San Bernardino County Fire Warden for approval, with a copy of the transmittal letter to the CBO and the CEC CPM, the procedures, final design plans, specifications, calculations and quality control procedures for the above systems or facilities.

In the monthly compliance report, prior to the first firing or operation of any of the HTF heaters, Luz shall submit to the CEC CPM a signed statement that the above systems or facilities have met approval of the San Bernardino County Fire Warden.

Battery Energy Storage System

WORKER SAFETY-11 The project owner shall submit the fire protection plans for the Battery Energy Storage System (BESS) to the San Bernardino County Fire Department (SBCFD) for review and comment, to the delegate chief building official (DCBO) for plan check and inspection, and to the compliance project manager (CPM) for review and approval.

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INDUSTRIAL SAFETY AND FIRE PROTECTION CONDITIONS OF CERTIFICATION

Verification: At least sixty (60) days prior to the start of construction of the BESS project, the project owner shall provide the complete set of BESS fire protection drawings and specifications to the SBCFD for review and comment, to the DCBO for plan check approval and construction inspection, and to the CPM for review and approval.

WORKER SAFETY-12 The project owner shall submit a BESS hazard mitigation analysis per UL 9540A to the SBCFD for review and comment, to the DCBO for plan check and inspection, and to the CPM for review and approval.

The hazard mitigation analysis shall include consideration of potential thermal runaway fault conditions occurring in a single-battery storage rack, cell module or cell array. The analysis shall include mitigations to prevent flammable gases released during fire, overcharging and other abnormal conditions within the BESS, from creating an explosion hazard that could injure workers or emergency first-responders.

Verification: At least sixty (60) days prior to the start of construction of the BESS project, the project owner shall provide the hazard mitigation analysis to the SBCFD for review and comment, to the DCBO for plan check and inspection, and to the CPM for review and approval.

WORKER SAFETY-13 The project owner shall provide an approved fire water supply for use by first responders when responding to an emergency related to the BESS.

Verification: At least sixty (60) days prior to the start of construction of the BESS, the project owner shall provide the fire water supply plans to the SBCFD for review and comment, to the DCBO for plan check and inspection, and to the CPM for review and approval.

SEGS IX (89-AFC-01C)
SOCIOECONOMICS CONDITIONS OF CERTIFICATION

~~1 In the event that Luz does not employ union construction and/or operations workers for SEGS Unit X, Luz shall institute a program to maximize the use of the existing labor pool in the local area. Luz shall not recruit out of the local area or outside California until all elements of the local hiring program have been fully implemented. Luz shall submit a detailed plan to implement the program to the California Energy Commission (CEC) Compliance Project Manager (CPM) for review and approval prior to implementing the program.~~

~~**Verification:** Within 15 days after certification of SEGS Unit X, or a date mutually agreeable to Luz and the CEC CPM, Luz shall submit the detailed plan to the CEC CPM.~~

2 Luz shall use its best efforts to have the labor unions obtain complete entry and exit questionnaires for each SEGS Unit IX worker represented by a union. The questionnaires shall be similar to the questionnaires approved by the CEC CPM for use on the SEGS Unit VIII project. Luz shall label each questionnaire such that it can be identified by the CEC CPM. Luz shall provide the CEC CPM with copies of all questionnaires. Every time a Luz employee or union worker is rehired, the information on that person shall be updated.

Luz shall prepare an electronic data base that is compatible with dBASE IV of all the employee surveys similar to the data base maintained for SEGS Unit VIII.

Luz shall provide to the CEC CPM for review and approval a copy of the entry and exit questionnaires that it intends to have its employees and the union workers complete. Luz shall not have its employees or the union workers complete the forms until the forms have been approved by the CEC CPM.

Luz shall provide copies of any newly completed or revised worker surveys and the updated electronic data base to the CEC CPM when it provides each Monthly Compliance Report, but not as part of that report.

Verification: Within 15 days after certification, Luz shall provide to the CEC CPM for review and approval a copy of the entry and exit questionnaires that it intends to have its employees or the union workers complete. Luz shall not have its employees or the union workers complete the forms until Luz has received notification that the forms have been approved by the CEC CPM.

3 In the event that the SEGS construction and/or operations workers are unionized under agreements between Luz and various Labor organizations, including District Council 16 of the Plumbers and Pipefitters Union, Luz shall provide the data regarding schools from the Luz employee and union worker questionnaires to each affected school district. For districts which wish to conduct their own surveys, Luz shall provide the names of the contractors and subcontractors for the SEGS Unit by September 1 of each year that the project is under construction or in operation, until construction of the last SEGS unit in the Harper Lake area is completed. If a school district desires an updated list of contractors and subcontractors after September 1, Luz shall provide it.

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SOCIOECONOMICS CONDITIONS OF CERTIFICATION

Verification: By September 1 of each year that the SEGS Unit is under construction or in operation, Luz shall provide the names of the contractors and subcontractors for the project to each school district, with a copy of the submittal to the CEC CPM. If a school district requests an updated list of contractors and subcontractors, Luz shall provide this list to the district, with a copy of the submittal to the CEC CPM, within 15 days of Luz's receipt of the district's request. Luz shall provide survey information to any affected school district upon request.

- 4 Luz shall make payments to school districts for all non-reimbursable costs due to any student enrolled who has a parent who immigrated to the local area to work on a SEGS project and works on the construction or operation of SEGS Unit IX ~~and X~~.

For school districts that already have signed mitigation agreements with Luz, Luz shall pay the districts according to the terms of the agreement. For any other districts that Luz' employee surveys for SEGS VIII (at peak construction labor force for construction workers and after commercial operation for operations workers) show to have students of such workers enrolled, Luz shall enter into an agreement to compensate the district for any non-reimbursable costs. Luz shall make one-time payments for construction and operations workers. The payments for construction workers shall be for the school year in which the construction work force peaks. The payments for operations workers shall be for the school year in which commercial operation begins.

For construction workers, Luz shall submit calculations of the number of impact students per district to the CEC CPM for review and approval within 30 days of the peak of the construction work force. For agreements in which mitigation payments are calculated on a per student basis, the amount of compensation shall be determined by multiplying the number of impact students by the non-reimbursable costs per student for the specific district. The distribution of impact students between school districts shall be determined from Luz' surveys of the workers for SEGS Unit VIII. The number of impact students per district shall be the same as for SEGS Unit VIII unless the peak construction force for SEGS IX ~~and X~~ is higher than for SEGS VIII. In that case, Luz' mitigation payments to the school districts shall be proportionally higher. The construction workers to be used as a basis of calculations shall consist of all construction workers who immigrated to the local area to work on any SEGS project (Units I-VIII) and are working on SEGS Unit VIII. Within 30 days after Luz receives notification from the CEC CPM that the calculations have been approved, Luz shall submit to the CEC CPM for review and verification photocopies of the checks that Luz has sent to any affected districts and copies of the cover letters for the checks. Luz shall also provide copies of any signed agreements that Luz has reached with each affected school district with which Luz has not previously signed a mitigation agreement.

For mitigation payments for children of operations workers for SEGS Unit IX ~~or X~~, Luz shall submit calculations of the number of impact students per district to the

SEGS IX (89-AFC-01C)

SOCIOECONOMICS CONDITIONS OF CERTIFICATION

CEC CPM for review and approval within 30 days after the start of commercial operation of SEGS Unit VIII. Within 30 days after Luz receives notification from the CEC CPM that the calculations have been approved, Luz shall submit to the CEC CPM for review and verification photocopies of the checks that Luz has sent to any affected districts and copies of the cover letters for the checks. Luz shall also provide copies of any signed agreements that Luz has reached with each affected school district with which Luz has not previously signed a mitigation agreement. The operations workers for SEGS Unit VIII shall be assumed to be representative of the operations workers for SEGS Unit IX ~~or X~~. The number and district enrollment of immigrating children of operations workers for SEGS Unit IX ~~or X~~ shall be assumed to be the same as for SEGS Unit VIII.

Verification: Within thirty days after the peak of the construction work force for SEGS Unit VIII, Luz shall provide to the CEC CPM for review and verification the required calculations. Within 30 days after Luz receives notification from the CEC CPM that the calculations have been approved, Luz shall submit to the CEC CPM for review and approval the required photocopies of checks, copies of the cover letters for the checks, and copies of any new agreements with school districts.

For operations workers, Luz shall submit the required calculations to the CEC CPM for review and approval within 30 days after the start of commercial operation of SEGS Unit VIII. Within 30 days after Luz receives notification from the CEC CPM that the calculations have been approved, Luz shall submit to the CEC CPM for review and verification the required photocopies of checks and copies of the cover letters for the checks.

In each Monthly Compliance Report to the CEC CPM, Luz shall describe the status of mitigation payments to each affected district until construction of the last SEGS unit in the study area is completed.

- 5** Luz shall develop and implement a program for SEGS Unit IX ~~and X~~ to encourage construction employees and their families to reside in communities which can readily accommodate them and their families. The program shall include providing real estate listings and car pooling information regarding these communities, and transportation incentives for non-local workers who reside in such communities. Luz shall submit a detailed plan to implement the program to the CEC CPM for review and approval. Luz shall not implement the program until Luz receives approval of the plan from the CEC CPM. In the event that Luz continues to employ a non-union labor force and therefore does not conduct employee surveys as specified in Condition 2 above, Luz shall provide to the CEC CPM for review and approval information as to the residential location of all construction workers for SEGS Unit IX ~~and X~~. Commission staff will use this information in evaluating the effectiveness of the program required by this condition.

Verification: Within 15 days after CEC certification, Luz shall submit the detailed plan to the CEC CPM for review and approval.

SEGS IX (89-AFC-01C)
SOCIOECONOMICS CONDITIONS OF CERTIFICATION

Luz shall provide updates of the information regarding employees' residential location in the monthly compliance reports.

- 6** Luz shall offer the health insurance benefit program developed in compliance with Socioeconomic Condition 4 of the Commission Decision on SEGS Unit VIII to Luz' employees and SEGS Units IX ~~& X~~ workers who are not members of a labor organization.

Verification: Luz shall provide to the CEC CPM in each Monthly Compliance Report a status report listing changes in employees' enrollment in the health insurance plan.

- 7** Luz shall use its best efforts to ensure that each Luz and union worker employee on SEGS Unit IX ~~and X~~ who has not previously received drug awareness training as part of the implementation of the law enforcement program for SEGS Unit VIII which Luz developed in compliance with Condition 5 of the Commission Decision on SEGS Unit VIII attends drug awareness training by the Barstow Police Department unless the CEC CPM determines that the union workers have received equivalent training through their union.

Verification: Within 15 days following the Commission Decision, Luz shall provide to the CEC CPM for review and approval information regarding the drug awareness training provided by the unions to their workers and a schedule for any training required.

In each Monthly Compliance Report, Luz shall specify the number of Luz employees and union workers who have been trained and the number who remain to be trained.

- 8** Prior to the start-up, operation, or testing of the SEGS Unit IX, Luz shall enter into an agreement with San Bernardino County Forestry and Fire Warden Department for fire protection services related to the operation of SEGS Units IX ~~& X~~.

Verification: Within 30 days of certification, Luz shall submit to the CEC CPM a statement that they are participating in discussions with the abovementioned fire department.

Prior to the start-up, operation, or testing of SEGS Unit IX, Luz shall submit to the CEC CPM a signed agreement between Luz and the abovementioned fire department for fire protection services. If Luz and the fire department cannot reach an agreement, the dispute will be referred to the CEC CPM for resolution.

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SOILS CONDITIONS OF CERTIFICATION

- 1** During construction, Luz shall water down or apply dust palliatives to all disturbed areas and roadways to minimize erosion and suppress fugitive dust. All grubbing and grading activities shall halt when wind speeds reach or exceed 25 miles per hour for a period of 15 minutes or more. Luz shall have and operate a recording anemometer on site during the construction period. The daily record (tape) from the anemometer and the daily construction log that records any work stoppage shall be maintained on site during the entire construction period.

Verification: Luz shall include a record of water and/or chemical dust suppressants applied to on-site soils and the areas of the site to which these materials were applied in their Monthly Compliance Reports. Daily anemometer and construction log records shall be available to the CEC Staff or their delegates for inspection at any time. Any work stoppages due to excessive wind speeds shall be reported in the Monthly Compliance Report.

- 2** Once construction of flood control dikes, berms, and roadways is completed, exposed surfaces of these portions of the project shall be stabilized by applying a soil sealant or cement. Luz shall identify the areas that will be stabilized, and the type of stabilizing agents that will be used for each area in the erosion and sedimentation control plan required by **Civil Engineering Condition of Certification 4**.

Verification: As set forth in **Civil Engineering Condition of Certification 4**, Luz shall submit, prior to the start of grading on the project, to the County Building Official (CBO) or their representative, a proposed erosion and sediment control plan for approval. This plan shall include the information required above.

- 3** Luz shall notify the CEC CPM, two weeks in advance, of the start of the following activities: submittal of the proposed erosion and sediment control plan; general site grading and grubbing; construction of all dikes, berms, and roadways; and application of stabilization agents to all dikes, berms, roadways, and other disturbed areas.

Verification: Luz shall notify the CEC CPM in the Weekly Action report of the start of these activities.

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STRUCTURAL ENGINEERING CONDITIONS OF CERTIFICATION

- 1 Luz shall design, construct, and inspect SEGS Unit IX ~~and X~~ in accordance with applicable LORS identified herein, under the section entitled "Applicable Laws, Ordinances, Regulation and Standards," with the proposed modifications of this testimony, and with the pertinent portions of the section of this testimony entitled "Summary of Luz's-Proposal".

Verification: Luz's project manager shall submit to the CEC CPM a statement that all design, construction, and inspection requirements of the applicable LORS and the Commission Decision have been met for the area of structure design. The statement shall be submitted thirty (30) days prior to the date of commercial operation.

- 2 Luz shall assign to the project a responsible design engineer who is either a registered structural engineer with the authority to use the title "Structural Engineer" in California or a registered California Civil Engineer who is fully competent and proficient in the design of power plant structures and equipment supports.

The design engineer shall:

1. Be directly responsible for the design of proposed structures and equipment supports.
2. Provide consultation to the responsible construction engineer during design and construction of the project.
3. Monitor construction progress to ensure compliance with the design intent.
4. Evaluate and recommend necessary changes in design.
5. Prepare and sign all necessary building plans, specifications and calculations (Business and Professions Code; Chapter 7, Division 3).

If the responsible design engineer is subsequently replaced, Luz shall within ten (10) days submit the name(s) and qualifications of the newly assigned individual(s) to the CBO and CEC CPM.

Verification: At least 60 days (or-a lesser number of days if mutually agreeable to the CBO and CEC CPM) prior to submittal of building plans, Luz shall identify to the CBO and the CEC CPM the name and set forth the qualifications of, the responsible design engineer who has been assigned to the project and will perform the duties set forth above.

- 3 Prior to start of final design, Luz shall submit to CEC CPM for approval one set of each of the following items for rotating equipment:
- A list of the supports and foundations.
 - Provide the analytical model (with a sketch) to be used for dynamic analysis including the method and formula to determine soil springs and damping.

SEGS IX (89-AFC-01C)
STRUCTURAL ENGINEERING CONDITIONS OF CERTIFICATION

- Show plots of deflection vs. frequency, velocity vs. frequency and acceleration vs. frequency, the acceptance criteria for vibration induced acceleration, velocity, and displacement.

Verification: Thirty (30) days prior to start of final design of the structure, Luz shall submit the above data to the CEC CPM

- 4** Prior to the start of any construction of project structures, foundations and equipment supports and anchorages, field fabricated tanks, cooling tower, turbine/generator, HTF heater, ASME pressure vessel, switchyard equipment, and power piping, Luz shall obtain approval from the CBO for the final design plans, specifications, calculations, soils report, and quality control procedures. Luz shall submit a copy of the complete transmittal package for the designated critical elevated structures (i.e., turbine generator support and foundation, HTF expansion tank foundation, deaerating heater support structure, and structures taller than 20 feet) to the CEC CPM.

Luz shall ensure that all field fabricated tanks are designed, fabricated, and installed in accordance with API 650 or AWWA D-100 and Title 8 CCR, Chapter 4.

If there are conflicting requirements, the most conservative shall govern (i.e., highest loads, lowest allowable stresses). Plans, calculations, and specifications for foundations that support structures should be filed concurrently with the structure plans, calculations, and specifications. The final plans, calculations, and specifications shall clearly reflect the inclusion of approved criteria, assumptions, and methods used to develop the design and be signed and stamped by the responsible design engineer. In addition, the responsible design engineer shall submit a signed statement to the CBO and to the CEC CPM that the final design plans, specifications and calculations conform with all of the requirements set forth in the Commission's Decision.

Verification: Luz shall submit one (1) copy of the plans, specifications, calculations, and other required documents to the CEC CPM for the designated critical elevated structures at least 90 days prior to the intended start of fabrication and installation of each structure, equipment support, or foundation.

Luz shall submit written notice to the CEC CPM in the next weekly activities report that the plans, specifications, and calculations have been approved by the CBO.

- 5** Luz shall make payments to the CBO equivalent to the fees listed in the Uniform Building Code (UBC) Chapter 3, Section 304 and Table No. 3-A, for the plan review and "in lieu" permit. If San Bernardino County has adjusted the UBC fees by county ordinance or code, Luz shall pay the adjusted fee.

Verification: LUZ shall notify the CEC CPM in the next weekly activities report that the "in lieu" permit has been received.

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STRUCTURAL ENGINEERING CONDITIONS OF CERTIFICATION

- 6** Luz shall submit a weekly report to the CBO and CEC CPM containing all material test and inspection reports which show nonconformance.

Verification: The weekly reports shall be submitted within five (5) days after the end of each week.

- 7** Inspections shall be performed in accordance with Chapters 3 and 70 of the UBC. LUZ shall assign as a resident engineer, a civil engineer registered in the State of California, who shall be present on site as required to monitor construction activities, who shall have authority to halt construction and to require changes or remedial work if the work does not conform to the applicable requirements and who shall be responsible for the special and continuous inspections required by UBC Section 306.

All welding (including structural piping, tanks, and pressure vessels) shall be inspected by a certified weld inspector (AWS and/or ASME as applicable). If any of the above person is subsequently replaced, Luz shall within ten (10) days, submit the name(s) and qualifications of the newly assigned individual(s) to the CBO and CEC CPM.

Verification: Names and qualifications of the resident registered civil engineer, the certified weld inspector, and the other special inspectors shall be submitted to the CBO and to the CEC CPM at least 60 days (or a lesser number of days mutually agreeable to the CEC CPM and CBO) prior to the start of any activity requiring special inspection in accordance with UBC Section 306 (UBC, Chapters 3 and 70). Luz shall notify the CEC CPM of all CBO approvals or disapprovals of the resident registered civil engineer, weld inspectors, or special inspectors.

- 8** All structural work shall be subject to inspection by the CBO and CEC CPM. Luz shall accord access to the jobsite, at any reasonable times, to the CBO or his designated representatives and to the CEC CPM or his designated representatives for the purpose of performing the inspection functions described in these Conditions of Certification.

Verification: Luz shall notify the CBO and CEC CPM in writing at least 15 days prior to when any work is ready for inspection.

- 9** Luz shall file with the CBO and CEC CPM design changes to the final plans as required by UBC, Section 303, submitting the revised drawings, specifications, calculations, and a complete description of and supporting rationale for the proposed change to the CBO, and shall notify the CBO of the intended filing (UBC, Chapter 3).

Verification: Luz shall notify the CBO at least 15 days prior to the intended filing of design changes and shall submit revised drawings and the other above mentioned documents to the CBO, with one (1) set of all these to the CEC CPM. Luz shall notify the CEC CPM in the next weekly activities report that the CBO has approved the revised plans.

SEGS IX (89-AFC-01C)
STRUCTURAL ENGINEERING CONDITIONS OF CERTIFICATION

- 10** Upon completion of any structure, Luz's responsible design engineer shall submit to the CBO and to the CEC CPM: (a) a written notice that the structure is ready for final inspection, and (b) a signed statement that the structure conforms to the final approved building plans. The marked up "as-built" drawing for the construction of structural and architectural work shall be submitted to the CBO. Changes approved by the CBO shall be identified on the "as-built" drawings.

Verification: Luz shall request inspection of the completed structure, and shall notify the CEC CPM of the CBO's approval in the next weekly activities report.

- 11** Luz shall submit weekly to the CBO the following data:

- Concrete cylinder strength test reports, (including date of testing, date sample taken, design concrete strength, tested cylinder strength, age of test, type and size of sample, location and quantity of concrete placement from which sample was taken, mix design designation and parameters).
- Concrete pour sign-off sheets.
- Bolt torque inspection reports (including location of test, date, bolt size, recorded torques).
- Field weld inspection reports, (including type of weld, location of weld, inspection of NDT procedure and results, welder qualifications, certifications, qualified procedure description or number [ref.: AWS and ASME]).
- Reports covering other structure activities requiring special inspections in accordance with UBC, Section 306.

Verification: If the CBO disapproves any of the above reports, Luz shall advise the CEC CPM of the disapproval in the next weekly activities report.

- 12** At least 60 days (or a lesser number of days mutually agreeable to the CBO and CEC CPM) prior to the intended start date of the first increment of construction, Luz shall furnish to the CBO and the CEC CPM a schedule of structural plan submittals, a Master Drawing List, and a Master Specifications List. The schedules shall contain a description and list of proposed submittal packages of structural plans, calculations, and specifications for critical electrical and mechanical equipment and the estimated date of submittal. Luz shall furnish monthly updates to the CBO and the CEC CPM.

Verification: Luz shall submit the schedule, Master Drawing List, and Master Specifications List to the CBO and to the CEC CPM and provide monthly updates in the next weekly activities report.

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TRANSMISSION LINE SAFETY AND NUISANCE CONDITIONS OF CERTIFICATION

- 1 Luz shall obtain a statement from the responsible electrical engineer, registered in the state of California, indicating that the SEGS Unit IX ~~and X~~ transmission line will be constructed in accordance with CPUC GO-95 and with Title 8 CCR.

Verification: Luz shall submit the required statement covering the transmission line to CEC CPM at least 60 days before the start of construction of the SEGS Unit IX ~~and X~~ transmission line.

- 2 Luz shall ensure that all ungrounded metallic fences, gates, roofs, or building sidings or other large permanent metallic objects within the right-of-way, regardless of ownership or location, are grounded in conformance with procedures defined in the National Electrical Safety Code. In the event that an owner will not permit the grounding of a metallic object, Luz shall so notify the CEC CPM. Notification shall include, when possible, the owner's written objection. Upon receipt of such notice of objection, the CEC CPM will waive the requirement for grounding of that object.

Verification: At least 30 days prior to scheduled energization of the SEGS Unit IX ~~and X~~ transmission line, Luz shall file a statement with the CEC CPM verifying compliance with these grounding procedures. The filing shall include, where applicable, an owner's objection to the required grounding.

- 3 Luz shall prepare a letter to all property owners, within or adjacent to the right-of-way which shall contain the following:
 - the nature and operation of the transmission line.
 - Luz's responsibility for and intent to ground all ungrounded metallic fences, gates, roofs, building sidings or other large permanent metallic objects within the right-of-way, regardless of ownership or location.
 - the property owner's responsibility to notify Luz in the event that the property owner adds or installs a metallic object which requires grounding as described above.
 - a statement that the refueling of vehicles or equipment under the transmission line is not recommended.

Luz shall submit the proposed letter to the CEC CPM for approval prior to mailing to the property owners and shall maintain a record of correspondence (notification and responses) related to this requirement in a compliance file.

Verification: Luz shall notify the CEC CPM in the first Monthly Compliance Report when the notification letters were mailed and that copies are on file.

- 4 Luz shall investigate all complaints from property owners or the public regarding problems due to induced voltages on vehicles, portable objects, metallic roofs, metallic building sidings, gutters, fences, irrigation equipment or other objects

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TRANSMISSION LINE SAFETY AND NUISANCE CONDITIONS OF CERTIFICATION

within the right-of-way. Luz shall, at its own expense, take all measures to correct these problems.

Luz shall also respond, within 10 days, to an owner's notice of additional objects being placed within the right-of-way and requiring grounding. The response shall establish the date of completion for the required grounding which shall be completed within 30 days of receipt of the owner's notice requesting grounding.

Verification: Luz shall maintain a record of activities (grounding, notifications and responses) related to this requirement in a compliance file. A summary of these records shall be included in the Annual Compliance Reports.

Upon request, these records shall be made available to the CEC CPM or an authorized representative.

- 5 Luz shall make every reasonable effort to locate and correct, on a case-by-case basis, all causes of radio and television interference attributed to the transmission line facilities. In addition to any necessary transmission line repairs, corrective action shall include, but shall not be limited to, adjusting or modifying receivers, adjusting, repairing, replacing or adding antennas, antenna signal amplifiers, filters or lead-in cables. Luz shall maintain records of complaints and corrective actions and shall, upon request make these records available to the CEC CPM or an authorized representative. All complaints shall be recorded including explicit notations of the corrective actions performed. Complaints which did not result in corrective action or resolution shall be described and justified. The record shall be signed by the owner's authorized representative and also by the complainant to indicate concurrence with the corrective action or with the justification of no corrective action.

Verification: All records required above shall be summarized in the Annual Compliance Reports.

- 6 Luz shall keep each transmission line pole site free of waste material and rubbish as required by PRC 4292 and Title 14 CCR section 1250.

Verification: Luz shall provide information about the inspection, cleanup and fire protection activities around the transmission poles in the Annual Compliance Reports.

Battery Energy Storage System

TLSN-11 The project owner shall construct the BESS 230-kV transmission line according to the requirements of California Public Utility Commission's General Order (GO) 95, GO-131-D, and Title 8 of the California Code of Regulations.

Verification: At least 30 days prior to the start of construction of the BESS transmission line or related structures and facilities, the project owner shall submit to the compliance project manager (CPM) a letter signed by a California registered

SEGS IX (89-AFC-01C)
TRANSMISSION LINE SAFETY AND NUISANCE CONDITIONS OF CERTIFICATION

electrical engineer affirming that the lines will be constructed according to the requirements stated in the condition.

TLSN-12 The project owner shall maintain the BESS 230-kV transmission line and pole sites to comply with fire prevention requirements and ongoing inspection and maintenance as required in GO-95, GO-165, and Title 14 of the California Code of Regulations Sections 1250-1258.

Verification: The project owner shall provide a summary of inspections, maintenance, cleanup, and other fire prevention activities to demonstrate compliance in the Annual Compliance Report.

TLSN-13 The project owner shall ensure that all permanent metallic objects within the proposed route are grounded according to industry standards.

Verification: At least 30 days before the BESS 230-kV transmission line is energized, the project owner shall submit confirmation of compliance to the CPM.

TLSN-14 The project owner shall make every reasonable effort to locate and correct, on a case-by-case basis, all causes of radio frequency interference attributed to the transmission line facilities.

The project owner shall maintain records of any complaint and any corrective actions.

Verification: The project owner shall submit the required records to the CPM in the annual report.

SEGS IX (89-AFC-01C)
TRAFFIC AND TRANSPORTATION CONDITIONS OF CERTIFICATION

- 1 Luz shall comply with the San Bernardino County and Caltrans restrictions on oversize or overweight limit vehicles. Luz shall obtain necessary transportation permits from the County and Caltrans. Luz shall maintain copies of these permits in its compliance file for a period of six months after the start of commercial operations.

Verification: In its Monthly Compliance Reports, Luz shall notify the CEC CPM of any transportation permits obtained during the reporting period.

- 2 Luz shall comply with San Bernardino County and Caltrans requirements for encroachment on a public right-of-way. Luz shall obtain necessary encroachment permits from the County and Caltrans. Luz shall maintain copies of these permits in its compliance file for a period of six months after the start of commercial operations.

Verification: In its Monthly Compliance Reports, Luz shall notify the CEC CPM of any encroachment permits obtained during the reporting period.

- 3 Luz shall not start any construction on ~~each of~~ the SEGS Unit IX ~~and X~~ projects prior to receiving CEC CPM approval of their Transportation System Management (TSM) plan, which will be based on its TSM program originally submitted for SEGS Unit VIII. The SEGS Unit IX TSM plan will describe specific implementation of the TSM program and shall include:
 - a. Baseline, and quarterly, measurement of traffic on SR 58 to establish whether it is necessary to stagger shifts. The first measurements shall be taken prior to the start of construction of SEGS Unit IX. At least one of the quarterly measurements shall be taken early during the period of peak employment when construction-related traffic will be at its maximum. Quarterly measurements shall continue during construction. Luz shall, if necessary, schedule shift changes for operations and construction employees at SEGS Units III-VII and operations employees at SEGS Unit VIII and IX so as not to coincide with arrivals and departures for construction employees at SEGS Unit IX and shall schedule all types of arrivals and departures so as not to coincide with morning and evening peak traffic hours on SR 58, based on the measuring.
 - b. The TSM plan shall consist of individual elements which contain discussions of the specific measures proposed to be used to effectively carry out that element, and a description of those measures which will be used to evaluate the effectiveness of the element. Elements shall include, but not be limited to, carpooling, vanpooling, and staggering of work hours.
 - c. The goal of the TSM plan will be to reduce the total number of vehicles traveling the same section of SR 58 at a given time, and as a part of the plan, Luz will establish a goal for the amount of traffic reduction it will achieve.

SEGS IX (89-AFC-01C)
TRAFFIC AND TRANSPORTATION CONDITIONS OF CERTIFICATION

- d. Luz shall maintain copies of the TSM plan on site in its compliance files for a period of six months after the start of commercial operations.

Verification: Luz shall submit a copy of its SEGS Unit IX TSM plan to the CEC CPM a minimum of 30 days prior to the start of construction. Within 15 days of receipt, the CEC CPM shall respond to Luz regarding the adequacy of the TSM plan.

In its Monthly Compliance Reports, Luz shall notify the CEC CPM of:

- a. the ongoing effectiveness of the TSM program and plan, including whether its goal for traffic reduction has been achieved;
- b. of any additional measures needed to more effectively implement the TSM plan; and
- c. of changes to the shift schedule(s) which are necessary or have been implemented.

Luz shall notify the CEC CPM of the scheduled date(s) for quarterly traffic measurements in its Weekly Activities Report.

- 4** Luz shall notify Caltrans in writing, 60 days prior to beginning construction of ~~each of~~ the SEGS Unit IX ~~and X~~ projects, of the expected traffic volumes on-SR 58. During the period in which SR 58 reconstruction is underway, Luz shall coordinate its construction traffic, particularly heavy truck traffic, with the Caltrans Resident Engineer in order to minimize conflicts with SR 58 reconstruction activities.

Verification: Luz shall submit a copy of the written notification to Caltrans to the CEC CPM.

In its Monthly Compliance Reports, Luz shall notify the CEC CPM of the results of its meetings with Caltrans, including any contacts with the Caltrans Resident Engineer.

- 5** No later than 60 days after the Commission Decision on SEGS Unit IX, Luz shall sign an agreement with the San Bernardino County Transportation and Flood Control Department, Traffic Division, for the reconstruction of Harper Lake Road, and the mitigation of project related traffic and transportation impacts (including necessary maintenance) on Santa Fe Avenue and all other San Bernardino County roads in the SEGS Harper Lake projects vicinity. Luz shall maintain a copy of the agreement in its compliance file.

Verification: No later than 60 days after the Commission Decision on SEGS Unit IX, or in its first Monthly Compliance Report, whichever comes first, Luz shall notify the CEC CPM of the status of the agreement with San Bernardino County, and in its subsequent Monthly Compliance Reports shall notify the CEC CPM of the progress toward signing of the agreement.

- 6** Luz shall monitor the occurrence of accidents on Harper Lake, Hoffman, and Lockhart Roads, and Santa Fe Avenue serving the SEGS Unit IX ~~and X~~ projects.

SEGS IX (89-AFC-01C)
TRAFFIC AND TRANSPORTATION CONDITIONS OF CERTIFICATION

If the results of the monitoring indicate that further mitigation measures on these roads may be necessary, Luz shall consult with San Bernardino County and the CEC CPM to determine the extent of any additional measures that may be required. Luz shall maintain the results of the monitoring in its compliance files.

Verification: In its Monthly or Annual Compliance Report, Luz shall report the results of its monitoring to the CEC CPM and shall separately report to the San Bernardino County Flood Control and Transportation Department, Traffic Division. Luz shall report to the CEC CPM in Monthly or Annual Compliance Reports the current status of any consultations or agreed upon mitigation measures.

7 Prior to the start of construction on the SEGS Unit IX project, Luz shall adopt, and implement, for the SEGS Unit IX ~~and X~~ projects, the comprehensive plan developed for the transport of hazardous materials to and from the SEGS VIII project. The plan shall be updated as appropriate.

Verification: In its first Monthly Compliance Report Luz shall certify such adoption and implementation to the CEC CPM.

Luz shall submit updates to the plan in subsequent Compliance reports.

SEGS IX (89-AFC-01C)
TRANSMISSION SYSTEM ENGINEERING CONDITIONS OF CERTIFICATION

~~1~~ Prior to commencing any construction on or for SEGS Unit X, Luz shall submit to the California Energy Commission Compliance Project Manager (CEC CPM) the CPUC's decision on the Kramer/Victor CPCN and the following contractual documents and/or revisions approved by the CPUC:

- ~~a. Agreement to Expedite Interconnection between Southern California Edison Company and Luz International Limited, November 22, 1989.~~
- ~~b. First Amendment to Interconnection and Integration Facilities Agreement between Southern California Edison Company and Luz International Limited, November 22, 1989.~~
- ~~c. Second Amendment to Interconnection and Integration Facilities Agreement between Southern California Edison Company and Luz International Limited, November 22, 1989.~~

~~Luz shall also provide, unless included in the CPCN decision, a detailed description of the facilities authorized by the CPUC and a transmission construction and testing schedule which demonstrates that the Kramer/Victor facilities will be functional for SEGS Unit X start-up and commercial operation.~~

~~Luz shall not initiate any construction activities on or for SEGS Unit X until CEC CPM approval to proceed has been received.~~

~~Minor construction activities which will not cause environmental impacts or economic impacts to ratepayers may be authorized by the CEC CPM if requested by Luz.~~

~~**Verification:** At least 30 days prior to commencing any construction on or for SEGS Unit X Luz shall provide to the CEC CPM four copies of the CPUC's decision on the Kramer/Victor CPCN and the contractual documents and/or their revisions listed above.~~

~~Within 24 working hours of initiating construction on or for SEGS Unit X, Luz shall advise the CEC CPM by telephone or telex. Written confirmation shall be received by the CEC CPM within 7 working days of the start of construction.~~

2 Luz shall ensure that the design, construction, and operation of the proposed transmission facilities will conform to requirements a through d listed below. The substitution of "or equal" equipment and equivalent switching station configurations is acceptable. Failure to establish "or equal" status shall be a violation of certification.

- a. Two approximate 1.25 mile 220 kV single circuit steel pole transmission outlets shall be installed between the Luz SEGS IX ~~and X~~ plants and the Luz common switching station. One 795 KCMIL ACSR (DRAKE) conductor per phase shall be installed on each of the outlet pole sets. The outlet routes shall not substantially deviate from the corridor shown in Figure 2.
- b. The transmission facilities shall meet or exceed the requirements of GO-95 Rules 37 and 38.

SEGS IX (89-AFC-01C)
TRANSMISSION SYSTEM ENGINEERING CONDITIONS OF CERTIFICATION

- c. The transmission facilities shall be designed, operated and maintained in accordance with SCE tariff rule 21.
- d. No other generating unit or transmission circuit may be connected to the SEGS Unit IX ~~and X~~ switchyards or outlets without prior authorization of Commission staff.

Verification: No later than 60 days prior to construction of the transmission outlet facilities, Luz shall submit for approval to the CEC CPM electrical one-line diagrams signed and sealed by a registered electrical engineer in responsible charge, a route map, and an engineering description of equipment and the configurations covered by Requirements **1a**, **1b**, **1c**, and **1d** above. The substitution of "or equal." equipment and substation configurations shall be identified and justified by Luz.

- 3 Luz shall submit a request for a change from Requirement 2 above, and items a through i below to the CEC CPM for approval. The request shall contain information appropriate to describe and justify any proposed changes. Approval must be obtained from Commission staff before the change is implemented. This request shall include any proposed changes to the following:
- a. Route Specified: The route may not significantly deviate from the proposed route approved by the Commission.
 - b. Connection Point: Luz SEGS common switching station.
 - c. Conductor Size: 795 KCMIL ACSR.
 - d. Number of Conductors: One per phase.
 - e. Number of Circuits: One.
 - f. Voltage Level: Nominal 220 kV phase-to-phase.
 - g. Structure Types: Single-circuit steel poles.
 - h. Termination of outlet at Luz common switching station: Single circuit radial feed termination.
 - i. Any other change that may significantly affect the capacity, reliability, economics, or energy losses of the transmission system.

Verification: Luz shall inform the CEC CPM of any impending changes which may not conform to Requirement 2 and request approval of Commission staff to implement such changes. A detailed description of the proposed change and complete engineering, environmental, and economic rationale for the change shall accompany the request. No changes shall be made without written approval of the CEC CPM.

After receipt of a complete submittal, within 45 days Staff will review and advise Luz of Commission staff's approval or disapproval. The 45-day period shall not start until Staff has determined that adequate information to review the change was provided. Staff shall approve or disapprove LUZ's request and provide notification to LUZ of the decision.

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TRANSMISSION SYSTEM ENGINEERING CONDITIONS OF CERTIFICATION

- 4 Luz shall be responsible for the inspection of the proposed transmission facilities during and after construction to ensure conformance with Requirements 1 and 2 above, and any subsequent CEC CPM approved changes thereto, and for conformance with CPUC GO-95 and SCE tariff rule 21. In case of nonconformance, Luz shall inform the CEC CPM in writing within 10 days of discovering such nonconformance and describe the corrective actions to be taken.

Verification: Within 60 days following first successful energization of SEGS Unit IX ~~and~~ X, Luz shall transmit to the CEC CPM an engineering description(s) and one-line drawings of the "as-built" facilities referred to in Requirements 1 and 2 above, signed and sealed by a registered electrical engineer in responsible charge. A statement attesting to conformance with CPUC GO-95 and SCE tariff rule 21 shall be concurrently provided.

Battery Energy Storage System

TSE-11 The project owner shall furnish to the CPM and to the DCBO a schedule of transmission facility design submittals, a Master Drawing List, a Master Specifications List, and a Major Equipment and Structure List. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment. To facilitate audits by Energy Commission staff, the project owner shall provide designated packages to the CPM when requested.

Verification: Prior to the start of construction of transmission facilities, the project owner shall submit the schedule, a Master Drawing List, and a Master Specifications List to the DCBO and to the CPM. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment (see list of major equipment in Table 1: Major Equipment List below). Additions and deletions shall be made to the table only with CPM and DCBO approval. The project owner shall provide schedule updates in the monthly compliance report.

Table 1: Major Equipment List

Breakers
Step-up transformer
Switchyard
Busses
Surge arrestors
Disconnects
Take-off facilities
Electrical control building
Switchyard control building

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TRANSMISSION SYSTEM ENGINEERING CONDITIONS OF CERTIFICATION

Transmission pole/tower
Grounding system

TSE-12 For the power plant switchyard, outlet line and termination, the project owner shall not begin any construction until plans for that increment of construction have been approved by the DCBO. These plans, together with design changes and design change notices, shall remain on the site for one year after completion of construction. The project owner shall request that the DCBO inspect the installation to ensure compliance with the requirements of applicable LORS. The following activities shall be reported in the monthly compliance report:

- a) receipt or delay of major electrical equipment;
- b) testing or energization of major electrical equipment; and
- c) the number of electrical drawings approved, submitted for approval, and still to be submitted.

Verification: Prior to the start of each increment of construction, the project owner shall submit to the DCBO for review and approval the final design plans, specifications and calculations for equipment and systems of the power plant switchyard, outlet line, and termination, including a copy of the signed and stamped statement from the responsible electrical engineer verifying compliance with all applicable LORS, and send the CPM a copy of the transmittal letter in the next monthly compliance report.

TSE-13 The project owner shall ensure that the design, construction, and operation of the proposed transmission facilities will conform to all applicable LORS, and the requirements listed below. The project owner shall submit the number of copies required by the DCBO of the design drawings and calculations. Once approved, the project owner shall inform the CPM and DCBO of any anticipated changes to the design, and shall submit a detailed description of the proposed change and complete engineering, environmental, and economic rationale for the change to the CPM and DCBO for review and approval.

- a) The power plant outlet line shall meet or exceed the electrical, mechanical, civil, and structural requirements of CPUC General Order 95, CPUC General Order 128, or National Electric Safety Code (NESC); Title 8 of the California Code and Regulations (Title 8); Articles 35, 36 and 37 of the *High Voltage Electric Safety Orders*; California ISO standards; National Electric Code (NEC); and related industry standards.

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TRANSMISSION SYSTEM ENGINEERING CONDITIONS OF CERTIFICATION

- b) Breakers and busses in the power plant switch yard and other switchyards, where applicable, shall be sized to comply with a short-circuit analysis.
- c) Outlet line crossings and line parallels with transmission and distribution facilities shall be coordinated with the transmission line owner and comply with the owner's standards.
- d) The project conductors shall be sized to accommodate the full output of the project.
- e) Termination facilities shall comply with applicable SCE interconnection standards.
- f) The project owner shall provide to the CPM:
 - i. Special Protection System (SPS) sequencing and timing if applicable,
 - ii. A letter stating that the mitigation measures or projects selected by the transmission owners for each reliability criteria violation for which the project is responsible, are acceptable,
 - iii. A copy of the final approved Material Modification Assessment signed by the California ISO and the project owner and a copy of the approved Generator Interconnection Agreement modified to incorporate the Bulk Electric Storage System.

Verification: Prior to the start of construction or modification of transmission facilities, the project owner shall submit to the DCBO for approval:

- a) Design drawings, specifications, and calculations conforming with CPUC General Order 95 or National Electric Safety Code (NESC); Title 8 of the California Code and Regulations (Title 8); Articles 35, 36 and 37 of the *High Voltage Electric Safety Orders*; CA ISO standards; National Electric Code (NEC); and related industry standards, for the poles/towers, foundations, anchor bolts, conductors, grounding systems, and major switchyard equipment;
- b) For each element of the transmission facilities identified above, the submittal package to the DCBO shall contain the design criteria, a discussion of the calculation method(s), a sample calculation based on "worst case conditions"¹ and a statement signed and sealed by the registered engineer in responsible charge, or other acceptable alternative verification, that the transmission element(s) will conform with CPUC General Order 95 or National Electric Safety Code (NESC); Title 8 of the California Code and Regulations (Title 8); Articles 35, 36 and 37 of the High Voltage Electric Safety Orders; California ISO standards; National Electric Code (NEC); and related industry standards;

¹ Worst-case conditions for the foundations would include for instance, a dead-end or angle pole.

SEGS IX (89-AFC-01C)
TRANSMISSION SYSTEM ENGINEERING CONDITIONS OF CERTIFICATION

- c) Electrical one-line diagrams signed and sealed by the registered professional electrical engineer in charge, a route map, and an engineering description of the equipment and configurations covered by requirements TSE-13 a) through f);
- d) Special Protection System (SPS) sequencing and timing, if applicable, shall be provided concurrently to the CPM.
- e) A letter stating that the mitigation measures or projects selected by the transmission owners for each reliability criteria violation for which the project is responsible, are acceptable,
- f) A copy of the approved Material Modification Assessment signed by the California ISO and the project owner and a copy of the approved Generator Interconnection Agreement modified to incorporate the Bulk Electric Storage System.

Prior to the start of construction or modification of transmission facilities, the project owner shall inform the DCBO and the CPM of any anticipated changes to the design that are different from the design previously submitted and approved and shall submit a detailed description of the proposed change and complete engineering, environmental, and economic rationale for the change to the CPM and DCBO for review and approval.

TSE-14 The project owner shall provide the following Notice to the California ISO prior to synchronizing the facility with the California Transmission system:

1. At least one week prior to synchronizing the facility with the grid for testing, provide the California ISO a letter stating the proposed date of synchronization; and
2. At least one business day prior to synchronizing the facility with the grid for testing, provide telephone notification to the California ISO Outage Coordination Department.

Verification: The project owner shall provide copies of the California ISO letter to the CPM when it is sent to the California ISO one week prior to initial synchronization with the grid. The project owner shall contact the California ISO Outage Coordination Department Monday through Friday, between the hours of 0700 and 1530 at (916)351-2300 at least one business day prior to synchronizing the facility with the grid for testing. A report of conversation with the California ISO shall be provided electronically to the CPM one day before synchronizing the facility with the California transmission system for the first time.

TSE-15 The project owner shall be responsible for the inspection of the transmission facilities during and after project construction, and any subsequent CPM and DCBO approved changes thereto, to ensure conformance with CPUC

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TRANSMISSION SYSTEM ENGINEERING CONDITIONS OF CERTIFICATION

GO-95 or NESC, Title 8, CCR, Articles 35, 36 and 37 of the “High Voltage Electric Safety Orders”, applicable interconnection standards, NEC and related industry standards. In case of non-conformance, the project owner shall inform the CPM and DCBO in writing within 10 days of discovering such non-conformance and describe the corrective actions to be taken.

Verification: Within 60 days after first synchronization of the project, the project owner shall transmit to the CPM and DCBO:

- a) “As built” engineering description(s) and one-line drawings of the electrical portion of the facilities signed and sealed by the registered electrical engineer in responsible charge. A statement attesting to conformance with CPUC GO-95 or NESC, Title 8, California Code of Regulations, Articles 35, 36 and 37 of the “High Voltage Electric Safety Orders”, and applicable interconnection standards, NEC, related industry standards.
- b) An “as built” engineering description of the mechanical, structural, and civil portion of the transmission facilities signed and sealed by the registered engineer in responsible charge or acceptable alternative verification. “As built” drawings of the electrical, mechanical, structural, and civil portion of the transmission facilities shall be maintained at the power plant and made available, if requested, for CPM audit as set forth in the “Compliance Monitoring Plan”.
- c) A summary of inspections of the completed transmission facilities, and identification of any nonconforming work and corrective actions taken, signed and sealed by the registered engineer in charge.

SEGS IX (89-AFC-01C)
VISUAL RESOURCES CONDITIONS OF CERTIFICATION

1. Luz shall color project structures visible to the public to minimize the contrast with the surrounding natural environment and harmonize with the color scheme used at the adjacent SEGS Unit VIII project. Luz shall develop and submit a color plan to the CEC CPM for review and approval. The color plan shall specify and provide samples of the colors proposed for use on project structures, including structures colored during manufacture (such as cooling towers).

For any structures such as cooling towers which are colored during manufacture, Luz shall not specify the color of such structures to the vendors until Luz receives notification of approval of the color plan by the CEC CPM. Luz shall not paint the final coat on any structures until Luz receives notification of approval of the color plan from the CEC CPM. Luz shall notify the CEC CPM when all precolored structures have been erected and all structures to be painted in the field have been painted and the structures are ready for inspection. Luz shall not begin operating SEGS Unit IX until Luz has received notice from the CEC CPM that the condition has been satisfied.

Verification: Within sixty days after the Commission Decision, Luz shall submit the color plan for SEGS Unit IX to the CEC CPM for approval. At least ninety days prior to the scheduled start of operation of each unit, Luz shall notify the CEC CPM that structures colored during manufacture and all structures to be painted in the field are ready for inspection.

2. Luz shall design and install all lighting at SEGS Unit IX ~~and~~ such that it is directed toward project facilities and is shielded to minimize visibility from local residences and to minimize illumination of the surrounding terrain and the nighttime sky. Luz shall not begin operating SEGS Unit IX ~~and~~ until Luz has received notice from the CEC CPM that the condition has been satisfied.

Verification: Luz shall notify the CEC CPM at least ninety days prior to the scheduled start of operation of each SEGS unit that the lighting is installed and is ready for inspection.

3. Luz shall screen the SEGS Unit IX site, the SEGS Unit VIII site, and the common area between SEGS Unit IX and SEGS Unit

SEGS IX (89-AFC-01C)
VISUAL RESOURCES CONDITIONS OF CERTIFICATION

VII from public view, particularly from the residences south of SEGS Unit IX along Harper Lake Road. Luz shall develop such a screening plan in consultation with the affected residents and submit the plan to the CEC CPM for review and approval. Luz shall not install the screening until Luz has received approval of the screening plan from the CEC CPM. Luz shall notify the CEC CPM when the approved screening has been installed and is ready for inspection. Luz shall not begin operating SEGS Unit IX until Luz has received notification from the CEC CPM that the condition has been satisfied.

Verification: Within sixty days after the Commission Decision on SEGS Unit IX, Luz shall submit the screening plan for SEGS Unit IX to the CEC CPM for approval. At least ninety days prior to the scheduled start of operation of SEGS Unit IX Luz shall notify the CEC CPM that the screening is has been installed and is ready for inspection.

SEGS IX (89-AFC-01C)
WASTE MANAGEMENT CONDITIONS OF CERTIFICATION

- 1 Non-hazardous construction wastes from SEGS Unit IX ~~and X~~ shall be disposed of by Luz or its contractors at Barstow area landfills or at facilities approved by the Lahontan Regional Water Quality Control Board (LRWQCB), the San Bernardino County Department of Environmental Health Services (DEHS), or other appropriate agencies in counties where alternate disposal facilities may be located.

Hazardous wastes generated during construction and operation shall be disposed of at the Kettleman Hills facility or a California Department of Health Services (CDHS) approved facility, if not treated on-site following CDHS approval of the treatment process.

Verification: Luz shall obtain and keep on file at the project site for 3 years copies of the following documents which shall be available for CEC Staff review:

1. contracts and agreements Luz or its contractors have entered into with waste hauling companies and treatment, storage, recycling or disposal facility operators for the collection, treatment, recycling storage, or disposal of non-hazardous and hazardous liquid or solid wastes;
2. any applicable permits to operate received by companies listed in part (1) above;
3. all receipts obtained by Luz or its contractors from the above companies for wastes delivered for treatment, storage, disposal, or recycling including hazardous waste manifests.

Luz shall inform the CEC CPM via monthly or annual compliance reports when any of the above information is obtained and provide a listing of such information for 1 and 2 above.

- 2 Luz shall prepare a waste management plan for all wastes produced during construction and operation of SEGS Unit IX ~~and X~~. The management plan shall contain at least the following:

A description of all waste streams, including:

- Projections of frequency and amounts generated, their classifications on (hazardous, special, designated, extremely hazardous) with supporting documentation.
- Measures for handling each waste including treatment methods, waste testing programs to ensure correct classification, transport plans, disposal requirements and sites, and recycling potential.
- A business plan for emergency response (if applicable) pursuant to the requirements of Health and Safety Code Section 25503.5.
- A closure and post closure plan for on-site facilities.
- A plan for the disposition of solid non-hazardous wastes from all Luz SEGS facilities at Harper Lake. The plan shall identify all approved landfill

SEGS IX (89-AFC-01C)
WASTE MANAGEMENT CONDITIONS OF CERTIFICATION

sites in the region which Luz may use for solid waste disposal and describe the amount of waste to be sent annually to each facility. The plan shall ensure that neither the capacity nor remaining life of any facility is unduly impacted by the cumulative generation of solid waste from Luz facilities. If either Luz or the CEC CPM find that any landfill site may be significantly impacted by the disposal of waste from Luz facilities, Luz shall investigate alternatives to such disposal including, but not limited to, recycling and on-site disposal.

Verification: Within 6 months of project certification, Luz shall submit for approval a solid waste management plan to the CEC CPM.

- 3** Luz shall prepare an annual report summarizing for all wastes generated:
1. the origin, classification, and quantity of each waste type
 2. the management method used for each waste (whether treated, recycled landfilled, etc.)

Verification: Luz shall submit the waste summary report to the CEC CPM in the Annual Compliance Report.

- 4** Luz shall obtain a Hazardous Waste Generator Permit from the CDHS for the management of hazardous wastes from SEGS Unit IX ~~or X~~, prior to the receipt on site of heat transfer fluid.

Verification: Luz shall keep on file at the project site its copy of the Hazardous Waste Generator Permit and notify the CEC CPM via the monthly compliance report of its receipt.

- 5** Luz shall not store hazardous waste on site for more than 90 days unless it obtains either an extension from CDHS to the 90-day period or a permit as a storage facility. If Luz applies for a hazardous waste permit on variance from CDHS, Luz shall simultaneously send a copy of the application to the CEC CPM.

Verification: As applicable, Luz shall provide the CEC CPM with a copy of its application to CDHS in the monthly or Annual Compliance Report.

- 6** Luz shall notify the CEC of any waste management-related enforcement action or proposed action taken against Luz, and any action against the waste hauler or disposal facilities used by Luz or its contractors (that Luz has knowledge of) during the construction and operation of the proposed project.

Verification: Luz shall notify the CEC CPM by letter within 10 days of learning of any such impending enforcement action.

- 7** Luz shall maintain records of all shipments of HTF to SEGS Unit IX ~~and X~~. All HTF must be accounted for in an HTF accounting report submitted annually to the CEC CPM.

SEGS IX (89-AFC-01C)
WASTE MANAGEMENT CONDITIONS OF CERTIFICATION

Verification: Luz shall submit an HTF accounting report to the CEC CPM in the Annual Compliance Report.

- 8** Luz shall notify the CEC CPM within 48 hours of any HTF spill estimated by it to be 20 gallons or more, and shall immediately undertake cleanup measures to the level reported in **Condition No. 9**.

Verification: Within 48 hours of a 20-gallon or greater spill, Luz shall notify the CEC CPM of the spill, and shall submit a letter to the CEC CPM within 10 days describing the spill.

- 9** Luz shall clean up any HTF spills at SEGS Unit IX ~~and X~~ to a level that is less than 3,000 mg/kg of HTF in the soil (or any lower level if required by the CEC CPM) as verified by a CDHS certified laboratory or readings taken by photo ionization detectors.

Verification: Within 30 days of an HTF spill, Luz shall submit to the CEC CPM a report describing the HTF spill location, the cause of the spill, estimated volume of HTF spilled, agencies contacted, the estimated volume of hazardous material removed, its disposition, the level of clean up achieved and actions taken to prevent similar future spills.

SEGS IX (89-AFC-01C)
WATER RESOURCES CONDITIONS OF CERTIFICATION

WATER SUPPLY

- 1** For each well that Luz drills, develops or uses for extracting water from the Harper Valley Basin, Luz shall place in the project files the following:
- driller's well log, if available.
 - drawdown-discharge curve and recovery test.
 - a map depicting the location of the well.

Verification: Luz shall notify the CEC CPM, via the weekly Compliance Activity Report, of the initiation of well drilling and via the Monthly Compliance Report of the completion of well drilling.

Within 60 days after completion or initiation of use of a well intended to supply SEGS Unit IX ~~or X~~, Luz shall maintain at the site the required information and notify the CPM that the records are available for inspection.

- 2** For each Luz well extracting groundwater from the Harper Valley Basin for operation of SEGS Unit IX ~~or X~~, Luz shall provide in each annual Compliance Report the following:
- pre-and-post pumping standing water levels,
 - pumping rates in gallons per minute, and
 - total annual extractions in acre-feet.

Verification: Luz shall forward via the Annual Compliance Report a copy of the records specified above to the CEC CPM.

- 3** Luz shall install in-line flow meters on all water wells supplying SEGS Unit IX. Prior to commencement of commercial operation, Luz shall make available at the site for CEC inspection, as-built drawings depicting installation of in-line meters for SEGS Unit IX supply well. The drawings shall be approved by a civil engineer registered in the state of California. CEC personnel shall be provided access to the facility during normal business hours to inspect the as-built drawings and actual installations.

Verification: Luz shall notify CEC CPM, via the Monthly Compliance Report after each meter installation.

- 4** Luz shall limit extractions from the Harper Valley groundwater basin to 950 AFY for the operation of ~~each of~~ SEGS Unit IX ~~and X~~.

Verification: In each Annual Compliance Report Luz shall provide groundwater pumping records for each project which shall indicate compliance with these limits.

SEGS IX (89-AFC-01C)
WATER RESOURCES CONDITIONS OF CERTIFICATION

- 5** Luz shall not operate its facilities in a manner that will prevent Intervenor James LaMont from obtaining adequate groundwater supplies for his property from the Harper Lake aquifer.

Verification: Mr. LaMont may direct Luz to drill one test well on his property for the purpose of monitoring compliance with this condition. Mr. LaMont will be responsible for maintenance and operation of this well.

The Commission will retain jurisdiction to impose appropriate mitigation measures if Mr. LaMont can establish that Luz has, in fact, violated this condition.

WATER QUALITY

- 6** Luz shall apply for and obtain waste discharge requirements for the condensate/feedwater system waste from the LRWQCB. Luz shall maintain the waste discharge requirements for the life of the plant in its project compliance file.

Verification: In the next Monthly Compliance Report following receipt of the waste discharge requirements from the LRWQCB, Luz shall provide written notification to the CEC CPM that waste discharge requirements have been issued and that they are available for inspection.

- 7** Luz shall apply for and obtain waste discharge requirements from the LRWQCB for cooling tower blowdown wastes discharged from the SEGS Unit IX ~~and X~~. Luz shall maintain the waste discharges requirements in the project compliance file.

Verification: Prior to beginning commercial operation of SEGS Unit IX ~~or X~~, ~~respectively~~, Luz shall provide written notification to the CEC CPM in the Monthly Compliance Report that said discharge requirements have been issued and that they are available for inspection.

- 8** For liquid wastes discharged from SEGS Unit IX ~~and X~~, Luz shall notify the CEC CPM of any change in the waste discharge requirements issued by the LRWQCB.

Verification: In its annual compliance report to the CEC CPM, Luz shall indicate the status of the current waste discharge requirements and attach the quarterly reports required by the LRWQCB for SEGS Unit IX ~~and X~~.

FLOOD HAZARD

- 9** To protect private property from inundation, erosion, or sheet flow in Section 12 (T11 N/R 5 W SBBM) from diverted flood water, Luz shall design, construct and maintain a dike along the north section line of Section 13 capable of withstanding and diverting combined flows from tributary areas B, C, and D shown in Figure 3, generated from a storm having a 1 in 100-year recurrence interval. These drawings and calculations shall be approved by a civil engineer registered in the state of California and kept in the Project Compliance File.

SEGS IX (89-AFC-01C)
WATER RESOURCES CONDITIONS OF CERTIFICATION

Verification: Prior to commencement of commercial operation at the SEGS Unit IX facility, Luz shall prepare and have available at the site to CEC personnel, complete as-constructed drawings and water surface profile calculations of the diversion areas and structures.

- 10 Prior to start of any construction Luz shall purchase in fee or obtain a right-of-way or flow easement over any and all land not owned by Luz north of the north section line of section 18, T11N, R4W, SBBM which are subject to the overflow, erosion, or meander of surface flows generated by a 1 in 100-year storm.

Prior to the start of any construction, Luz shall record with the San Bernardino County Recorder documents showing title to or flow easements over all properties north of Section 18 subject to the overflow or meander of surface flows generated by a 1 in 100-year recurrence interval storm. As an alternative, Luz may demonstrate that all the above-mentioned land will be protected from flooding.

Verification: Luz shall maintain these records at the site and make them available to CEC personnel during normal business hours.

WATER SUPPLY

~~11 To protect SEGS Unit X site from flood flows along its western and northern boundaries Luz shall design, construct and maintain the following facilities:~~

- ~~• A dike capable of withstanding and diverting combined flows from tributary areas B, C, and D, shown in the attached Figure 1, generated by a storm with a 1 in 100-year recurrence interval.~~