DOCKETED

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Document Title:	Russell City Energy Center Staff Analyis of PTA for Demineralization System
Description:	Russell City Energy Center (RCEC) Executive Summary and Staff Analysis of Petition to Amend (PTA) for proposed recycled water demineralization system
Filer:	Eric Veerkamp
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DATE: July 15, 2016

TO: Interested Parties

FROM: Eric Veerkamp, Compliance Project Manager

SUBJECT: **Russell City Energy Center (01-AFC-7C)**
Staff Analysis of Proposed Recycled Water Demineralization System

On January 29, 2016, the Russell City Energy Company, LLC submitted a Petition to Amend (PTA) the Final Decision for the Russell City Energy Center (RCEC). The PTA was docketed by staff the same day. The Russell City Energy Company, LLC has requested California Energy Commission approval to install a new demineralization system, designed to produce demineralized water from the recycled water supply which would be used for steam cycle makeup water and combustion turbine inlet air cooling. Installation of the new demineralization system would include new filtration skids and feed water tanks installed within a new enclosure. The system would include structures that are approximately 10-15 feet tall and would be located within the RCEC site.

The RCEC was certified on September 11, 2002 as a 600 megawatt wet cooled combined-cycle gas-fired power plant. The project Final Decision was amended on October 3, 2007, and the project commenced operation on August 8, 2013. The RCEC is located 3862 Depot Road in the city of Hayward in Alameda County, California.

Amendments to the Final Decision and modifications to the project that have been approved by the Energy Commission for the RCEC are as follows:

- On May 17, 2016, the Energy Commission approved a PTA requesting a revised offsite visual enhancement plan to allow mitigation measures in addition to landscaping, including surface treatments.
- On May 8, 2013, the Energy Commission approved a PTA allowing modification of various non-substantive administrative changes to Air Quality conditions of certification
- On July 9, 2012, the Energy Commission staff issued a Staff Approved Project Modification allowing the use of additional land for construction parking and laydown area.
- October 3, 2007, the Energy Commission approved a PTA allowing major modifications to the design and location of the RCEC.

Energy Commission staff reviewed the present PTA and assessed the impacts of this proposal on environmental quality and on public health and safety. Based on staff's analysis, staff proposes a new Condition of Certification **GEO-3**, and the elimination of **GEO-1** and **GEO-2** to ensure compliance with current design standards that protect the public health and safety from seismic and geologic hazards. It is staff's opinion that, with the implementation of the new condition, the project would remain in compliance with applicable laws, ordinances, regulations, and standards (LORS), and the proposed changes to the project would not result in any significant adverse direct, indirect, or cumulative impacts to the environment (Cal. Code of Regs., tit.20, § 1769).

The amendment petition and Staff Analysis have been posted on the Energy Commission's RCEC webpage at: http://www.energy.ca.gov/sitingcases/russellcity/index.html Energy Commission staff intends to recommend approval of the petition at the August 10, 2016, Business Meeting of the Energy Commission. After the Final Decision, the Energy Commission's Order regarding this petition will also be posted on the Commission's RCEC webpage.

This Notice is being provided to interested parties and property owners adjacent to the RCEC site. This Notice has been mailed to the RCEC mail list and sent electronically to the RCEC list serve.

Any person may comment on the Staff Analysis. Those who wish to comment on the analysis are asked to submit their comments by 5:00 PM on Tuesday, August 9, 2016. To use the Energy Commission's electronic commenting feature, go to the Energy Commission's webpage for this facility, cited above, click on the "Submit e-Comment" link, and follow the instructions in the on-line form. Be sure to include the facility name in your comments. Once submitted, the Energy Commission Dockets Unit reviews and approves your comments, and you will receive an e-mail with a link to them.

Written comments may also be mailed or hand-delivered to:

California Energy Commission
Dockets Unit, MS-4
Docket No. 01-AFC-7C
1516 Ninth Street
Sacramento, CA 95814-5512

All comments and materials filed with and approved by the Dockets Unit will be added to the RCEC Docket Log and become publically accessible on the Energy Commission's webpage for the facility.

If you have questions about this Notice, please contact Eric Veerkamp, Compliance Project Manager, at (916) 654-4295, or by fax to (916) 654-3882, or via e-mail at: eric.veerkamp@energy.ca.gov

For information on participating in the Energy Commission's review of the proposed modification to the RCEC the Energy Commission Public Adviser's Office at (800) 822-

6228 (toll-free in California). The Public Adviser's Office can also be contacted via e-mail at: publicadviser@energy.ca.gov. News media inquiries should be directed to the Energy Commission Media Office at (916) 654-4989, or by e-mail at: mediaoffice@energy.ca.gov.

Mail List 7078
Russell City Energy Center List Serve

RUSSELL CITY ENERGY CENTER (01-AFC-7C)
Petition to Amend the Final Decision
EXECUTIVE SUMMARY
Eric Veerkamp

INTRODUCTION

On January 29, 2016, the Russell City Energy Company, LLC submitted a Petition to Amend (PTA) the Final Decision for the Russell City Energy Center (RCEC).

The purpose of the California Energy Commission's review process is to assess the impacts of this proposal on environmental quality and on public health and safety. The review process includes an evaluation of the consistency of the proposed changes with the Energy Commission's Decision and a determination on whether the facility, as modified, would remain in compliance with applicable laws, ordinances, regulations, and standards (LORS) (Cal. Code of Regs., tit. 20, § 1769).

Energy Commission staff has completed its review of all materials received. The Staff Analysis below is staff's independent assessment of the project owner's proposal to modify the project description.

PROJECT LOCATION AND DESCRIPTION

The combined-cycle natural gas-fired 600 megawatt electricity generating facility was certified by the Energy Commission on September 11, 2002, and the Final Decision was originally amended on October 3, 2007. The RCEC began commercial operation on August 8, 2013. The RCEC is located 3862 Depot Road in the city of Hayward, in Alameda County, California.

DESCRIPTION OF PROPOSED MODIFICATIONS

The requested modifications would install a new water demineralization system, designed to produce demineralized water from the recycled water supply that would be used for steam cycle makeup water and combustion turbine inlet air cooling. Installation of the new demineralization system would include new filtration skids and feed water tanks installed within a new enclosure. The system would include structures that are approximately 10-15 feet tall and would be located within the RCEC site.

NECESSITY FOR THE PROPOSED MODIFICATIONS

In December, 2014, Russell City Energy Company, LLC, began working towards developing an alternative water treatment system to the existing zero liquid discharge (ZLD) system. The project owner has encountered shortcomings associated with the ZLD system that were unanticipated during project licensing. Water chemistry disruptions caused by reliance on the ZLD system have resulted in forced outages found to be unacceptable to the project owner. The new demineralized system would not impact plant water balance and would reduce potable water use. The improvements would not be visible above and beyond existing plant equipment and would be expected to reduce or eliminate the forced outages.

STAFF'S ASSESSMENT OF THE PROPOSED PROJECT CHANGES

Staff reviewed the PTA for potential environmental effects and consistency with applicable LORS, and determined that the proposed changes would not cause significant impacts on the environment or cause the project to not comply with applicable LORS. For the technical area of Geology and Paleontology, staff proposes a new Condition of Certification **GEO-3**, and the elimination of **GEO-1** and **GEO-2**. LORS have been updated since the RCEC was approved in 2002; the changes to conditions of certification would ensure use of the most recent version of the California Building Code.

The resulting modifications would be beneficial because they would allow the project to operate more efficiently and reduce potable water use. Staff has concluded that the environmental impacts associated with replacing the existing ZLD system with the demineralized system would not result in any impacts that would be different than those that occurred during project construction and that the activity would not result in significant environmental impacts or risks to public health.

Staff's conclusions in each technical area are summarized in **Executive Summary Table 1**, below.

Executive Summary Table 1
Summary of Conclusions for Each Technical Area

TECHNICAL AREAS REVIEWED	STAFF RESPONSE			Revised or New Conditions of Certification Recom-mended
	Technical Area Not Affected	No Significant Environmental Impact or LORS Non-compliance*	Process As Amendment	
Facility Design		X		
Efficiency	X			
Reliability	X			
Transmission System Engineering	X			
Transmission Line Safety and Nuisance	X			
Air Quality		X		
Public Health	X			
Hazardous Materials Management	X			
Worker Safety and Fire Protection	X			
Biological Resources	X			
Soil and Water Resources	X			
Cultural Resources		X		
Geological and Paleontological Resources			X	X
Waste Management		X		
Land Use		X		
Noise		X		
Socioeconomics		X		
Traffic and Transportation		X		
Visual Resources		X		

*There is no possibility that the proposed modifications would have a significant effect on the environment, and the modifications would not result in a change in or deletion of a condition adopted by the Commission in the Final Decision, or make changes that would cause project noncompliance with any applicable laws, ordinances, regulations, or standards (Cal. Code Regs., tit. 20, § 1769 (a)(2)).

Staff has determined that the technical or environmental areas of Efficiency, Reliability, Transmission System Engineering, Transmission Line Safety and Nuisance, Public Health, Hazardous Materials Management, Worker Safety and Fire Protection Biological Resources, and Soil and Water Resources are not affected by the proposed changes

For the technical areas of Facility Design, Air Quality, Cultural Resources, Waste Management, Land Use Noise, Socioeconomics, Traffic and Transportation, and Visual Resources, staff has determined there is no possibility that the modifications would have a significant effect on the environment and the project would continue to comply with applicable LORS and no changes to any conditions of certification are necessary to ensure no significant impacts occur. Staff notes the following for these technical areas:

- **Facility Design**. Installation of the improvements must comply with the 2013 California Building Code and related engineering LORS. Continued implementation of existing conditions of certification adopted in the Final Decision would ensure this.
- **Air Quality**. With the implementation of existing Conditions of Certification **AQ-SC-1** through **AQ-SC-5** the limited amount of construction activity for the proposed modification would not result in any significant construction related emissions impacts. Staff has determined that installation of the proposed demineralization system would not affect the modeling analyses performed previously for RCEC; therefore, staff concludes that the new demineralization system would not affect the air quality impacts of RCEC. Staff also concludes the new demineralization system would not increase the particulate matter emissions of the cooling tower at RCEC, in compliance with Condition of Certification **AQ-44**.
- **Cultural Resources**. The draft Cultural Resources Report submitted in response to Condition of Certification **CUL-3** reported the discovery of archaeological resources during the original project construction that can be characterized as 20th Century trash deposits, none of which are eligible for listing on the California Register of Historical Resources. The singular site and two artifacts that were found during original construction of the project were located in the vicinity of the proposed ground disturbing activities and it is possible similar items may come to light during construction of the proposed water system. Thus, staff does not anticipate the proposed modifications would cause significant impacts on cultural resources. In the unlikely event that eligible cultural resources are discovered, existing Conditions of Certification **CUL-1** through **CUL-6** would mitigate impacts to less than significant.
- **Waste Management**. Construction of the demineralization system would require installation of various skid-mounted equipment, interconnecting piping, electrical power, and electrical controls (RCEC, 2016), requiring minimal disturbance of previous disturbed soil. Construction would be inside the fence line of the existing project and would be limited to the placement of skid foundations and installation of underground water and electrical piping (RCEC, 2016). The project owner would be required to comply with Condition of Certification **WASTE-2,** and submit the actual construction totals for construction waste generated from the installation of the demineralizer system at RCEC. The existing conditions of certification are adequate to ensure there would be no unmitigated significant impacts.
- **Land Use**. Installation of the proposed demineralized water system would comply with the development standards for the Industrial (I) zoning district of the city of Hayward, and as required by **LAND-1**.
- **Noise**. Short-term construction noise associated with the installation of the demineralized water system would not result in any significant noise related impact, with the continued implementation of the existing noise conditions of certification adopted in the Final Decision. Operational noise is not affected by this PTA.

- **Socioeconomics**. Construction of the demineralization system would take approximately 12-18 weeks to complete and would require 20 workers on site, in addition to supervision and assistance from plant personnel. From a socioeconomic standpoint, the proposed amendment would have insignificant workforce-related impacts on housing and community services.
- **Traffic and Transportation**. Estimated vehicular traffic associated with delivery of the demineralization system equipment is seven to ten trucks over a two week period traveling via Depot Road. Estimated vehicular traffic associated with construction is one to two trucks per day over a 6 week period. There will be no oversized loads required for any stage of this project. Staff concludes the short term construction for the installation of the demineralized water system would have no traffic or transportation impacts.
- **Visual Resources**. The tallest pieces of equipment associated with the recycled water demineralization system would be approximately 10 feet tall. The new equipment would not change the appearance of the RCEC from offsite viewpoints.

For the technical area of **Geology and Paleontology**, staff has proposed a new condition of certification (and the elimination of two conditions) to assure compliance with current design standards that protect the public health and safety from seismic and geologic hazards. The details of the proposed condition changes are found in the attached **GEOLOGY AND PALEONTOLOGY STAFF ANALYSIS**.

STAFF RECOMMENDATIONS AND CONCLUSIONS

Staff concludes that with the adoption of the attached conditions of certification, the modified RCEC would continue to comply with applicable LORS. The proposed demineralization system would not result in significant impacts with the continued implementation of existing conditions of certification noted above.

ENVIRONMENTAL JUSTICE (EJ)

Minority

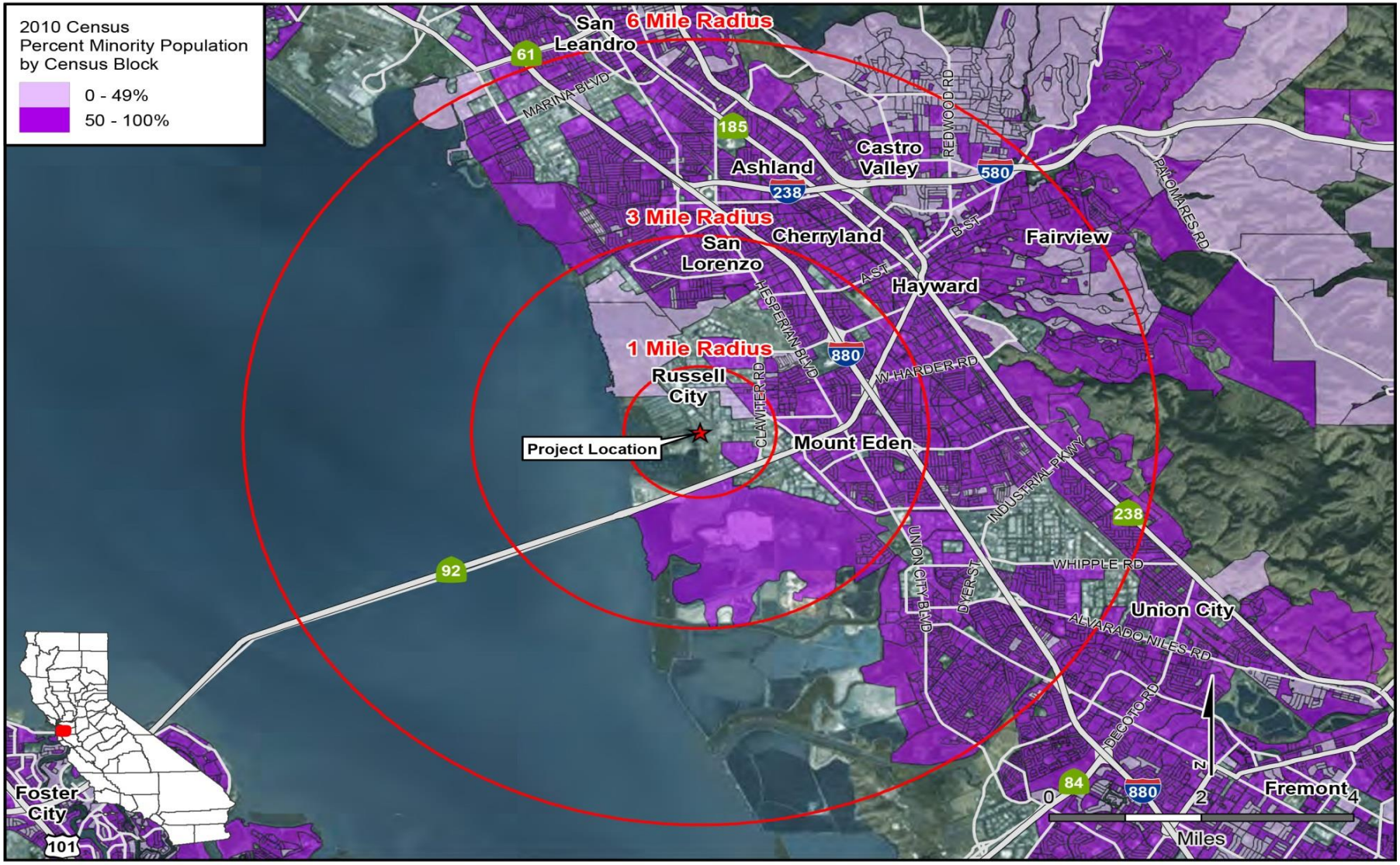
The attached **Environmental Justice Population Figure** shows 2010 census blocks in the six-mile radius of the RCEC site with a minority population greater than or equal to 50 percent. The population in these census blocks represents an EJ population based on race and ethnicity as defined in the Council on Environmental Quality's *Environmental Justice: Guidance Under the National Environmental Policy Act*.

Poverty

Based on the U.S. Census Bureau American Community Survey (ACS) data in the **Environmental Justice Population Table**, staff concluded that when compared with the below-poverty-level population in Alameda County, the cities of Hayward and Union City as well as the communities of Castro Valley, Fairview, and San Lorenzo have a higher percentage of people living below the poverty level, and thus are considered an EJ population based on poverty as defined in *Environmental Justice: Guidance under the National Environmental Policy Act*.

ENVIRONMENTAL JUSTICE POPULATION FIGURE

Russell City Energy Center - Census 2010 Minority Population by Census Block



CALIFORNIA ENERGY COMMISSION - SITING, TRANSMISSION AND ENVIRONMENTAL PROTECTION DIVISION

SOURCE: Census 2010 PL 94-171 Data

Environmental Justice Population Table-
Poverty Data within the Project Area

	Total Population[1]			Population Below Poverty Level			Percent Below Poverty Level		
	Estimate	MOE[2]	CV[3] (%)	Estimate	MOE	CV (%)	Estimate	MOE	CV (%)
CITIES AND COMMUNITIES IN SIX-MILE RADIUS[4]									
Castro Valley	61,364	±1,364	1.35	4,898	±1,121	13.91	8.00	±1.7	12.92
Fairview	9,729	±772	4.82	940	±410	26.51	9.70	±4	25.07
Hayward	147,338	±348	0.14	21,292	±1,689	4.82	14.50	±1.1	4.61
San Lorenzo	24,506	±839	2.08	2,454	±612	15.16	10.00	±2.4	14.59
Union City	71,444	±125	0.11	6,006	±945	9.56	8.40	±1.3	9.41
REFERENCE GEOGRAPHY									
Alameda County	1,531,346	±1,609	0.06	197,191	±4,256	1.31	12.90	±0.3	1.41

Source: U.S. Census Bureau 2010-2014 Five-Year American Community Survey Estimates.
Notes: [1] Population for whom poverty is determined. [2] Margin of Error. [3] Coefficient of Variation (method of evaluating the reliability of the estimates. US Census staff recommends caution when interpreting estimates with more than 15 percent CV. [4] Data for the community of Fairview is not presented as the CV is well over 15 percent.

Staff has determined that the project modification would not affect any population including the EJ Population. Staff further concludes that the following required findings, mandated by Title 20, California Code of Regulations, section 1769 (a)(3) can be made, and staff recommends approval of the petition by the Energy Commission:

- The proposed modification(s) would not change the findings in the Energy Commission's Final Decision pursuant to Title 20, California Code of Regulations, section 1755;
- There would be no new or additional unmitigated, significant environmental impacts associated with the proposed modification;
- The facility would remain in compliance with all LORS;
- The modification proposed in the petition would not cause an increase or other undue negative consequence on water use;
- The proposed modification would be beneficial to the public, because the facility would be able to continue operating in normal fashion with no significant change, and, and should, in fact, become a more efficient water user; and
- The proposed modification are justified because there has been a substantial change in circumstances since the Energy Commission certification, in that the ZLD system has proven itself to be unsatisfactory, leading to outages.

RUSSELL CITY ENERGY CENTER (01-AFC-7C)
Petition to Amend Number 6
Demineralized Water Treatment System
GEOLOGY AND PALEONTOLOGY STAFF ANALYSIS

Christopher Dennis, P.G., C.Hg.

INTRODUCTION

Calpine Corporation proposes to install a demineralized water system at Russell City Energy Center (RCEC). The new system design would use a series of ultra-filtration (UF) membrane technology, ultra-violet disinfection, reverse osmosis, and ion exchange technology (RCEC, 2016). The system would be placed at a location of previously disturbed soil that was used for equipment staging and temporary UF trailers.

Construction of the demineralization system would require installation of skid foundations, skid-mounted equipment, interconnecting piping, electrical power, electrical controls, and underground piping (RCEC, 2016). Construction would require minimal disturbance of previously disturbed soil, inside the fence line of the existing project (RCEC, 2016).

The objective of this analysis is to ensure that standards are met to safeguard the public health, safety, and general welfare from geologic hazards and that there would be no impacts to geologic or paleontologic resources.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS COMPLIANCE

Laws, ordinances, regulations, and standards (LORS) have been updated since RCEC was approved in 2002. As discussed below, California Energy Commission staff recommends replacing Conditions of Certification **GEO-1** and **GEO-2** with **GEO-3** to require the project owner to comply with the requirements of the most recent version of California Building Code in effect at the time the project is going to construction.

ANALYSIS

Staff reviewed the proposed modifications to determine if the changes would result in adverse environmental impacts to geologic and paleontologic resources or be subject to geologic hazards that were not originally analyzed in the July 2002 Energy Commission Final Decision (Decision), as amended. Staff also reviewed the proposed changes to assess compliance with existing LORS.

GEOLOGIC HAZARDS

The Decision, as amended, found that earthquakes on the Hayward or San Andreas faults could produce strong ground shaking and create instability in the sediment underlying the site and its facilities. The California Code of Regulations, Title 24, California Building Standards Code [California Building Code (CBC), 2013], provides building standards to minimize the risk related to seismic and geologic hazards. As applicable, a design-level geotechnical investigation and report would be required by the CBC. The CBC also identifies exceptions to the need for a geotechnical investigation provided certain criteria are met. The CBC also provides for use of existing information for project design provided the Chief Building Official concurs. If required, the geotechnical report would present standard engineering design recommendations for mitigation of geologic hazards.

The Decision, as amended, requires compliance with an older version of the California Building Code. Staff, therefore, proposes deleting Conditions of Certification **GEO-1** and **GEO-2** and replacing them with Condition of Certification **GEO-3**. **GEO-3** would require the project owner to evaluate whether a geotechnical investigation for the proposed facilities would be required and if so, ensure compliance with current design standards that protect the public health and safety from seismic and geologic hazards.

GEOLOGIC RESOURCES

The Decision, as amended, found that significant adverse impacts to geologic resources would not occur as a result of construction of the RCEC (CEC, 2002). The geologic resources have not changed since the Decision and the proposed construction would occur on the existing site. Therefore, there would be no significant adverse impacts to geologic resources.

PALEONTOLOGIC RESOURCES

The project modifications would be located within the project site in an area that has been disturbed and monitored during grading and construction of the RCEC. In addition, the first 3 to 5 feet of soil is imported fill from the bay margin (CEC, 2002a; RCEC, 2010 to 2012).

Beneath the imported fill is organic black clay, which extends from about 3 feet to as much as 60 feet below grade (CEC 2002a; RCEC 2010 to 2012). Standard local practice and refers to these sediments as “young Bay mud” (CEC 2002a). Because of its young age (11,000 years before present) and marine origin, this formation has limited potential as a host of scientifically unique fossils (CEC 2002a).

Installation of the electrical and water piping would be limited to 3 to 4 feet below grade and would not encounter soils that could contain significant paleontologic resources. Therefore, there would be no significant adverse impacts to paleontologic resources.

CONCLUSIONS AND RECOMMENDATIONS

As applicable, a design-level geotechnical investigation and report would be required for the project amendment by the California Building Code (2013) and **GEO-3**. The geotechnical report would present standard engineering design recommendations for mitigation of geologic hazards based on current LORS.

No new significant adverse impacts to geologic or paleontologic resources would likely result from proposed facilities construction and operation.

It is staff's opinion that the proposed facilities can be constructed and operated in accordance with all applicable LORS, and in a manner that both protects geologic and paleontologic resources, and ensures standards are met to safeguard the public health, safety, and general welfare, and provide safety to life, property, and emergency responders from geologic hazards.

PROPOSED MODIFICATIONS TO THE CONDITIONS OF CERTIFICATION

LORS and professional guidelines have been updated since RCEC was approved in 2002. Staff recommends the following revisions to the conditions of certification for consistency with current LORS and professional guidelines. Staff proposes replacing conditions of certification **GEO-1** and **GEO-2** with **GEO-3**, as shown below in ~~strikethrough~~ and **bold underline** - the intent and requirements placed on the project owner are not substantively changed, but only updated.

~~**GEO-1** Prior to the start of construction, the project Owner shall assign to the project an Engineering Geologist(s), certified by the State of California, to carry out the duties required by the 1998 edition of the California Building Code (CBC) Appendix Chapter 33, Section 3309.4. The Certified Engineering Geologist(s) assigned must be approved by the CPM. The functions of the Engineering Geologist can be performed by a responsible Geotechnical Engineer, if that person has the appropriate California license.~~

~~**Verification**: At least 30 days (or a lesser number of days mutually agreed to by the project Owner and the CBO) prior to the start of construction, the project Owner shall submit to the CPM for approval the name(s), resume(s), and license number(s) of the Certified Engineering Geologist (s) assigned to the project. The submittal should include a statement that CPM approval is needed. The CPM shall notify the project Owner of its findings within 15 days of receipt of the submittal. If the Engineering Geologist(s) is subsequently replaced, the project Owner shall submit for approval the name(s), resume(s) and license number(s) of the newly assigned Engineering Geologist(s) to the CPM. The CPM will notify the project Owner of its findings within 15 days of receipt of the notice of personnel change.~~

~~**GEO-2** The assigned Engineering Geologist(s) shall carry out the duties required by the 1998 CBC, Appendix Chapter 33, Section 3309.4 Engineered Grading Requirement, and Section 3318.1 – Final Reports. Those duties are:~~

1. Prepare the Engineering Geology Report, which shall include a site specific seismic hazards analysis. This report shall accompany the Plans and Specifications when applying to the CBO for the grading permit.

2. Monitor geologic conditions during construction.

3. Prepare the Final Geologic Report.

Protocol: (I): The Engineering Geology Report required by the 1998 CBC Appendix Chapter 33, Section 3309.3 Grading Designation, 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 an opinion on the adequacy of the site for the intended use as affected by geologic factors.

The Final Geologic Report to be completed after completion of grading, as required by the 1998 CBC Appendix Chapter 33, Section 3318.1, shall contain the following: A final description of the geology of the site and any new information disclosed during grading; and the effect of same on recommendations incorporated in the approved grading plan. The Engineering Geologist shall submit a statement that, to the best of his or her knowledge, the work within his/her area of responsibility is in accordance with the approved Engineering Geology Report and applicable provisions of Chapter 33.

Verification: (1) Within 15 days after submittal of the application(s) for grading permit(s) to the CBO or other, the project Owner shall submit a signed statement to the 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. (2) Within 90 days following completion of the final grading, the project Owner shall submit copies of the Final Geologic Report required by the 1998 CBC Appendix Chapter 33, Section 3318 Completion of Work, to the CBO, with a copy of the transmittal letter forwarded to the CPM.

GEO-3 A Soils Engineering Report as required by Section 1803 of the California Building Code (CBC 2013), or its successor in effect at the time construction of the project were to commence, shall specifically include laboratory test data, associated geotechnical engineering analyses, and a thorough discussion of seismicity; liquefaction; dynamic compaction; compressible soils; corrosive soils; and tsunami. In accordance with CBC, the report must also include recommendations for ground improvement and/or foundation systems necessary to mitigate these potential geologic hazards, if present.

Verification: The project owner shall include in the application for a grading permit a copy of the Soils Engineering Report which addresses the potential for strong seismic shaking; liquefaction; dynamic compaction; settlement due to compressible soils; and corrosive soils; and a summary of how the results of the analyses were incorporated into the project foundation and grading plan design for review and comment by the delegate chief building official (CBO). A copy of the Soils Engineering Report, application for grading permit and any comments by the CBO are to be provided to the Compliance Project Manager (CPM) at least 30 days prior to grading.

REFERENCES

CEC, 2002a. Russell City Energy Center Project, California Energy Commission Final Staff Assessment, California Energy Commission Docket No. 01-AFC-7, TN-26086 (June 10, 2002).

CEC, 2002b. Russell City Energy Center, California Energy Commission Decision, California Energy Commission Docket No. 01-AFC-7, TN-26635 (September 12, 2002).

RCEC, 2010 to 2012. Russell City Energy Center, Monthly Compliance Reports, September 2010 to October 2012, California Energy Commission Docket No. 01-AFC-7C.

RCEC, 2016. Russell City Energy Center, Petition for Modification Amendment No. 6, California Energy Commission Docket No. 01-AFC-7C, TN- 210084 (January 29, 2016).