CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

May 6, 2008



Mr. Mike Tatterson
Project Manager
Power Engineers, Inc.
P. O. Box 1066
Hailey, ID 83333

Dear Mr. Tatterson:

**DATA REQUESTS 1 to 71 (SET #1) FOR THE RIVERSIDE ENERGY RESOURCE CENTER UNITS 3 & 4 PROJECT (08-SPPE-1)**

Pursuant to Title 20, California Code of Regulations, section 1716, the California Energy Commission staff is asking for the information specified in the enclosed data requests. The information requested is necessary to: 1) more fully understand the project; 2) assess whether the facility will be constructed and operated in compliance with applicable regulations; 3) assess whether the project will result in significant environmental impacts; 4) assess whether the facilities will be constructed and operated in a safe, efficient and reliable manner; and 5) assess potential mitigation measures.

The requested information in Data Requests Set #1 is in the technical areas of air quality, biological resources, geology and paleontology, hazardous materials, land use, socioeconomics, transmission system engineering, visual resources/plume, waste management and water resources. Written responses to the enclosed data requests (Set 1) are due to the Energy Commission staff on or before June 6, 2008.

If you are unable to provide the information requested, need additional time, or object to providing the requested information, you must send a written notice to me and the Committee within 20 days of receipt of this request. The notification must contain the reasons for not providing the information, the need for additional time, and the grounds for any objections (see Title 20, California Code of Regulations, section 1716 (f)).

If you have any questions, please call me at (916) 654-4640, or email at fmiller@energy.state.ca.us.

Sincerely,

Felicia Miller

Felicia Miller, Project Manager
Energy Facilities Siting Division

Enclosure

PROOF OF SERVICE FILED WITH
ORIGINAL MAILED FROM SACRAMENTO ON 6/6/08
CF

**Riverside Energy Resource Center Units 3&4 Project**
**08-SPPE-1**
**DATA REQUESTS**

**Technical Area:** Air Quality
**Author:** William Walters

## BACKGROUND

### Existing Unit Permits

In order to complete its review of the two new gas turbine units at the Riverside Energy Resource Center (RERC 3 & 4) site, and adequately discuss laws, ordinances, regulations, and standards (LORS) compliance, staff needs a copy of the existing two units' South Coast Air Quality Management District (SCAQMD) permits.

## DATA REQUEST

1. Please provide a copy of the SCAQMD permits for the RERC 1 & 2.

## BACKGROUND

### Existing Unit Actual Emissions

In order to complete its review of the two additional gas turbine units at the RERC site, and adequately determine mitigation requirements, staff needs to understand the actual source tested emissions profile for the existing RERC 1 & 2. Additionally, in order to properly discuss expected operations, including the expected seasonality of operations and emissions, staff needs information on the actual operating profile of the existing RERC Units 1 and 2.

## DATA REQUEST

2. Please provide a summary of the Continuous Emissions Monitoring System (CEMS) NOx and CO data and source test data for VOC and PM10 for the existing turbines, by year of operation, in the following formats:

   a. Emissions in pounds per hour (normal operation, and startup and shutdown where available).

   b. Emissions in parts per million (ppm) concentration (except PM10).

   c. Emissions per MWh (net generation basis) on an annual basis for 2006 and 2007.

3. Please provide the monthly hours of operation and monthly net generation for RERC 1 & 2 for 2006 and 2007.

## BACKGROUND

### SCR Catalyst Poisoning

Page 2-9 of the application notes the turbine manufacturer is concerned about sodium poisoning the catalyst in the Selective Catalytic Reduction (SCR) unit. Staff understands that fuels with high soluble sodium contents such as biomass can cause SCR poisoning; however, staff is not sure how significant sodium poisoning could occur in gas turbines fired on pipeline quality natural gas. Staff needs clarification of this issue.

## DATA REQUEST

4. Please describe the basis of the concern for sodium poisoning of the SCR catalyst.

## BACKGROUND

### Operations Mitigation

The applicant has indicated that PM10 offsets will be obtained by buying Priority Reserve Credits (PRCs) as regulated by SCAQMD District Rule 1309.1. PRCs for Electrical Generating Facilities (EGFs) are available for sale to the first 2700 MW of permitted generation that request use of these credits. Considering the number of projects currently under review by SCAQMD, a total that is well above 2700 MW, staff is concerned whether PRCs will be available by the time this project's permit application is processed by SCAQMD. Additionally, while the application notes an expected cost for the purchase of PRCs ($3.3 million) it does not provide a specific accounting of the amount of PRCs that would be needed for the project. Staff needs additional information regarding the quantity of PRCs needed for the project and the availability of PRCs for the project.

## DATA REQUEST

5. Please provide a calculation, based on appropriate SCAQMD rules, of the quantity of PM10 PRCs that will be required for this project.

6. Please confirm that the project will be able to buy PM10 PRCs from SCAQMD, even if the project is permitted after 2,700 MW of new generation has been permitted by the SCAQMD, and explain the mechanism for obtaining the PRCs in such a case.

7. Presuming that the RERC project would be granted permits after other power plant projects have "consumed" the 2700 MW cap of Rule 1309.1, the only course of action that the applicant can pursue is to petition the District's Governing Board for obtaining PRCs per the provisions in Rule 1309.1. Please provide in detail, the arguments that would be used in if such a this petition is needed.

## BACKGROUND

### Greenhouse Gas Emissions

The project is proposing the use of a chiller. Staff needs to know if the working fluid of the chiller is a greenhouse gas (GHG), and needs to know the emission potential from equipment leaks for the chiller working fluid if it is a GHG. Additionally, staff needs to know if electrical equipment will use sulfur hexafluoride (SF6), which is a very potent GHG. Staff needs this information to ensure an accurate estimate of GHG emissions for the project.

Additionally, staff has found an apparent error in the construction GHG emission estimate. The vehicle methane and nitrous oxide emissions are calculated as if the emission factor basis is kg/mile; however, the correct basis using the cited California Climate Action Registry reference is grams/mile.

## DATA REQUEST

8. a. Please identify the chiller working fluid, and if it is a listed GHG, please provide an emission estimate from equipment leaks, such as using the existing site chiller as a basis;

   b. provide a carbon dioxide equivalent GHG emission estimate for the chiller, and

   c. provide revise emission data in grams/mile.

9. a. Please identify if any SF6 containing equipment will be added as part of the project and provide an emission estimate for SF6 leaks; and

   b. provide a carbon dioxide equivalent GHG emission estimate for the new SF6 containing equipment.

## BACKGROUND

### Cooling Tower Emissions

The cooling tower emissions estimated for the new cooling tower for this proposed project are over twenty times lower than for the existing cooling tower even though both use the same water source and have the same level of mist control. The application Appendix 6.1-B data conflicts on whether the recirculating water total dissolved solids (TDS) should be 50 ppm or 50 ppm times 25 cycles of concentration (1,000 ppm), which would make the emissions estimate essentially equivalent with the existing cooling tower. Staff needs to understand why the water quality assumption and resulting emissions for these two cooling towers are so different.

## DATA REQUEST

10. Please describe why the PM10 emissions estimated from the new cooling tower are over twenty times lower than the existing cooling tower and why the assumed

cooling water TDS does not seem to factor in the 25 cycles of concentration noted in Appendix 6.1-B.

## BACKGROUND

### Operating Emissions – Black-Start Engine

The black-start engine information in the application is not consistent with the modeling inputs for the operation of the black-start engine. Table 6.1-22 shows the black-start engine to be operating for three hours daily, while the modeling files and elsewhere in the application note a maximum operation of one-half hour daily. Staff requires confirmation of the black-start engine operation.

## DATA REQUEST

11. Please confirm the maximum daily and annual operating basis for the black-start engine.

## BACKGROUND

### Operating Model – Existing Gas Turbine Emissions

The current application's modeling analysis uses a few emission rates that are inconsistent with the values in the RERC 1 & 2 Final Initial Study (FIS) for the existing gas turbines. Staff needs to understand the source of the existing gas turbine emission rates.

## DATA REQUEST

12. The FIS for the RERC 1 & 2 provides a PM10 emission rate basis of 3.0 lbs/hour while the current application's modeling file inputs use 3.2 lbs/hour. Please describe the basis for the revision from the FIS gas turbine PM10 emission rate.

13. The FIS for the RERC 1 & 2 provides an annual NOx emission rate of 4.8 tons/year per turbine while the current application's modeling file inputs use 4.3 tons/year. Please describe the basis for the revision from the FIS gas turbine NOx annual emission rate.

14. The FIS for the RERC 1 & 2 provides a normal operating CO emission rate of 6.89 lbs/hour while the current application's modeling file inputs use 6.58 lbs/hour. Please describe the basis for the revision from the FIS gas turbine CO emission rate.

## BACKGROUND

### Cumulative Impacts Modeling Analysis

The cumulative impacts modeling analysis has not yet been submitted. The applicant is waiting for a cumulative project list from SCAQMD to determine if cumulative modeling beyond the inclusion of the existing RERC 1 & 2 sources needs to be completed. Staff needs the cumulative modeling analysis to complete the staff analysis for cumulative air quality impacts.

## DATA REQUEST

15. Please provide a copy of the cumulative modeling analysis including electronic copies of the modeling files.

16. Please provide a copy of the cumulative project list provided by SCAQMD.

17. Please identify any projects or additions at the adjacent waste water treatment plant that would have significant emission increase potential and that have occurred within the past three years or that are approved for construction.

## BACKGROUND: AIR QUALITY PERMIT APPLICATION

A permit application will need to be submitted to the SCAQMD. Staff needs to coordinate with the air district to keep apprised of any air quality issues determined during their permit review, and to make sure that staff and the air district are using the same information to complete our respective analyses.

## DATA REQUEST

18. Please provide copies of any permit application materials, other than duplication of SPPE application materials, submitted to the air district.

19. Please provide copies of any future submittals to the air district within 5 days of their submittal to the air district.

## BACKGROUND: AIR DISPERSION MODELING – METEOROLOGICAL DATA

The applicant's air dispersion modeling analysis uses the AERMOD modeling system with a local meteorological data source (Riverside Municipal Airport) for the surface data and upper air data from Miramar Air Station. Staff generally considers the use of this dispersion model along with local surface meteorological data and regional upper air data to be acceptable. However, the meteorological data has a remarkably high number of calm hours (just over one-third of all hours) which calls into question the accuracy of the data and/or the acceptability of the precision of the monitoring station's anemometer. Additionally, for continuity of staff and SCAQMD analyses, staff needs the

applicant to provide information from SCAQMD demonstrating acceptance of this meteorological data.

**DATA REQUEST**

20. Please describe the relative accuracy and the minimum measurable wind speed for the anemometer at the Riverside Municipal Airport.

21. Please provide confirmation from SCAQMD that they have accepted the surface and upper air meteorological data used for the project's air dispersion modeling analysis.

**BACKGROUND: AIR DISPERSION MODELING – SITE ELEVATION**

The site elevation would need to have been modified by the applicant from that which would appear in United States Geological Survey (USGS) Digital Elevation Model (DEM) files to account for man-made changes to the site elevation. Staff needs to confirm that appropriate revisions were made to the source heights to reflect the actual current elevations for both the existing and proposed equipment.

**DATA REQUEST**

22. Please describe the methods used to determine the site elevation for all of the existing and proposed equipment and confirm that they are based on actual conditions rather than unaltered USGS DEM file data.

**Technical Area:** Biological Resources
**Author:** Heather Blair

## BACKGROUND

The proposed RERC 3 & 4 project would place a dispatch and scheduling building adjacent to an existing burrowing owl (i.e., a California Species of Concern) mitigation area, which was constructed as part of the RERC 1 & 2 project. It is understood that this building has been designed in coordination with California Department of Fish and Game (CDFG) to prevent impacts to burrowing owl. The proposed project would require permanent closure of one artificial burrow and temporary closure of several artificial burrows during construction activities. However, it is unclear exactly which of the six existing artificial burrows would be temporarily or permanently closed.

## DATA REQUEST

23. a. Please provide a map showing the location of the dispatch and scheduling building in relation to the existing artificial burrows; and

    b. indicate on the map which of the existing burrows would be temporarily or permanently closed.

## BACKGROUND

The applicant proposes to construct two new artificial burrows for each existing burrow temporarily or permanently closed (section 6.3.1.2.1, pg. 6.3-2). Additional detail regarding the location and design of the burrows was not provided in the application. Further, these details should be coordinated with CDFG, who provides regulatory oversight on mitigation for burrowing owl and worked with the applicant and the Energy Commission to design and implement the mitigation area for the RERC Units 1 & 2 project.

## DATA REQUESTS

24. Please provide a map that illustrates the preliminary proposed locations of the new artificial burrows.

25. a. Please provide a description of the design for the artificial burrows. It is assumed that they would be very similar to the existing artificial burrows; and

    b. submit the proposed location and design information to staff and CDFG for review and provide a record of correspondence with CDFG to the Energy Commission.

## BACKGROUND

The County of Riverside has adopted a Multiple Species Habitat Conservation Plan (MSHCP) that includes the proposed RERC 3 & 4 site within the boundaries of The

Cities of Norco/Riverside Area Plan, Sub Unit Santa Ana River South. A portion of the mitigation for impacts to burrowing owl from the RERC 1&2 project required the City of Riverside to pay into the MSHCP fund to purchase credits for permanent habitat disturbance. Per the MSHCP habitat assessment conducted by the applicant for the RERC 3 & 4 project, as illustrated in Figure 3 (pg. 6.3-19), suitable habitat for burrowing owl exists within the proposed project area outside of the burrowing owl mitigation area. The suitable habitat within the gravel lot in the northern portion of the project site would be used as a laydown area and would therefore be temporarily impacted by construction of the proposed project. Also, it appears that the expanded switchyard would be constructed within burrowing owl habitat, resulting in permanent disturbance.

## DATA REQUEST

26. Please clarify whether there would be permanent disturbance to burrowing owl habitat from construction of the proposed project.

27. Please determine whether the purchase of mitigation credits is required per the Western Riverside County MSHCP and provide the associated records of correspondence with applicable agency officials.

## BACKGROUND

The proposed project is adjacent to the existing burrowing owl mitigation area where burrowing owls are considered present. Additionally, the proposed project would be located approximately 325 feet south of southern cottonwood willow riparian forest within the Santa Ana River riparian corridor. This habitat supports foraging and nesting populations of special-status birds, including least Bell's vireo, southwest willow flycatcher, and western yellow-billed cuckoo. Although the applicant stated that indirect impacts to burrowing owls and nesting birds may occur (section 6.3.6.5, pgs. 6.3-38, 39), the application did not address the potential for noise or lighting impacts to special-status wildlife. The following information is needed in order to determine potential impacts to special-status wildlife from noise and light associated with proposed project construction and operation activities.

## DATA REQUESTS

28. a. Please provide an analysis of background noise levels and anticipated construction and operational noise levels in relation to potential effects to special-status wildlife in the project burrowing owl mitigation area and the Santa Ana River riparian corridor; and

    b. analyze whether there is a particular time of year when the project's construction and operations noise could pose a threat to nearby sensitive biological resources.

29. Please provide an analysis of what effects any additional lighting during the new facility during the new facility construction or operational phases may have on the nearby sensitive habitat associated with the Santa Ana River riparian corridor.

**Technical Area:** Geology and Paleontology
**Author:** Michael S. Lindholm, P. G.

## BACKGROUND

The geotechnical investigation of a proposed site is essential in understanding the materials that underlie an area. The subsurface material properties are determined through field exploration and subsequent laboratory testing, and allow for classification of the soils and estimation of foundation design parameters. Subsurface site investigations generally involve advancement of test pits and/or auger borings in order to collect soil samples for laboratory testing and determination of material strength and consistency by various methods, including Standard Penetration Tests (SPT) and pocket penetrometer tests. Laboratory testing typically includes index tests (grain size analyses and Atterberg limits tests), consolidation tests, expansion tests and other analyses depending on the nature of site soils. Two geotechnical reports, compiled by LOR Geotechnical Group, Inc. (2004 and 2008), are referenced in the application for this project, but are not included in the appendices of the application.

## DATA REQUESTS

30. Please provide the two project geotechnical reports, compiled by LOR Geotechnical Group, Inc. (2004 and 2008) referenced in Section 6.5 – Geologic Resources and Hazards of the application.

## BACKGROUND

Paleontological records searches are typically requested from applicable museums in the vicinity of the proposed new power plant. Each museum reviews its collection and prepares a report that identifies fossil remains collected from localities on or near the project site, and from geologic units that are present on the site. Paleontological sensitivity of geologic units, as well as the potential to impact significant paleontological resources, can be determined from the records searches. Two museum records searches, one from the Natural History Museum of Los Angeles County (McLeod, 2007) and another from the San Bernardino County Museum (Scott, 2008), are referenced in Section 6.6 – Paleontological Resources of the application. No supporting paleontological report has been provided in the appendices of the application.

## DATA REQUESTS

31. Please provide the supporting museum records searches reports from the Natural History Museum of Los Angeles County (McLeod, 2007) and the San Bernardino County Museum (Scott, 2008).

**Riverside Energy Resource Center Units 3&4 Project**
**08-SPPE-1**
**DATA REQUESTS**

**Technical Area:** Hazardous Materials Management, Worker Safety, and Fire Protection
**Author:** Dr. Alvin Greenberg

## BACKGROUND

The application describes the project in very general terms, including an incomplete description of access points (gates), hazardous materials transportation routes, fire detection and suppression systems, existing and planned perimeter security, and any gas compressor enclosures and safety systems. Staff needs this information in order to assess fire response and protection systems, the impacts of transporting aqueous ammonia to the power plant, and site security.

## DATA REQUESTS

32. a. Please provide a description of the route that will be used to transport aqueous ammonia from an Interstate freeway to the facility; and

    b. include a map that shows the location of any sensitive receptors along the route (e.g., parks, schools, hospitals, day-care facilities, long-term health care facilities, playgrounds, or residential neighborhoods).

33. The application states that 19% aqueous ammonia will be used for SCR and that there will be a total of 10 tanker truck deliveries to the power plant each month to serve both existing and proposed units. Please provide the increase in the number of tanker truck trips that the proposed project alone will require.

34. Please provide a narrative description and a map showing primary and secondary access points and gates into the project site. The secondary access point can be one restricted to the use of emergency response personnel.

35. Please describe all fire detection and suppression systems for the project and indicate whether the suppression systems are automatic or manual.

36. Please describe the three gas compressors in terms of whether they are open to the air, confined within a compressor building, or are surrounded by sound walls. Include a description of the location and type (manual or auto or remote activated) of the gas pipeline shutoff valve and fire detection and suppression systems.

37. In a confidential filing, describe the existing and proposed perimeter security in regards to fencing, walls, guards, access control, closed circuit televisions, breach detection, etc. Because this information is considered sensitive energy infrastructure security information, please indicate when Riverside Public Utilities personnel can provide staff with a confidential briefing on security measures that exist for the site and those planned for the project.

38. Please provide a description on the placement of any ammonia detectors, their specifications, and what warning or controls would be activated by these sensors.

**Technical Area:** Land Use
**Author:** Amanda Stennick

## BACKGROUND

Staff received an email on April 10, 2008 from RERC Project Manager Robert Gill stating the City of Riverside considers the project exempt from certain requirements under section 19.040.110 of its Municipal Code. To determine whether the proposed project conforms to local land use laws, including the zoning ordinances, please provide the following.

## DATA REQUEST

39. A letter from the city attorney that explains why the City considers the project exempt; cite all sections of the Municipal Code that the project would be exempted from.

## BACKGROUND

Since the Energy Commission's review of the 2004 SPPE application, the City of Riverside has adopted a new zoning code and general plan. The 2004 SPPE application showed the project site zoned Manufacturing Park (MP) and the land use designation as Industrial/Business Park (IB).

Page 6.2-3 of the 2008 SPPE application states the project site is zoned Business and Manufacturing Park (BMP), while page 6.2.17 states the zoning is and B/OP. To clarify the issue of the existing zoning and to more fully assess the project's consistency with the zoning and general plan, please provide the following.

## DATA REQUEST

40. Please provide a map that shows the current zoning of the site and all lands within a one-mile radius of the site.

41. Please provide a map that shows the current land use designation of the site and of all lands within a one-mile radius of the site.

## BACKGROUND

Page 6.11-26 of the application states that the proposed project will include two 80-foot-high exhaust stacks. The maximum allowable building height in the Business/Manufacturing Park (BMP) zone is 45 feet.

## DATA REQUEST

42. Please cite the chapter of the City of Riverside Municipal Code the City of Riverside would use to allow the project to exceed the 45-foot height limitation and include

any findings the City would make to allow the exhaust stacks to exceed the 45-foot height limitation.

## BACKGROUND

Page 6.11-26 of the application states that the proposed project will include a 96-foot-high communications tower. The maximum allowable height for telecommunications facilities in any industrial zone is 75 feet (Chapter 19.530 of the City of Riverside Municipal Code). Also, Chapter 19.530.020 D. states that "all wireless communications facilities ... shall be subject to the granting of a conditional use permit processed pursuant to Chapter 19.760."

## DATA REQUEST

43. Please state, whether in addition to the use permit, a variance is required to allow the 96-foot-high communications tower in the BMP zone. If a variance is required, please cite the code chapter for variances and include any findings the city would make to allow the communications tower to exceed the 75-foot height limitation.

**Technical Area:** Socioeconomics
**Author:** Joseph Diamond Ph. D

## BACKGROUND

The time value of money should be reflected for all economic estimates. Staff needs to know the year that corresponds to the dollar estimate.

## DATA REQUEST

44. Please indicate the year for all economic estimates (e.g., economic impact analysis, capital costs, construction and operation sales tax, locally purchased (within Riverside/San Bernardino counties) equipment and material during construction and operation).

## BACKGROUND

Economic benefits of the project, including the payment of property taxes and school impact fees, are an important component of socioeconomic analysis. However, since RERC is owned by a local public agency (i.e., the City of Riverside Public Utilities), it is exempt from paying any property taxes and school impact fees.

## DATA REQUEST

45. Please discuss whether there are any in lieu payments or other economic benefits to the City of Riverside because the RPU does not pay property taxes or school impact fees.

## BACKGROUND

Economic benefits, including the payment of sales taxes for all project equipment and material purchases are an important component of socioeconomic analysis.

## DATA REQUEST

46. The SPPE application states that equipment purchase costs would be approximately $4,263,000.

    a. Of this amount, please discuss what would be directed back to the City of Riverside.

    b. Please state how much sales tax would go to Riverside County, San Bernardino County, and finally to the State of California.

**Riverside Energy Resource Center Units 3&4 Project**
**08-SPPE-1**
**DATA REQUESTS**

**Technical Area:** Transmission System Engineering
**Author:** Ajoy Guha, P.G. and Mark Hesters

## INTRODUCTION

Staff needs to determine the system reliability impacts of the project interconnection and to identify the interconnection facilities including downstream facilities needed to support the reliable interconnection of the proposed project. The interconnection must comply with the Utility Reliability and Planning Criteria, North American Electric Reliability Council (NERC) Planning Standards, NERC/Western Electricity Coordinating Council (WECC) Planning Standards, and California Independent System Operator (CAISO) Planning Standards. In addition the California Environmental Quality Act (CEQA) requires the identification and description of the "direct and indirect significant effects of the project on the environment." For compliance with planning and reliability standards and the identification of indirect or downstream transmission impacts, staff relies on the System Impact Study (SIS) and Facilities Study (FS), as well as review of these studies by the agencies responsible for insuring the adjacent interconnecting grid meets reliability standards, in this case, the Southern California Edison Company (SCE) and/or CAISO. The studies analyze the effect of the proposed project on the ability of the transmission network to meet reliability standards. When the studies determine that the project will cause the transmission grid or network to violate reliability requirements the potential mitigation or upgrades required to bring the system into compliance are identified. The mitigation measures often include modification and construction of downstream transmission facilities. CEQA requires environmental analysis of any downstream facilities for potential indirect impacts of the proposed project.

## BACKGROUND

The description of the RERC switchyard and interconnection facilities between the proposed new generators and the RERC switchyard including major equipment and their ratings are incomplete as provided in the application (section 1.6.6, Page 1-7; sections 2.11 & 2.12, page 2-23; section 2.2, page 2-6; section 5.4.2, page 5-3).

## DATA REQUEST

47. Provide a complete electrical one-line diagram of the pre-project RERC 69 kV switchyard showing the existing generator units and interconnection equipment to the switchyard, buses with their arrangement, breakers and disconnect switches and their respective ratings, along with existing transmission outlets.

48. Provide a complete electrical one-line diagram of the post-project RERC switchyard showing all equipment for new generators' interconnection with the switchyard including any bus duct connectors or cables, 13.8/15 kV switchgear and breakers on the low side, generator step-up transformers (GSU), any short overhead line or conductors with its configuration between the GSU and the switchyard, buses and

their arrangement, breakers, disconnect switches on the 69 kV side and their respective ratings, along with the existing and proposed transmission outlets.

49. Provide pre and post-project physical layout drawings of the RERC showing existing and new generating units, all major equipment, switchyard and transmission line outlet(s).

## BACKGROUND

The application did not include a complete SIS report for interconnection of RERC in 2009 with a mitigation plan for reliability criteria violations and final interconnection approval information. Since the City of Riverside became a new Participating Transmission Owner (PTO) under the Federal Energy Regulatory Commission (FERC) and City Tariff and its high voltage transmission facilities are under California Independent System Operator's (CAISO) operation control, staff believes that the SIS for addition of RERC 3 & 4 and any subsequent studies are required to be coordinated and approved by the CAISO (section 5.5, Pages 5-3 to 5-5).

In view of the Riverside Transmission Reliability Project (RTRP) for the proposed 230/69 kV second point of interconnection with the SCE system in 2012, performing an alternate SIS based on 2012 system conditions may be prudent at this stage (time permitting) to analyze the joint system impacts and to determine a phased (2009 & 2012) mitigation plan due to additions of the RERC and RTRP. The SIS is required to be coordinated by CAISO and SCE and subsequently approved by CAISO (section 2.1.3, page 2-5).

## DATA REQUEST

The data requests below provide the choice of filing a SIS for the proposed RERC 3 & 4, or a coordinated Riverside/SCE SIS which address both the proposed project and the RTRP.

50. Submit a complete SIS report approved by the CAISO for interconnection of the 95 MW RERC based on 2009 summer peak and off-peak system conditions (scheduled on-line date of RERC 3 & 4). The study should include a power flow, short circuit and transient stability analyses with a mitigation plan for any identified reliability criteria violations inside the City system and in any adjacent system. In the report list all major assumptions in the base cases including major path flows, major generations including queue generation and loads in the area systems. Also identify the reliability and planning criteria utilized to determine the reliability criteria violations.

or,

51. Submit a complete SIS report in coordination with SCE and CAISO and approved by the CAISO for interconnections of the 95 MW RERC 3 & 4 and addition of RTRP based on 2012 summer peak and off-peak system conditions (scheduled on-line date of the RTRP). The study should include a power flow, short circuit and

transient stability analyses with a phased (2009 & 2012) mitigation plan for any identified reliability criteria violations inside the City system and in any adjacent system. In the report list all major assumptions in the base cases including major path flows, major generations including queue generation and loads in the area systems. Also identify the reliability and planning criteria utilized to determine the reliability criteria violations.

52. Provide power flow diagrams with and without RERC 3 & 4 or with and without the RERC 3 & 4 and RTRP for base cases. Power flow diagrams should also be provided for all overloads or voltage criteria violations under normal system (N-0) or contingency (N-1 & N-2) conditions

53. Provide electronic copies of *.sav,*.drw. *.dyd and *.swt GE PSLF files and EPCL contingency files in a CD (if available).

54. Provide the expected date, after contacting the CAISO, when the final interconnection approval letter from the California CAISO would be issued.

**TECHNICAL AREA:** Visual Resources
**Authors:** Marie McLean

## BACKGROUND

Except for the 96-foot communications tower, the RERC 3 & 4 is a duplicate of a previous project located at the same site, the RERC 1 & 2. If built, RERC 3 & 4 will occupy 2.2 acres of the 16-acre site and consist of two generation units, each comprising two 80-foot-high exhaust stacks, two 43-foot-high combustion turbine generators, and one 40-foot-high cooling tower. In addition, a 96-foot-high communications tower will be built on site. The project will be surrounded by a 10-foot-high architectural block wall or non-reflective chain link fence, which is topped with one foot of barbed wire.

## DATA REQUESTS

55. As pictured in KOP 1, Simulated Condition, the 96-foot communications tower appears to be a lattice type. Please verify the type of tower, lattice or monopole type, and the color. In addition, please indicate whether the tower will include any additional antennae or dishes, and, if so, please indicate their size and number. Please describe any supporting structures associated with the tower, including the color of the structure.

56. Please provide a character photo (existing view) of the project site looking east from the nearest residential area west of the site.

## BACKGROUND

The City of Riverside has adopted design review procedures (*Municipal Code* Chapter 19.710) as well as Industrial Zone regulations (*Municipal Code* Chapter 19.130), applicable to the design of both public buildings and grounds in industrial zones.

## DATA REQUEST

57. Please describe how the project will be designed to meet these visual-related zoning regulations. Please factor the abutment of the city's wastewater treatment plant to the proposed project when addressing the project's visual conformance with the City's zoning regulations.

**Technical Area:** Waste Management
**Author:** Cheryl Closson

## BACKGROUND

As part of its environmental review, staff must evaluate whether or not past or present uses of the project site might have resulted in releases of hazardous substances or waste that could represent a significant risk or adverse impact to the public or the environment. A Phase I Environmental Site Assessment (ESA) is a generally accepted method of evaluation used by businesses and public agencies to identify conditions at or near project sites that may indicate whether there have been releases (or threatened releases) of hazardous substances or potential contamination. However, the project application does not include a Phase I ESA, or any equivalent information addressing the past and present conditions at the site. This information is necessary for staff to complete its evaluation of the project's potential environmental impacts.

## DATA REQUEST

58. Please provide a Phase I ESA for the proposed project site including all construction laydown areas and all areas shared with the existing RERC facility. The Phase I ESA should be prepared according to the American Society for Testing and Materials (ASTM) Standard E 1527-05, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, or an equivalent method agreed upon by the applicant and staff that provides similar documentation of the potential for and extent of any possible site contamination.

## BACKGROUND

The project application does not include information identifying the potential waste haulers or disposal sites that may be used for management of project wastes. Staff requires this information to further assess project compliance with applicable waste LORS, and to determine whether or not proposed disposal facilities have sufficient capacity to accommodate project wastes.

## DATA REQUEST

59. Please provide information on the non-hazardous and hazardous waste haulers that may be used to transport project wastes and the types of waste each hauler would be expected to carry.

60. Please provide information on both the non-hazardous and hazardous waste disposal facilities that may be used to manage project wastes. For each facility, please include the following information:

    a. name;

    b. location;

c. classification;

d. daily and/or annual permitted capacity of disposal facility;

e. daily and/or annual amounts of waste currently being accepted;

f. the estimated closure date of the facility;

g. remaining capacity; and current permit status.

## BACKGROUND

The project application provides incomplete information on the expected quantities and proposed onsite management practices for both non-hazardous and hazardous wastes generated by the project. For example, Tables 6.14-3 (Non-hazardous Waste Management Methods) and 6.14-4 (Hazardous Waste Management Methods) do not clearly identify which wastes will be generated during construction and which wastes will be generated as part of facility operation. The application is also unclear on how project wastes will be co-managed as part of the existing RERC facility.

Staff requires additional information on the expected waste generation volumes and onsite management practices for both the construction and operation phases of the project. In addition, since the project will be co-located and operated as part of the existing RERC, staff needs clarification on how facility wastes may be co-managed with existing RERC wastes, along with information on the volumes of wastes currently generated by the RERC and the total combined volume of waste expected to be generated by both facilities. This information is necessary to help staff 1) assess project compliance with LORS; 2) evaluate the adequacy of waste management practices and any mitigation measures proposed; and 3) evaluate cumulative impacts from co-operation of the proposed project with the existing RERC.

## DATA REQUEST

61. For the construction phase of the project, please provide additional information and revised tables clearly identifying the waste streams, waste volumes and generation frequency, onsite management methods, and offsite recycling or disposal methods proposed for both non-hazardous and hazardous wastes.

62. For the operation phase of the project, please provide additional information and revised tables clearly identifying the waste streams, waste volumes and generation frequency, onsite management methods, and offsite recycling or disposal methods proposed for both non-hazardous and hazardous wastes. Please be sure to clearly delineate and provide information on any waste streams generated by onsite water/wastewater treatment or recycling (such as solids or brine generated from water treatment and oily wastes generated by oil/water separation).

63. Please provide a detailed description of how management of project wastes will be coordinated with the management of existing RERC wastes. Please include information on the types and volumes of hazardous and non-hazardous wastes currently generated by the existing RERC facility, and how the proposed project's wastes would increase the total volume of waste generated by the RERC or otherwise impact management of wastes by the RERC as a whole.

**Technical Area:** Water Resources
**Author:** Casey Weaver

## BACKGROUND

Descriptions of the project stormwater drainage controls are presented in the application and by reference in the 2004 Riverside Energy Resource Center Units 1 & 2 Storm Water Pollution Prevention Plan (SWPPP). Generally, all stormwater occurring on the project site is directed to drop inlets or swales and conveyed to a subgrade retention basin.

Statements contained within both of the documents regarding parameters used in design of the stormwater collection and retention system are conflicting. The main conflicting issues are whether the design storm is a 100-year storm or a 50-year storm, and whether the system was designed for the whole volume collected from the design storm or some portion thereof.

The stormwater runoff calculations presented in the 2004 SWPPP and the information used to base the calculations described in both the application and the SWPPP are conflicting. It is not clear how the system was designed and how it will operate during construction and operation.

## DATA REQUEST

64. Please clarify what design parameters the stormwater system is designed to manage and how it will operate.

65. a. Please provide the rationale for selecting the volume used in the calculations of the retention basin; and

    b. explain why the selection of the 50-year storm event (as opposed to the 100-year event) and only a one-hour storm duration was selected.

66. If the design of the drainage control features included using only a percentage of the entire flow expected from the design storm, please explain why that reduced volume was used and where the remainder of the volume will go.

## BACKGROUND

Both the application and the 2004 RERC Units 1 & 2 SWPPP discuss the project's need for obtaining stormwater permits following construction fir the current project. It is unclear whether the applicant will obtain a post-construction stormwater permit, or has adequately evaluated the need to obtain a permit.

The application and 2004 SWPPP indicate that overflow from the retention basin will escape the basin through a spillway, travel over the ground surface within the project boundaries, leave the project property, travel across bare soil, traverse an access road

and eventually enter a stormwater catch basin on the adjoining City of Riverside Regional Water Quality Control Plant property located just west of the retention basin.

**DATA REQUEST**

67. As required in the 2004 SWPPP, please provide a copy of the SWPPP for Industrial Activities.

68. As required in the 2004 SWPPP, please provide a copy of the post-construction stormwater operation and management plan.

69. Please explain why an Industrial NPDES permit is not required for the expected discharge and identify what post-construction permit(s) will be obtained.

70. Please explain how the erosion potential of on-site and off-site soils has been addressed in the area where concentrated stormwater runoff discharges from the retention basin and flows across unprotected soils.

71. Please describe the alternatives considered prior to concluding that allowing uncontrolled concentrated runoff to discharge off-site was the preferred solution.

**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA**

| | |
|---|---|
| **RIVERSIDE ENERGY RESOURCE CENTER PROJECT SMALL POWER PLANT EXEMPTION** | **Docket No. 08-SPPE-01**<br><br>**PROOF OF SERVICE** |

**INSTRUCTIONS: All parties shall either (1) wend an original signed document plus 12 copies or (2) mail one original signed copy AND e-mail the document to the address for the Docket as shown below, AND (3) all parties shall also send a printed or electronic copy of the document, which includes a proof of service declaration to each of the individuals on the proof of service list shown below:**

CALIFORNIA ENERGY COMMISSION
Attn: Docket No, 08-SPPE-1
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
**docket@energy.state.ca.us**

**APPLICANT**

Stephen H. Badgett
Utilities Assistant Director
Riverside Public Utilities
3900 Main Street
Riverside, CA 92522
**sbadgett@ci.riverside.ca.us**

Robert B. Gill
Principal Electrical Engineer
Riverside Public Utilities
3900 Main Street
Riverside, CA 92522
**rbg@ci.riverside.ca.us**

**APPLICANT CONSULTANT**

Mike Tatterson
Project Manager
Power Engineers, Inc.
P. O. Box 1066
Hailey, ID 83333
**mtatterson@powereng.com**

**COUNSEL FOR APPLICANT**

Allan J. Thompson, Esq.
Attorney for Applicant
21 "C" Orinda Way #314
Orinda, CA 94563
**allanori@comcast.net**

**INTERVENORS**

**INTERESTED AGENCIES**

John Yee and Ken Coats
South Coast Air Quality Mgmt. District
21865 E. Copley Drive
Diamond Bar, CA 91765-4182

Guenther Moskat, Chief
Planning and Environmental Analysis Section
Department of Toxic and Substances
Control 1001 "I" Street, 22nd Floor
P.O. Box 806
Sacramento, CA 95812-0806

## DECLARATION OF SERVICE

I, Christina Flores, declare that on May 6, 2008, I deposited copies of the attached Data Requests #1 (1-71) in the United States mail at Sacramento, CA with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above.

***OR***

Transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.

**Christina Flores**