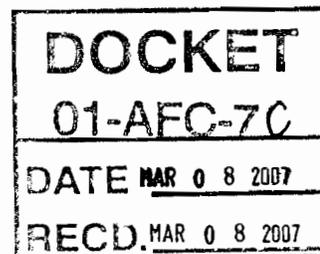


CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET
SACRAMENTO, CA 95814-5512

March 8, 2007

Michael A. Hatfield
Director, Business Development
Calpine
3875 Hopyard Road, Suite 345
Pleasanton, CA 94588



Dear Mr. Hatfield,

RE: SECOND ROUND DATA REQUESTS FOR THE RUSSELL CITY ENERGY CENTER AMENDMENT (01-AFC-7C)

Pursuant to Title 20, California Code of Regulations, section 1769, the California Energy Commission staff requests the information specified in the enclosed data requests. The information requested is necessary to more fully understand whether implementation of the modifications proposed in the Russell City Energy Center Amendment will: 1) allow the project to operate in a safe, efficient and reliable manner, 2) comply with applicable laws, ordinances, and regulations, or 3) result in significant environmental impacts.

This set of data requests (#55-72) is being made in the areas of alternatives, cultural resources, land use and traffic and transportation. Written responses to the enclosed data requests are due to the Energy Commission staff on, or before, April 9, 2007, or at such later date as may be mutually agreed.

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 both Commissioner John L. Geesman, Presiding Committee Member for the Russell City Energy Center Project Amendment Petition, and to me, within 10 days of receipt of this letter. 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).

If you have any questions, please call me at (916) 654-4228 or E-mail me at jscott@energy.state.ca.us.

Sincerely,

A handwritten signature in cursive script that reads "Jeri Zene Scott".

Ms. Jeri Zene Scott
Compliance Project Manager
Energy Facility Siting Division

Enclosures

Technical Area: Alternatives

Author: Jeri Scott

BACKGROUND

The RCEC project site is approximately 1 1/2 miles southwest of the Hayward Executive Airport and would be within the Airport Approach Zoning Plan boundaries. These boundaries extend approximately two (2) miles out from the landing area of the airport. The hot air exhaust plumes emitted from the project's stacks would introduce the potential for impacts to aircraft flying over or immediately adjacent to the site. Staff has been advised that aircraft traverse the area at altitudes as low as 400 feet above ground level (agl) and regularly fly over the area at altitudes below 1000 feet agl. Smaller single and two-engine aircraft, rotor craft (such as helicopters), and ultra-light or experimental aircraft are particularly susceptible to low level turbulence. Pursuant to the Hayward Municipal Code (HMC) §10-6.35, "...no use may be made of land within any airport approach zone, airport turning zone, or airport transition zone in such a manner as to endanger the landing, take off, or maneuvering of aircraft."

Section 9.3 of the RCEC Application for Certification provides a comparative evaluation of the original project site and five alternative sites, one of which, Alternative Site D (Depot Road), is where the RCEC is proposed to be moved. The discussion in Section 9.3 does not address aviation safety. In addition to the original site, Alternative Site E (Winton Avenue) is also within the 2-mile airport approach zone of the Hayward Executive Airport.

DATA REQUEST

55. Please compare the currently proposed site to Alternative Site E with regard to aviation safety and consistency with the Hayward Airport Approach Zoning Plan (HMC §10-6.35).
56. Please discuss whether Alternative Site A (Newark-Cargill) in the City of Newark, and Alternative sites B (Fremont-Stevenson) and C (Fremont-Boyce) in the City of Fremont are within the airspace of any airport and whether their use could present potential aviation safety hazards.

Technical Area: Cultural Resources

Author: Dorothy Torres

Please provide any documents under confidential cover that may reveal the location of an archaeological site.

BACKGROUND

On page 3-78 of Amendment # 1, there is an explanation that only portions of the City of Hayward parcel were inventoried for cultural resources for the previous Application for Certification (AFC), but that additional survey results would be forthcoming. There is also an explanation that additional remaining areas, not surveyed for archaeological resources, are in automobile salvage, vehicle, and container storage, or are in private ownership and not accessible for survey. It is not clear from the discussion in the Amendment, areas that have been surveyed, areas to be surveyed in the future, areas that were not accessible, and the reason specific areas were not accessible.

Results of an additional survey of the Hayward parcel laydown/parking area were provided in response to the first round of data requests. However, Figure DR21-1 indicates that some locations were still not surveyed. It appears that the City of Hayward parcel east of the proposed transmission line route, the transmission line route between Depot Road and the City of Hayward parcel, the laydown/parking area west of the proposed project site, the Aladdin Depot Partnership and the alternate electrical transmission route were not surveyed. To complete the analysis, staff needs additional information regarding the results of any additional recent archaeological surveys, applicant's ability to complete cultural resources surveys or a plan for completing archaeological surveys once access can be obtained or the ground is visible.

DATA REQUESTS

57. Please survey the City of Hayward parcel to the east of the proposed transmission line route, the transmission line route between Depot Road and the City of Hayward parcel, the parking/laydown area to the west of the project site, the Aladdin Depot Partnership and the alternate electrical transmission line route and provide the survey results.
58. Please identify areas on a revised Figure DR21-1 where access cannot be obtained or the ground is not visible, and provide a discussion of the steps taken to obtain access or a plan for conducting an archaeological survey at a later date when the ground is visible. If access cannot be obtained or the ground is not visible, please explain how the project proposes to conduct necessary archaeological surveys.

BACKGROUND

In Data Request 22, staff asked the project owner to contact Native Americans, listed by the Native American Heritage Commission, to determine whether there are any Native Americans who may be concerned about ground disturbance in the project vicinity. The project owner responded that contact letters were mailed on January 16, 2007, and that

they expected to provide information to staff in January regarding any Native American responses to the letters or to follow-up telephone calls.

DATA REQUEST

59. Please identify when the project owner anticipates providing information regarding Native American responses to staff. If responses have been received, please provide copies of response letters and a summary of telephone conversations.

BACKGROUND

In the first round of Data Requests, staff asked the applicant to clarify whether the soils borrow or disposal sites were commercial locations. If they were not commercial locations, staff asked that the locations be surveyed for cultural resources and the results provided. The project owner responded that any needed fill would be purchased and that there was no designated borrow site. The project owner did not address the question of soil disposal, however, waste management staff has determined that soil remediation will likely be required at the project site.

DATA REQUESTS

60. If soils will be purchased from a borrow site that is not a commercial location and consequently has not been surveyed for cultural resources, please conduct a cultural resources survey and provide the survey personnel qualifications, methods, and findings to staff.
61. Please explain whether soil disposal sites to be used for the proposed project are commercial locations. If they are not commercial locations and consequently have not been surveyed for cultural resources, please conduct surveys of disposal site(s) and provide the survey personnel qualifications, methods, and findings to staff.

BACKGROUND

During the first round of data requests, staff asked for the following information in Data Request # 27: "Please have an architectural historian or a historian who specializes in industrial history (meets the Secretary of Interior Standards) conduct sufficient background research on the Eash parcel's history to determine if any persons or activities associated with the buildings could be historically significant locally. Moreover, please ensure that the specialist compares the form and construction methods present in these buildings with other known agricultural utility buildings in the area and region and provides a recommendation of California Register of Historical Resources (CRHR) eligibility justified by the researched historical facts and the comparative architectural analysis and provide that information on DPR 523s "Building, Structure, and Object" forms to staff."

The project owner responded that architectural Historian Jessica Feldman had completed the requested Building, Structure, Object (BSO) records based on information that had been available to date. Ms. Feldman completed the BSO forms and

concluded that in most instances she could not draw conclusions regarding the eligibility of the buildings to the CRHR due to incomplete information. These three buildings, located on the project site would be demolished as part of the project. Staff needs additional information to complete the analysis.

DATA REQUEST

62. Please have an architectural historian or a historian, who specializes in industrial history (that meets the Secretary of Interior Standards), conduct sufficient historic background research to answer the questions asked in previous Data Request # 27. The BSO forms must make a clear well-supported recommendation regarding eligibility of the three historic buildings to the CRHR. Please provide the updated BSO forms to staff.

Technical Area: Land Use

Author: Shaelyn Strattan

BACKGROUND

The RCEC (Amendment 1) project site is approximately 1-1/2 miles southwest of the Hayward Executive Airport and would be within the Hayward Airport Approach Zoning Plan boundaries. These boundaries extend approximately two (2) miles out from the landing area of the airport. The hot air (thermal) exhaust plume(s) extending from the project's stacks and cooling tower would introduce the potential for impacts to aircraft flying over or immediately adjacent to the site. Per the Hayward Municipal Code (HMC) §10-6.35, "...no use may be made of land within any airport approach zone, airport turning zone, or airport transition zone in such a manner as to...endanger the landing, take off, or maneuvering of aircraft."

DATA REQUEST

63. Please discuss the suitability of the proposed project site and consistency with allowable uses within the Hayward Airport Approach Zoning Plan area (HMC §10-6), with respect to potential aviation safety hazards from plant-generated thermal plumes.

BACKGROUND

The RCEC (Amendment 1) project site, once consolidated under City of Hayward jurisdiction, would have a General Plan land use designation of Industrial Corridor and be zoned Industrial. Power plants are not specifically identified as a permitted or conditional use within an Industrial zone (HMC §10-1.16). Additionally, discussion of the Industrial Corridor within the 2002 revised General Plan (Hayward 2002 General Plan, Section 2 - Land Use, pp. 5 and 12-16), indicates a trend away from siting heavy industrial and manufacturing uses in portions of the Industrial Corridor, although no specific use boundaries have been codified.

Although the original project site had the same land use and zoning designations as the proposed site, the General Plan has been revised and places a different emphasis on development within the Industrial Corridor area where the project is now proposed to be sited. As part of the original certification process, the issue was brought before the Hayward City Council, who adopted a resolution (Res. 01-104) declaring the power plant use at 3636 Enterprise Avenue to be consistent with the Zoning Ordinance and existing General Plan. However, the resolution is site-specific and does not automatically apply to the proposed site.

DATA REQUEST

64. Please discuss the consistency of the new project site with the policies, provisions, and intent of the revised 2002 Hayward General Plan, compatibility with uses identified as appropriate within the Industrial (I) zoning district, and use restrictions, per Hayward Municipal Code §10-6.35 (Airport Approach Zone).

65. Please discuss the project owner plan and schedule for amending Resolution 01-104 or obtaining a new amendment addressing the new project site's potential inconsistencies with the City's laws, ordinances, regulations, and standards (LORS).

Technical Area: Traffic and Transportation

Author: James Adams

BACKGROUND

As noted in RCEC Amendment PP. 2-15, the RCEC site is 1.6 miles south of the Hayward Executive Airport and would be within the Hayward Airport Approach Zoning Plan boundaries. These boundaries extend approximately two (2) miles out from the landing area of the airport. The hot air (thermal) exhaust plume(s) extending from the project's stacks and cooling towers would introduce the potential for impacts to aircraft flying over or immediately adjacent to the site. Per the Hayward Municipal Code (HMC) §10-6.35, "...no use may be made of land within any airport approach zone, airport turning zone, or airport transition zone in such a manner as to...endanger the landing, take off, or maneuvering of aircraft."

Staff has been advised by the Hayward Airport Acting Manager, the Federal Aviation Administration (FAA), and Alameda Airport Land Use Commission staff that aircraft traverse the area at altitudes as low as 400 feet above ground level (agl) and regularly fly over the area at altitudes below 1000 feet agl. The Hayward Executive Airport averages approximately 400 airport operations per day. Smaller single and two-engine aircraft, rotor craft (such as helicopters), and ultra-light or experimental aircraft are particularly susceptible to low level turbulence. There is no discussion of potential plume impacts or analysis of plume velocity, heat dispersal, or other plume characteristics that might contribute to low altitude turbulence in the Project Description or Traffic & Transportation sections of the RCEC Amendment. Analyses of the velocity, shape, and dispersal of the exhaust plumes from the HRSG and cooling towers are necessary for staff to determine the potential impact of plumes generated by the Russell City facility on aircraft flying in the immediate vicinity of the project.

DATA REQUEST

66. Please provide a detailed plume analysis for the thermal plumes generated by the RCEC's exhaust stacks and cooling tower, including:
 - a. Frequency of plume generation, velocity, shape, continuity, and dispersal, up to and including 2000 feet agl.
 - b. Meteorological impacts on plume formation and behavior. Please provide the name/type of computer model used and its inputs and outputs.
 - c. Potential impacts to air mass stability and aircraft operations in the area affected by the plumes. Please consider elements such as aircraft type, speed, and altitude; low visibility; cool temperatures; and calm winds when evaluating potential aviation impacts.

BACKGROUND

Title 14, Part 77 of the Code of Federal regulations (14 CFR 77), "Objects Affecting Navigable Airspace", requires that the Federal Aviation Administration (FAA) be notified of proposed construction that may affect aviation safety and navigable airspace, in

compliance with 49 USC §44718. This allows the FAA the opportunity to identify and minimize potentially adverse effects on aviation. Although the stacks proposed for the RCEC project do not physically exceed the maximum height limits for structures within affected airspace, the thermal plumes may extend into navigable airspace and create a recurring impact that could result in low level, clear air turbulence.

Energy Commission staff's discussions with FAA personnel resulted in a request from the FAA for the project owner to file FAA Form 7460-1 and include the applicable plume information. FAA staff also recommended the project owner include a cover letter with the application, requesting the project be specifically reviewed by the FAA's Air Traffic Division, in addition to the normal routing and review process. In support of this request, it should be noted that an aviation safety report entitled "Safety Risk Analysis of Aircraft Overflight of Industrial Exhaust Plumes" was completed in January 2006 and is currently under review by the FAA Aviation Safety staff. In that document, it is recommended that instructions for FAA Form 7460-1 be amended to require a thorough explanation of the nature of any exhaust plume discharge.

DATA REQUEST

67. Complete and electronically file FAA Form 7460-1 (Notice of Proposed Construction or Alteration). Prior to filing, please submit a copy of the draft project description section of Form 7460-1 to Energy Commission staff for review and comments. The project description should thoroughly explain the nature of the exhaust plume discharge, including the analysis generated in response to Data Request #66.
68. Upon filing, please provide a copy of the final FAA Form 7460-1 to Energy Commission staff and the Alameda Airport Land Use Commission.

BACKGROUND

During operation of the Russell City Energy Center (RCEC), approximately 4,000 tons per year (tn/yr) of salt cake would be generated by the Zero Liquid Discharge system. The sludge is anticipated to be nonhazardous wastewater and would be shipped directly to the City of Hayward Water Pollution Control Facility (WPCF) for treatment and ultimate disposal in an appropriate landfill.

DATA REQUEST

69. Please provide an estimate of the number of truck trips per year to transport the 4,000 tn/yr of salt cake to the WPCF and the landfill(s) located in Alameda County.
70. Please identify the route(s) the trucks would take to the WPCF and landfill(s) and those intersections along the truck route that are part of the SR-92 and I-880 intersection reconstruction.
71. Please include these anticipated truck trips into the traffic analysis that is being revised due to staff's previous data request regarding cumulative traffic impacts (Data Request #53).

BACKGROUND

The RCEC would produce water treatment sludge from the Title 22 Recycled Water Facility. Section 3.13.1.2.2 states: "The sludge is anticipated to be nonhazardous wastewater and will be shipped directly to the Water Pollution Control Facility (WPCF) for treatment and ultimate disposal in the East Bay Dischargers Authority pipeline."

DATA REQUEST

72. Please provide additional clarification on the method of conveyance of the wastewater sludge from the RCEC to the WPCF. A) If conveyed via a pipeline, please provide a description of the pipeline and a delineation of its route from the RCEC to the WPCF, and discuss any traffic mitigation that would be required during the installation process. B) If via truck, please identify the number of truck trips and the route the trucks will take to the WPCF, and add this information to the revised traffic analysis pursuant to staffs' previous data requests.

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

Amendment to the APPLICATION
FOR CERTIFICATION OF THE
RUSSELL ENERGY CENTER
POWER PLANT PROJECT

Docket No. 01-AFC-7C
PROOF OF SERVICE
(Revised 12/13/06)

INSTRUCTIONS: All parties shall 1) send an original signed document plus 12 copies OR 2) mail one original signed copy AND e-mail the document to the web address below, AND 3) all parties shall also send a printed OR electronic copy of the documents that shall include a proof of service declaration to each of the individuals on the proof of service:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 01-AFC-7C
1516 Ninth Street, MS-4
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docket@energy.state.ca.us

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DECLARATION OF SERVICE

I, Marci Errecart, declare that on March 9, 2007, I deposited copies of the attached March 8, 2007 letter to Michael A. Hatfield, with the SECOND ROUND DATA REQUESTS for the Russell City Energy Center Amendment (01-AFC-7C) enclosed, in the United States mail at Sacramento, California 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.



[signature]