U.S Department
of Transportation

**Federal Aviation
Administration**

Western-Pacific Region
Airports Division

Airports District Office
831 Mitten Road, Room 210
Burlingame, CA 94010

July 18, 2007

Mr. Jim Adams, MA
Environmental Planner II
State of California
California Energy Commission
Energy Facility Siting Division
1516 9th Street, MS 40
Sacramento, CA 95814-5504

Dear Mr. Adams:

Re: July 9, 2007 Request for Comments on the Russell City Energy Center, 145-foot Above Ground Level Exhaust Stacks

We have reviewed the three documents sent by your office via e-mail on July 9, 2007. You requested the Federal Aviation Administration (FAA) to comment on the potential for aviation hazards from exhaust plume emissions from the Russell City Energy Center(RCEC)project. You also asked us to comment on whether or not the proposed project will conform to the city of Hayward Municipal code. Our comments are limited to the effects of the navigable airspace under the control and authority of the FAA and its various programs that deal with aviation safety and airport system capacity. Therefore, we ask that you continue to coordinate your project review action with the local municipal authority regarding conformance with local land use codes.

We note for your information that the FAA completed an aeronautical study, airspace case number 2007-AWP-1245-OE, for the proposed facility under the provision of 49 U.S.C., Section 44718, Title 14 of the Code of Federal Regulations, Part 77, Objects Affecting the Navigable Airspace. The FAA issued a "Determination of No Hazard to Air Navigation" letter to the project proponent on March 26, 2007. The FAA evaluated the height of the exhaust stack structure in relation to the landing areas for the Hayward Executive Airport (HWD) and the Oakland International airport (OAK). Part 77 does not currently include obstruction standards for industrial plant exhaust plumes. The FAA made no comments regarding the effects of air turbulence from exhaust gas plumes in its determination letter.

We used the site data from airspace case number 2007-AWP-1245-OE and the supplemental information supplied by your office, (Executive Summary, Traffic and Transportation, and Land Use documents), for our review. Based on the data submitted for the case study the facility is approximately 1.56 nautical miles southwest of Runway 28L of the Hayward Executive Airport. The facility would be located abeam of the landing threshold of Runway 28L. We also note that the facility would be approximately 5.58 nautical miles south of the landing threshold of Runway 29 of the Oakland International Airport.

We have no objection to the use of the FAA Safety Study Report, *Safety Risk Analysis of Aircraft Overflight of Industrial Exhaust Plumes,* (DOT

-FAA-AFS-420-06-1). The study provides airport land use compatibility guidance for general aviation and commercial service airports. The study included risk assessment information dealing with visible or invisible thermal plumes associated with power plant exhaust stacks. The study acknowledged the potential for hazards to aviation from air turbulence associated with plumes that could create airframe damage and/or negative effects on aircraft stability in flight. A second hazard identified risks from water vapor that has the potential of restricting visibility or producing contaminants adverse to aircraft operating in the overflight area of the plume. The FAA safety study determined that the potential risks from exhaust plumes are small but provided recommendations to avoid adverse impacts for overflights at low altitudes by small aircraft. The report recommendation stated that an amendment to the Aeronautical Information Manual (AIM) be made to publish advisory wording that overflights at less than 1,000 feet vertically of the plume generating industrial site should be avoided.

The principal airport influence area of concern is the airspace overflight area for the Hayward Executive Airport. The airport traffic pattern and altitude for Runway 10R/28L was reviewed to assess the potential for conflicts with landing and takeoff operations for all aircraft. The pattern altitude is 600 feet Above Ground Level (AGL) and is oriented on the south side of the airport. The facility is located adjacent to the recommended 1.5 nautical mile wide category B traffic pattern. We acknowledge that there are known helicopter operations that occur on a recurring basis within the airport influence area.

We agree with the CEC staff assessment information included in the Traffic and Transportation section (June 2007) of the document. Based on the California Energy Commission assessment of the plume effects at low attitudes and the FAA Safety Study Report, DOT -FAA-AFS-420-06-1 we concur in the recommendations listed under paragraph Trans-10. We recommend that project mitigation include notification requirements to alert pilots of small aircraft to avoid direct overflight of the power plant facility. Notification should include information to alert pilots that flights below 1,000' AGL be avoided.

A Supplemental Notice, Form 7460-2 should be filed under Part 77 when the final construction of the facility occurs to allow the FAA to publish a note in the Airport Facility Directory (AFD) and request that the facility be included on the San Francisco Sectional Aeronautical Chart to identified the location of the power plant. The form 7460-2 is available on the FAA web site: www.faa.gov under the airports/air traffic link, forms section of the web page.

This facility is not considered to create any significant air navigation hazards to the Oakland International Airport.

Thank you for allowing the FAA to provide comments on your staff assessment study. If you have additional question please contact me at (650) 876-2778, extension 610.

Sincerely,

Original signed by
Joseph R. Rodriguez

Joseph R. Rodriguez
Supervisor, Environmental Planning and Compliance Section

CC: Gary Cathey, Caltrans Division of Aeronautics
Cindy Horvath, Alameda Co. ALUC
Robert Baumann, City of Hayward