

March 18, 2010_

California Pilots Association
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U.S Environmental Protection Agency
Environmental Appeals Board
C/o Clerk of the Board, Environmental Appeals Board (MC 1103B)
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460-0001
Tel. (202) 233-0122
epa.gov/eab

Attention: Clerk of the Board

Re: EAB 08-01; PSD Permit No. 15487
Issued 2/3/10 by Bay Area Air Quality Management District; SF,
CA; Russell City Energy Center

Subject: California Pilots Association (CALPILOTS) Petition for Review
(Appeal)

The Bay Area Air Quality Management District (BAAQMD) has issued a Statement of Basis and permit conditions for the amended Prevention of Significant Deterioration ("PSD") Permit (application # 15487) for the Russell City Energy Center (RCEC), a natural gas-fired, combined cycle power plant with a nominal output of 600 megawatts. It is proposed by Russell City Energy Company, LLC, an affiliate of Calpine Corporation, and is to be located in Hayward, CA.

California Pilots Association (CalPilots)

The California Pilots Association mission is to promote and preserve the state's airports. As a statewide volunteer organization, we work to maintain the State's airports in the best possible condition.

We understand that comments also are being or have been submitted by Golden Gate University's Environmental Law Clinic on behalf of Citizens Against Pollution (CAP) and Chabot Las Positas Community College District. CALPILOTS also refers to and incorporates those

CALPILOTS Appeal
PSD Permit No. 15487
March 18, 2010
Page 2

comments by those organizations in addition to identifying the following issues and problems with the present P_S_D_.

The California Pilots Association requests you do not approve the P_S_D Permit for Russell City Energy Center (RCEC) and not allow this Power Plant to be built in Hayward within 1 ½ miles of Hayward Executive Airport (Appendix A**). We support the California Energy Commission (CEC) Staff Assessment recommendation not to approve the Russell City Energy Center as referenced in:**

<http://www.energy.ca.gov/2007publications/CEC-800-2007-003/CEC-800-2007-003-CMF.PDF>

Calpilots hereby requests that based on the above, the P_S_D Permit be remanded back to the BAAQMD for further comment by the FAA and others.

Mr. Raymond Pietrorazio made his presentation to the FAA in Washington, D.C. on February 23, 2010. Senator Chris Dodd (D-CT) and Representative Christopher Murphy, (D-CT, 5th District were in attendance. Their concerns of EPA and OSHA not addressing the effects of pilots and passengers flying in power plant exhaust plumes are shared by Calpilots.

His Power Point Presentation made to the FAA can be found at:
<http://www.ctcombustion.com/oxc/20100223-FAA-Pietrorazio-Web.htm>.

The Federal Aviation Administration (FAA) has confirmed to Mr. Pietrorazio that they are currently conducting their own plume safety study as outlined in **Appendix B. This includes but not limited to a review of OSHA and EPA laws and how they apply to pilots and passengers as mobile sensitive receptors flying inside exhaust plumes and to address the adverse effects for immediate, short and long term health issues which the EPA has failed to do.**

Data gathering and research would be completed in June of 2010 with a hypothesis, conclusion and recommendations be available sometime after June of 2010.

CALPILOTS Appeal
PSD Permit No. 15487
March 18, 2010
Page 3

The FAA person to contact for confirmation further comment is Mr. Melvin Banks, Manager, Operational Integration, ARC-4, Regions and Center Operations, tel 202-493-5060, FAX 202-267-5193, e-mail: mel.banks@faa.gov

The Hayward Executive Airport with a Federal Aviation Administration (FAA) staffed control tower is a vital link in the National Transportation System. It is therefore eligible for Grants from the FAA. When the City of Hayward last accepted a FAA Grant for Construction in 2002, the City Manager signed Grant Assurances on behalf of the City.

The City thereby agreed to an obligation to keep Hayward Executive Airport free of hazards, and also to maintain compatible land use zoning. These are Grant Assurances numbers 20 and 21as referenced below.

http://www.faa.gov/airports_airtraffic/airports/aip/grant_assurances/media/airport_sponsor_assurances.pdf

20. Hazard Removal and Mitigation. It (*the City, acting as the sponsor*) will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards **and by preventing the establishment or creation of future airport hazards.**

21. Compatible Land Use. It (*the City, acting as the sponsor*) will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and

purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or

CALPILOTS Appeal
PSD Permit No. 15487
March 18, 2010
Page 4

permit any change in land use, within its jurisdiction, that will reduce its compatibility with respect to the airport, of the noise compatibility program measures upon which federal funds have been expended.

The airspace at Hayward Executive Airport is very complicated, perhaps the most complicated in the country. That is because Class B Airspace for San Francisco International Airport sits on top of the airspace over much of the Bay Area affecting the airspace at all other airports in the Bay Area. Class C Airspace for Oakland International Airport is another layer of airspace, which affects Hayward Executive Airport. Hayward Executive Airport (HWD) has its own Airspace, Class D, further complicating rules and regulations for flying at Hayward's Airport.

Each class of airspace has its own particular rules and regulations, which must be followed by a pilot at certain altitudes in certain areas in the Bay Area. One of the requirements for ALL aircraft flying in the Class D airspace is to have a radio for communication with the control tower at all times. During Hayward Airport Tower operating hours pilots are required to communicate with Hayward. When the Hayward Tower is not in operation, pilots are required to report to the Oakland Tower. This further complicates the Hayward Executive Airport Airspace, as do Hayward Airport's Noise Abatement Procedures.

The types of aircraft using a HWD vary greatly, from Very light fabric airplanes, to blimps, light corporate- style jet aircraft, single-engine and twin-engine Cessna and Piper Aircraft and twin-engine King Airs. All of these aircraft would be affected by turbulence created by this power plant. The type of turbulence experienced would be more serious at the lower altitude of 650 feet or 600' Above Ground Level [AGL] (which is the traffic pattern altitude for Hayward Airport), because there is less altitude at which to recover when the pilot

encounters buffeting or sudden change in altitude. Helicopters fly even lower and both types of aircraft can fly lower still based on special VFR (Visual Flight Rules) conditions. It should be noted that planes overfly

CALPILOTS Appeal
PSD Permit No. 15487
March 18, 2010
Page 5

the RCEC site for both VFR and IFR (Instrument Flight Rules) as per testimony of Group Petitioners and FAA Witnesses as per testimony:

http://www.energy.ca.gov/sitingcases/eastshore/documents/2007-12-18_TRANSCRIPT.PDF

Hayward Airport is classified as a Reliever Airport that relieves or saves Oakland Airport from having to accommodate the Air Traffic of smaller planes (commonly called General Aviation). This allows for a more efficient use of air space and air traffic control. By constructing a power plant within 1 1/2 miles of the airport, it will limit airspace use, which would have a dramatic deterioration affect on the Bay Area's air traffic management.

1. Request Risk Analysis for Mobile Sensitive Receptors (Pilots and Passengers)

Pilots and their passengers are mobile sensitive receptors flying in and through the power plant plume will receive the greatest impact exposure to emissions and contaminants especially through unfiltered cabin air vents as well as open cockpit aircraft. **Appendix C**. They have been omitted in this process and we hereby request that a complete study be made for short term and long term impact health analysis. Air ambulances of various types are used to transport mobile sensitive receptors (passengers) with life threatening and respiratory ailments that will be transported in and through the plume. This should also include but not be limited to what affect each of the chemical compounds as well and the total composition makeup of the plume will have on each type of mobile sensitive receptor and those receptors that will affect to maintain safe control of the aircraft. This should include no less than four data points through the plume concentration of what is emitted and through the entire span of weather conditions as well with no fewer than four weather data points for each weather condition. Weather data should be used from the weather station at the Hayward Executive Airport in Hayward, California.

This study should also include all but not limited to all phases of construction, commissioning, startups and shutdowns for each individual generator as well as maximum generator load capacity while

CALPILOTS Appeal
PSD Permit No. 15487
March 18, 2010
Page 6

both generators are generating electricity at their combined load capacity. Startups and shutdowns should include but not limited to cold startups, hot startups and shutdowns through the calendar year.

Special attention should be given to the affect of the ammonia and or ammonia slip on all phases of commissioning and startups will have on mobile sensitive receptors in open cockpit and aircraft without air filtering cabin heating, ventilating and defrosting systems as shown in [Appendix C and D](#).

1. What is the amount of time for the cabin to fill with plume emissions or Hazardous material Releases that would have an affect the pilots ability to control and fly the aircraft both in VFR and IFR conditions.
2. What method of data substitution was used and how many data points were substituted for actual measured data values for AERMOD model?

The Airframe and Engines

The study should include what affect each chemical compound will have on the physical aircraft to include but not limited to the outer skin, frame, controls, internal engine and the air filters for engines as well as air filters if installed for cabin air and heat. This includes fabric-covered aircraft and composites, aluminum and material for blimps and helicopters or rotorcraft.

The oxygen content of the plume would have a significant effect on aircraft engine performance when flying in and near the plume. This would include various types of aircraft power plants that depend on the oxygen content throughout the aircraft's transition to and from the Hayward Executive Airport. Rotorcraft is required by the tower to "hold in place" in order to maintain aircraft separation for both rotorcraft and fixed wing aircraft.

1. At what distance and altitude should aircraft remain from the plume in order to maintain engine performance based on manufacturer standards?

CALPILOTS Appeal
PSD Permit No. 15487
March 18, 2010
Page 7

Hazardous Material Releases

Hazardous material releases have been omitted as part of the air analysis during this process and should be included for the above for Russell City Energy Center (RCEC) but also the Hayward Wastewater Treatment Plant which is Adjacent to RCEC.

We would also make reference to the Blythe, CA Power Plant Hazardous Material release report, [Appendix D](#) and point out that the Highway was closed but again mobile sensitive receptors were omitted from the process. The Blythe Airport was not notified and pilots and their passengers were put at risk.

Visual Plume

The visual plume will impede and distort the view of the airport by pilots and also obscures and interferes with the hand held visual light pilot commands from the control tower during an emergency if they are required? Is a man-made vapor plume a cloud?

FAA Clear of Clouds\074608A2FA18B48A86256EEB006704EF.htm

1. At what point does the visual plume become opaque during the day, evening and nighttime airport operations?
2. What method of data substitution was used and how many data points were substituted for actual measured data values for both the VSCREEN and Calpuff models?

Thermal Plume

Thermal plumes can have an effect on aircraft as both demonstrated from California Energy Commission and FAA pilot reports as in [Appendix E](#).

1. How far should aircraft remain from the thermal part of the thermal plume and what affect would this have on the overall operation of the Hayward Executive Airport?

CALPILOTS Appeal
PSD Permit No. 15487
March 18, 2010
Page 8

Hayward Executive Airport Economic

CalPilots requests that the FAA make a complete economic impact study on the Hayward Executive Airport over the entire estimated 30-40 year life of RCEC. This should include but not limited to impacts on Oakland international Airport, San Francisco International Airport air space and flight procedures as well the financial and economic affects on the City of Hayward.

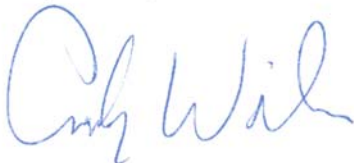
40CFR Part 52.21 (12)

Our comments are based on but not limited to 40CFR Part 52.21 (12)

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&rgn=div8&view=text&node=40:3.0.1.1.1.1.19&idno=40>

(12) *Best available control technology* means an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under Act which would be emitted from any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

Respectfully submitted,



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CALPILOTS Appeal
PSD Permit No. 15487
March 18, 2010
Page 9

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