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ENVIR. APPEALS BOARD

May 27, 2010

U.S. Environmental Protection Agency
Clerk of the Board, Environmental Appeals Board (MC 1103B)
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460-0001

Re: *PSD permit # 15487, to Russell City Energy Center, Calpine*

Dear Members of the Board,

I write to convey my opposition to the above captioned permit.

The basis of my opposition is the adverse effects air emissions from the exhaust stacks would have on aviation. Safety at nearby airports would be impacted by the exhaust plumes, as well as the utility (flight operations) at, and in the vicinity of, the airports.

On February 23, 2010, I met with the FAA at Headquarters in Washington, D.C. to discuss this issue, as it effects airports throughout the country. I gave a PowerPoint presentation to the Airport Obstruction Standards Committee (AOSC) covering this issue. At the meeting, I was informed that the FAA has embarked on a very comprehensive engineering study of the issue of plant exhaust plumes effects on aviation, the first of its kind in this country. A report is expected to be released this Fall. Enclosed please find a copy of the AOSC Exhaust Plumes Initiative that was provided at the meeting.

The web link to my presentation is:


<http://www.ctcombustion.com/oxc/20100223-FAA-Pietrorazio-Web.htm>

The relatively short stacks used by these power plants (non-GEP stacks) will cause greater incidence of downwash of the stack emissions, causing pollution deposition in the area of the plant/airport to be considerably higher than expected levels in modeling. Such plumes have other deleterious effects on aviation operations, as depicted in the above presentation.

Therefore I hereby request the Environmental Appeals Board deny the PSD permit to RCEC Calpine.

Thank you for your kind attention.

Respectfully,


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AOSC Exhaust Plumes Initiative

From: AOSC

To: Mr. Pietrorazio

Date: February 23, 2010



Background

- September 2008 – Aviation Safety (AVS-1) asked to have this issue assigned to the Airport Obstruction Standards Committee (AOSC) to be evaluated.
- Initiated action to have a thorough evaluation of the science around exhaust plumes as it relates to aviation safety with a performance time of up to 18-months
- Incremental data to be provided as research is conducted over performance period
- Expect results from evaluation to be completed by Fall 2010 and submitted to the AOSC for review.



AOSC Specific Tasks Requested

*MERGE
PLUMES*

1. Determine the impact of plume induced turbulence in different atmospheric conditions and winds.
2. Identify and review analysis of plume issues (e.g. EPA, OSHA,...)
3. Examine the potential impact to both aircraft and aircrew of repeated exposure of flying through plume effluent.
 - Evaluate the chemical content of a smoke plume effluents allowed by the EPA and OSHA regulation
 - Evaluate the aircrew risk level consistent with the EPA and OSHA norms for allowed repeated exposures to chemical contaminants.
 - Evaluate the potential effect on an airframe and engine performance consistent with aircraft manufacture's specifications.
4. Examine the obscuration effect of plume-induced clouds.
 - Ash and soot particles in exhaust plumes may act as obscuration or may induce condensation.
5. Draft a report of the impact of vertical plumes and exhaust effluent on aviation safety.



Possible Next Steps

- AOSC conduct an initial review of findings provided and suggest next steps.
- AOSC to coordinate finding with appropriate FAA Organizations and stakeholders as appropriate.
- AOSC to assess if additional studies are necessary
- Mitigations (if appropriate) will be determined by the results of the study

