



February 27, 2009

CPP09-004

Ms. Angelique Juarez-Garcia  
Compliance Project Manager  
1516 Ninth Street, MS2000  
Sacramento, CA 95814-5512

<b>DOCKET</b>	
01-AFC-19C	
DATE	FEB 27 2009
RECD.	MAR 02 2009

SUBJECT: Cosumnes Power Plant (01-AFC-19C)

Dear Ms. Juarez-Garcia,

We appreciate the time you and Rick Tyler took to come to the Cosumnes Power Plant on February 18, 2009, for a site visit. One item discussed was the storage and use of hydrogen gas, which is necessary for cooling the generators. At your suggestion, we reviewed the licensing record to determine where hydrogen gas was presented during the licensing process. Please consider the following:

- Submitted September 13, 2001, the Application for Certification (AFC), page 2-33, Section 2.4.2.1.1 CTG Subsystems, states, "The generator will either be hydrogen or air cooled." The precise type of cooling was still uncertain at that time since equipment had not yet been ordered.
- AFC, Supplement A, submitted March 15, 2002, provided a revised general arrangement, Figure 1.1-3R, in which hydrogen tanks were identified as number 65 in the equipment list. The tank location was shown on the site plan, but without the corresponding numeric identifier.
- AFC, Supplement C, submitted July 18, 2002, provided another revised general arrangement, Figure 1.1-3R2, in which hydrogen tanks were again identified under label number 65. The location was marked on the site plan with label number 65, about 30 feet from the present day location of the hydrogen tanks.
- AFC, Commission Decision, dated September 2003, page 109, provides that "during operation, materials at the proposed facility pose a minimal potential for off-site impacts as they will be stored in a solid form, in smaller quantities, have low mobility, or have low levels of toxicity."

Currently, there are 16 fixed K-bottles manifolded together with a supplemental DOT certified hydrogen gas tube trailer. The tube trailer reduces delivery frequency and therefore, minimizes the already-low traffic hazards associated with deliveries. The array is reported on the CPP

Hazardous Materials Plan submitted annually to the County of Sacramento Environmental Management Department, most recently on January 1, 2009. It is reported as a fire and pressure release hazard with the County of Sacramento. The maximum amount of hydrogen is 500 pounds, and is well below the 10,000-pound Risk Management Plan (RMP) threshold (40 CFR 68.130). Since the quantity is not subject to RMP rules, preparation of an offsite consequence analysis for this material was not performed during licensing.

We believe that the intent for the use and storage of hydrogen on site was presented during licensing, but was inadvertently omitted from the table of chemicals for the final license. As we discussed, SFA will as quickly as reasonably possible petition to amend the list of chemicals to add hydrogen. In the meantime, hydrogen is necessary for cooling the generators and there is no other cooling alternative for operation. The hydrogen is separated from other material storage and there are no combustible or flammable materials nearby. The K-bottles are properly secured in an upright position on a concrete pad, and chained to a compartmentalized metal structure to prevent tipping or toppling. The hydrogen tanks on the tube trailer are certified DOT-specification tanks capable of withstanding rugged transport on highways, and the trailer itself is located on a paved, level surface away from plant roads and vehicular traffic. The tanks and trailer are designed to withstand all but the most serious traffic accidents. While parked at the facility, the tanks have a very low risk of failure. Furthermore, the storage area is near the center of the plant boundaries, and is more than 4,500 feet from the closest permanent residence. The nearest roadway, Clay East Road, is more than 650 feet from hydrogen storage and is very lightly traveled by public vehicles as the licensing traffic studies have shown. Therefore, there are no reasonably foreseeable release scenarios that would have the potential for offsite consequences.

We hope you will find this information useful, and assuages any immediate concern you may have. Please feel free to call me at (916) 732-7101 for any questions.

Sincerely,



Kevin M. Hudson, P.E.  
Senior Project Manager

Enclosure

cc: Jack Caswell (CEC)  
Bob Nelson  
Ross Gould  
SFA File 500.04E  
Corporate Files