GATEWAY GENERATING STATION (00-AFC-1C)

Request to Amend Hazardous Materials Management Conditions HAZ-1, 4 and 6
Supplement to Revised Hazardous Materials Management Staff Analysis
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INTRODUCTION

On November 5, 2007 Pacific Gas and Electric (PG&E) petitioned the California Energy Commission (Energy Commission) to amend the Gateway Generating Station certification to allow the use of anhydrous ammonia as the working fluid in the inlet air chiller. The inlet air chiller is a closed loop refrigeration system that cools the air entering the gas turbine. The original project involved the use of Refrigerant 134A as the working fluid. Anhydrous ammonia is an Extremely Hazardous Material that poses greater risk than 134A in the event of accidental release. The proposed use would result in the presence of 6,800 gallons (35,000 lbs) of anhydrous ammonia at the facility. Use of anhydrous ammonia at the facility could pose a potentially significant risk that was not analyzed in staff's original analysis or reflected in the Commission's decision regarding the facility. Staff is therefore treating the proposed amendment as a significant change to the facility's existing license.

LAWS, ORDINANCES, REGULATIONS AND STANDARDS (LORS) COMPLIANCE

No new LORS apply to the facility that were not identified and evaluated in the Commission's Certification of the project. With the minor modifications proposed, the existing conditions of certification are sufficient to ensure compliance with applicable LORS.

RESPONSE TO AGENCY COMMENTS

In conducting its analysis of ammonia use as a working fluid, staff discussed the proposal with the Contra Costa Fire Department who informed staff that they would require a water deluge system. Subsequent to the publication of staff's analysis, PG&E met with the Fire Department, and they agreed to eliminate the requirement for a water deluge system based on the level of risk associated with the facility. The Fire Department also informed PG&E that they will be required to comply with Article 63 of the 2001 California Fire Code which requires certain measures in the presence of ammonia. Most of these requirements relate to ammonia in an occupied building.

Because the risk assessment modeling did not consider the mitigating effect of the deluge system, the Fire Department's elimination of their requirement for a deluge system has no effect on staff's conclusions or recommendations.