From: Mohan Thadani
Sent: Tuesday, January 29, 2008 12:11 PM
To: 'kjtaplett@STPEGS.COM'; 'smhead@STPEGS.COM'
Cc: Alex Klein; Robert Vettori
Subject: RAI FOR FIRE PROTECTION PROGRAM REQUIREMENTS LAR

Scott/Ken:

By letter dated August 27, 2007 titled, "License Amendment Request for Deviation from Fire Protection Program Requirements," STP Nuclear Operating Company (STPNOC) requested a deviation for the South Texas Project (STP) Units 1 and 2 from commitments to certain technical requirements of Title 10 of the Code of Federal Regulations, Part 50, Appendix R, Section III.G.2 (III.G.2) as documented in the STP Fire Hazards Analysis Report.

The NRC staff has reviewed the STPNOC request and determined that additional information is needed to complete our review. attached below is our request for additional information. Please review the attachment and provide your schedule for a response by February 14, 2008. If you wish to discuss the attached RAI with the NRC staff, please contact me at mct@nrc.gov or (301) 415-1476. Please provide your proposed schediule for a response within 7 days from the date of this RAI request.

Thanks.

Mohan

REQUEST FOR ADDITIONAL INFORMATION REGARDING
LICENSE AMENDMENT REQUEST FOR DEVIATION FROM FIRE PROTECTION PROGRAM REQUIREMENTS AT SOUTH TEXAS PROJECT NUCLEAR GENERATING PLANT UNITS 1 AND 2 (TAC NO. MD6694 AND MD6695)

The proposed change would revise the STP Fire Protection Program to allow the performance of operator manual actions to achieve and maintain safe shutdown in the event of a fire in lieu of meeting circuit separation requirements specified in III.G.2 for a fire in Fire Area 32 located in the Mechanical/Electrical Auxiliary Building (MEAB). Specifically, the change would allow the licensee to manually de-energize at the breaker outside of the control room and manually open charging pumps suction valve Chemical and Volume Control System Motor Operated Valve (CV-MOV) CV-MOV-0112C (Train C) to align the charging pump suction to the Refueling Water Storage Tank (RWST) and to manually de-energize at the breaker outside of the control room and manually close the Volume Control Tank (VCT) outlet valve CV-MOV-0112B (Train B) to

the charging pumps suction, instead of protecting the components in accordance with the STP current licensing basis. The cables for the motor operators to valve CV-MOV-0112C and CV-MOV-0112B are located in Fire Area 32. Cables for the redundant train charging pumps suction motor operated valve from the RWST (CV-MOV-113B) and the redundant VCT outlet valve (CV-MOV-0113A) to the charging pumps suction are also located in Fire Area 32. Units 1 and 2 are replicate plants with identical fire protection systems within the power block. The STP FHAR is applicable to both units.

The NRC staff needs the following clarifications information in order to determine if the operator manual actions will continue to meet the intent of the fire protection program in accordance with 10 CFR Part 50, Appendix R, Section III.G.2

1. Under Criterion 2, Analysis Showing Adequate Time Available to Ensure Reliability, the licensee's letter indicates that:

"Factors that cannot be recreated in the walk down demonstrations were analyzed. These include problems with equipment such as locked doors, environmental effects that can not be easily simulated in a demonstration, uncertainty in the travel paths required by the safe shutdown operator, and variability in individual operator performance."

Define the specific uncertainties related to the travel paths required by the safe shutdown operator that were considered in establishing the 50 minute time for the operator manual action.

2. Under Criterion 3, Environmental Factors, the licensee's letter indicates that:

"The actions to de-energize and manually open CV-MOV-01 12C and de-energize and manually close CV-MOV-01 12B are performed in a readily accessible room (e.g., not locked) which can be reached from most plant locations without traversing through Fire Area 32."

Are there areas of the plant in which the

individual assigned this task would have to traverse Fire Area 32? If there are areas, provide technical justification for why this would be acceptable.

3. How do you address smoke movement into adjacent fire areas from Fire Area 32 and how did you evaluate potential impact on access and egress routes for the person who has to perform the operator manual action? CV-MOV-0112C is located in Fire Area 25 and CV-MOV-0112B is located in Fire Area 3. Both of these fire areas border Fire Area 32.

4. Appendix R, Section III.G.2 provides the following means to ensure that a redundant train of safe shutdown equipment is free of fire damage, where redundant trains are located in the same fire area:

a. separation of cables and equipment by a fire barrier having a 3-hour rating. This implies that the onsite fire brigade will be able to extinguish a fire within 3 hours.

b. separation of cables and equipment by a horizontal distance of more than 20 feet with no intervening combustibles or fire hazards and with fire detectors and an automatic fire suppression system in the fire area. This implies that the automatic fire suppression system will extinguish the fire before damage is considered done or control the fire until the onsite fire brigade can extinguish the fire before damage is considered done.

c. enclosure of cables and equipment in a fire barrier having a 1-hour rating and with fire detectors and an automatic fire suppression system in the fire area. This implies that the

automatic fire suppression system will extinguish the fire within 1 hour or the automatic fire suppression system will control the fire and the onsite fire brigade will extinguish the fire within 1 hour.

Given the physical characterization of Fire Area 32, provide a technical justification of how the partial detection, spatial separation, and partial suppression systems present provides adequate safety in lieu of III.G.2 protection. The use of manual actions alone is not considered equivalent to the robust protection required by III.G.2.

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