From: Noel Dudley
To: Amritpal Gill; Brendan Moroney; Richard Eckenrode
Date: 9/20/02 8:44AM
Subject: Operating Plant issue at St. Lucie

During the review of the St. Lucie, Units 1 and 2, license renewal application, the staff prepared the attached draft request for additional information (RAI). The draft RAI raised an issue related to the present operations of the plant. The draft RAI concerns the ability of operators to inhabit the main control room for the necessary length of time to cooldown the plant following a station blackout. The premise of the daft RAI is that ventilation will be lost and the resulting high temperature will make the main control room uninhabitable.

Since this is an operating plant issue, the draft RAI was not issued to the applicant. However, I am forwarding the draft RAI for your consideration.

Thanks,
Noel

CC: Thierry Ross

RAI 2.3.3.15-3

Section 9.4.1 of the Unit 1 UFSAR states that the control room ventilation system is designed to maintain the ambient temperature for personnel comfort during normal conditions only, whereas the Unit 2 UFSAR states the control room ventilation system is designed to control the environment in the control room envelope, for the comfort of control room personnel and to assure the operability of control components during normal plant operation, anticipated operational occurrences or abnormal occurrences.

Both St. Lucie units are credited with the ability to cope with a station blackout (SBO) event for a minimum of four hours. The Unit 1 UFSAR, Section 15.2.13, presents a SBO analysis that demonstrates that continuous operator action will be required during the first three and one half hours of the four hour coping period. However, UFSAR Section 9.4.1.2 states that "a maximum control room air temperature of 125 ^{o}F could be reached 54 minutes after the loss of the air conditioning chiller units, a temperature at which continued habitability for periods of 2 hours is permissible."

The staff is concerned that the St. Lucie Unit 1 control room may not be continuously habitable for the duration of an SBO event, as required by GDC 19 of 10 CFR 50, Appendix A. Section 9.4.1.2 of the Unit 1 UFSAR states, "Through judicious allocation of plant operating personnel it will be possible to maintain continuous occupancy of the control room. In addition the operator can bring the plant to safe shutdown from outside the control room." Justify the exclusion of the Unit 1 components required to maintain the MCRE habitable during the SBO coping period or add these components to LRA Table 3.3-15. Justification provided should include the criteria and procedures to be used to allocate control room personnel during an extended SBO event.

Disposition: The concern that the control room many not be continuously habitable during a station blackout event is an operating plant issue. Therefore, this draft RAI was forwarded for consideration to the NRC Project manager for St. Lucie, the Chief of the human factors section, and the chief for the electrical section.