From: Noel Dudley
To: internet:bgitnick@islinc.com; Ron Young
Date: 11/21/02 10:34AM
Subject: Operating Plant Issue at St. Lucie

Attached is the paper trail that closes out the issue of control room habitability at St. Lucie during a station blackout (SBO) event. No further action is required.

During a SBO event no additional single failures are assumed. Therefore a single train of HVAC is all that needs to be demonstrated for maintaining the control room habitable.

St. Lucie, in its response to the SBO rule, committed to a single train of ventilation and air conditioning for the main control room. The applicant confirmed that the components in this single train are within the scope of license renewal and were subjected to aging management reviews.

CC: Amritpal Gill; Brendan Moroney; Cornelius Holden; David Trimble; Eva Brown; James Bongarra; Richard Eckenrode; Thierry Ross

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.

From: James Bongarra
To: Eckenrode, Richard; Trimble, David
Date: 9/23/02 10:00AM
Subject: Re: Fwd: Operating Plant issue at St. Lucie

Dave:

At this point, what I'd do is ask for a clarification to determine whether the temperature calculations are for wet-bulb globe (if not, they should be to consider the effects of humidity) and what type of work activities the operators would be engaged in during the time period in question. The RAI already asks for the licensee to justify the conditions by providing, "criteria and procedures to be used to allocate control room personnel during an extended SBO event." I'd want to look at the licensee's response and coordinate it with plant systems (Janak Raval and Phill Qualls). There also may be other environmental issues (e.g., adequate lighting) to make certain the licensee has adequately addressed.

>>> David Trimble 09/23/02 08:47AM >>>
fyi

From: Amritpal Gill
To: Eva Brown
Date: 10/22/02 3:00PM
Subject: Re: Saint Lucie Station Blackout - Control Room Habitability Concern

In response to your and Noel Dudley's e-mails, I have looked at the St. Lucie Unit 1 licensee's original SBO submittal and find the following:

Based on licensee SBO submittal dated 11/26/1991, St. Lucie Unit 1 control room habitability temperature is to be maintained assuming a single train of ventilation and air conditioning (HVAC) powered by the alternate ac (AAC) power source. As such, the AAC power source including the HVAC equipment crdited for meeting the SBO rule should be included the scope of LRA. If the licensee has not included the HVAC components in the current LRA, then the RAI for requesting the inclusion (or justification for the exclusion) of such equipment is appropriate and should be forwarded to the licensee.

Regarding the operating plant issue, please note that during an SBO event no additional single failures are assumed to occur. Threefore a single train of HVAC is all that needs to be demonstarated for maintaining the control room habitability. Sould the single train of HVAC fail during an SBO event, the licensee is permitted to take any and all actions necessary to bring and maintain the plant in safe shutdown. If there is a concern that the St. Lucie Unit 1 licensee has not implemented its SBO commitments per their submittal dated 11/26/1991, then it needs to be followed up for action.

If you have any questions , please let me know.

>>> Eva Brown 10/09/02 07:16AM >>>
Gentlemen,

On September 20th, Noel Dudley, RLEP, sent out an e-mail to EEIB - Gill - and IEHB - Trimble- with an issue identified during the review of Saint Lucie's license renewal application. The concern is that the control room may not be continuously habitable during a station blackout event. A draft RAI was forwarded for your consideration.

I have taken over, temporarily, for the Saint Lucie PM until the end of the year. Based on my turnover, we have not received a decision on whether this is a significant issue nor whether this is/is not an operating issue.

If you could let me know the status of your review and when/if I should be forwarding the RAI to the licensee, I would appreciate it greatly. This information is also needed to determine the need for an operating TAC for this issue.

If there are any questions, please feel free to call (2315) or drop by (O8C14).

CC: Cornelius Holden; Noel Dudley

MEETING WITH FLORIDA POWER AND LIGHT COMPANY
ST. LUCIE, UNITS 1 AND 2
LICENSE RENEWAL APPLICATION
NOVEMBER 6-7, 2002

The Nuclear Regulatory Commission (NRC) staff met with representatives of Florida Power and Light Company (FPL or the applicant) on November 6-7, 2002, and participated in a telephone call on November 20, 2002, to discuss the applicant's draft supplemental responses to the staff's requests for additional information (RAIs) associated with the St. Lucie, Units 1 and 2, license renewal application (LRA).

On the basis of the discussions, the staff was able to better understand the applicant's technical bases; however, no technical issues were resolved. In some cases, the applicant identified actions that would enhance its supplemental RAI responses. The staff did not provide any approval for or agreement with the technical information provided in the draft supplemental responses.

The applicant is scheduled to summit its supplemental responses to the RAIs by November 29, 2002. The staff will review the applicant's responses when they are received. A summary of the RAIs discussed and the applicant's proposed actions are presented below. The complete RAIs and draft supplemental responses are available in Enclosure 3 of this meeting summary package.

MISCELLANEOUS

The staff and the applicant discussed the control room air conditioning systems in relationship to the station blackout event. The applicant, in a November 11, 1991, letter, committed to a single train of ventilation and air conditioning during a station blackout event. The applicant confirmed that the components in this single train are within the scope of license renewal and were subjected to aging management reviews.