St. Lucie Unit 1 and Unit 2
Docket Nos. 50-335 and 50-389
Proposed License Amendments
Containment Spray System
Surveillance Requirements

ATTACHMENT 1

ST. LUCIE UNIT 1 MARKED-UP TECHNICAL SPECIFICATION PAGE

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SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 18 months, during shutdown, by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on a CSAS test signal.

2. Verifying that each spray pump starts automatically on a CSAS test signal.

3. Verifying that upon a recirculation actuation signal, the containment sump isolation valves open and that a recirculation mode flow path via an OPERABLE shutdown cooling heat exchanger is established.

(10) insert

d. At least once per (5) years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

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ATTACHMENT 2

ST. LUCIE UNIT 2 MARKED-UP TECHNICAL SPECIFICATION PAGE

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SURVEILLANCE REQUIREMENTS (Continued)

3. Verifying that each spray pump starts automatically on a CSAS test signal.

(10) insert

d. At least once per (5) years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

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ATTACHMENT 3

EVALUATION OF PROPOSED TS CHANGES

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Introduction

Florida Power and Light Company (FPL) proposes to change St. Lucie Unit 1 and St. Lucie Unit 2 Technical Specifications (TS) for the Containment Spray (CS) System. The revision will extend the surveillance interval for performing an air or smoke flow test through each spray header to verify that each spray nozzle is unobstructed. FPL considers the change to be a line-item improvement to the existing facility TS.

Description of Change

TS 4.6.2.1.d is revised by changing the required surveillance interval from "once per 5 years" to read "once per 10 years".

Justification for TS Change

Existing TS 4.6.2.1.d requires that the Containment Spray System be demonstrated operable at least once per 5 years by performing an air or smoke flow test through each spray header and verifying that each spray nozzle is unobstructed. This testing yields no quantitative data on flowrates exiting the spray nozzles and only verifies that there is flow. The NRC Staff searched for problems that have been revealed by means of this testing and determined that the only problems found in PWR containment spray systems were those that were construction related. Based on this investigation and other screening criteria established for evaluating surveillance requirements, the Staff recommended that this test interval be extended to once every 10 years (NUREG-1366: December, 1992).

Surveillance air flow tests were performed at St. Lucie Unit 1 in 1980, 1985, 1990 and 1991. Infra-red Thermography was used for flow verification and all tests clearly demonstrated that obstructions did not exist for any of the 357 nozzles involved. A surveillance air flow test performed at St. Lucie Unit 2 in 1987 revealed an obstruction in one spray nozzle. The cause of this obstruction was determined to be a small piece of rubber from the temporary hose used to deliver air to the spray header for this specific test, and the obstruction was thereby introduced into the system by the test itself. Therefore, FPL considers that the findings and recommendations of NUREG-1366 with respect to the containment spray header air or smoke flow test are compatible with plant operating experience at both St. Lucie Units 1 and 2.

On June 11, 1991, a utility reported to the NRC that a containment spray system (CSS) air flow test indicated that several nozzles were blocked. Investigation of this incident revealed that the obstructions were the result of a material that had been applied as a coating to that utility's carbon steel CSS piping 14 years earlier (Ref: 58 FR 16881 No. 60; 3/31/93). The containment spray header piping and spray nozzles at St. Lucie Units 1 and 2 are constructed of stainless steel and do not contain any additional protective coating. Thus, the incident involving coated, carbon steel piping is not applicable to the St. Lucie containment spray systems and FPL considers that the bases (NUREG-1366) for the Staff recommendation to extend the smoke or air flow test interval to 10 years is applicable to both Units 1 and 2.

The proposed interval for the containment spray header smoke or air flow test is consistent with the revised Standard Technical Specifications for Combustion Engineering Plants, NUREG-1432, wherein the 10 year interval is considered adequate due to the passive design of the spray nozzles. Additional surveillance requirements and frequencies, apart from the smoke or air flow test, presently specified in the St. Lucie plant TS for the Containment Spray System are also consistent with NUREG-1432.

Based on the considerations discussed above, FPL considers the proposed change to St. Lucie Unit 1 and Unit 2 TS to be acceptable.

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ATTACHMENT 4

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

Pursuant to 10CFR50.92, a determination may be made that a proposed license amendment involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. Each standard is discussed as follows:

(1) Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed amendment extends the surveillance interval required for performing a qualitative smoke or air flow test on the Containment Spray headers. This surveillance test is not designed to track degradation of equipment by monitoring or trending performance and, therefore, does not necessarily predict the adequacy or future operability of the spray system. Assumptions made in the plant safety analyses involving operability of the Containment Spray System to mitigate the consequences of an accident are not changed. Therefore, operation of the facility in accordance with the proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

(2) Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed amendment will not change the physical plant or the modes of plant operation defined in the Facility License. Therefore, operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated.

(3) Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety.

The revised surveillance interval proposed by this submittal will not change or otherwise influence the degree of operability assumed for the Containment Spray System in the plant safety analyses. The basis for any Technical Specification that is related to the establishment of or maintenance of a nuclear safety margin is likewise unchanged. Therefore, operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety.

Based on the discussion presented above and on the supporting Evaluation of Proposed TS Changes, FPL has concluded that this proposed license amendment involves no significant hazards consideration.