

CATEGORY 1

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FACIL: 50-335 St. Lucie Plant, Unit 1, Florida Power & Light Co. 05000335
50-389 St. Lucie Plant, Unit 2, Florida Power & Light Co. 05000389
AUTH. NAME: AUTHOR AFFILIATION
STALL, J.A. Florida Power & Light Co.
RECIP. NAME RECIPIENT AFFILIATION
Records Management Branch (Document Control Desk)

SUBJECT: Requests approval of relief request VR-17 re containment spray header check valve disassembly & insp, per provisions of 10CFR50.55a(a)(3). Approval is requested by June 1999 to support outage planning for Fall 1999 refuelin outage.

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Florida Power & Light Company, 6351 S. Ocean Drive, Jensen Beach, FL 34957

November 30, 1998

L-98-287
10 CFR 50.4
10 CFR 50.55a

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

RE: St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
In-Service Test Program
Relief Request VR-17

Pursuant to 10 CFR 50.55a (a)(3), Florida Power and Light Company (FPL) requests approval of relief request VR-17, *Containment Spray Header Check Valve Disassembly and Inspection*, for St. Lucie Units 1 and 2. FPL has determined pursuant to 10 CFR 50.55a (a)(3) that the proposed alternatives would provide an acceptable level of quality and safety, or that compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. Approval is requested by June 1999 to support outage planning for the Fall 1999 St. Lucie Unit 1 refueling outage (SL1-16).

VR-17 proposes that containment spray header check valves (V07192 and V07193) for Unit 1 and Unit 2 are combined into a common group. One valve in each unit will then be disassembled and inspected every other outage for each unit. In the event that a valve is found to be inoperable, (i.e., it could not perform its intended function to open) the other valve in that unit will be disassembled and inspected prior to startup of the affected unit. In addition, prior to the end of the next refueling outage of the other unit, both check valves in that unit will be disassembled and inspected.

Please contact us if there are any questions regarding this submittal.

Very truly yours,

J. A. Stall
Vice President
St. Lucie Plant

JAS/GRM

375013

Attachment

cc: Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, St. Lucie Plant

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PDR ADDCK 05000335
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APPENDIX B
REQUESTS FOR RELIEF - VALVES

RELIEF REQUEST NO. VR-17

SYSTEM

Containment Spray (2998-G-088 Sh 2; 8770-G-088 Sh 2)

COMPONENTS

V07192
V07193

CATEGORY

C

FUNCTION

These check valves open to provide flowpaths from the containment spray pumps to the containment spray headers in containment. They close to isolate the containment spray system from the containment atmosphere and thus prevent gross leakage in the event of a passive failure outside the containment building.

PART 10 REQUIREMENT

Check valves shall be exercised nominally every 3 months, except as provided by Paragraphs 4.3.2.2, 4.3.2.3, 4.3.2.4, and 4.3.2.5. (Paragraph 4.3.2)

As an alternative to the testing in (a) or (b) above, disassembly every refueling outage to determine operability of check valves may be used. (Paragraph 4.3.2.4(c))

BASIS FOR RELIEF

These are simple swing check valves with no external means of exercising or determining obturator position. Exercising to the open position with system flow would require operating each containment spray pump at nominal accident flowrate. Since no recirculation flowpath exists downstream of these valves, flow would necessarily be directed into the containment spray headers with the undesirable result of dousing personnel and equipment in the containment with contaminated borated water. Such a test is obviously impractical. Due to their location inside containment and associated access difficulties, disassembly and inspection can only be performed during extended unit outages (i.e., refueling).



APPENDIX B
REQUESTS FOR RELIEF - VALVES

RELIEF REQUEST NO. VR-17 (cont.)

BASIS FOR RELIEF (cont.)

Currently, and for the last eight years, these valves have been disassembled and inspected during each refueling on an alternating schedule in accordance with NRC Generic Letter 89-04 – one valve each unit outage. Although it is possible to continue this activity, it has proven to be an extreme burden, potential personnel safety hazard, and undue hardship on the plant staff where the impact on plant resources to perform the inspections is not commensurate with any potential gain in plant safety derived from these inspections.

Each of these valves is located within the containment building in a horizontal run of pipe immediately upstream of the respective containment spray header at an elevation of approximately 148 feet. This is approximately 86 feet above the containment building operating deck. Since there is no permanent means of access to these valves (e.g., decking, grating, ladders), in order to gain access to each valve, the containment polar crane must be parked and locked in position below the subject valve and a scaffold approximately 25 feet high must be erected resting on the crane girders. Note that the working surface at the crane girders is approximately 60 feet above the operating deck. Working under these conditions poses significant safety concerns to labor and inspection crews during scaffold erection and disassembly, as well as during the valve disassembly and inspection activities. Furthermore, the total costs in resources to perform this evolution, including scaffolding and inspection activities, are typically 75-80 man-hours.

The containment building polar crane is typically a critical element with respect to the overall refueling outage schedule and duration. In addition to the valve disassembly, inspection, and re-assembly, the polar crane must be locked in place and disabled during the period of time that the scaffolding is being erected and installed, and being disassembled and removed. Because of this, disassembly and inspection of these valves has a high probability of negatively impacting the unit outage schedule without a commensurate increase in safety.

APPENDIX B
REQUESTS FOR RELIEF - VALVES

RELIEF REQUEST NO. VR-17 (cont.)

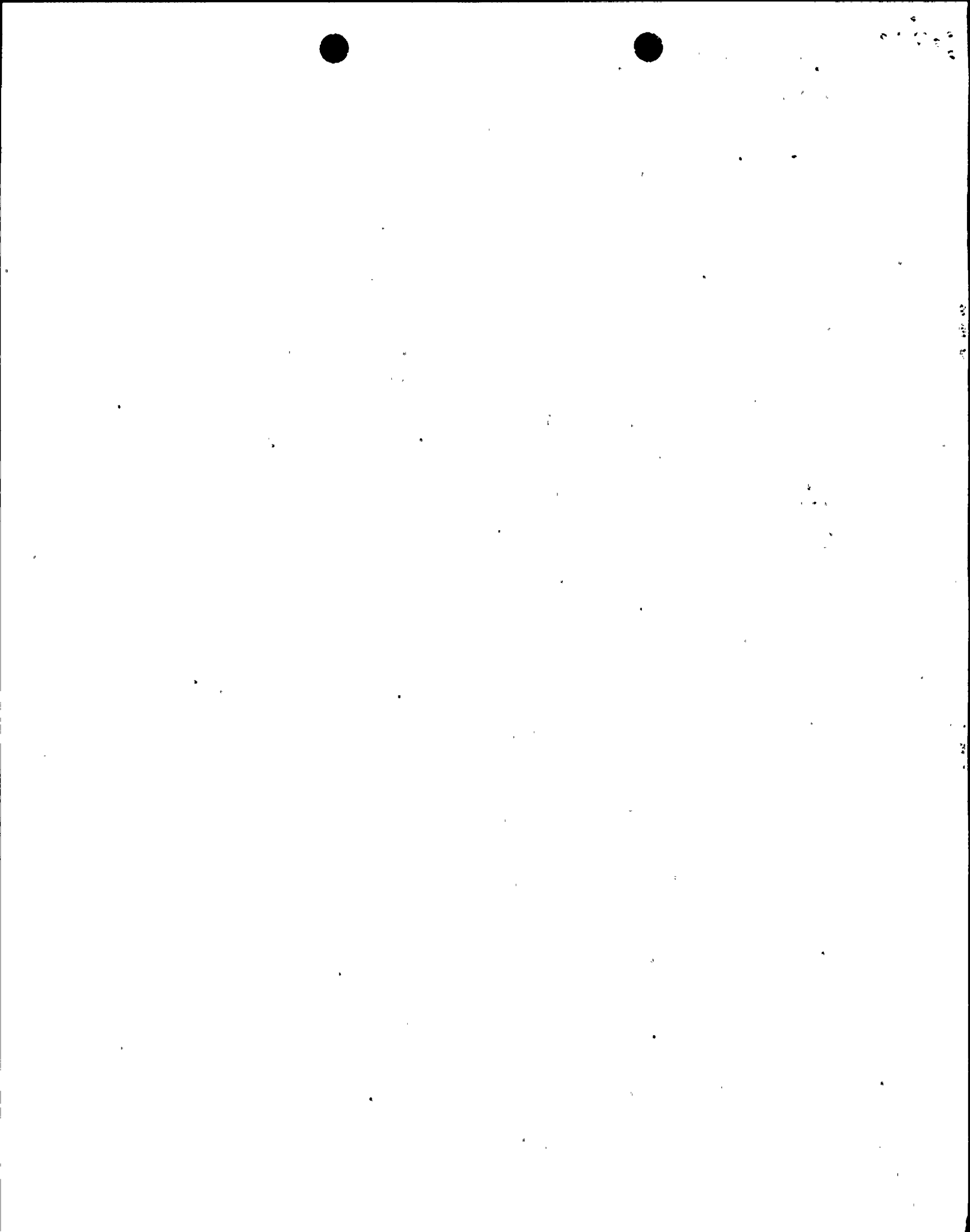
BASIS FOR RELIEF (cont.)

These valves normally remain idle in a dry condition with no mechanism, environmental or otherwise, that could damage a valve or cause any significant in-service deterioration. Indeed, the most probable cause of valve failure, albeit small, is related to potential personnel error associated with the repeated disassembly and re-assembly activities. Since the inspection effort has been in effect, each of these valves has been inspected several times and each time no significant degradation or deterioration has been noted. The inspection history of these valves is provided below. Based on the results of the past inspections, it is clear that these valves are not subject to deterioration. In addition, a search of the INPO NPRDS/EPIX database indicates that there have been no relevant service failures of similar valves subject to similar operating conditions and environment.

Table: Test/Inspection Summary

UNIT 1			UNIT 2		
VALVE	INSP. DATE	RESULTS	VALVE	INSP. DATE	RESULTS
V07192	11/91	SAT	V07192	11/90	SAT
	11/94	SAT		03/94	SAT
	11/97	SAT		05/97	SAT
V07193	4/93	SAT	V07193	5/92	SAT
	6/96	SAT		11/95	SAT

These valves open to provide flowpaths to the respective containment spray headers in order to limit containment pressure in the unlikely event of a loss of coolant accident. They have no safety significance with respect to core melt probability and thus, per St. Lucie probabilistic safety analyses, are considered to be low safety significance components.



APPENDIX B
REQUESTS FOR RELIEF - VALVES

RELIEF REQUEST NO. VR-17 (cont.)

BASIS FOR RELIEF (cont.)

Each of these valves is identical with respect to design, manufacturer, model number, service conditions and valve orientation. By inspecting one valve every other unit refueling outage, effectively combining the valves from both units into a single inspection group, inspection of each valve will be performed nominally every six (6) years which meets the intent of Generic Letter 89-04, Position 2. In this regard, this request for relief satisfies the requirements as stated in GL 89-04 and thus should be considered "pre-approved."

Based on the foregoing discussion, it is clear that the continued disassembly and inspection of these valves on the alternating schedule for each unit imposed by a literal interpretation of Generic Letter 89-04 is unwarranted. Little value, with respect to plant safety, is gained by these efforts in terms of plant resources, plant downtime, and personnel safety. It is also clear that continued inspections of these valves at the proposed reduced frequency will adequately ensure the continued operability of these valves and ensure the health and safety of the public while providing the plant staff some relief from this unnecessary burden.

ALTERNATE TESTING

One of these valves in each unit will be disassembled and inspected every other unit outage such that all four valves will be disassembled and inspected nominally once every six years. Successive inspections will be performed in a defined sequence such that inspections are performed in each unit on an alternating basis.

In the event that a valve is found to be inoperable whereby it could not perform its intended function to open, the other valve in that unit will be disassembled and inspected prior to startup of that unit. In addition, prior the end of the next refueling outage of the other unit, both check valves in that unit will likewise be disassembled and inspected.



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