

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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 FACIL: 50-335 St. Lucie Plant, Unit 1, Florida Power & Light Co.  
 AUTH. NAME: UHRIG, R.E. AUTHOR AFFILIATION: Florida Power & Light Co.  
 RECIPIENT AFFILIATION: Operating Reactors Branch 3  
 CLARK, R.A.

DOCKET #  
05000335

SUBJECT: Forwards addl info on containment purging & venting at  
 in response to NRC 820223 ltr. Consequences of even gross  
 leakage would be minimal due to containment & bldg design.

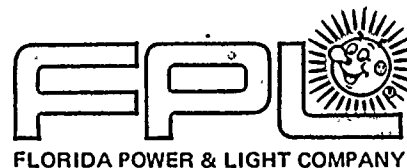
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July 30, 1982  
L-82-317

Office of Nuclear Reactor Regulation  
Attention: Robert A. Clark, Chief  
Operating Reactors Branch #3  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Clark:

Re: St. Lucie Unit 1  
Docket No. 50-335  
Purging and Venting of Containment

Your letter of February 23, 1982 contained the status and the results of the NRC and its contractors' review of containment purging and venting at St. Lucie Unit 1. Your letter requested that we respond to the NRC positions and supply additional information. In our letter L-82-115 dated March 24, 1982 we addressed Item 2 on Valve Operability by supplying you with the valve manufacturer's stress report. Attached to this letter is the remainder of our responses.

Very truly yours,

Robert E. Uhrig  
Vice President  
Advanced Systems and Technology

REU/PKG/cab

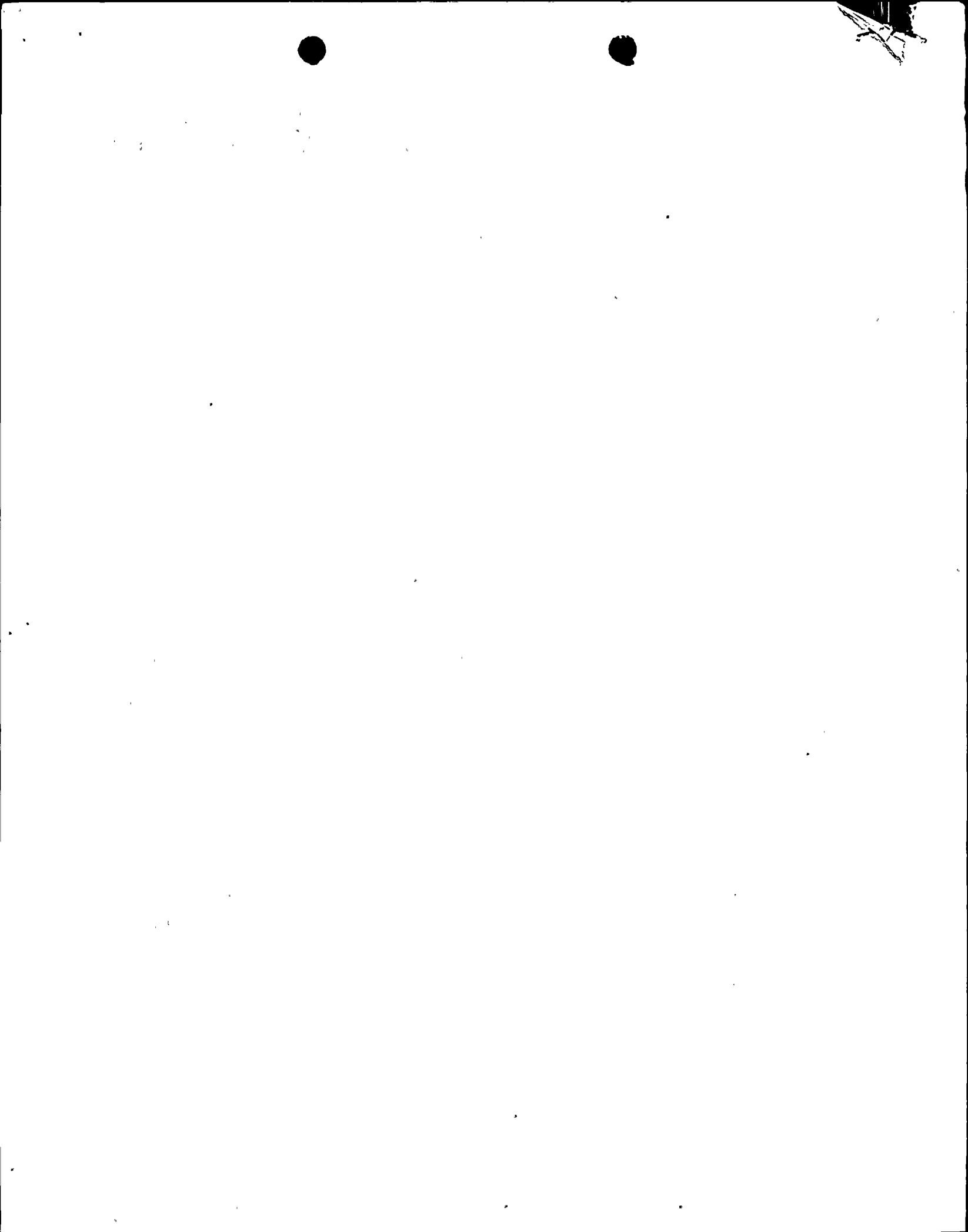
Attachment

cc: Mr. James P. O'Reilly, Region II  
Harold F. Reis, Esquire

A034

8208100114 820730  
PDR ADDCK 05000335  
P PDR





Re: St. Lucie Unit 1  
Docket No. 50-335  
Purging and Venting of Containment

Response to NRC letter of February 23, 1982.

Item 1.A.a Response

Florida Power and Light Company intends to install debris screens on the inside of the containment purge supply and exhaust lines. It is currently scheduled that engineering be completed and materials ordered in order that the debris screens can be installed during the refueling outage beginning in March 1983.

Item 1.A.b Response

Florida Power and Light Company will commit to limiting containment purging to 90 hours/year during MODES 1 and 2 plus 180 hours/year in MODES 3 and 4. We will view these as firm guidelines which under certain conditions, with appropriate management approvals, could be exceeded. For instance, 1981 was a unique year in that all shutdowns during the year were initiated by trips. Thus, there were essentially zero hours of purge operation in MODES 1 and 2 and limited hours in MODES 3 and 4. In 1983 however, there is a planned refueling (in the spring) and it is possible that there will be a planned fall outage. Assuming one or two days of purge before each outage, any additional required shutdown could require either additional purge time or beginning an outage with containment conditions not appropriate to meeting ALARA. We do commit to continuation of our policy of not routinely purging at power of course.

Item 1.A.c Response

Enclosure 1 of the NRC letter addresses two reasons for the proposed excessive testing of containment purge valves. One is the "potential adverse effect of seasonal weather conditions" on the valves. This is not a significant concern in South Florida. Additionally, our local leak rate tests on these valves (discussed in detail below) have been done at various times of the year (i.e. March, April, May, June, September, October and November). Some were performed on the evening shift also. There is no indication of any environmental effects on these valves.

The other reason is "numerous reports on unsatisfactory performance of the resilient seats". Our experience with these valves has been excellent. The last maintenance required (on 1 valve) was in 1978. As noted in Licensing Event Report 335-78-14 the seat on FCV-25-3 was replaced due to a depression apparently caused by a trapped foreign object. This is the only time a purge valve has failed to meet acceptance criteria. Once, in 1979 valve FCV-25-4 had higher than desired leakage (approximately 1/3 of our criteria). To the best of the plant staff's memory this was due to an Anti-C hood being wrapped around the valve trunion. It had been pulled in thru an access port opened to allow temporary vent tubing to be directed into the fan suction line.

Previously, in 1976, one other valve had nearly failed the test due to adjustment of mechanical travel stops. The stops were adjusted and locking devices tightened. There have been no recurrences of this problem.

By our design these butterfly valves must be tested in pairs so the leak rate measured is that through both valves. The highest number found since 1979 including the retest after the Anti-C hood was removed was 2000 sccm. We are not sure why our results are so different from other plants but lack of climate extremes is likely a factor. Also during the initial (pre- operational) LLRT the plant staff insisted on essentially zero leakage (using instruments capable of measuring 1 sccm or less) for all penetration isolation valves. This policy has proven to be very valuable as has the continuing policy of correcting valve leakage even though it doesn't even approach the allowable limit per valve. Of course this ensures the total is a small fraction of total allowable.

Finally, the relatively unique containment shield building design at St. Lucie must be considered. Any leakage past the two series isolation valves is trapped against a third valve (also Seismic Class I) and vented into the shield building annulus via an installed leak off port. This annulus is exhausted via a ventilation system (safety grade) which has both HEPA filters and covered charcoal absorbers. This two train system by Technical Specification is capable of handling up to 6000 cfm (either train). Thus, in addition to the location of the plant, its climate, and the excellent results we have had with purge valves there is the fact that the consequences of even gross leakage would be minimal due to our containment and shield building design. Therefore new Technical Specifications are not appropriate or required for St. Lucie Unit 1.

#### Item 2 Response

This item was previously responded to in letter L-82-115 dated March 24, 1982.

#### Item 3 Response

No response requested.

#### Item 4 Response

See Item 1.A.c response