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 UHRIG,R.E. Florida Power & Light Co.  
 RECIP.NAME RECIPIENT AFFILIATION  
 EISENHUT,D,G. Division of Licensing

SUBJECT: Requests NRC approval of encl plans to implement 810101 requirements of Lessons Learned Task Force Item 2.1.86. Licensee will install four SPING-4 samplers by 810101 to monitor normal & high range noble gas at vent stack.

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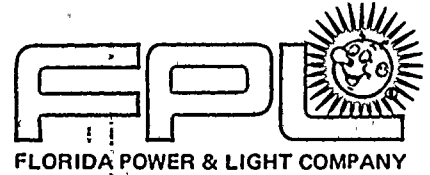
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June 27, 1980  
L-80-204

Office of Nuclear Reactor Regulation  
Attention: Mr. Darrell G. Eisenhut, Director  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dear Mr. Eisenhut:

Re: St. Lucie Unit 1  
Docket No. 50-335  
Lessons Learned Item 2.1.8.b

In accordance with Mr. Denton's letter of October 30, 1979, Florida Power & Light Company herewith requests approval of our plans to implement the January 1, 1981 requirements of Lessons Learned Item 2.1.8.b. The attachment provides a detailed description for NRC Staff review.

Very truly yours,

Robert E. Uhrig  
Vice President  
Advanced Systems & Technology

REU/RAK/ah

Attachment

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

*Handwritten:* A001  
5/3/B

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## ATTACHMENT

### Discussions of Lessons Learned Short Term Requirements

FPL has purchased and plans to have installed by January 1, 1981, four SPING-4 samplers which will provide normal and high range noble gas monitoring at the plant vent stack, the fuel building exhaust, and each of two ECCS exhaust ducts. Effluent paths for the Reactor Auxiliary Building, waste gas system, containment purge, and condenser air ejector off gas system are all via the plant vent stack.

The SPING-4 samplers will monitor noble gas activity on three separate detectors to provide a monitoring range from  $1 \times 10^{-7}$   $\mu\text{Ci/cc}$  to  $1 \times 10^5$   $\mu\text{Ci/cc}$ . A background compensation feature is available on each channel to assure representative measurements in high background areas.

Appendix B to St. Lucie Plant Technical Specifications specifies the requirements for calibration of all waste gas effluent monitors. Specific procedures for calibrating the SPING-4 samplers will be written when the instruction manuals are received. Calibration techniques will be consistent with current practices as detailed in St. Lucie Plant Chemistry Procedure C-66, Technical Specification Calibration of the Plant Vent and the Fuel Buildings Exhaust Monitor.

Noble gas release rates will be determined from curves based upon monitor readings and effluent flow rates. Consideration is being given to provide computer calculated release rates in the future. The SPING-4 samplers will read out both locally and in the control room, and a history of previous, "reading averages" for each channel will be maintained in the control room. Monitor readings will be available in the Technical Support Center.

The SPING-4 samplers have the capability to provide continuous sampling for both radioiodine and particulate effluents. Radioiodines and particulate isotopes are collected on high efficiency sample filters. These filters can be removed and analyzed on site using a GeLi detector. The use of silver zeolyte filter media will minimize counting interferences due to contamination by noble gas isotopes. An air purge feature is provided on the SPING-4 to flush high activity from the sampling system which further reduces counting interference and also serves to minimize occupational exposure. Prior to removing the sampling media for transport and remote analysis, radiation surveys will be performed. Precautions to minimize occupational exposure during sample media handling will be based upon the results of these surveys. The SPING-4 samplers will be operated from an A.C. power source. An installed battery will provide the capability for memory retention. Back-up power for the units (pumping systems, etc.) will be provided from a Class 1E emergency power source in accordance with Regulatory Guide 1.97 Revision 2.

To meet the requirements to monitor for noble gasses which might be released via the steam plant, we plan to install a single detector to monitor a side stream composite sample from both steam generators from a location upstream of the main steam isolation valves. As before, noble gas release rates will be

determined from curves relating noble gas activity in the steam to the flow rate out of the steam system effluent (steam generator safety valves and atmospheric steam dumps).

We intend to use an Eberline Mode SA-9 with microprocessor capabilities similar to the SPING-4 units. Maximum range for this detector is 1,000  $\mu$ ci/cc. Continuous control room readout will be provided. Back up power will be supplied from a Class 1E emergency power source.

The requirements to have the capability to continuously sample steam system effluents for radioiodine and particulates will be accomplished by a continuous flow of condensed sample from the side stream sample system. Liquid grab samples will be analyzed on site for iodine and particulate radioactivity with a GeLi detector.

January 1981 requirements for having two high range containment radiation monitors will be met by the planned installation of two General Atomic High Range Area Monitors meeting the requirements of Enclosure 1, Table 2.1.8.b.3 of the referenced letter.