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DESCRIPTION: Ltr re our 8-15-75 ltr... furnishing addl info to Enviro Tech Specss for St. Lucie Unit 1 Plant....

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PLANT NAME: St. Lucie Unit 1

FOR ACTION/INFORMATION

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FPL
FLORIDA POWER & LIGHT COMPANY

September 2, 1975
L-75-421

Mr. Daniel R. Muller, Assistant Director
for Environmental Projects
Division of Reactor Licensing
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Muller:

Re: Proposed Environmental Technical Specifications
for St. Lucie Unit No. 1 - Docket No. 50-335

Your letter of August 15, 1975, transmitted to Florida Power & Light Company the environmental technical specifications which your staff proposes to incorporate as Appendix B into the Operating License for St. Lucie Unit No. 1. Overall, the cooperation with members of your staff and the resultant technical specifications have been quite satisfactory. There were however, some differences of opinion between the Applicant and members of your staff which were not resolvable to our satisfaction before issuance of these technical specifications. Since amendment of the Operating License to effect technical specification changes can be a time-consuming process, and since we would be operating under unacceptable conditions in the interim, it is in our best interest to develop a set of technical specifications which we can live with before they have the force and effect of law following incorporation into the Operating License. Therefore, having exhausted the avenues towards resolution of these differences with your staff, we look to you for favorable disposition of what we believe to be valid positions.

First of all, I take this opportunity to forward information which the proposed environmental technical specifications (ETS) requested by September 12, 1975. In Table 3.2-1 at Station No. H40, please add the following:

9452

DESCRIPTION	BEARING	DISTANCE
Davis Dairy, Military Trail, west of Boynton Beach, Palm Beach County	172°	89.700 km (55.77 mi)

In table 3.2.2, Sheet 3, Item 5.1, for control location under the column labelled "Criteria and Sampling Locations," the entry should read, "1 location, 55.77 mi south of the plant, Palm Beach County: H40 (Control)."

Next, in reviewing the proposed set of ETS, a number of items requiring clarification or simple corrections were uncovered. These are as follows:

Section 2.1.1, Monitoring Requirement

This section presently states that, "A continuous temperature measuring system shall be installed in the discharge canal at mid-depth." We believe that this location is too restrictive. It would be better stated as "...in the discharge canal at a location not less than 2 feet below the surface of the water and not less than 2 feet above the bottom of the canal."

Section 2.1.2, Monitoring Requirements

Change second sentence to read, "The system's accuracy shall be $\pm$ 2°F."

Section 2.2.1, Specification

In the first sentence, change "terminis" to "terminus." The last sentence should be changed to read, "Chlorine shall not be added for more than 2 hours per day." As the sentence presently reads, it could be interpreted to mean that we must add chlorine for less than 2 hours per day whether we need to or not..

Section 2.4.3.a.(1), Specification

The second equation should read "$0.33\ (Q_{Tv}(\bar{L}_v+1.1\bar{N}_v)) \leq 1$".

Table 2.4-5,

Delete the extraneous set of parentheses under "Reactor Containment Building". Item should read "(whenever there is flow to Plant Vent)." Footnote "a" should also be applied to "Reactor Containment Building" and "Radwaste Area."

Section 3.1.A.6, Specification

In the second paragraph, last sentence, the accuracy should be "$\pm 2^{\circ}$F" in order to be consistent with that stated above. In the third paragraph, the Section referred to should be "2.1.1."

Table 3.2-1, Station H10

The entry under the column labelled "Vector Sampled" should read "Direct" vice "Direction."

Figure 3.2-1

Station H12 was inadvertently left off in your reproduction of our submittal.

Figure 3.2-2

Page number was inadvertently left off. It should be page 3-10.

Table 3.2.2, Sheet 1

In item 1.2, under the column labelled "Type and Frequency of Analysis", delete the word "by" in front of the word "exposure".

Table 3.2.2, Sheet 3

In items 5.2.1 and 5.2.2, under the words "Harvest Time", under the column labelled "Collection Frequency," add "(Annual)."

Section 5.6.1.a

Add the following sentences after the first sentence: "In the event that some results are not available within the 90-day period, the report shall be submitted noting and explaining the missing results. The missing data shall be submitted as soon as possible in a supplementary report."

Section 5.6.1.b

Change the first sentence of the second paragraph to read, "Results of all radiological environmental samples taken shall be summarized on an annual basis in a format similar to that indicated in Table 5.6.1-F." This will serve to make the language of this sentence consistent with that found in the sections which follow.

Table 5.6.1-F

Table designation was inadvertently left off in your reproduction.

Section 5.7.1.a

The section referred to should read, "5.3.3.F.5"

Third, there are two items which our review has uncovered which require corrective action not of a simple nature and which have not been brought to the attention of your staff. I take this vehicle as a means of so doing:

Section 2.4.4.b

The requirement for continuous measuring and recording of the flow rate of gaseous releases should be deleted. The plant vent and the fuel handling building presently have no provision for continuous monitoring and recording of flow rate because of the sampling philosophy which was to be followed. Gaseous releases from both points are continuously monitored and recorded for activity. These monitors are set to alarm at the proper limit with the maximum-design flow rate occurring, i.e., the sampling flow rate is set to be isokinetic at the maximum ventilation flow. Thus, any flow rate less than maximum will result in a conservative reading on the radiation monitor, and no flow indicator is necessary.

Section 2.4.4.c

This specification conflicts with 2 other specifications and should therefore be deleted. This specification requires the gross activity monitor, the iodine collection device and the particulate collection device to be operational during gaseous releases from the primary system waste gas holdup system (the waste gas decay tanks). Gaseous wastes from the gas decay tanks are routed to and released from the plant vent. The plant vent monitor contains the iodine and particulate collection devices. Specification 2.4.3 and Specification 2.4.4.b allow the activity monitor (plant vent monitor) to be inoperable with on-going releases for up to 7 days. Since the iodine and particulate collection devices are located in the plant vent monitor, these provisions would also apply to them.

Finally, there remain those specifications on which FPL and your staff could not reach agreement. Having presented our positions to your staff, we now present them to you, as follows, in the expectation that they will be resolved to our satisfaction:

Section 2.1.2, Monitoring Requirements

As presently stated in the ETS the ΔT across the condenser must be determined once per hour while the unit is in operation. We believe that this is an unreasonable requirement and would propose that the ΔT across the condenser be determined once per 8-hour shift. As the specification is presently stated, on a monthly basis, the typical auditing frequency of the NRC Office of Inspection and Enforcement, the operators' logs would be required to contain 720 entries, for a 30-day month with no outages, of this parameter. If conditions in the control room are such that the operator is occupied and therefore unable to obtain and record this information for even one of these entries, the unit would then be in violation of its technical specifications. The specification itself states that, under specified conditions, "the condenser temperature rise shall not exceed 35°F for greater than a 72-hour period." Determination of the condenser's ΔT on a once per 8-hour basis would allow more than ample time to note the excessive condition and to take measures to bring the ΔT within acceptable limits within the 72-hour time frame.

Section 2.2.1, Specification

The specification presently limits Total Residual Chlorine to 0.1 mg/l at the terminus of the discharge canal. This limitation is in agreement with the existing NPDES permit for St. Lucie Unit No. 1. We wish to note, for your information, that steps are being taken to change the NPDES permit limitation to 0.2 mg/l, and that we will request a technical specification change once our change of the NPDES permit is completed.

Table 2.4-1

As presently formed, the table requires a monthly sample and monthly and quarterly composite samples of the Steam Generator Blowdown. We wish to apply Footnote 4, which requires such sampling only when the gross activity in the secondary coolant system, as required to be determined in Appendix A of the technical specifications, exceeds 10^{-5} uCi/ml, to these sampling frequencies. The Appendix B technical specifications do not exist in a vacuum. They are complemented by the Appendix A technical specifications which have been established for the purpose of furthering and maintaining health and safety. Appendix A requires routine surveillance of the Steam Generator for the presence of radioactivity and would establish whether or not monitoring of the Steam Generator Blowdown would be appropriate. This has been recognized by the incorporation of Footnote 4 into the ETS and its application

to the weekly sampling frequency. Since the routine surveillance required by Appendix A measures gross activity, any activity required to be analyzed by the monthly sample or the monthly and quarterly composite samples would be detected through the application of the Appendix A technical specifications. The requirement to conduct such sampling even when the gross activity in the Steam Generator does not exceed 10^{-5} uCi/ml is unnecessary. Under those circumstances when this gross activity does not exceed its limits, the collection of tanks of non-radioactive water serves no useful purpose.

Table 2.4-2

The requirement for a Service Water Discharge Pipe Alarm and Monitor and measurement of gross activity should be deleted. A process monitor is not required in the Service Water (Intake Cooling Water) Discharge Pipe for the following reasons:

(1) The Intake Cooling Water does not directly cool any components containing reactor coolant (the primary system, or RCS). All heat removal is accomplished thru the intermediate Component Cooling Water System (CCW) which has a process monitor with appropriate technical specifications concerning operability and calibration, and which is listed on Table 2.4-2.

(2) The only way that activity would be released to the environment via the Intake Cooling Water system would be thru a heat exchanger leak from the RCS to CCW then thru another heat exchanger leak from CCW to Intake Cooling Water. Obviously, activity of any magnitude to cause concern would activate the alarm on the CCW monitors. Additionally, the activity would be so diluted from the double system leakage pathway that it is unlikely that standard process monitors would be able to detect anything but the most gross compound leakage in both sets of heat exchangers. In such a highly unlikely event, there would already be ample plant indications, such as excessive CCW make-up, excessive RCS leakage, alarming monitors, etc.

Table 2.4-5

The requirement for Steam Generator Blowdown Tank Vent Alarm and Monitor should be deleted. This process monitor is not required for the following reasons:

(1) In the unlikely event that, in spite of the volatile steam generator chemistry control, primary to secondary leakage did occur, the activity would be accounted for by: (a) sampling the steam generators to determine the activities actually going to the blowdown tank; (b) assigning all but a minute amount of noble gases to the flash tank vent; and (c) determining an appropriate stripping factor for iodine and particulates (typically on the order of 30%) for this type of blowdown flash tank and assigning released activities accordingly; for example, 30% to blowdown tank vent (gaseous pathway) and 70% to blowdown tank drains (liquid pathway). Since this method accounts for 100% of the released activity from the Steam Generator Blowdown Tank, slight inaccuracies in the activity releases from the Steam Generator Blowdown Tank Vent determined, due to charging off more or less to either liquid or gaseous pathway, would be acceptable since this blowdown tank will be used for only a short period of the plant's operation, after which the Steam Generator Blowdown Treatment Facility will be available. At this time there will be no such release point.

(2) Since process monitors, as used in the St. Lucie Plant, are used primarily as trend monitors (actual released activities are determined from laboratory analyses) this monitor would be nothing more than a backup to the steam generator blowdown monitor and the air ejector vent monitor, both of which have appropriate technical specifications.

The entries pertaining to the Turbine Gland Seal Condenser and Waste Evaporator Condenser Vent should be deleted. The gaseous effluent from these systems is routed to the Condenser Air Ejector, which provides for complete monitoring. Although it was agreed that these items would be deleted by your staff on this basis prior to the issuance of these ETS, their appearance here would indicate either a simple oversight or a reversal of your staff's position. If it is the latter reason, we would appeal their incorporation for the reason that such monitoring is provided for in the Condenser Air Ejector monitoring system, and its requirement here would be redundant and would impose additional unnecessary financial burden upon FPL.

I wish to again commend your staff on its cooperation. A spirit of compromise was evident on both sides throughout the development of

these technical specifications. I would hope that further compromise will produce a set of specifications which will be workable throughout the life of St. Lucie Unit No. 1

Yours very truly,

Robert E. Uhrig

Robert E. Uhrig
Vice President

REU:nch

cc: Mr. Norman C. Moseley
Jack R. Newman, Esquire