

SAPL

127 HIGH STREET / P.O. BOX 1136

PORTSMOUTH, NH 03802

603-431-5089

The Seacoast Anti-Pollution League

Founded 1969

50-443
Paid from
L. Little
on 4/9/97

October 11, 1996

Albert W. DeAgazio, Project Mgr.
Northeast Utilities Project Directorate
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Mr. DeAgazio:

I am in receipt of your letter dated September 9, 1996 replying to our questions of August 13, 1996 concerning the C-10 organization's radiological monitoring system findings. Your reply has generated some additional questions.

Discussion of NRC's Answer to Question 1

At the top of page 2 of your reply, you begin to cite Seabrook Station, Unit No. 1 Technical Specification LCD 3.3.3.10. The entire first sentence of that Technical Specification is as follows:

The radioactive gaseous effluent monitoring instrumentation channels shown in Table 3.3-13 shall be OPERABLE with their Alarm/Trip Setpoints set to ensure that the limits of Specifications 3.11.2.1 and 3.11.2.5 are not exceeded.

When I refer to Specification 3.11.2.1, I see that it states as follows:

The dose rate due to radioactive materials released in gaseous effluents from the site to areas at and beyond the SITE BOUNDARY (see Figure 5.1-1) shall be limited to the following:

- a. For noble gases: Less than or equal to 500 mrem/yr to the whole body and less than or equal to 3000 mrem/yr to the skin, and
- b. For Iodine-131, for Iodine-133, for tritium, and for all radionuclides in particulate form with half-lives greater than 8 days:

100017

9704100059 961011
PDR ADOCK 05000443
P PDR



1/0
Aw1

Less than or equal to 1500 mrem/yr to any organ.

APPLICABILITY: At all times.

ACTION: With the dose rate(s) exceeding the above limits, decrease the release rate within 15 minutes to within the above limit.

Seabrook Station Unit No. 1 Technical Specification ACTION 3.3.3.10.a states:

With a radioactive gaseous effluent monitoring instrumentation channel Alarm/Trip Setpoint less conservative than required by the above specification, immediately suspend the release of radioactive gaseous effluents monitored by the affected channel, or declare the channel inoperable.

SAPL'S QUESTIONS REGARDING NRC'S ANSWER TO QUESTION 1

How is it that you maintain that the licensee met the ACTION requirements of Technical Specifications 3.11.2.1 and 3.3.3.10 and assured that the dose rates were decreased to the specified limits within 15 minutes? Isn't deliberately performing a containment purge, with no equipment in operation that permits one to know what the dose limits are within 15 minutes, flagrantly in violation of these Technical Specifications?

When you discussed the Table 3.3-13 PLANT VENT- WIDE RANGE GAS MONITOR, you referred only to a. Noble Gas Activity Monitor. Other portions are b. Iodine Sampler, c. Particulate Sampler d. Flow Rate Monitor, and e. Sampler Flow Rate Monitor. Don't ACTION 32 and ACTION 35 apply to those subparts of the system, not ACTION 33? Doesn't ACTION 35, which applies to subparts b. and c. of the system, require continuous collection of samples with auxiliary sampling equipment as required in the Offsite Dose Calculation Manual? Wasn't the licensee in violation of the requirements of ACTION 32 and ACTION 35?

Discussion of NRC's Answer to Question 2

You indicated that NRC's experience of losses of dosimeters are "minor losses" that are "not detrimental to the overall intent and purpose of the monitoring network". You also mentioned that NRC does not "normally" refer TLD losses for investigation.

SAPL'S QUESTIONS REGARDING NRC'S ANSWER TO QUESTION 2

Is it not true that, for the entire land area around Seabrook there are only 31 TLD's within ten miles and only 35 in total? In the 45 degree sector between 225 degrees and 270 degrees (due west), were there not only 5 TLD's within 5 miles of Seabrook Station before one disappeared? The TLD at Station 20, at 251 degrees 4.2 miles from the plant had the highest total reading for gross exposure of all the TLD's remaining. In light of the C-10 findings, which indicated that things might not be as "normally" expected, wasn't the loss of the TLD at 243 degrees 1.2 miles from the plant cause for concern by the NRC? If the NRC is really serious about protecting the public health and safety, should the agency not require, either of the licensee or of the state, that there be regular inventorying of TLD's with documentation that they are in place with no evidence of tampering supplied at regular intervals to NRC?

Discussion of NRC's Answer to Question 3

You stated that given the "reported" reactor coolant temperature and pressure at the time and the power levels reached, the reactor core safety limit was not challenged. You stated that sampling and analysis required by Technical Specification 3/4.4.8 and Table 4.4-3 would have picked up an increase of gross radioactivity if there had been cladding failure. You also stated that visual inspection of eight fuel assemblies showed them to be free of "visual" defects.

SAPL'S QUESTIONS REGARDING NRC'S ANSWER TO QUESTION 3

NRC Inspection Report No. 50-443/95-13 indicates at page 2 that at first, with reference to the first incident, "The licensee preliminarily determined the plant did not exceed the licensed thermal power ...". According to the same inspection report, the second incident "lasted for approximately 19 hours". Given the licensee's initial error and the long time span involved in the second incident, how is it that NRC has confidence that the licensee correctly determined that 3418 Mwt and 3413 Mwt were the highest thermal power levels reached at any point in time during those two incidents? Did Yankee Atomic Electric Company do the calculations providing the basis for Seabrook Station's 100% rating being 3411 Mwt?

Has the NRC verified that the sampling and analysis required by Technical Specification 3/4.4.8 and Table 4.4-3 were carried out by the licensee? Has the NRC independently reviewed the findings?

Who did the visual examinations of the eight fuel assemblies; NRC, the licensee or a contractor? How was the sample of eight assemblies selected from the total of 193 assemblies? Were the eight assemblies selected from random core locations? Does NRC consider eight fuel assemblies an adequate sample size in these circumstances?

Would visual inspection detect pinhole leaks in fuel cladding?

NRC's Answer to Question 4

SAPL has no further questions at this time.

Discussion of NRC's Answer to Question 5

You stated that, for the reactor head funnel guide inspection, "the licensee underestimated the expected personnel radiation exposure based on the assumption that dose rates measured under the reactor vessel **would be representative of the actual radiological conditions** expected to be encountered during the inspection." (emphasis added) You stated that the licensee's ALARA review did not consider prior industry experience. You further stated that the licensee "elected to defer the remaining inspections".

SAPL'S QUESTIONS REGARDING NRC'S ANSWER TO QUESTION 5

SAPL would comment that the exposures were representative of actual radiological conditions. We want to know why exposures at Seabrook, irrespective of experience at other plants, were higher than expected. Please provide an answer. Additionally, please explain why NRC permits operation of the plant for another cycle without requiring that the inspection of the reactor head funnel guide is completed. What, if any, Technical Specification applies to this inspection?

Discussion of NRC's Answer to Question 6

You noted that the licensee collected and analyzed "several" samples for noble gas entrainment during the outage. Collection sites were the Spent Fuel Pool, RHR System and Refueling Water Storage Tank. You enclosed Table 1 summarizing the sample collection efforts from November 1, 1995 to December 5, 1995.

SAPL'S QUESTIONS REGARDING NRC'S ANSWER TO QUESTION 6

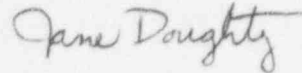
Over a period of 35 days, only seven samples for entrained noble gases were taken. There was a 28 day gap between the first and second of the two samples taken from

Letter to Mr. DeAgazio, NRC, 10/11/96 --- P. 5

the Spent Fuel Pool. RHR was not sampled until 23 days after shutdown. Does NRC believe this sampling program was adequate? Does NRC believe this sampling program provides solid basis for the conclusion that there was no release of noble gases attributable to Seabrook or its operations that could have caused the findings reported by C-10?

Thank you for your assistance in getting us answers to these questions.

Sincerely,



Jane Doughty