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YANKEE ATOMIC ELECTRIC COMPANY

B.3.2.1 WYR 80-84



20 Turnpike Road Westborough, Massachusetts 01581

July 24, 1980

United States Nuclear Regulatory Commission Washington, DC 20555

Attention: Mr. Dennis M. Crutchfield, Chief Operating Reactors Branch #5 Division of Licensing

References: (a) License No. DPR-3 (Docket 50-29)
(b) USNRC Letter to YAEC dated October 30, 1979
(c) YAEC Letter to USNRC dated December 31, 1979 (WYR 79-163)
(d) YAEC Letter to USNRC dated June 4, 1980 (WYR 80-60)
(e) USNRC Letter to YAEC dated November 9, 1979
(f) YAEC Letter to USNRC dated November 19, 1979 (WYR 79-141)
(g) YAEC Letter to USNRC dated May 1, 1980 (WYR 80-47)

(h) YAEC Letter to USNRC dated July 22, 1980 (WYR 80-82)

(i) USNRC Letter to YAEC dated April 18, 1980

Subject: NRC Proposal Review of Category "B" Items

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Dear Sir:

References (b) and (i) identified certain Category "B" TMI items requiring proposal reviews. Table 1 lists these items and identifies the references in which we provided the required information (as Category "A" item responses) for your evaluation. Detailed engineering of these modifications and plans to implement your requirements have been proceeding with the assumption that the staff's evaluation, were also in progress.

Recent phone discussions with your staff, however, have indicated an alarming situation - that the evaluation of our proposed modifications is not being done, and furthermore, that the mechanism for providing these evaluations has not been formulated nor implemented. We hope this is not the case, since your timely evaluation and approval of our proposed modifications is critical to our meeting the January 1, 1981 implementation deadline of Reference (b).

As indicated in Table 1, four items require immediate action by your staff. Equipment required for implementation of these modifications is on order and is scheduled for installation by November 1, 1980. This coincides with our plans for return to power operation, and meets our commitment to have this equipment installed by January 1, 1981. We strongly urge that you United States Nuclear Regulatory Commission Attention: Mr. Dennis M. Crutchfield July 11, 1980 Page 2

complete your evaluations and inform us of the acceptability of our proposed modifications to assure compliance with your deadline

Based on our current schedule, we request that your evaluation be completed by September 1, 1980. Delays beyond this date may result in delays in meeting your January 1, 1981 deadline. If you have any questions, or desire additional information, please contact us.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

Kay J. A. Kay

Senior Engineer - Licensing

JAK/ncj

Attachment

d'a.

valve

Category "B" Item	Action Required by Staff	Description	Reference	Remarks
2.1.3.b	x	Reactor Vessel Level Meter	(c) page 3 (d)	 Peasibility of methods in question Propose continued use of existing core exit thermocouples
2.1.7.a		Safety Grade Auto Initiation of AFW	(c) page lõ	- Not required per Reference (e)
2.1.8.a		Post Accident Sampling - Reactor Coolant and Containment Atmosphere Monitoring	(g)	 Installation depends on further shielding review Deferred to SEP review
2.1.8.b	x	In-Containment Hi-Range Rad Monitors	(f) sheet 6	- Information requested by Reference (b) is supplied in Attachment A to this letter
2.1.8.b	x	Effluents - Hi-Range Rad Monitors	(£) sheet 6	- Information requested by Reference (b) is supplied in Attachment A to this letter
2.1.9	x	RCS Venting Installation	(c) pages 18, 19	- Updated in Reference (h) to incorporate pressurizer vent

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Category "B" Item 2.1.8.b - High Range In-Containment Radiation Monitor

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Instrument:	Victoreen 875 Area Monitor, with an 877 detector			
Range:	10 ⁰ R/h-10 ⁷ R/h (Photon Radiation)			
Energy Depth:	+20% 80 Kev to 2 Mev, will respond to 60 Kev			
Sensitivit':	Nominal 7 x 10^{-11} amps/R/h			
Cal. Freq. 'ech:	Proposed to calibrate each detector during plant			
	refueling outages; will be performed by Victoreen			
Location:	Redundant monitors. Monitor #1 mtd on the bio-shield			
	SG#2 loop housing on bio-shield wall.			
Readout:	Each monitor will have an analog readout and be recorded			
	on equipment located in cabinets in the main control room.			
Source of Power:	Vital Bus			
Specifications:	NRC Reg. Guide 1.97 (8/1/77)			

Category "B" Item 2.1.8.b - High Range Noble Gas Effluents Monitors

A. System/Method Description

i. Provide: Instrumentation to be used including range or sensitivity, energy dependence and calibration frequency and technique.

Ans: <u>Instrument</u>: Victoreen Area Monitor 845 with 847-1 detector

Range:

lmR/hr - 10^7 mR/hr (conversion factor yields range of 10^{-2} to 10^6 µCi/cm³ for main steamline detectors and .002 to 10^5 µCi/cm³ for the primary vent stack).

Energy

Dependence: +10% 80 Kev to 3 Mev

Cal. Freq. & Tech: To be determined later

ii. Provide: Monitoring/Sampling locations, including method to assure representative measurements and background radiation correction.

Ans: Location: Each main steamline will have a detector placed upstream of the release points just before the non-return platform. The primary vent stack monitor will utilize a Marimelli breaker geometry placed in the sample line in the PUS sampling/monitoring system. Since stack gas is directly drawn through this line, the sampling location gives a representative measurement.

Background

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- Information: The background radiation in the area of the non-return platform is less than .5mR/hr. Shielding requirements for the PVS are currently being investigated.
- iii. Provide: A description of method to be employed to facilitate access to radiation readings.
 - Ans: The main steamline and primary vent stack monitors will readout on analog meters and be recorded. The analog meters and recorders are located in cabinets in the main control room.
- iv. Provide: Capability to obtain readings at least every 15 minutes during an accident.

Attachment A (Sheet 3 of 3)

- Ans: Each monitor is continuously recorded and displayed.
- v. Provide: Source of power to be used.
 - Ans: Vital bus power not available due to loading effects. Power will be obtained from either transformer A or B, these transformers are backed up by the diesel generator.
- B. Procedures for conducting all aspects of the measurement/analysis including:

Provide:

- i. procedures for minimizing occupational exposure
- ii. calculational methods for converting instrument readings to release rates based on exhaust air flow and taking into consideration radionuclide spectrum distribution as a function of time after shutdown.
- iii. procedures for dissemination of information
- iv. procedures for calibration
- Ans: Procedures will be completed and implemented prior to January 1, 1981.