

3.1.4 Maximum Coolant Activity

Specifications

- 3.1.4.1 Whenever the reactor is critical or the reactor coolant average temperature is greater than 500°F:
- a. The total specific activity of the reactor coolant shall not exceed  $84/\bar{E}$   $\mu\text{Ci/gm}$ , where  $\bar{E}$  is the average beta and gamma energies per disintegration in Mev.
  - b. The I-131 equivalent of the iodine activity in the reactor coolant shall not exceed 0.2  $\mu\text{Ci/gm}$ .
  - c. The I-131 equivalent of the iodine activity on the secondary side of a steam generator shall not exceed 0.1  $\mu\text{Ci/gm}$ .
- 3.1.4.2 If the limit of 3.1.4.1.a is exceeded, then be subcritical with reactor coolant average temperature less than 500°F within 8 hours.
- 3.1.4.3 a. If the I-131 equivalent activity in the reactor coolant exceeds the limit of 3.1.4.1.b but is less than the allowable limit shown on Figure 3.1.4-1, operation may continue for up to 168 hours. If the I-131 equivalent activity in the reactor coolant exceeds the limit of 3.1.4.1.b for more than 500 hours in any consecutive 6-month period, then prepare and submit a report to the Commission pursuant to Specification 6.9.2.

The reactor may be taken critical or reactor coolant average temperature may be increased above a 500°F with the I-131 equivalent activity greater than the limit of 3.1.4.1.b as long as the provisions of this paragraph are met.

- b. If the I-131 equivalent activity exceeds the limit of 3.1.4.1.b for more than 168 hours during one continuous time interval or exceeds the limit shown on Figure 3.1.4-1, be subcritical with reactor coolant average temperature less than 500°F within 8 hours.
- c. If the I-131 equivalent activity exceeds the limit of 3.1.4.1.b, then perform sampling and analysis as required by Table 4.1-4, item 4a, until the activity is reduced to less than the limit of 3.1.4.1.b.

3.1.4.4 If the limit of 3.1.4.1.c is exceeded, then be at hot shutdown within 8 hours and in cold shutdown within the following 32 hours.

Basis:

The total activity limit for the primary system corresponds to operation with the plant design basis of 1% fuel defects.<sup>(1)</sup>

Radiation shielding and the radioactive waste disposal systems



6.9.2 Unique Reporting Requirements

- 6.9.2.1 Annually: Results of required leak test performed on sources if the tests reveal the presence of 0.005 microcurie or more of removable contamination.
- 6.9.2.2 Annually: A tabulation on an annual basis of the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man-rem exposure according to work and job functions, e.g., reactor operations and surveillance, in-service inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions. (NOTE: This tabulation supplements the requirements of Section 20.407 of 10CFR Part 20.)
- 6.9.2.3 Annually: The results of specific activity analysis in which the primary coolant exceeded the limits of Specification 3.1.4.1.a and b. The following information shall be included: (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded; (2) Results of the last isotopic analysis for radioiodine performed prior to exceeding the limit,

results of analyses while the limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than the limit. Each result should include the date and time of sampling and the radioiodine concentrations; (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded; (4) Graph of the I-131 concentration and one other radioiodine isotope concentration as a function of time for the duration of the specific activity above the steady-state level; and (5) The time duration when the specific activity of the primary coolant exceeded the radioiodine limit.

6.9.2.4 Reactor Overpressure Protection System Operation

In the event either the PORVs or the RCS vent(s) are used to mitigate a RCS pressure transient, a Special Report shall be prepared and submitted to the Commission within thirty days. The report shall describe the circumstances initiating the transient, the effect of the PORVs or vent(s) on the transient and any other corrective action necessary to prevent recurrence.

6.9.2.5 Special reports shall be submitted to the Director of the NRC Regional Office listed in Appendix D, 10CFR Part 20, with a copy to the Director, Office of Inspection and Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555 within the time period specified for each report.



## Attachment B

Based on NRC letter, "Reporting Requirements on Primary Coolant Iodine Spikes (Generic Letter 85-19)" from H.L. Thompson to All Licensees dated September 27, 1985. The reporting requirements for iodine spiking and the 800 hour shutdown requirement are being modified.

As stated in the above letter it has been determined that reporting requirements related to primary coolant specific activity levels, specifically primary coolant iodine spikes can be reduced from a short-term report to an annual report. The Annual Report requirements are specified to more clearly designate the results to be included from the specific activity analysis. The detailed changes are presented on Table 1.

Also, as stated in the above letter the Staff has determined that the existing requirements to shut down if coolant iodine activity limits are exceeded for 800 hours in a 12-month period can be eliminated. The quality of nuclear fuel has been greatly improved over the past decade with the result that normal coolant iodine activity (i.e. in the absence of iodine spiking) is well below the limit. Appropriate actions would be initiated long before accumulating 800 hours above the iodine activity limit. In addition, 10 CFR 50.72(b)(1)(ii) requires the NRC to be immediately notified of fuel cladding failures that exceed expected values or that are caused by unexpected factors. Therefore, this Technical Specification limit is no longer considered necessary on the basis that proper fuel management and existing reporting requirement should preclude ever approaching the limit.

In accordance with 10CFR 50.91, this change to the Technical Specifications has been evaluated against three criteria to determine if the operation of the facility in accordance with the proposed amendment would:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated, or
2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or
3. Involve a significant reduction in margin of safety.

The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated because reporting requirement have no effect on the probability or consequence of an accident. The probability or consequence are also not effected by the 800 hour limit since existing requirements preclude ever approaching the limit.

The proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated because neither the reporting requirements nor the 800 hour limit which will not be approached have an effect on accidents.

The proposed changes do not involve a significant reduction in margin of safety because the 800 hour limit will not be approached and reporting requirements have no effect on margin of safety. Therefore, the proposed revision to the Technical Specification does not present a significant hazards consideration.



Table 1

Detailed Technical Specification Changes

<u>Location</u>	<u>Description of Change</u>	<u>Reason for Change</u>
pg. 3.1-21 item 3.1.4.3.a	removed "provided that the cumulative operating time under these circumstances does not exceed 800 hours in any consecutive 12-month period"	removed 800 hour shutdown requirement
pg. 3.1-22 item 3.1.4.3.a	removed "Special" and removed "within 30 days indicating the number of hours above this limit"	change reporting from Special Report to Annual Report
pg. 6.9-6	renumbered 6.9.2.3 to 6.9.2.4 inserted new section 6.9.2.3	Annual reporting requirements
pg. 6.9-7	renumbered 6.9.2.4 to 6.9.2.5	

