

ATTACHMENT B

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 $84 \frac{100}{\bar{E}} \mu\text{Ci/gm}$, where \bar{E} is the average beta and gamma energies per disintegration in Mev.
- b. The I-131 ~~dose~~ equivalent of the iodine activity in the reactor coolant shall not exceed $0.2 \frac{1.0}{\bar{E}} \mu\text{Ci/gm}$.
- 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.~~

were designed for operation with 1% defects⁽²⁾. The limit for secondary iodine activity is conservatively established with respect to the limits on primary system iodine activity and primary-to-secondary leakage (Specification 3.1.5.2). If the activity should exceed the specified limits following a power transient the major concern would be whether additional fuel defects had developed bringing the total to above 1% defects. Appropriate action to be taken to bring the activity within specification include one or more of the following: gradual decrease in power to a lower base power, increase in letdown flow rate, and venting of the volume control tank gases to the gas decay tanks.

The specified activity limits provide protection to the public against the potential release of reactor coolant activity to the atmosphere, as demonstrated by the analysis of a steam generator tube rupture accident.⁽³⁾

The 500°F temperature in the specification corresponds at saturation to 681 psia, which is below the set point of the secondary side relief valves. Therefore, potential primary to secondary leakage at a temperature below 500°F can be contained by closing the steam line isolation valves.

References:

- (1) UFSAR Table 9.2-5 3-9
- (2) UFSAR Section 11.1.3 2
- (3) ~~Letter dated September 24, 1981 from Dennis M. Crutchfield, USNRC, to John E. Maier, RG&E. UFSAR Section 15.6.3~~

ATTACHMENT C

Revise the Technical Specification pages as follows:

Remove

Insert

3.1-21

3.1-21

3.1-23

3.1-23

3.1-24

3.1-24

ATTACHMENT C

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 $100/\bar{E}$ $\mu\text{Ci/gm}$, where \bar{E} is the average beta and gamma energies per disintegration in Mev.
 - b. The I-131 dose equivalent of the iodine activity in the reactor coolant shall not exceed 1.0 $\mu\text{Ci/gm}$.
 - 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.

were designed for operation with 1% defects⁽²⁾. The limit for secondary iodine activity is conservatively established with respect to the limits on primary system iodine activity and primary-to-secondary leakage (Specification 3.1.5.2). If the activity should exceed the specified limits following a power transient the major concern would be whether additional fuel defects had developed bringing the total to above 1% defects. Appropriate action to be taken to bring the activity within specification include one or more of the following: gradual decrease in power to a lower base power, increase in letdown flow rate, and venting of the volume control tank gases to the gas decay tanks.

The specified activity limits provide protection to the public against the potential release of reactor coolant activity to the atmosphere, as demonstrated by the analysis of a steam generator tube rupture accident.⁽³⁾

The 500°F temperature in the specification corresponds at saturation to 681 psia, which is below the set point of the secondary side relief valves. Therefore, potential primary to secondary leakage at a temperature below 500°F can be contained by closing the steam line isolation valves.

References:

- (1) UFSAR Table 9.3-9
- (2) UFSAR Section 11.1.2
- (3) UFSAR Section 15.6.3

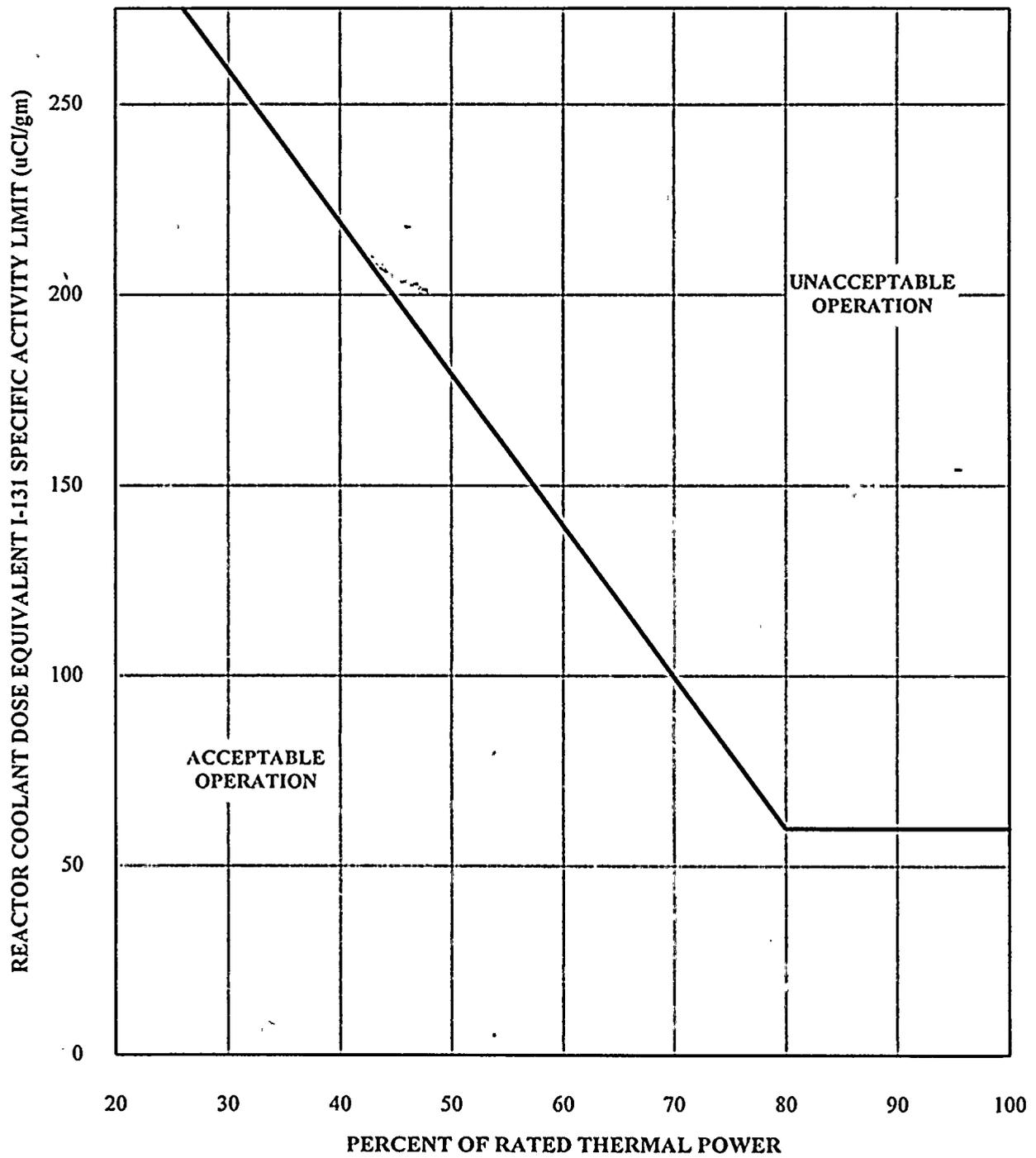


FIGURE 3.1.4-1

Reactor Coolant Dose Equivalent I-131 Specific Activity Limit versus
Percent of Rated Thermal Power

