

C. MAXIMUM COOLANT ACTIVITY

Specification:

The specific activity of the reactor coolant shall be limited to:

1. Less than or equal to 1.0 microcurie per gram Dose Equivalent I-131.
 - a. If the specific activity of the reactor coolant is greater than 1.0 microcuries per gram Dose Equivalent I-131 but within the allowable limit (below and to the left of the line) shown on Figure 15.3.1-5, operation may continue for up to 48 hours. Reactor coolant sampling shall be in accordance with Table 15.4.1-2.
 - b. If the specific activity of the reactor coolant is greater than 1.0 microcuries per gram Dose Equivalent I-131 for more than 48 hours during one continuous time interval or exceeds the allowable limit (above and to the right of the line) shown on Figure 15.3.1-5, the reactor will be shut down and the average reactor coolant temperature will be less than 500°F within 6 hours.
2. Less than or equal to $100/\bar{E}$ microcuries per gram.
 - a. If the specific activity of the reactor coolant is greater than $100/\bar{E}$ microcuries per gram, the reactor will be shut down and the average reactor coolant temperature will be less than 500°F within 6 hours. Reactor coolant Sampling shall be in accordance with Table 15.4.1-2.

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Basis:

The limitations on the specific activity of the reactor coolant ensure that the resulting 2-hour doses at the site boundary will not exceed an appropriately small fraction of Part 100 limits following a steam generator tube rupture accident in conjunction with an assumed steady state primary-to-secondary steam generator leakage rate of 1.0 GPM. The values for the limits on specific activity represent limits based upon a parametric evaluation by the NRC of typical site locations. These values are conservative for Point Beach Nuclear Plant.

Continued power operation for limited time periods with the reactor coolant's specific activity greater than 1.0 microcurie/gram Dose Equivalent I-131, but within the allowable limit shown on Figure 15.3.1-5, accommodates possible iodine spiking phenomenon which may occur following changes in thermal power. Operation with specific activity levels exceeding 1.0 microcurie/gram Dose Equivalent I-131 but within the limits shown on Figure 15.3.1-5 increase the 2-hour thyroid dose at the site boundary by a factor of up to 20 following a postulated steam generator tube rupture.

Reducing T_{avg} to less than 500°F normally prevents the release of activity should a steam generator tube rupture since the saturation pressure of the reactor coolant is below the lift pressure of the atmospheric steam relief valves. The surveillance requirements provide adequate assurance that excessive specific activity levels in the primary coolant will be detected in sufficient time to take corrective action. A reduction in frequency of isotopic analyses following power changes may be permissible if justified by the data obtained.

- a. 90 days following completion of the startup tests.
- b. 90 days following resumption or commencement of commercial power operation.
- c. 9 months following initial criticality.

B. Annual Results and Data Report

1. A results and data report covering the period of the previous calendar year shall be submitted prior to March 1 of each year.
2. This report shall include:
 - a. Complete results of steam generator tube inservice inspection completed during the calendar year as required by specification 15.4.2.A.7
 - b. A tabulation on an annual basis of the number of station, utility, and other personnel receiving exposures greater than 100 mrem/year and their associated man-rem exposure according to work and job functions. The dose assignments to various duty functions may be estimates based on pocket dosimeter, TLD or film badge measurements. Small exposures totalling less than 20 percent 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.
 - c. A description of facility changes, tests or experiments as required pursuant to 10 CFR 50.59(b).
 - d. A tabulation of all challenges to the pressurizer power operated relief valves or pressurizer safety valves.

e. Reactor coolant activity

The results of specific activity analysis in which the primary coolant exceeded the limits of specification 15.3.1.C. The following information shall be included:

1. Reactor power history starting 48 hours prior to the first sample in which the activity limit was exceeded,
2. Results of the last isotopic analysis for radioiodine analysis prior to exceeding the limit, results of analysis while 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 flow history starting 48 hours prior to the first sample in which the activity limit was exceeded,
4. Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram 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 1.0 microcuries per gram DOSE EQUIVALENT I-131.

C. Monthly Operating Reports

1. Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis under the titles "Operating Data Report", "Average Daily Power Levels" and "Unit Shutdowns" and "Power Reduction". In addition, the report shall contain a narrative summary of operating experience that describes the operation of the facility, including major safety-related maintenance for the monthly report period.
2. Completed reports shall be sent to the Director, Office of Management Information and Program Control, U.S. NRC, Washington, D. C., 20555, by the tenth of each month following the calendar month covered by the report.

15.6.9.2 Unique Reporting Requirements

The following written reports shall be submitted to the Director, Office of Nuclear Reactor Regulation, USNRC:

A. Integrated Leak Rate Test

Each integrated leak test shall be the subject of a summary technical report, including results of the local leak rate tests and isolation valve leak rate tests since the last report. The report shall include analysis and interpretations of the results which demonstrate compliance with specified leak rate limits.

B. Poison Assembly Removal From Spent Fuel Storage Racks

Plans for removal of any poison assemblies from the spent fuel storage racks shall be reported and described at least 14 days prior to the planned activity. Such report shall describe neutron attenuation testing for any replacement poison assemblies, if applicable, to confirm the presence of boron material.

C. Overpressure Mitigating System Operation

In the event the overpressure mitigating system is operated to relieve a pressure transient which, by licensee's evaluation, could have resulted in an overpressurization incident had the system not been operable, a special report shall be prepared and submitted to the Commission within 30 days. The report shall describe the circumstances initiating the transient, the effect of the system on the transient and any corrective action necessary to prevent recurrence.

D. Failure of Containment High-Range Radiation Monitor

A minimum of two in-containment radiation-level monitors with a maximum range of 10^8 rad/hr (10^7 /hr for photons only) should be operable at all times except for cold shutdown and refueling outages. This is specified in Table 15.3.5-5, item 7. If the minimum number of operable channels are not restored to operable condition within seven days after failure, a special report shall be submitted to the NRC within thirty days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to operable status.

E. Failure of Main Steam Line Radiation Monitors

If a main steam line radiation monitor (SA-11) fails and cannot be restored to operability in seven days, prepare a special report within thirty days of the event, outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the channel to operable status.