

2. The specific activity of the reactor coolant shall be limited to $\leq 1.0 \mu\text{Ci}/\text{cc}$ DOSE EQUIVALENT I-131 whenever the reactor is critical or the average temperature is greater than 500°F.
3. The requirements of D-2 above may be modified to allow the specific activity of the reactor coolant $> 1.0 \mu\text{Ci}/\text{cc}$ DOSE EQUIVALENT I-131 but less than 10.0 $\mu\text{Ci}/\text{cc}$ DOSE EQUIVALENT I-131. Following shutdown, the unit may be restarted and/or operation may continue for up to 48 hours provided that operation under these circumstances shall not exceed 10 percent of the unit's total yearly operating time. With the specific activity of the reactor coolant $> 1.0 \mu\text{Ci}/\text{cc}$ DOSE EQUIVALENT I-131 for more than 48 hours during one continuous time interval or exceeding 10.0 $\mu\text{Ci}/\text{cc}$ DOSE EQUIVALENT I-131, the reactor shall be shut down and cooled to 500°F or less within 6 hours after detection.
4. If the specific activity of the reactor coolant exceeds 1.0 $\mu\text{Ci}/\text{cc}$ DOSE EQUIVALENT I-131 or $100/\bar{E} \mu\text{Ci}/\text{cc}$, a report shall be prepared and submitted to the Commission pursuant to Specification 6.6.2.b(2). This report shall contain the results of the specific activity analysis together with the following information:
 - a. Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded,
 - b. Fuel burnup by core region,
 - c. Clean-up flow history starting 48 hours prior to the first sample in which the limit was exceeded,
 - d. History of degassing operations, if any, starting 48 hours prior to the first sample in which the limit was exceeded, and
 - e. The time duration when the specific activity of the primary coolant exceeded 1.0 $\mu\text{Ci}/\text{cc}$ DOSE EQUIVALENT I-131.

boundary would be 0.30 Rem whole body and 0.28 Rem thyroid. Thus, these doses are well below the guidelines suggested in 10CFR100.

Permitting startup and/or reactor operation to continue for limited time periods with the reactor coolant's specific activity $> 1.0 \mu\text{Ci}/\text{cc}$ but $< 10.0 \mu\text{Ci}/\text{cc}$ DOSE EQUIVALENT I-131 accomodates possible iodine spiking phenomenon which may occur following changes in thermal power. Operation within these limits must be restricted to no more than 10 percent of the unit's yearly operating time since the activity levels allowed may slightly increase the 2 hour thyroid dose at the site boundary following a postualted steam generator tube rupture. The basis for the 500°F temperature contained in the Specification is that the saturation pressure corresponding to 500°F, 680.8 psia, is well below the pressure at which the atmospheric relief valves on the secondary side could be actuated. Measurement of \bar{E} will be performed at least twice annually. Calculations required to determine \bar{E} will consist of the following:

1. \bar{E} shall be the average (weighed in proportion to the concentration of each radionuclide in the reactor coolant at the time of sampling) of the sum of the average beta and gamma energies per disintegration (in MeV) for isotopes, other than iodines, with half lives greater than 15 minutes, making up at least 95% of the total non-iodine activity in the coolant.
2. A determination of the beta and gamma decay energy per disintegration of each nuclide determined in (1) above by applying known decay energies and schemes.
3. A calculation of \bar{E} by appropriate weighing of each nuclide's beta and gamma energy with its concentration as determined in (1) above.