TABLE 4.1-3 Cont.

MINIMUM SAMPLING FREQUENCY

Item	Check	Frequency	Sensitivity Limits of Lab Analysis for Waste
7. Low Activity Waste Tank, Condensate Test Tank, Condensate Monitoring Tank, Laundry-Hot Shower Tank	a. Principal Gamma Emitters(5) including Dissolved Noble Gases	a. Prior to release of each batch	a. Gamma Nuclides $<5\times10^{-7}$ μCi/ml Dissolved Gases $<10^{-5}$ μCi/ml
	b. Radiochemical Analysis Sr 89,90	b. Monthly	b. $<10^{-8}$ μCi/ml
	c. Tritium	c. Monthly	c. $<10^{-5}$ μCi/ml
	d. Gross Alpha Activity	d. Monthly	d. $<10^{-7}$ μCi/ml
8. Waste Gas Decay Tank	a. Principal Gamma Emitters(5)	a. Prior to release of each batch	a. $<10^{-4}$ μCi/cc (gases) $<10^{-10}$ μCi/cc (particulates and iodines)
	b. Tritium	b. Prior to release of each batch	b. $<10^{-6}$ μCi/cc
9. Unit Vent Sampling	a. Iodine Spectrum(4)	a. Weekly	a. $<10^{-10}$ μCi/cc
	b. Particulates (4)		
	1) Principal Gamma Emitters(5)	1) Weekly Composite	1) $<10^{-10}$ μCi/cc
	2) Gross Alpha Activity	2) Quarterly on a sample of one week duration	2) $<10^{-11}$ μCi/cc
	3) Radiochemical Analysis Sr 89,90	3) Quarterly Composite	3) $<10^{-11}$ μCi/cc

TABLE 4.1-3 Cont.

MINIMUM SAMPLING FREQUENCY

Item	Check	Frequency	Sensitivity Limits of Lab Analysis for Waste
	c. Gases by Gamma Isotopic Analysis	c. Weekly	c. $<10^{-4}$ μCi/cc
10. Keowee Hydro Dam Dilution Flow	Measure Leakage Flow Rate	Annually	
11. Condenser Air Ejector Partition Factor	Measure Iodine Partition Factor in Condenser	One time if and when primary to secondary leaks develop	
12. Reactor Building	a. Principal Gamma Emitters(5)	a. Each Purge	a. $<10^{-4}$ μCi/cc (gases) $<10^{-10}$ μCi/cc (particulates and iodines)
	b. Tritium	b. Each Purge	b. $<10^{-6}$ μCi/cc

(1) When radioactivity level is greater than 10 percent of the limits of Specification 3.1.4, the sampling frequency shall be increased to a minimum of once each day.

(2) $\overline{E}$ determination will be started when gross beta-gamma activity analysis indicates greater than 10 μCi/ml and will be redetermined for each 10 μCi/ml increase in gross beta-gamma activity analysis thereafter. A radiochemical analysis for this purpose shall consist of a quantitative measurement of 95 percent of the radionuclides in the reactor coolant with half lives greater than 30 minutes. This is expected to consist of gamma isotopic analysis of the primary coolant, including dissolved gaseous activities, radiochemical analysis for Sr-89 and Sr-90, and tritium analysis.

TABLE 4.1-3 Continued

MINIMUM SAMPLING FREQUENCY

(3) When gross activity increases by a factor of two above background, an iodine analysis will be made and performed thereafter when the gross beta-gamma activity increases by 10 percent.

(4) When the activity level exceeds 10 percent of the limits of Specification 3.9, the sampling frequency shall be increased to a minimum of once each day. This can be done by RIA-44 (Unit Vent Iodine Monitor). When the gross activity release rate exceeds one percent of the maximum release rate and the average gross activity release rate increased by 50 percent over the previous day, an analysis shall be performed for iodines and particulates. This can be done by RIA-44 (Unit Vent Iodine Monitor) and RIA-43 (Unit Vent Particulate Monitor).

(5) For certain mixtures of gamma emitters, it may not be possible to measure the activity level of some radionuclides in the mixture to their specified sensitivity limit when other nuclides are present in the sample at much higher activity levels. When this situation exists, the minimum detectable activities (MDA) of the nuclides not meeting the sensitivity limits will be compared with the total activity present from other nuclides. If the MDA of each of these nuclides is less than 1% of the total activity present, it will not be included in the total activity determination. If it is greater than 1% of the total activity, it will be added to the total activity in its MDA concentration.