

Table 5.7-1 Summary of Routine In-Plant Radiation Surveys and Monitoring

Type of Survey	Areas to be Surveyed	Frequency	Equipment	Type of Analysis	Estimated LLD
Particulate Air Monitoring: Breathing Zone	As determined by the RSO or required by a RWP	As determined by the RSO or required by a RWP	1. Lapel sampler 2. Alpha counting equipment	Gross alpha	2×10^{-12} $\mu\text{Ci/ml}$
On-site Particulate Air Monitoring	In areas shown in Figure 5.7-1 and as determined by the RSO	Quarterly	Low volume sampler Alpha counting equipment	Gross alpha	2×10^{-12} $\mu\text{Ci/ml}$
Radon decay products (Working Level)	All buildings normally occupied by workers and as required by an RWP	Monthly for concentrations < 0.08 WL. Weekly for concentrations > 0.08 WL	Sampling pump and filter cassettes Alpha counting equipment	Working Level by Kuznetz Method	0.03 WL
Fixed Surface Contamination	All occupied buildings at locations designated by the RSO (lunchrooms, etc.)	Weekly	Alpha survey meter	Total alpha	500 d/m-100 cm^2
Removable Surface Contamination	Same as above	Weekly	Smears Alpha counting equipment	Removable alpha	100 d/m-100 cm^2
Personal contamination self survey	Survey hands, feet, clothing	On leaving the restricted area or entering lunchrooms or break areas	Alpha survey meter	Gross alpha, meter set to alarm at 20 c/m	100 d/m-100 cm^2
Vehicle survey	Tires, wheel wells, cab, truck bed, and other areas as appropriate	On leaving the restricted area	GM pancake probe	50 c/m above background	500 d/m-100 cm^2
Equipment Contamination	All surfaces, scan and smears	Prior to release for unrestricted use or use off site	Alpha survey meter GM pancake probe Smears Alpha counting equipment	Gross alpha and gross beta Removable gross alpha	500 d/m-100 cm^2 Fixed 100 c/m-100 cm^2 removable
Gamma exposure rate	In plant (see Figure 5.7.1)	Semi-annual except quarterly in designated "Radiation Areas"	MicroR meter or equivalent	Gamma exposure rate	5 $\mu\text{R/hr}$ above background