

**Plant Operational Data Needs
For PWR GALE Code**

PARAMETER	DESCRIPTION	BASES
Plant Capacity	Days per year plant operates @ 100% power	Actual recent performance by plant
Radionuclide Concentration in Primary and Secondary Coolant	uCi/g water and steam by radionuclide	Recent measurement data to confirm or adjust ANSI/ANS 18.1-1999
Primary Coolant to Secondary Coolant Leakage	Average gallon/day Leakage	Actual recent plant experience. Measurements or Plant Vendor estimates
Radionuclide Releases from Various Ventilation Systems Prior to Treatment Including Iodine, Particles and Noble Gases	Ci/year	Actual recent plant measurements from containment aux building, fuel pool, waste gas systems, etc. from normal operations and shutdowns
Iodine Releases from Main Condenser Exhaust	Ci/year per uCi/g)	Actual recent plant measurements
Duration of Containment Air Cleanup	Hours of operation before purging	Internal cleanup systems may be used to reduce airborne iodine in containment prior to purging
% of Containment Air Treated	%	Data to determine if the containment air is totally mixed
Containment Purge Frequency	Purges/year	Actual recent operating, accounting for continuous purging, and purges due to down.
Radionuclide Removal Efficiencies for Charcoal Absorbers and HEPA filters	Percent Removal	Recent data from plant experience. Are the removal efficiencies much better than in Regulatory Guides?
Dynamic Adsorption Coefficients for Charcoal	cm ³ /g	Measurements based on recent operating reactor charcoal delay systems.
Flow Rates into the Liquid Radwaste Systems	Gallons/day	From various systems that input to Radwaste
Radionuclides in Untreated Detergent Waste	Ci/month	Measurements based on recent operating experience.
Demineralizer Regeneration Cycle	days	Recent operating experience
Tritium Releases	Ci/year	Effluent Monitoring data based on power level
Decontamination Factors for Demineralizers, Evaporators,	Reduction Factor by radionuclide	Recent data from plant experience. Are the removal

Filters, Reverse Osmosis Units		efficiencies much better than in Regulatory Guides?
Regeneration Time for Condensate Demineralizers	Days	Operating data show duration and frequency of regeneration
Frequency and Extent of Unplanned Liquid Releases	Events/year, Ci/event	Recent Operating Data
Carbon -14 Release	Ci/year	Recent measurement data from operating plants
Argon – 41 Release	Ci/year	Recent measurement data from operating plants

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Primary Coolant to Secondary Coolant Leakage	Average gallon/day Leakage	Actual recent plant experience. Measurements or Plant Vendor estimates
Radionuclide Releases from Various Ventilation Systems Prior to Treatment	Ci/year	Actual recent plant measurements from containment aux building, fuel pool, turbine building, waste gas systems, etc. from normal operations and shutdowns.
Air Inleakage to Main Condenser	Ft ³ /min.	Recent plant measurements
Radionuclide Removal Efficiencies for Charcoal Absorbers and HEPA filters	Percent Removal	Recent data from plant experience. Are the removal efficiencies much better than in Regulatory Guides?
Dynamic Adsorption Coefficients for Charcoal	cm ³ /g	Measurements based on recent operating reactor charcoal delay systems.
Flow Rates into the Liquid Radwaste Systems	Gallons/day	From various systems that input to Radwaste
Radionuclides in Untreated Detergent Waste	Ci/month	Measurements based on recent operating experience.
Demineralizer Regeneration Cycle	days	Recent operating experience
Tritium Releases	Ci/year	Effluent Monitoring data based on power level
Decontamination Factors for Demineralizers, Evaporators, Filters, Reverse Osmosis Units	Reduction Factor by radionuclide	Recent data from plant experience. Are the removal efficiencies much better than in Regulatory Guides?
Frequency and Extent of Unplanned Liquid Releases	Events/year, Ci/event	Recent Operating Data
Carbon -14 Release	Ci/year	Recent measurement data from operating plants
Argon – 41 Release	Ci/year	Recent measurement data from operating plants