

## **APPENDIX C**

### **RADIONUCLIDE AND CHEMICAL NOMENCLATURE**

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**Table C.1. Nomenclature for elements and chemical constituents**

Constituent	Symbol
Aluminum	Al
Ammonia	NH <sub>3</sub>
Antimony	Sb
Arsenic	As
Barium	Ba
Beryllium	Be
Cadmium	Cd
Calcium	Ca
Chromium	Cr
Cobalt	Co
Copper	Cu
Iron	Fe
Lead	Pb
Lithium	Li
Magnesium	Mg
Manganese	Mn
Mercury	Hg
Nickel	Ni
Nitrogen	N
Nitrate	NO <sub>3</sub>
Nitrite	NO <sub>2</sub>
Phosphorus	P
Phosphate	PO <sub>4</sub>
Potassium	K
Selenium	Se
Silver	Ag
Sodium	Na
Sulfate	SO <sub>4</sub>
Sulfur dioxide	SO <sub>2</sub>
Thallium	Tl
Uranium	U
Vanadium	V
Zinc	Zn

**Table C.2. Nomenclature and half-life for radionuclides**

Radionuclide	Symbol	Half-life (years)
Americium-241	$^{241}\text{Am}$	432.2
Neptunium-237	$^{237}\text{Np}$	2,140,000
Plutonium-238	$^{238}\text{Pu}$	87.75
Plutonium-239	$^{239}\text{Pu}$	24,100
Plutonium-240	$^{240}\text{Pu}$	6,569
Technetium-99	$^{99}\text{Tc}$	213,000
Uranium-233	$^{233}\text{U}$	159,200
Uranium-234	$^{234}\text{U}$	244,500
Uranium-235	$^{235}\text{U}$	703,800,000
Uranium-236	$^{236}\text{U}$	23,415,000
Uranium-238	$^{238}\text{U}$	4,468,000,000

Source: *Radioactive Decay Tables: A Handbook of Decay Data for Application to Radioactive Dosimetry and Radiological Assessments* (DOE/TIC-11026), as reported in the *Oak Ridge Reservation Annual Site Environmental Report for 2005* (DOE/ORO-2218).