

# Radionuclides

Radionuclides are radioactive forms of elements that can occur naturally in the environment or are man-made, either deliverability or as byproducts of nuclear reactions.

## [Attenuation Processes for Metals and Radionuclides \(APMR-1\)](#)

### **Section 2 (Physical Processes, Site Characterization, and Modeling Approaches)**

Identifies the geochemical processes that govern the environmental behavior and fate of metals and radionuclides at sites where monitored natural attenuation (MNA) is being considered as a remedial alternative.

## [Radionuclides \(RAD-2\)](#)

### **Section 2.2 (Categories of Radioactive Materials), pages 4-5**

Describes the major categories of radioactive materials as defined in DOE's Radioactive Waste Management Manual (DOE, 2001).

## [Attenuation Processes for Metals and Radionuclides \(APMR-1\)](#)

### **Section 2.1.2 (Aqueous Speciation) through 2.1.7 (Geochemical Gradients), pages 12-22**

Good General description of pH, ORP, eH and how that impacts groundwater plumes.