

Hot Particles in the Environment

Radionuclides in the environment are often observed in particulate form. This aerosol material collected in an air filter will contain a multitude of particles, both ambient particles and particles that contain radioactive material. The amount of radioactivity in each hot particle is a function of its method of formation. Different types of nuclear explosions will create a different particle distribution. These differences can include particle size, elemental distribution in the particles, location of the radioactivity on the particle, and shape of the particles. Many of these properties of hot particles will affect how they transport in the environment which will make them available for collection at aerosol collection stations. Examples of these hot particles from nuclear explosions will be shown and discussed along with the implications they create for sample processing and filter splitting for verification of IMS detections in radionuclide laboratories. E.C. Freiling, Radionuclides in the Environment: A Symposium, Vol. 93, DOI 10.1021/ba-1970-0093, 1970, American Chemical Society

Primary author: FRIESE, Judah (Pacific Northwest National Laboratory)

Presenter: FRIESE, Judah (Pacific Northwest National Laboratory)

Track Classification: Theme 1: The Earth as a Complex System