

Tritium – What is the Real Background and Other Issues

John Doroski
Dominion Nuclear Connecticut – Millstone Station

ABSTRACT

Tritium has become an important radionuclide due to its mobility and need to protect the ground water from contamination. Unfortunately there are some misconceptions as to the real background and other issues that the nuclear industry should be well aware. This paper will discuss these issues, which include:

- What is the real background level of tritium – how much is due to nuclear bomb testing
- Various sources of information on background levels of tritium
- Global recycling models
- NUREG 1301 LLD
- NUREG 1301 sampling guidance –refuel cavity water
- ISFSI cask transfers
- Bubbler and other sampling “problems”
- Rainfall and condensation
- Various Nuclear Industry OE

The recent implementation of the ground water protection initiative has resulted in significant additional sampling of ground water at many sites. As such it is important to be aware of these issues to better understand potential site tritium contamination.