

Class Descriptions

DOE-STD-5506

Preparation of Safety Basis Documents for Transuranic (TRU) Waste Facilities provides detailed guidance for consistently analyzing hazards and selecting controls for TRU waste activities. This training class will cover the details of DOE-STD-5506-2021 with a focus on changes from the previous version. However, the entire standard will be discussed, and questions associated with the implementation of the standard to specific situations will be included.

MicroShield for Nuclear Facility Safety Use

MicroShield is a User-friendly computer program often used for radiation shielding design, dose forecasting, radiological inventory estimates, characterization of waste and materials for transport and disposition using dose-to-curie, assignment of values to accident scenario parameters, decay heat estimates, and for many other nuclear industry uses. This training will focus on usage for nuclear facility safety, including an introduction to the software's primary features, an overview of the program options, the sources of error, the limitations, and will address some novel examples of potential applications. Some historic real-world cases used to successfully support nuclear facility safety will also be described.

DOE-STD-1189 – Integration of Safety into the Design Process

This class will start with an overview of the Standard followed by lessons learned applying the Standard to capital projects.

Bridging the Gap Between Engineering and Nuclear Safety Practitioners

Why does engineering produce a Design Change Notice and nuclear safety has to produce an Unreviewed Safety Question Determination for it? In defending the safety function for a design feature nuclear safety wants to credit, engineering has to create a supporting [documentation](#). These are just two examples of how engineering and nuclear safety have to work together to produce a single product for the projects we commonly support. [This](#) class is designed to begin develop an understanding and appreciation of the roles and responsibilities both entities play in supporting projects.

Accident Analysis and Dispersion Modeling

This 3.5-hour course covers the accident analysis (AA) process with an emphasis on atmospheric dispersion modeling. Its terminal objective is to enable Safety Basis (SB) analysts to understand the relationship of atmospheric dispersion modeling within the context of the AA process at the Los Alamos National Laboratory (LANL).

There are 6 modules in the accident analysis and dispersion modeling course:

1. Course Overview
2. Radiological and Toxic Chemical Accident Analysis
3. Radiological Dose and Toxic Chemical Accident Consequences
4. Atmospheric Dispersion Principles and Meteorological Data
5. Meteorological Data Inputs to Atmospheric Dispersion Modeling
6. MACCS/POSTMAX Modeling Inputs and Assumptions