

Clarification of Safety Basis Topics from DOE-STD-5506-2007
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DOE-STD-5506-2007, *Preparation of Safety Basis Documents for Transuranic (TRU) Waste Facilities*, was issued in April 2007. This Standard provides analytical assumptions and methods, as well as hazard controls to be used when developing safety basis documents for TRU waste facilities, supplementing the applicable 10 CFR 830 Subpart B "safe harbor method" such as DOE-STD-3009-94, *Preparation Guide for U.S. Department of Energy Nonreactor Nuclear Facility Documented Safety Analyses*.

As with any new guidance document, questions typically arise regarding specific implementation challenges or intent of the Standard. The authors of this paper were also contributors to the development of Standard 5506 and support the review of TRU waste safety basis documents at numerous DOE TRU waste sites. These authors have been periodically contacted and requested to offer their personal opinions in response to questions from DOE sites upgrading their TRU safety basis documents.

This paper will share the authors' experiences in implementing the Standard and responding to questions about the Standard. A few examples include:

- Anomalies with the statistical Material-at-Risk (MAR) approach (e.g., situations that can skew data)
- Container deflagration source term factors related to contaminated plastics
- Clarifications to damage Ratios (DRs) used in certain accidents and containers
- Application of the risk ranking Table 6.2-2 for hazard control selection
- Reconciling 25 rem Evaluation Guideline discussions in DOE-STD-5506 vs. DOE-STD-1189

DOE field sites can benefit from a discussion of ongoing communications and experiences related to the standard. This will also foster discussion of shared site experiences.