

Status Update on the 10 CFR Part 61 Low-Level Radioactive Waste Disposal Rulemaking:

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Overview

- Initial Commission Direction
 - SRM-SECY-08-0147 (March 2009)
 - SRM-SECY-10-0043 (October 2010)
 - SRM-COMWDM-11-0002-
COMGEA-11-0002 (January 2012)
- Final Commission Direction
 - SRM-SECY-13-0075 (February 2014)
- Current Rulemaking Status



Commission Direction

- SRM-SECY-08-0147:
 - Require site-specific analysis for disposal of large quantities of DU
 - Specify the technical requirements required for the site-specific performance assessment
 - Develop regulatory guidance to assist licensees and applicants in completing the new requirement
- SRM-SECY-10-0043:
 - Incorporate blending issue into the existing rulemaking for DU



AEA (civilian) LLW Disposal Site



Draft Rule Text

- Developed Initial Draft Rulemaking Package (Fall 2011)
 - Performance assessment requirement for the protection of general population (10 CFR 61.41)
 - 20,000-year period of performance (quantitative)
 - Post 20,000-year evaluation to peak dose
 - Intruder assessment requirement for the protection of inadvertent intruder (10 CFR 61.42)
 - 500 mrem dose limit to intruder



Commission Direction

- SRM-COMWDM-11-0002/COMGEA-11-0002
 - Flexibility to use current International Commission on Radiological Protection (ICRP) dose methodologies
 - Two-tiered period of performance:
 - *Tier 1*: Compliance period covering reasonably foreseeable future
 - *Tier 2*: Longer period based on site characteristics and peak dose to a designated receptor, that is not *a priori*
 - Flexibility to establish site-specific waste acceptance criteria (WAC) based on the results of the site's performance assessment and intruder assessment
 - Balance Federal-State alignment and flexibility with respect to compatibility



SECY-13-0075

- Revised Draft Proposed Rule Package Draft proposed rule and accompanying guidance document provided to Commission: July 2013
 - Performance assessment requirement for the protection of general population (10 CFR 61.41)
 - 10,000-year period of performance (quantitative)
 - Post 10,000-year evaluation to peak dose
 - Intruder assessment requirement for the protection of inadvertent intruder (10 CFR 61.42)
 - 500 mrem dose limit to intruder
 - Requirement to develop site-specific WAC based on the site-specific analyses or waste classification tables



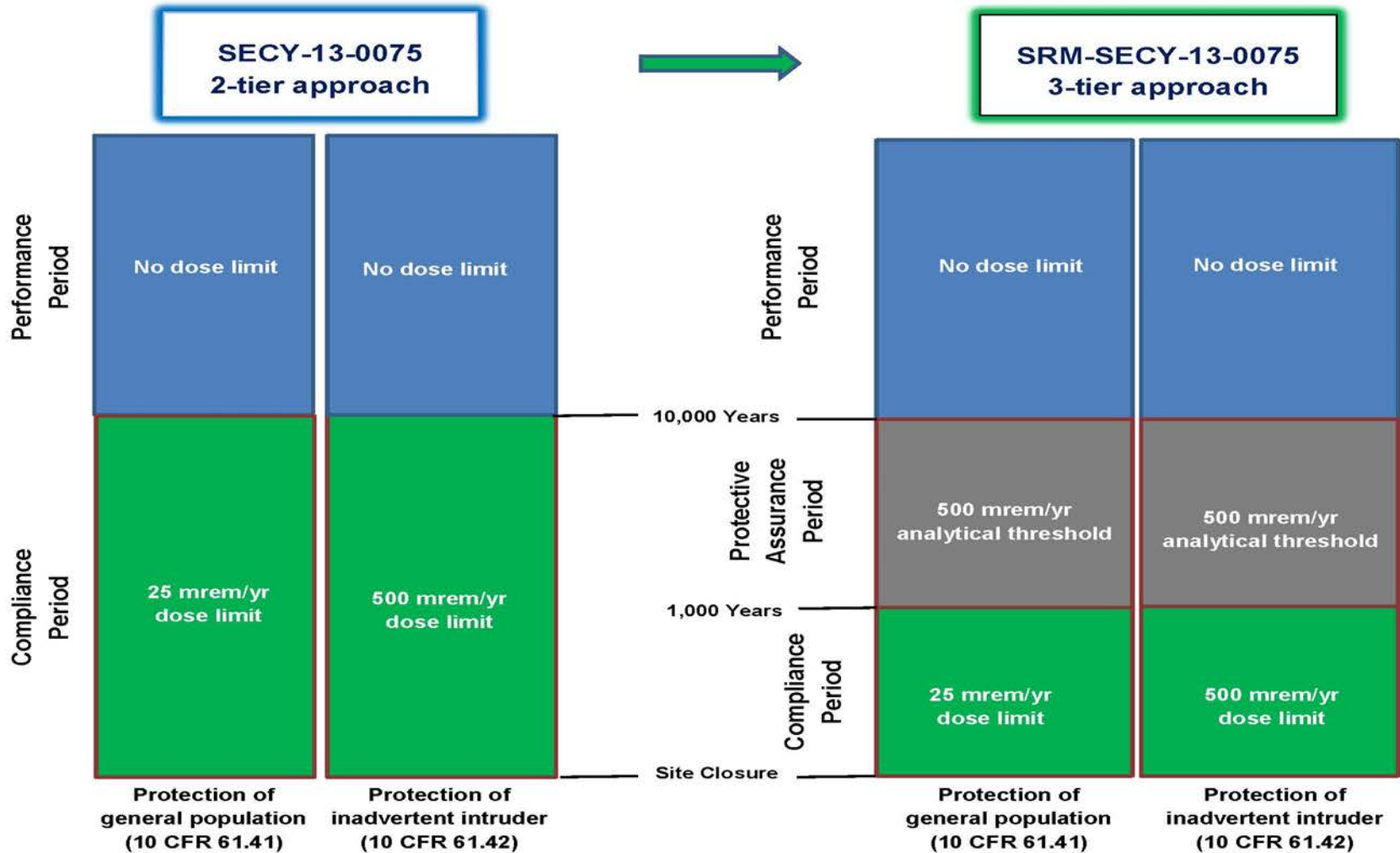
SRM-SECY-13-0075

- Commission issued SRM-SECY-13-0075 on February 12, 2014 (ADAMS ML14043A371) that identified 15 items (comments and changes)
- Comments can be grouped as follows:
 - Period of performance (SRM items 1,4,7,and 8)
 - Safety case and defense-in-depth protections (SRM item 9)
 - Intruder assessment (SRM items 3 and 6)
 - Agreement State compatibility (SRM item 2)
 - Outreach (SRM items 5, 10, 11, and 12)
 - Other (SRM items 13, 14, and 15)
- Provide revised draft proposed rule by February 2015.
 - Requires proposed rule language change from SECY-13-0075



SRM: Period of Performance

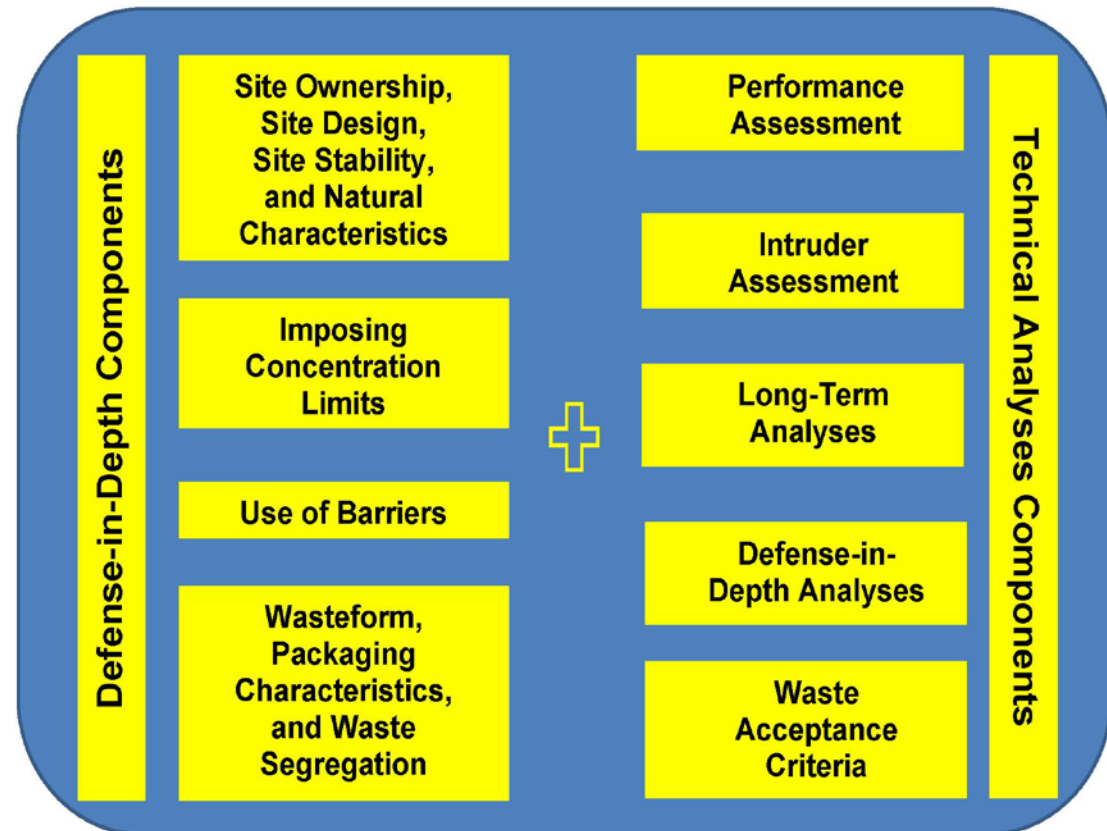
Commission directs the staff to include three tiers:



SRM: Safety Case and Defense-in-depth

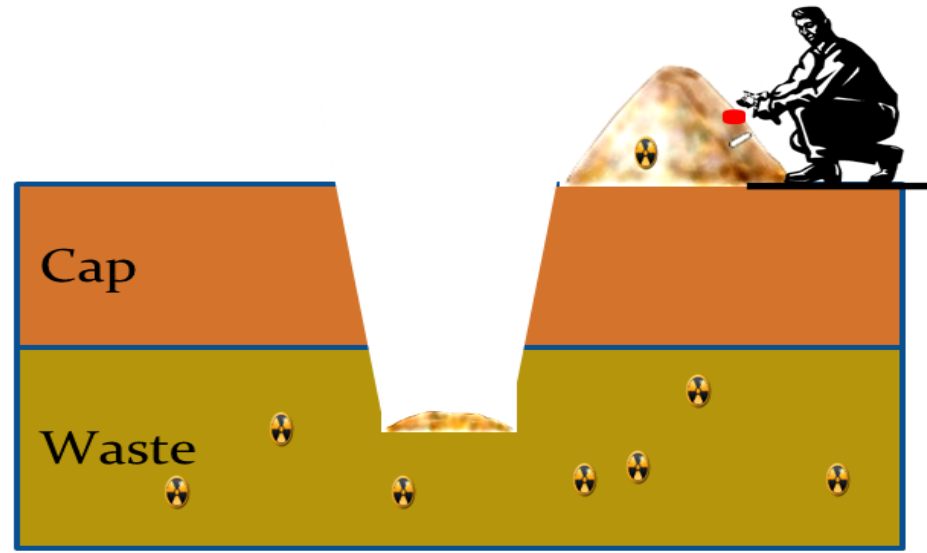
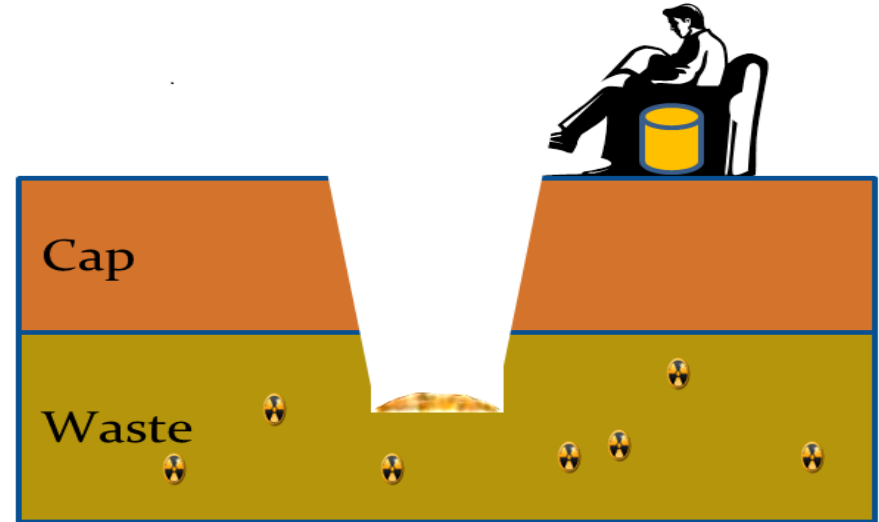
- Proposed rule should include discussion of safety case and defense-in-depth (DID) protections
- Explain how the combination of DID and performance assessment should be used to support licensing decision, and make conforming changes throughout the rulemaking package

Safety Case (for long-term safety) in 10 CFR Part 61



SRM: Intruder Assessment

- Require a 10,000 year intruder assessment analysis
- Based on intrusion scenarios that are realistic and consistent with expected activities in and around the disposal site at the time of site closure



Next Steps

February 2014

SRM-
SECY-
13-0075

- Revise draft proposed rule
- Revise guidance document

Commission

- Submit to Commission
- Prepare for public comment

February 2015

Outreach

- Meetings and comments
- Review guidance with stakeholders

March 2015