

# NRC's Key Topics in Low-Level Waste: 10 CFR Part 61

March 7, 2017  
WM2017 Symposia: Panel 061  
Major Changes Made in the  
Final Rule  
Phoenix, Arizona

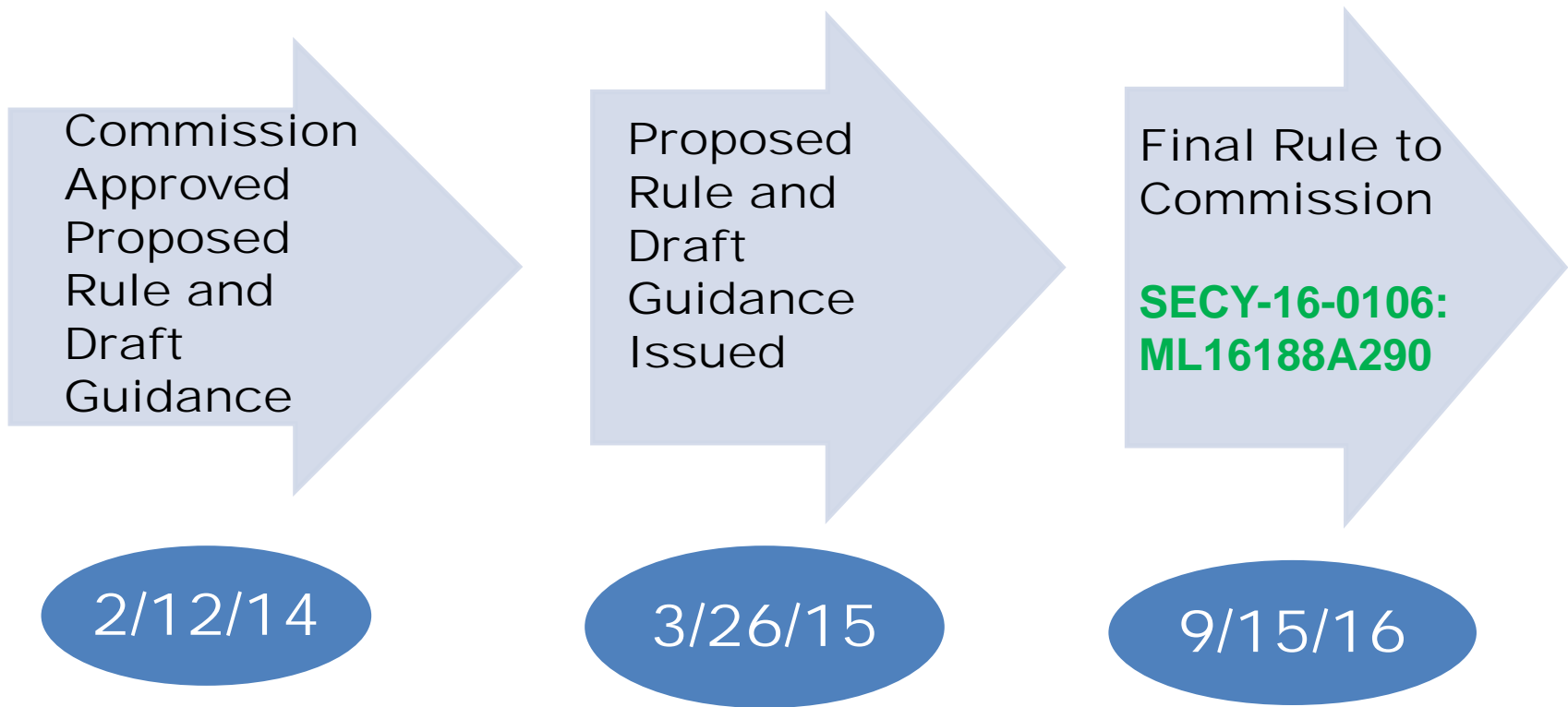
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Office of Nuclear Material Safety and Safeguards  
(NMSS)

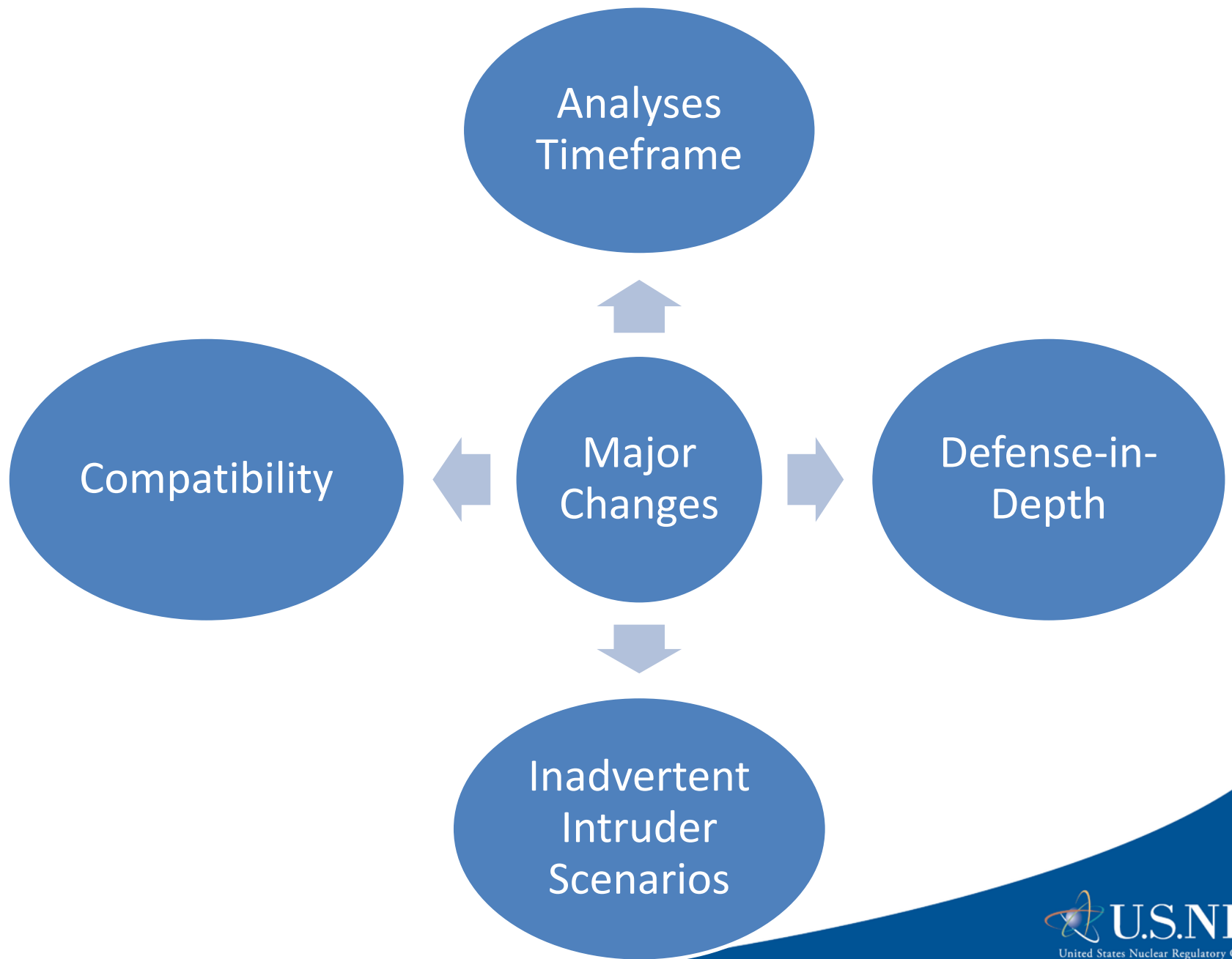
# Overview

- Status of rulemaking
- Discuss major changes in the final 10 CFR Part 61 rule
  - Changes to the analyses timeframe
  - Requirements for demonstrating defense-in-depth
  - Inadvertent intruder scenarios
  - Compatibility
- Next steps



# Where are we now?





# What were the previous analyses timeframes?

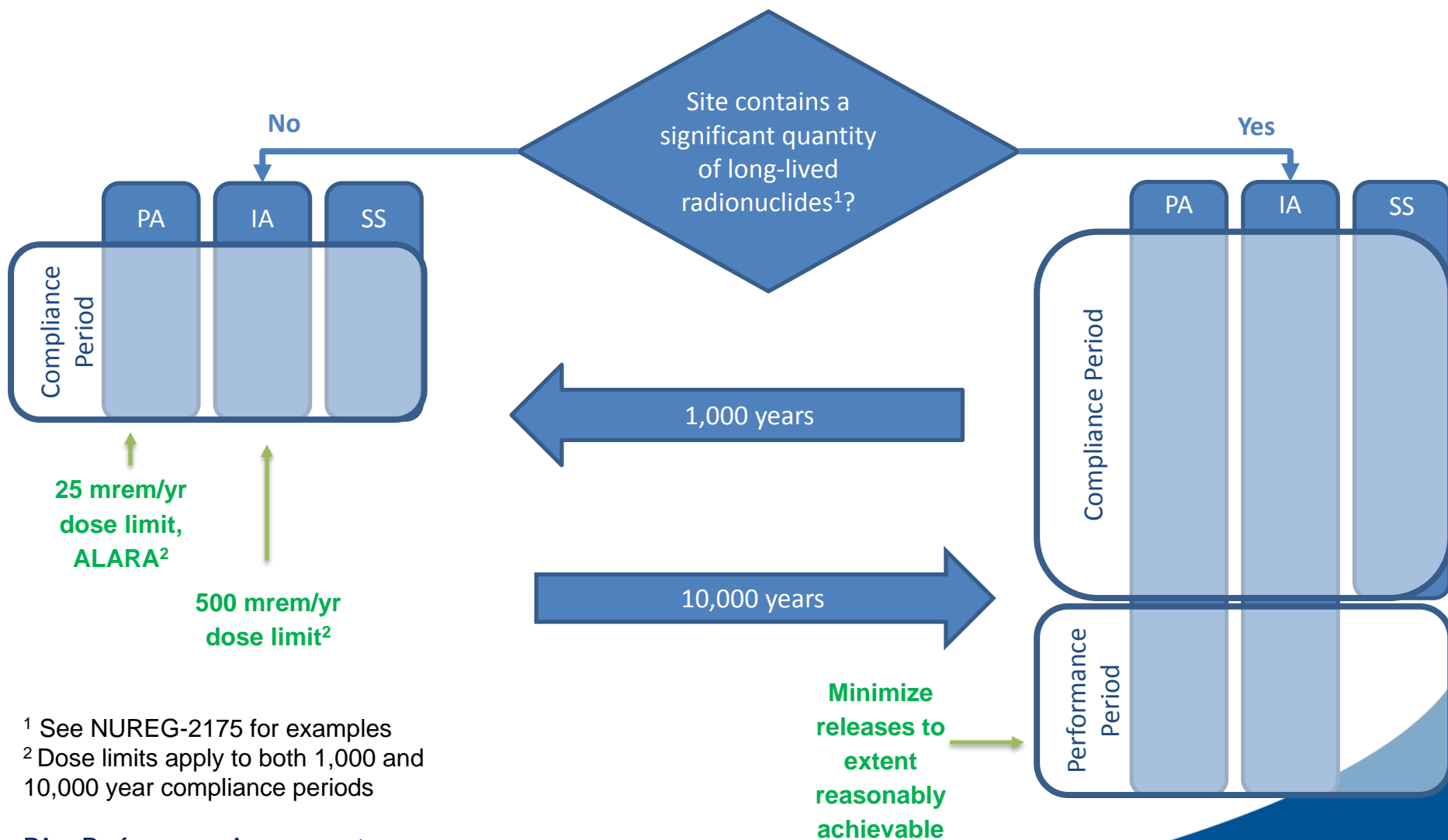
Performance Period <sup>1</sup>	Minimize to extent reasonably achievable	Minimize to extent reasonably achievable
	10,000 Years	10,000 Years
Protective Assurance Period	Minimize to 500 mrem/yr target or other	Minimize to 500 mrem/yr target or other
	1,000 Years	1,000 Years
Compliance Period	25 mrem/yr dose limit, ALARA	500 mrem/yr dose limit
	Site Closure	Site Closure
	Protection of general population (10 CFR 61.41)	Protection of inadvertent intruder (10 CFR 61.42)

SRM-SECY-13-0075  
3-tier approach

Increasing uncertainty, flexibility to licensees and decision makers

<sup>1</sup> Only applicable if concentrations on a facility-averaged basis are above 10 CFR 61.13(e) Table A

# What are the proposed analyses timeframes?



<sup>1</sup> See NUREG-2175 for examples

<sup>2</sup> Dose limits apply to both 1,000 and 10,000 year compliance periods

PA = Performance Assessment

IA = Inadvertent Intruder Assessment

SS = Site Stability Analyses

# Major Changes in the Final Rule

## **Defense-in-Depth**

**§ 61.13 Technical Analyses** needed to demonstrate that the performance objectives of subpart C of 10 CFR Part 61 have been met



**§ 61.12 Specific Technical Information** required which supports the safety case

**§ 61.13(f)** Analyses that demonstrate the proposed disposal facility includes defense-in-depth protections



**§ 61.12 (o)** Identification of defense-in-depth protections, including a description of the capability of each defense-in-depth protection relied upon to maintain safety and a basis for the capability of each defense-in-depth protection

# Major Changes in the Final Rule

## *Inadvertent Intruder Scenarios*

### § 61.13 (b)(3)(i)

...reasonably foreseeable pursuits that are consistent with activities in and around the site at the time of closure...



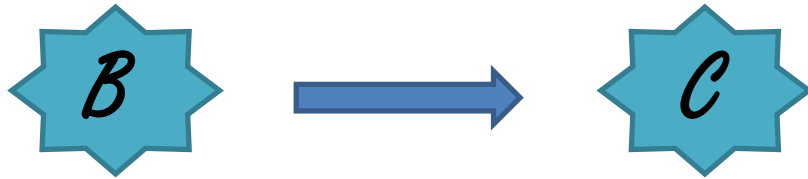
### § 61.13 (b)(1)

...reasonably foreseeable pursuits that are consistent with the activities and pursuits occurring in and around the site at the time of development of the inadvertent intruder assessment...



# Major Changes in the Final Rule

## Compatibility

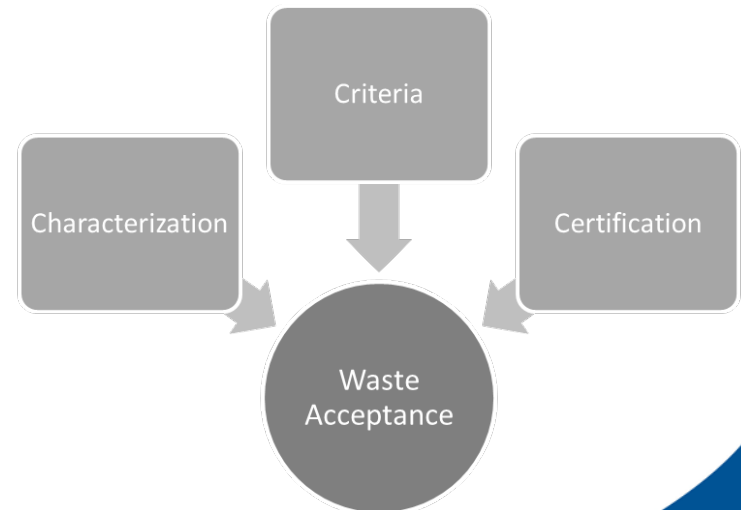


### § 61.2 Definitions

#### Compliance period

- means the time from the completion of site closure to 1,000 years after site closure for disposal sites that do not contain significant quantities of long-lived radionuclides.
- For disposal sites that contain or plan to accept significant quantities of long-lived radionuclides, the compliance period ends at 10,000 years after closure of the disposal site

### § 61.58 Waste Acceptance



# What is the Schedule?



Note: Timelines are approximate

# Questions?

