

Fuel Cycle Cyber Security Rulemaking

Cumulative Effects of Regulation Meeting

March 29, 2017

Acronyms used in this presentation

- ACRS: Advisory Committee on Reactor Safeguards
- DG-5062: Draft Regulatory Guide, “Cyber Security Programs for Nuclear Fuel Cycle Facilities”
- DI&C SC: Digital Instrumentation and Control Systems Subcommittee of ACRS
- NEI: Nuclear Energy Institute
- NRC: U.S. Nuclear Regulatory Commission
- OEDO: NRC’s Office of the Executive Director of Operations
- SECY: NRC’s Office of the Secretary

Agenda

- **Recent progress: August 2016 – March 2017**
 - Public meeting on August 25, 2016
 - Public meeting on October 12, 2016
 - NEI letters in October 2016
 - ACRS DI&C SC meeting November 2, 2016
 - ACRS DI&C SC meeting February 23, 2017
- **Overview of the upcoming schedule**
 - ACRS full committee meeting May 4, 2017
 - Proposed rule package & DG-5062
 - Standard review plan & Inspection procedure
 - Final rule package & Regulatory Guide

Public meeting on August 25, 2016

- Draft proposed rule text (ML16221A082) and preliminary DG-5062 (ML16221A084) provided for discussion
 - Resulting changes to proposed rule
 - Focus on functions that prevent a consequence of concern
 - “Countermeasures to address cyber security controls” are now “measures taken to address the performance specifications associated with cyber security controls”
 - Prior NRC approval needed for a change that decreases the effectiveness of the cyber security plan
 - Annual review of cyber security program for Category I fuel cycle licensees, triennial for all others
 - Notification required within 1 hour of discovery that an event is result of a cyber attack
 - Resulting changes to DG-5062
 - List of 123 specific comments received during the meeting
 - Additional discussion on cyber security controls is planned for formal comment period
- Meeting summary issued (ML16271A019)

Public meeting on October 12, 2016

- Cost estimates of the proposed rule provided by NRC and NEI
 - NEI cost estimates exceeded the NRC's by roughly a factor of 6
 - Significantly different estimates for:
 - development of the cyber security plan;
 - analysis of digital assets;
 - documentation of controls;
 - implementation of hardware and training; and
 - maintenance of the program over time
- Meeting summary issued (ML16306A050)
- NRC staff has re-evaluated their costs estimates and plans to formally present them in the draft regulatory analysis
- Current DG-5062 may help clarify regulatory burden

NEI letters in October 2016

- October 19, 2016 (ML16315A290) and October 26, 2016 (to ACRS) letters provided feedback on cyber security at fuel cycle facilities
 - Policy issues regarding:
 - Cyber security requirements for licensees not subject to design basis threats; and
 - Impact of PRM-73-18
 - Cost estimates for:
 - Implementing the cyber security program;
 - Developing the cyber security plan;
 - Analysis of digital assets; and
 - Addressing controls for vital digital assets
 - Burden for screening digital assets
 - Recognition of accredited, unclassified systems
 - Regulatory pathway for licensees with no vital digital assets
- NRC staff is considering feedback and has made some changes to DG-5062 and the draft proposed rule package

ACRS DI&C SC meeting November 2, 2016

- Preliminary draft proposed rule language and revised preliminary DG-5062 provided for discussion (ML16273A130)
- ACRS DI&C SC provided several specific comments, mostly related to DG-5062
- Meeting transcript available (ML16327A150)
- NRC staff addressed comments in preparation for ACRS DI&C SC meeting on February 23, 2017

ACRS DI&C SC meeting February 23, 2017

- Draft proposed rule package (not publicly available - predecisional) and revised preliminary DG-5062 (ML17031A018) provided for discussion
- ACRS DI&C SC provided several specific comments on DG-5062
 - Describe how existing licensee plans and analyses can eliminate portions of a facility from cyber security considerations
 - Describe the benefits of air-gaps and data diodes
 - Discuss any allowances on reporting/tracking timeframes
- Meeting transcript being processed
- NRC staff working to address comments in preparation for ACRS full committee meeting on May 4, 2017

Questions recent progress: August 2016 – March 2017?



ACRS full committee meeting

May 4, 2017

- All background documents must be publicly available
- NRC staff plan to provide the latest preliminary DG-5062 and draft proposed rule package marked as “predecisional to support the ACRS meeting and not to solicit external stakeholder feedback”
 - Draft SECY paper
 - Draft *Federal Register* notice
 - Draft Regulatory Analysis
 - Draft Backfit Analysis
 - Draft Environmental Assessment
- Rulemaking will remain ongoing and changes may occur during the review by senior NRC management
- NRC staff anticipates ACRS sending a letter to the Commission with recommendations for DG-5062 and the proposed rule package

Proposed rule package & DG-5062

OBJECTIVES	TARGET DATES	SECY DATES
Proposed rule package to OEDO	05/12/17	05/16/17
Draft regulatory guidance to OEDO	05/12/17	06/23/17

- Commission determines next steps
- Draft *Federal Register* notice would provide for a 75-day comment period (proposed rule package and DG-5062) and at least one public meeting during that timeframe to solicit comments

Standard review plan & Inspection procedure

- Standard Review Plan or Interim Staff Guidance (not yet developed)
 - Acceptance criteria for NRC staff to review the cyber security plan
- Inspection Procedure (not yet developed)
 - Objectives for NRC inspectors to evaluate implementation of the cyber security plan

Final rule package & Regulatory guide

OBJECTIVES	TARGET DATES	SECY DATES
Final rule package to OEDO	04/01/18	06/11/18
Final regulatory guidance to OEDO	04/01/18	10/23/18

Questions on the overview of the upcoming schedule?

