

Industry Implementation Schedule

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Public Webcast: 10 CFR 50.46c Implementation

May 7, 2015

Purpose

- Identify Fleet Implementation Schedule
 - Latest Incarnation
 - Step Change from April 23 2015 Schedule
 - Living Document
 - Updated as circumstances firm-up
 - Assumptions
 - Based in Part on NEI Draft Rule Comment Package
 - Public Meeting Discussions

Assumptions *(Relative to Draft Rule)*

- With Respect to the Rule:
 - Base Line is Draft Rule from Federal Register Notice
 - Base Line Delta's:
 - Long Term Cooling remains consistent with current rule
 - Existing methodology supplements only address explicit changes relative to the existing rule language
 - “New” methodologies encompass entire new rule language

Assumptions *(Relative to Draft Rule)*

- With Respect to the Rule: *(continued)*
 - Base Line is Draft Rule from Federal Register Notice
 - Base Line Delta's:
 - Breakaway Oxidation testing to become integrated into Vendor manufacturing / quality programs
 - Establish criteria for methodology application
 - Allowance for fuel manufactured prior to vendor program

Assumptions *(Relative to Draft Rule)*

- With Respect to the Rule: *(continued)*
 - Base Line is Draft Rule from Federal Register Notice
 - Base Line Delta's:
 - Resolution of debris related issues (e.g., GSI-191), whether by deterministic or risk-informed approach, addressed per existing owners group programs
 - Handled outside of 50.46c implementation
- No Additional Draft Rule Publication to FRN

Assumptions *(Schedule)*

- May 7 Schedule:
 - More Complete Utilization of Licensee Survey Feedback
 - Base Line January 1, 2015
 - FRN Notice of Final Rule April 1, 2016
 - Two Phases
 - Completing Methods and Programs Development
 - Docketing of Licensee Submittals

Assumptions *(Schedule)*

- May 7 Schedule: *(continued)*
 - Hydrogen Pickup Models
 - Vendor Specific
 - Capture Mechanical Design Updates
 - LAR Staggering for Each Vendor
 - Level of Effort (LOE)
 - Level 1: Post-processing existing analysis
 - Level 2: New, limited confirmation analyses
 - Level 3: Full re-analyses
 - Large vs Small Break LOE Breakdown where Applicable
 - Capture Contract Date
 - Vendor resource development lead time (in progress)

Results

- Significant Times
 - FRN Rule Publication: April 1, 2016
 - First Vendor Submittal: June 2016
 - Final Method Packages in Place: ~Nov. '17-May '18
 - Initial LAR Submittal: December 2018
 - First LAR SE Issued: April-May 2019
 - Last LAR Submittal: May-June 2020
 - Full Fleet Compliance: May-June 2022

Open Issue

- Compound “*Compliance*”
 - LOCA Internal to Another LAR
 - Example: Fuel Design Change
 - (potentially impacting ~30 units over 60 months)
 - Assumed 3 yr. Advance Timing
 - 1 yr. for LOCA component of LAR; 2 yrs. for NRC review.
 - Final FRN creates discontinuity in LAR preparation.
 - Schedule methods ready date implies earliest fuel change could be ~2021.
 - Fuel Change LAR Limbo
 - 2 yrs. between FRN and acceptable methods being available.
 - FRN + 3 yrs. or earlier submittal potentially fails LIC-109 review.
 - 50.46c package effectively delays fuel change by acting as LAR supplement.
- Potential Fuel Supply Issue



