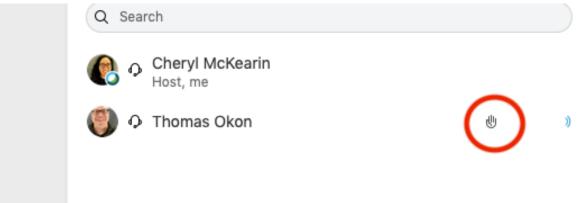
# NRC/NEI Public Meeting on Enhancements to the License Termination Process October 30, 2020

The meeting will start shortly.

This is a WebEx Event – you will <u>not</u> be able to unmute yourself during the meeting.

To be unmuted, please indicate you would like to speak by contacting the host in the chat window or "raise your hand" by clicking the icon shown below. The host will notify you when your line is open.

- 1. Find your name on the participant list, and hover over your name. A **Raise Hand** icon will appear.
- 2. Click on the **Raise Hand** button which will place a small hand icon next to your name in the participant list.



3. Click on the **Lower Hand** button to withdraw the request.

If you are having connection difficulties, consider calling into WebEx using the below information:

1-415-527-5035 - access code 199 026 9898





# Risk-Informing the Decommissioning Program

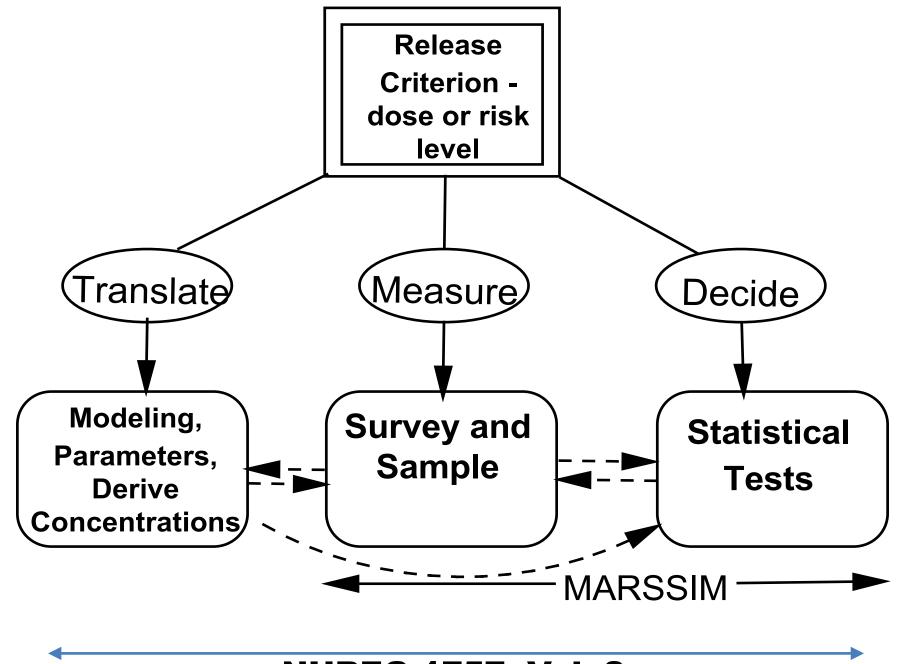
Patricia Holahan, Director
Division of Decommissioning, Uranium Recovery, and
Waste Programs

October 30, 2020

# 10 CFR 20.1402



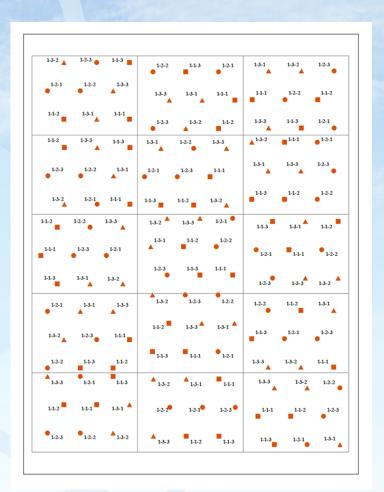
 A site will be considered acceptable for unrestricted use if the residual radioactivity that is distinguishable from background radiation results in a TEDE to an average member of the critical group that does not exceed 25 mrem (0.25 mSv) per year, including that from groundwater sources of drinking water, and the residual radioactivity has been reduced to levels that are as low as reasonably achievable (ALARA)....



# MARSSIM, Revision 2



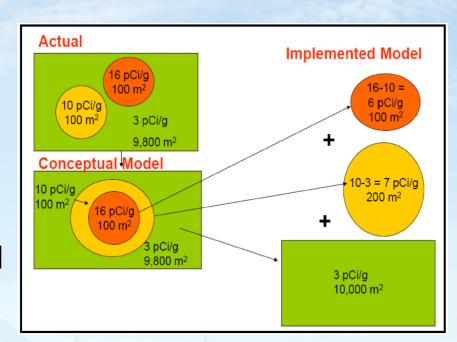
- First update since 2000
- Updates that increase flexibility
  - Scan only surveys
  - Rank set sampling
  - Scenario B (assumes release criteria are met)
  - Consideration of elevated areas



# NUREG-1757, Volume 2, Revision 2



- First update since 2006
- Updates that increase flexibility
  - Composite sampling
  - Scenario B (assumes release criteria are met)
  - Consideration of elevated areas
  - Subsurface surveys



Enhancing the License Termination Process

**NRC Public Meeting** 

October 30, 2020





### Enhancing the License Termination Process



#### Agenda:

#### **Topic**

Welcome and Introduction

- I. Opportunities
- II. Objectives
- III. LTP Guidance
- IV. Final Status Survey (FSS) Guidance
- V. Licensee-NRC Communication
- VI. Enhance Role of Independent Oversight
- VII. Next Steps

#### Speaker

**Bruce Montgomery** 

Gerry Van Noordennen

Gerry Van Noordennen

Sarah Roberts

Ron Cardarelli, Willie Harris

Bill Barley

Bill Barley

Bruce Montgomery

# NEI's Role in Decommissioning



NEI Board-Level Task Force on Decommissioning:

Mission: ...to enable the success of decommissioning projects by providing timely input and guidance on decommissioning-related policy, state/local community engagement, regulatory, legislative and legal issues, enabling NEI to most effectively respond to high-impact, highly-visible, and potentially contentious issues.

Members: CEO's from four major nuclear utilities, and four major decommissioning companies

#### NEI's Role in Decommissioning (continued)



# **NEI Decommissioning Working Group**

Mission: ...a forum for consideration of matters related to the advance planning and execution of decommissioning activities from cessation of operations through license termination.

#### Eight areas of focus:

Policy	Used Fuel
Best Practices	Low Level Waste
Regulatory Framework	International
Licensing Activities	Public Outreach

#### NEI's Role in Decommissioning (continued)



# **NEI Decommissioning Working Group**

Mission: ...a forum for consideration of matters related to the advance planning and execution of decommissioning activities from cessation of operations through license termination.

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Regulatory Framework	International
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# I. Opportunities:



- License termination plan content, consistency and quality
- Volume and types of FSS data to support reviews
- Role of independent surveys and quality assurance programs
- Communication between licensees, NRC HQ and Regions
- Risk informing the process: Maintain a focus on safety significance and environmental stewardship

# II. Objectives:



- Develop industry guidance for format and content of license termination plans, including:
  - Implementation of MARSSIM, Rev. 2, and
  - Application of guidance in existing regulatory guides and NUREGs.
- Focus and align Final Status Surveys (FSS) and reports on the objectives stated in the license termination plan.
- Improve industry coordination with NMSS reviewers, regional inspectors, and independent oversight.

#### III. LTP Guidance



- Develop a "Crosswalk" between LTP and NRC Standard Review Plan (NUREG-1700) to improve up-front understanding and interpretation of guidance/regulatory documents:
  - MARSSIM (NUREG-1575) is a "guidance" document that allows for flexibility in the Final Status Survey Plan (FSSP).
  - Section 4 of NUREG-1757, Vol. 2 (Ref. 6) describes the evaluation criteria for the FSSP.
  - Include NRC Technical Reviewers for review and implementation of the LTP (in particular the FSSP).

#### III. LTP Guidance (continued)



# Defining Bounding Requirements for Compliance Dose Estimates

- Define a "reasonable" bounding evaluation for dose impacts:
  - Apply Risk Informed Decision Making to define extent of technical evaluation required when resulting additional dose when resulting dose is small (e.g., < 1 mrem) and final compliance dose not approach defined criteria (e.g., 25 mrem).
  - Include this guidance in the crosswalk for both licenses and NRC reviewers.
  - Consider adding the additional dose without extensive studies/paperwork.

#### III. LTP Guidance (continued)



# Release Limits for Large Sites:

- Allow use of Screening Values for Structures and Surface Soils included in Appendix H of NUREG-1757:
  - Subsurface soil, buried pipe, buried concrete, etc. screening values currently not available.
  - Do not include groundwater dose contribution.
  - Applicability to large sites?
- Consider approval of DCGLs in advance of full LTP approval (to remove potential for "at risk" work).

#### III. LTP Guidance (continued)



### **Environmental Impact Reviews:**

- Chapter 8 of the LTP requires a Supplement to the ER: "NRC regulation 10 CFR 50.82(a)(9)(ii)(G) requires that the licensee submit a supplement to the ER, pursuant to 10 CFR 51.53, describing any new information or significant environmental associated with the proposed termination activities..."
- Subject to review by state and local stakeholders.
- Consider early submittal to expedite LTP approval process.

# IV. Final Status Survey (FSS) Report



#### Issues:

- FSS Report format not well defined.
- Number of submittals and RAIs is increasing.
- A very high volume of data is being exchanged.
- Duplicate sets of information are being submitted.

#### IV. FSS Report (continued)



# Develop industry guidance:

- A standard format and content (level of detail) for Final Status Survey (FSS)
   Reports, and
- A "communications protocol" to engage NRC Technical Reviewers early in the FSS process to achieve:
  - Alignment around LTP requirements;
  - In-process reviews of quality assurance and procedural requirements (hard-to-detect nuclides, insignificant contributors, instrumentation, investigation criteria, continuing characterization, subsurface contamination, DCGLs, etc.); and
  - Early identification of technical issues and expediency in the FSS report review process.

# V. Licensee-NRC Communications



- Engagement between licensees and NRC should be "early and often"
  - LTP development early in decommissioning;
  - Discussion of "outside" MARSSIM issues during development and implementation.
- Include region in routine communication with headquarters
  - Support to independent regional/ORISE oversight during more critical FSS survey performance.

#### V. Licensee-NRC Communications (continued)



# Regional/ORISE process support

- Regional RP Inspections:
  - FSS process reviews to support later HQ FSS report reviews, and
  - Augment an inspection with HQ reviewer.
- ORISE (Oak Ridge Institute for Science and Education):
  - Time an early FSS survey implementation visit to allow for improvement suggestions, and
  - Better align licensee survey methods with ORISE to prevent later "surprises" during ORISE confirmatory survey visits.

# VI.Enhance Role of Independent Oversight



- Recognize the role of licensee QA/QC program.
- Employ Regional Inspections "in process."
- Credit ORISE confirmatory measurements and split sampling.
- Perform "confirmatory" detailed review of first FSS report.

FSS reports should comprise results of process outputs vs. a compendium of inputs. Any deviations from process should be highlighted in 1<sup>st</sup> report.

# VII. Next Steps



- Define near-term vs. long-term objectives.
- Identify industry vs. NRC actions.
- Agree on deliverables and timeframes.

# Questions