

U.S. Nuclear Regulatory Commission Update

Part 1

Emergency Preparedness and Incident Response

Stephanie Coffin, Deputy Director
Division of Preparedness and Response
Office of Nuclear Security and Incident Response

Highlights

- Emergency Preparedness Activities and Initiatives
 - Licensing Activities
 - Transitions in Decommissioning
 - New Reactors
 - Operating Reactors
 - ISFSI's
 - Consolidated Interim Storage Facilities (CIS)
 - Medical Isotope Production Facility
 - EP Rulemaking
 - Decommissioning
 - Small Modular Reactor and Other New Technologies
- Incident Response Activities and Initiatives
 - IPX/Recovery Initiatives
 - NRC Response Program Improvements
 - NRC's International Response Communications/Information Exchange
 - RASCAL Update
 - Event Response Feedback

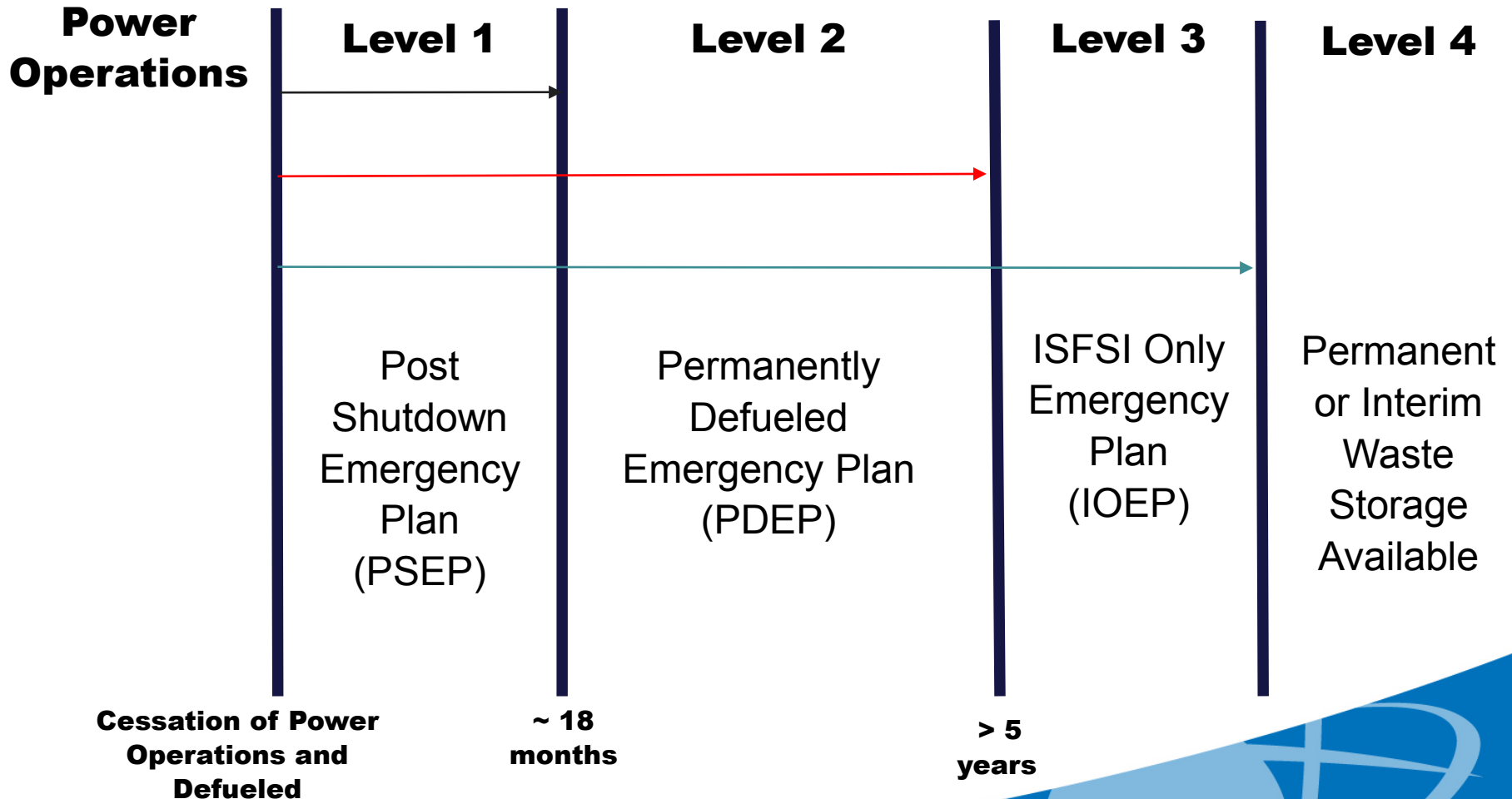
Emergency Preparedness Activities and Initiatives

2017 NEI Emergency Preparedness Forum
Savannah, GA

Joseph Anderson

Chief, Reactor Licensing Branch
Division of Preparedness and Response

EP Transitions in Decommissioning



Supporting EP Research Studies

(ADAMS ML16110A416)

- Three Tasks:
 - Analysis of Mitigative Actions
 - Spent Fuel Decay Time
 - Dose Rate of Accidental Radiological Release from Spent Fuel Pool

Decommissioning Rulemaking

Schedule

- Draft Regulatory Basis
 - **June 13, 2017: 90-Day Public Comment Period Ends**
 - Federal Register Notice 82 FR 13778
 - www.regulations.gov
 - Rulemaking Identification Number (RIN) Number: 3150-AJ59, or
 - Docket ID No.: NRC-2015-0070
 - ADAMS No. ML17047A413
- Proposed Rule/Draft Regulatory Guidance
 - Provide to Commission in May 2018
- Final Rule/Final Regulatory Guidance
 - Goal: Provide to the Commission CY2019

Small Modular Reactor and Other New Technologies (SMR/ONT) Rulemaking



Public Comment

- Draft Regulatory Basis
 - **June 27, 2017: Public Comment Period Ends**
 - Federal Register Notice 85 FR 17768
 - www.regulations.gov
 - RIN No.: 3150-AJ68, or
 - Docket ID No.: NRC-2015-0225
 - ADAMS No. ML16309A332
 - NRC Web page: <https://www.nrc.gov/reactors/new-reactors/regs-guides-comm/ep-smr-other.html>

SMR/ONT Rulemaking

- Uses NUREG-0396 approach
 - Key Component of Rule
- Consequence-oriented
- Technology-inclusive

<https://www.regulations.gov>



The screenshot shows the homepage of the regulations.gov website. The browser address bar displays "https://www.regulations.gov/". The website header includes the "regulations.gov" logo with the tagline "Your Voice in Federal Decision-Making". Navigation links for "Home", "Help", "Resources", and "Contact Us" are present. A search bar with the text "Search" and buttons for "Browse" and "Learn" are also visible. A prominent red banner reads "Make a difference. Submit your comments and let your voice be heard." Below this is a search box containing "3150-AJ68" and a "Search" button. The main content area is divided into three columns. The left column, titled "What's Trending", lists several regulatory topics with their closing dates. The middle column, titled "Comments Due Soon", lists comment periods for various rules. The right column, titled "Newly Posted", lists recently added regulations. A sidebar on the right contains links to "FAA Section 333", "APIs for Developers", and "Browse by Category".

regulations.gov
Your Voice in Federal Decision-Making

Home Help Resources Contact Us

Search Browse Learn

Make a difference. Submit your comments and let your voice be heard.

SEARCH for: Rules, Comments, Adjudications or Supporting Documents:

3150-AJ68 Search

» Advanced Search

What's Trending

- Organic Research, Promotion, and Information Orders: Certified Products**
Closing on Apr 19, 2017
- Memo opening a comment period for this docket.**
Closing on May 15, 2017
- Federal Motor Vehicle Safety Standards: V2V Communications**
Closed on Apr 12, 2017
- Endangered and Threatened Species: Petition for Rulemaking To Establish a Whale Protection Zone for Southern Resident...**
Closing on Apr 13, 2017
- Tobacco Product Standard for N-Nitrosornicotine Level in Finished Smokeless Tobacco Products; Extension of Comment...**
Closing on Jul 10, 2017

Comments Due Soon

- Today (55)
- Next 3 Days (86)
- Next 7 Days (180)
- Next 15 Days (367)
- Next 30 Days (704)
- Next 90 Days (1,033)

Newly Posted

- Today (74)
- Last 3 Days (270)
- Last 7 Days (488)
- Last 15 Days (1,022)
- Last 30 Days (1,998)
- Last 90 Days (5,479)

FAA Section 333

APIs for Developers

See how developers are using Regulations.gov APIs!

Browse by Category

DOS Regulations Twitter Page

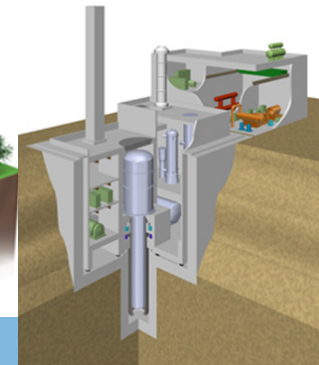
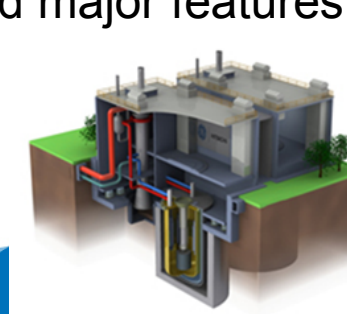
New Reactor Licensing (Completed Items)

- PSE&G Site ESP
 - issued May 5, 2016
- Levy Units 1 & 2 COLs
 - issued October 26, 2016
- Lee Units 1 & 2 COLs
 - issued December 19, 2016
- North Anna Unit 3 COL



New Reactor Licensing (In-Progress Items)

- [AP1000] Turkey Point, S-COL
 - Mandatory Hearing: TBD
- [ESBWR] North Anna, S-COL
 - Mandatory Hearing held on March 23, 2017
- Design Certification, NuScale
- Design Certification, APR-1400 – KHNP
- Design Re-certification, ABWR GE – Hitachi
- TVA's Clinch River Site, Plant Parameter Envelope ESP
 - Site Boundary & 2 Mile EPZs, limited major features



Operating Reactor Licensing (ERO Staffing / Augmentation)

- RIS 2016-10, “License Amendment Requests for Changes to ERO Staffing and Augmentation”
[ADAMS Accession No. ML16124A002]
 - Clarifies use of NEI 10-05 (On-Shift Staffing Analysis)
 - Staff evaluation against Table B-1 (NUREG-0654, Revision 1)
- Proposed Revision to NUREG-0654
 - Table B-1 Technical Basis



Operating Reactor Licensing (Event Classification)

- Fire
 - HU4: NOUE (Fire in Containment)
 - SA9: ALERT (Fire Affecting Safety System)
 - **EPFAQ 2016-002** (*current out for public comment*)
- Adoption of NEI 99-01, Revision 6
- Proposed/Pending Changes to EAL Methodologies
 - Consolidate: Decommissioning EAL Scheme (Levels 1, 2 & 3)
 - Develop: SRM EAL scheme
 - Update: “Passive” Large LWR EAL scheme (NEI 07-01)

Operating Reactor Licensing (EOF Relocation / Consolidation)

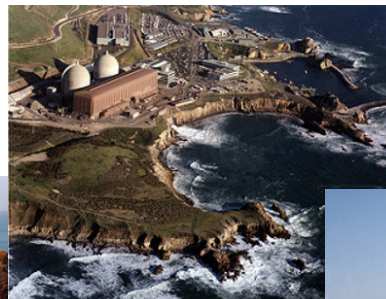
Paragraph VI.E.8 to Appendix E of 10 CFR Part 50

- Prior Commission approval required for (re)locating an EOF (primary or backup) >25 miles from NPP site.
 - Commission approved facility, and not blanket approval for facility miles from NPP site
 - Provisions for a “near-site” facility
- Section VI.I to NSIR/DPR-ISG-01 (Performance-Based Approach)
 - Address trend of consolidated EOF supporting multiple sites
 - Number of sites the consolidated EOF can support?
- Proposed Generic Communication?



Operating Reactor Licensing (Projected Submittals)

- RIS 2015-16, “Planned Licensing Action Submittals For All Power Reactor Licensees”
 - Served to initially populate NRR/DORL database
 - (“living document”) Maintained by NRR/DORL Project Manager for respective NPP site
- Pre-submittal conference calls/meetings



NPP Decommissionings

- ***Fort Calhoun*** (NRC R4/FEMA R7)

➤ Shutdown: October 24, 2016



- ***Palisades*** (NRC R3/FEMA R5)

➤ Shutdown (projected): October 1, 2018



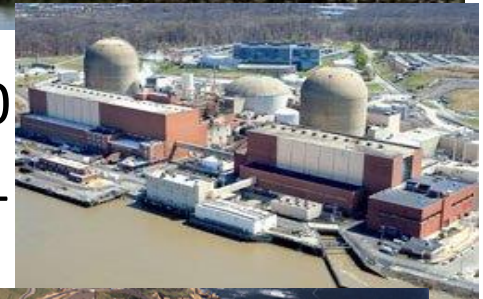
- ***Pilgrim*** (NRC R1/FEMA R1)

➤ Shutdown (projected): May 31, 2019



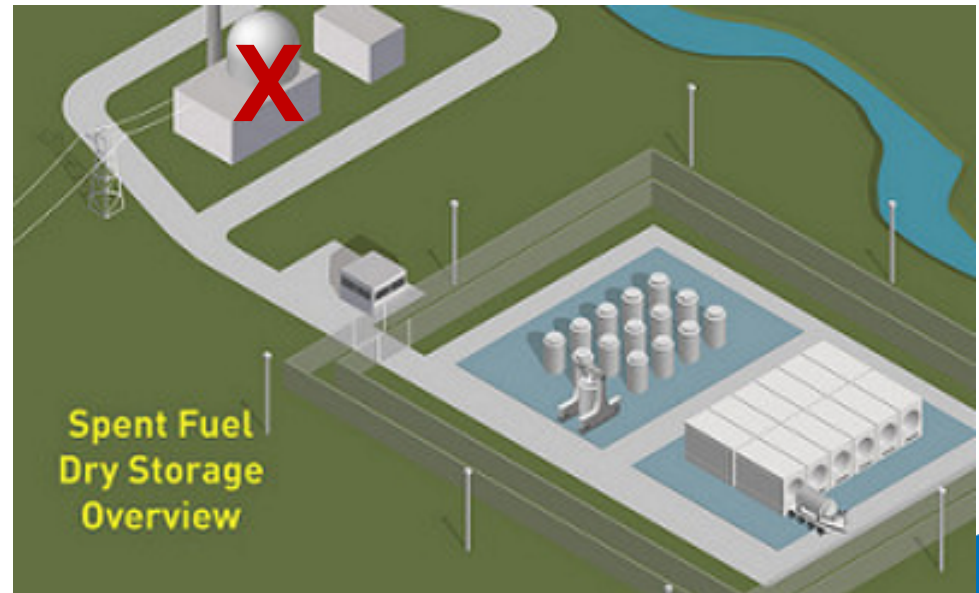
NPP Decommissionings

- ***Oyster Creek*** (NRC R1/FEMA R2)
 - Shutdown (projected):
No later than December 2019
- ***Indian Point*** (NRC R1/FEMA R2)
 - Unit 2 Shutdown (projected): April 30, 2020
 - Unit 3 Shutdown (projected): April 30, 2021
- ***Diablo Canyon*** (NRC R4/FEMA R9)
 - Unit 1 Shutdown (projected): 2024
 - Unit 2 Shutdown (projected): 2025



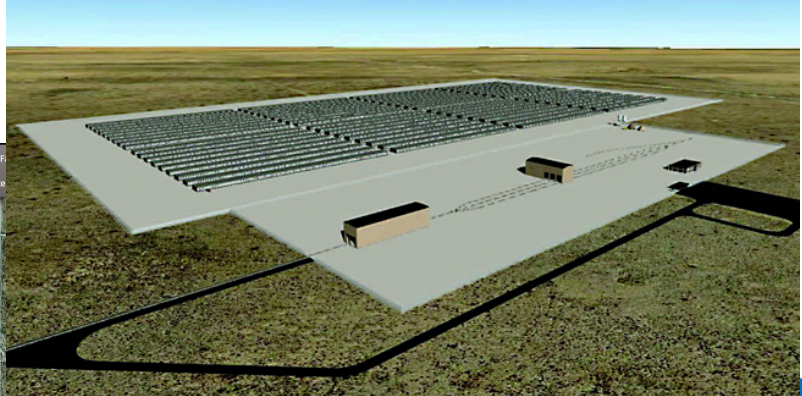
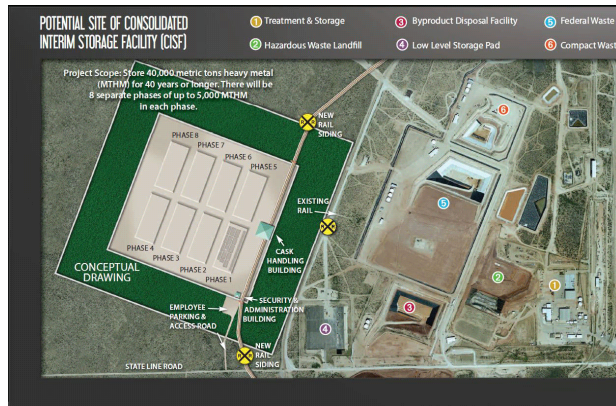
ISFSI Only Emergency Plans

- Approved:
 - Kewaunee (SER: ML16196A109)
 - Crystal River 3 (SER: ML17048A473)
- Under Review:
 - SONGS
- Pending:
 - Vermont Yankee



Consolidated Interim Storage (CIS) Facilities

- **[Suspended]** Waste Control Systems
 - Andrews County, TX
- **[Acceptance Review]** Holtec International
 - Lea County, NM



Supplemental Slides

Decommissioning: Completed Actions

Kewaunee Power Station

- EP Exemptions (SECY-14-0066)
 - SER: ML14261A223
- License Amendment (PDEP / EALs)
 - SER: ML14279A482



Crystal River Unit 3

- EP Exemptions (SECY-14-0118)
 - SER: ML15058A906
- License Amendment (PDEP / EALs)
 - SER: ML15027A209



Decommissioning: Completed Actions

SONGS Units 2 and 3

- EP Exemptions (SECY-14-0144)
 - SER: ML15082A204
- License Amendments (PDEP / EALs)
 - SERs: ML15126A461 / ML15105A349)



Vermont Yankee

- License Amendment (PSEP)
 - SER: ML14346A065
- EP Exemptions (SECY-14-0125)
 - SER: ML15180A054
- License Amendment (PDEP / EALs)
 - SER: ML15233A166



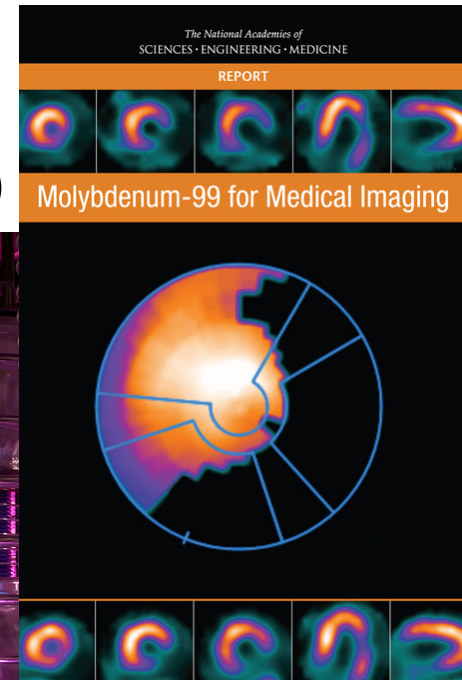
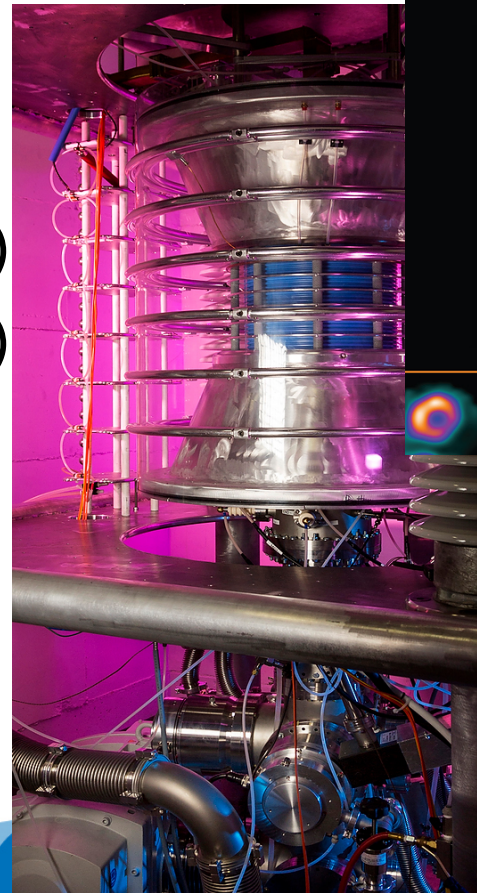
New Reactor Licensing (Medical Isotope Production)

Northwest Medical Isotopes (NWMI)

- Construction Permit (review “in-progress”)

SHINE

- Construction Permit (issued)
- Operating License (pending)



Incident Response Activities

Jeffery D. Grant

Acting Branch Chief, Coordination Branch
Office of Nuclear Security & Incident Response
U.S. Nuclear Regulatory Commission
e-mail: jeffery.grant@nrc.gov

NRC's IPX/Recovery Initiatives

Needed alignment regarding the level of Federal participation in IPXs.

- Since SE15, we have been working internally to examine the NRC's role during the FEMA-led IPXs and have been coordinating with all of our Federal partners to determine how “full Federal support” of a state's response should be incorporated into these exercises.

Exercising the Recovery Phase:

- Since SE15, NRC has also been working with our Federal partners to improve interagency coordination during the recovery phase of a radiological emergency.
- Supporting FEMA's pilot “recovery phase” workshops, which are designed to bring together partners from the whole community to discuss and plan for short- and long-term recovery following a radiological event at an NRC-licensed facility. Currently these workshops are being planned to be held in each of the applicable FEMA regions.

NRC's initiative to improve it's Response Program

- Conducted review of programmatic issues from exercise and event lessons learned
- Working to address structural issues that require significant coordination between NRC HQ and Regions
- Specific areas of consideration:
 - Improve command/control; respond as “One NRC”
 - Incorporate Incident Command System (ICS) where appropriate
 - Improve scalability / flexibility

NRC's International Response Communications/Information Exchange

- Exchange with IAEA, and other international stakeholders, to ensure there is a common understanding of the emergency conditions, and enabling the international community to conduct a global assessment and prognosis process
 - NRC and IAEA play regularly to practice this exchange. This is done using the formal means through the Unified System for Information Exchange (USIE) form and technical exchanges using IAEA tools and expert to expert discussions.
 - Review and comment of any public messaging that IAEA may be considering.
- Harmonization of any public messaging

RASCAL Update:

- Version 4.3.2 released in summer 2016
 - Fixed UF6, coolant release, and met downloader errors
- Version 4.3.3 scheduled for summer 2017
 - Adding US AP1000 and international sites
 - Addressing minor improvements/errors
- Version 5 scheduled for 2018
 - Full software rewrite
 - Aimed at updating language for future improvements
 - Improving input/output capabilities
- Training
 - NRC providing training to regional areas ~5x/year
 - Web-based courses available through RAMP
 - 15 min intro & 1 hour walkthrough
 - Sample problems available mid-2017

Event Response Feedback

- During the licensee emergency notifications to the NRC, it's highly recommended the individual making the call be knowledgeable about the event, be in a position to access needed data, and can speak to the response priorities/de-escalation criteria
- NRC will likely make a request early in an event to have discussions with a senior member of the Licensee's response org (Emergency Director)
- Timely staffing of the Health Physics Network (HPN). In addition, NRC's desire to have periodic discussions on matters related to security/law enforcement

Questions?

Contact Information:

Jeffery D. Grant

jeffery.grant@nrc.gov

(301) 287-3781