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Background

- Fukushima earthquake in 2011
- Information Notice (IN) 2011-008
- Temporary Instruction (TI) 2600/15 to confirm compliance with 10 CFR Part 70 Subpart H in 2012
- Inspections identified potential generic issue
- Un-Resolved Items (URIs) were issued
- Generic Letter (GL) 2015-01 issued on June 22, 2015 (ADAMS ML14328A029)
- Interim Staff Guidance (ISG) FCSE-ISG-15 issued on July 7, 2015 (ML15121A044)



Potential Safety Concerns

- Age of facilities 60 yrs
- Built to old building codes
- Lack of NPH requirements
- Lack of documented basis for conclusions in Integrated Safety Analysis (ISA)
- Code requirements and hazards have changed



Purpose of GL

- Request information to verify compliance with 10 CFR Part 70 Subpart H regarding NPH
- Verify that ISAs address the impacts of natural phenomena hazard events

Regulatory Basis

- Regulations in 10 CFR 70.62 (c)(1) require:
 - Licensee shall conduct and maintain an ISA
 - ISA identifies potential accident sequences including the effects from natural phenomena events



Types of NPH Events

- Seismic
- Flooding
- High winds/tornadoes/missiles
- Excessive precipitation
- Lightning strikes/fires
- Meteorites
- Volcanoes
- Tsunamis
- Rapid erosion/sinkholes



Current Status

- Responses received from all licensees
- Site visits in-progress
- Technical evaluations in-progress
- Tl inspections in-progress



Site Visits

- Westinghouse December 2015
- NFS February 2016
- BWXT April 2016
- GNFA TBD
- No site visits planned for Honeywell, MOX, Urenco, or Areva

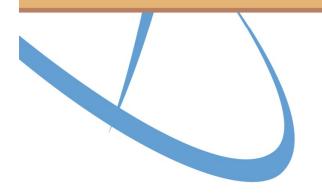


TI Inspections

- First TI Inspection completed (Westinghouse) on July 14, 2016
- AREVA scheduled for week of August 29, 2016
- All other sites TBD



Questions





Reference Slides



Information Requested

- Definitions of "unlikely," "highly unlikely," and "credible" for NPH events
- Current risk evaluation of NPH events
- List of IROFS for NPH events
- Results of ISA review
- Results of walkdowns or assessments



Interim Staff Guidance (ISG)

- ISG-15 issued on July 7, 2015
- General guidance on ISA content & definitions
- Use of graded approach
- Evaluation of existing structures, including internal components and IROFS
- Seismic design and evaluation guidance
- Emergency response



Closure Process

- GL closure strategy described in ML15195A474.
- Closure strategy consists of 3 parts:
 - Evaluation of licensee responses
 - Perform TI inspections
 - Issue closure letter to licensee
- Goal of completing GL closure activities (review of responses, site visits, and inspections) by end of 2016.



HQ Technical Evaluation

- Similar to a Safety Evaluation Report (SER)
- Includes issuance of RAIs
- Verify reasonable assurance that the licensees' approved ISA methodology adequately addresses
 NPH events such that the performance requirements are met.
- Staff will prepare a written evaluation of their findings and formally issue it to the licensee by letter.



TI 2600/016

- Temporary Instruction (TI) 2600-016 was issued on December 17, 2015 (ML111030453).
- The TI was developed to independently verify the licensee's implementation of the GL responses.
- All licensees of operating facilities will be inspected using the TI and an inspection report will be issued.
- For licensees with URIs, the TI will provide the mechanism for closure.



Structure of TI

- Assessment of NPH ISA accident sequences
- Prevention/Mitigation strategies
- Focuses on implementation instead of methodology
- Validation of ISA assumptions



Potential Inspection Topics

- Review of NPH ISA accident sequences
 - Criticality
 - Chemical
 - Fire
- Independent walkdowns to validate ISA assumptions
- Facility modifications
- Emergency preparedness procedures
- Structural



TI 2600/016

Inspection Team

- DFFI Team Lead (PPM)
- DFFI inspector (NCS/ISA)
- DFFI inspector (CHEM/FIRE/ISA) as needed
- DFFI inspector (EP)
- HQ Specialized Structural Expertise

Support Staff

- HQ Project Mgr. licensing questions
- HQ Tech. Reviewers ISA methodology questions
- Other Technical Experts



TI 2600/016 Schedule

- Westinghouse July 11, 2016
- Areva Richland August 29, 2016
- All others TBD

GL 2015-01 Progress Checklist

1. Westinghouse

- **✓** GL Response (8/26/15)
- ✓ RSI (2/26/16)
- ✓ Site Visit (12/8/15)
- **RSI Response** (4/1/16)
- Technical Review
 - ☐ Staff Evaluation Report
 - \square TI Inspection (7/11/16)
 - ☐ Closure Letter

2. NFS

- **√GL Response (9/14/15)**
- ✓RSI (2/8/16)
- ✓ Site Visit (2/23/16)
- RSI Response (3/9/16, extension: 6/7/16)
- Technical Review
 - ☐ Staff Evaluation Report
 - ☐ TI Inspection
 - ☐ Closure Letter

GL 2015-01 Progress Checklist (Cont.)

3. BWXT	4. GNF-A
√GL Response (9/18/15)	√GL Response (7/22/15)
√Site Visit (4/18/16)	□ RSI
□RSI	☐ Site Visit (mid June)
☐ RSI Response	☐ RSI Response
 Technical Review 	 Technical Review
□ Staff Evaluation Report	☐ Staff Evaluation Report
☐ TI Inspection	☐ TI Inspection
☐ Closure Letter	☐ Closure Letter

GL 2015-01 Progress Checklist (Cont.)

5. AREVA

- **✓** GL Response (9/18/15)
- ✓ RSI (12/4/15)
- ✓ Site Visit (4/18/16)
- **✓ RSI Response (2/25/16)**
- Technical Review
 - ☐ Staff Evaluation Report
 - ☐ TI Inspection
 - ☐ Closure Letter