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Protecting People and the Environment

Changes to Scope and Response Timeline: Flooding

Christopher Cook

March 15, 2012

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Scope Changes in SECY-12-0025

- Full power operations and other plant configurations that could be susceptible due to the status of the flood protection features.
- Features of UHS that could be adversely affected by flood.
- Integrated assessment to address the entire duration of the flood conditions.

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Timeline

- Phase 1 – Reevaluations and Integrated Assessment
  - Stage 1 – Hazard Reevaluation
  - Stage 2 – Integrated Assessment
- Phase 2 – NRC Regulatory Actions
  - Taken as necessary based on results of Phase 1

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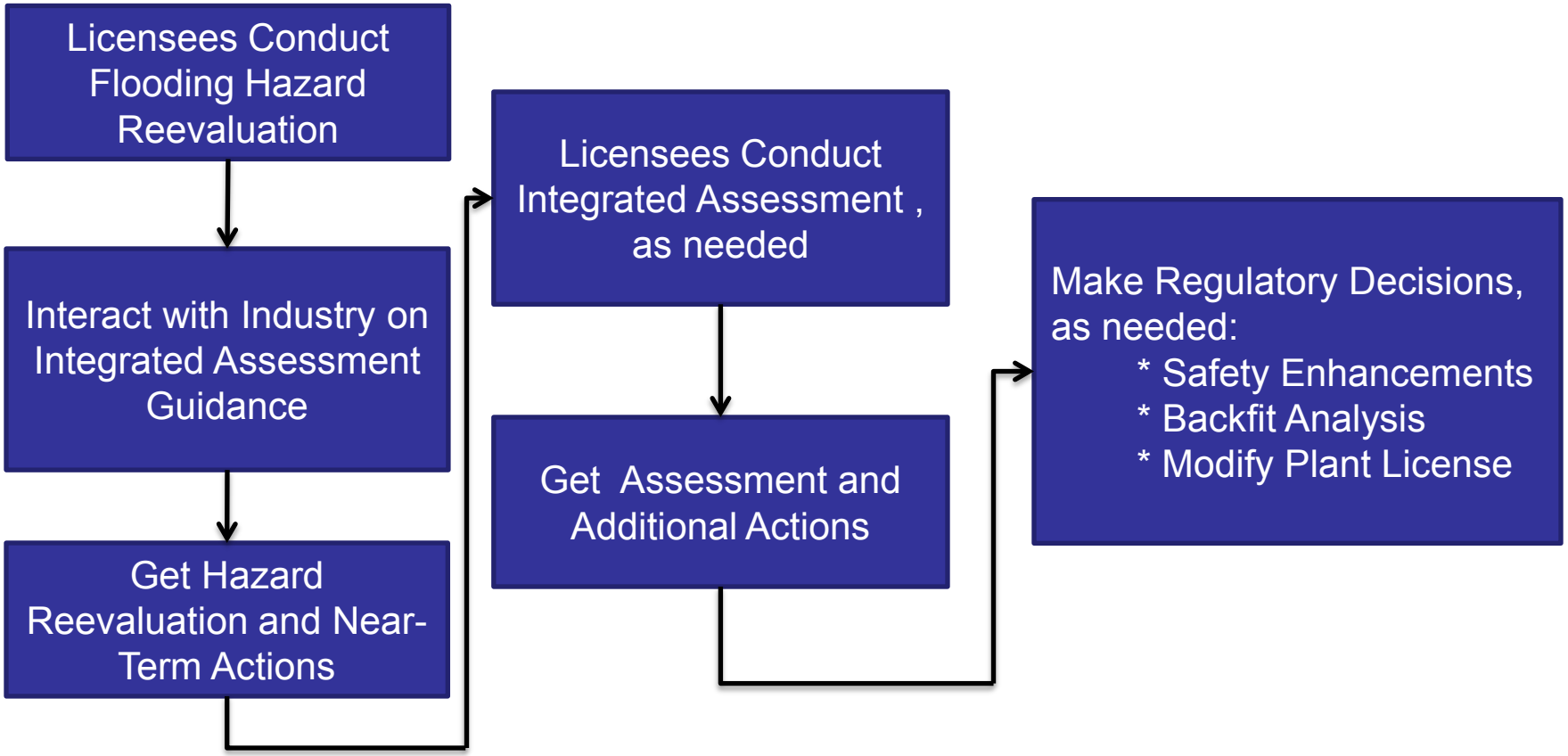
PHASE 1

PHASE 2

STAGE 1

STAGE 2



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Tentative Timeline – R2.1 and R2.3

March 9, 2012
- Issue 50.54(f) Letter

May 8, 2012- R2.1
(60 days from issuance) - Issue Hazard Completion Priority List

May 2012 - R2.3
Development of NRC-endorsed walkdown procedures
(footnote R2.3 pg 5)

June 7, 2012- R2.3
(90 days from issuance) - confirm use of endorsed walkdown procedure

Tentative Timeline – R2.1 Phase 1 Stage 1

November, 2012- R2.3
(180 days from NRC endorsement) - submit walkdown final response

November 30, 2012
- Integrated Assessment Report Guidance released (footnote pg 9)

January 29, 2013
(60-days from Assessment Report release) - Submit approach for Integrated Assessment

March 9, 2013
(1-yr from issuance)
First-group Hazard Reevaluation Report Due

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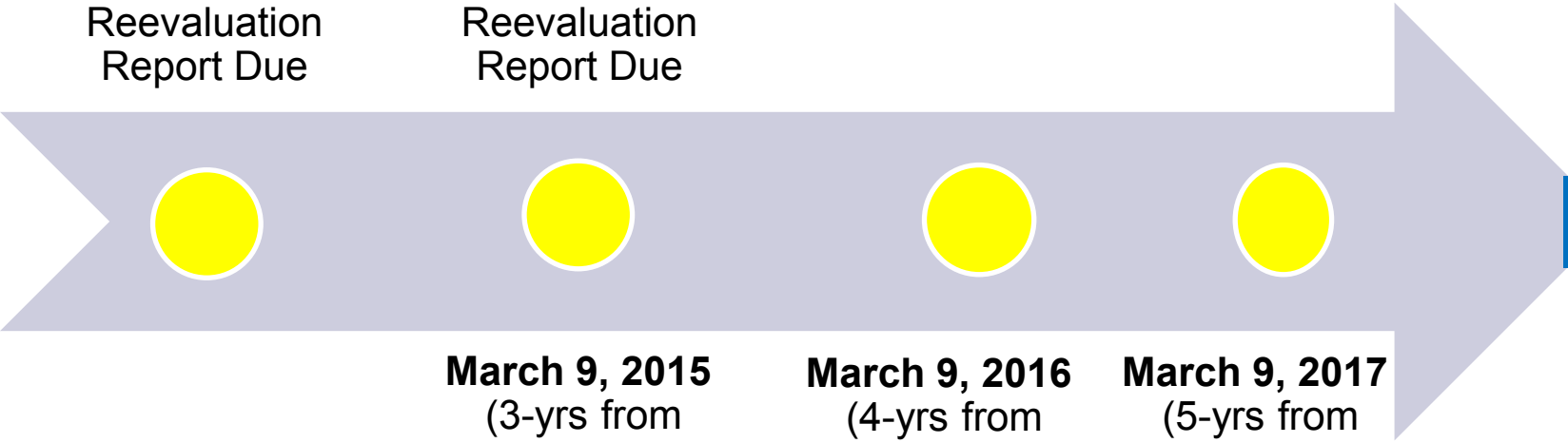
Tentative Timeline – R2.1 Phase 1 Stage 2

March 9, 2014
(2-yrs from issuance)
Second-group Hazard Reevaluation Report Due

March 9, 2015
(3-yrs from issuance)
Third-group Hazard Reevaluation Report Due



March 9, 2015
(3-yrs from issuance)
First-group Integrated Assessment Report Due

March 9, 2016
(4-yrs from issuance)
Second-group Integrated Assessment Report Due

March 9, 2017
(5-yrs from issuance)
Third-group Integrated Assessment Report Due

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STRAWMAN Schedule to discuss & refine at meeting

- ✓ March 9 – First draft guidance to NRC
- ✓ March 12 – 50.54(f) Letters released
- ✓ March 15 – Public meeting discussion
- *March 23 – Internal NRC feedback due*
- March 27 – Follow-up public conference call
- April 7 – Industry sends second draft to NRC
- April 11-12 – Follow-up public meeting on 2nd draft
- April 17 – Public Webinar meeting
- End-April – Final sent to NRC
- May – NRC Endorsement

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Flooding Walkdown Characteristics

Peter Chaput

March 15, 2012

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Background

- NEI submitted draft walkdown guidelines on March 9
- Staff compared NEI's draft walkdown guidance to the 50.54(f) letter, Enclosure 4 (R2.3), flooding walkdowns.
- The following are a list for discussion of attributes/characteristics from the 50.54(f) that we seek clarification.

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R2.3 Walkdown Characteristics

- Overarching Characteristics:
  - Cliff-edge effects
    - Defined by NTTF Report (pg 29)
      - Sharp increase in safety consequence with small increase in flooding level
    - Mentioned in Purpose, Requested Actions, and Requested Information sections
  - Integration of lessons learned from NUREG-1742 (IPEEE), TI 2515/183 (pgs 1-2), and INPO SER 1-01 (pgs 11-16)
  - Process to evaluate flood protection systems
    - Potential issues (noted in TI 2515/183):
      - Equipment did not operate
      - Lacked testing acceptance criteria

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R2.3 Walkdown Characteristics

- Plans to verify of flood protection systems under variable site conditions by reviewing:
  - Demonstrated performance (TI 2515/183, pg 1)
  - Operator availability and training (TI 2515/183, pg 1)
  - Site access (INPO SER 1-01, pg 14)
  - Back-up availability (INPO SER pgs 15-16, TI 2515/183 pg 2)
    - Location and access
  - Identify temporary penetrations/equipment hatches that could provide flood water pathways (e.g. penetrations during outages)

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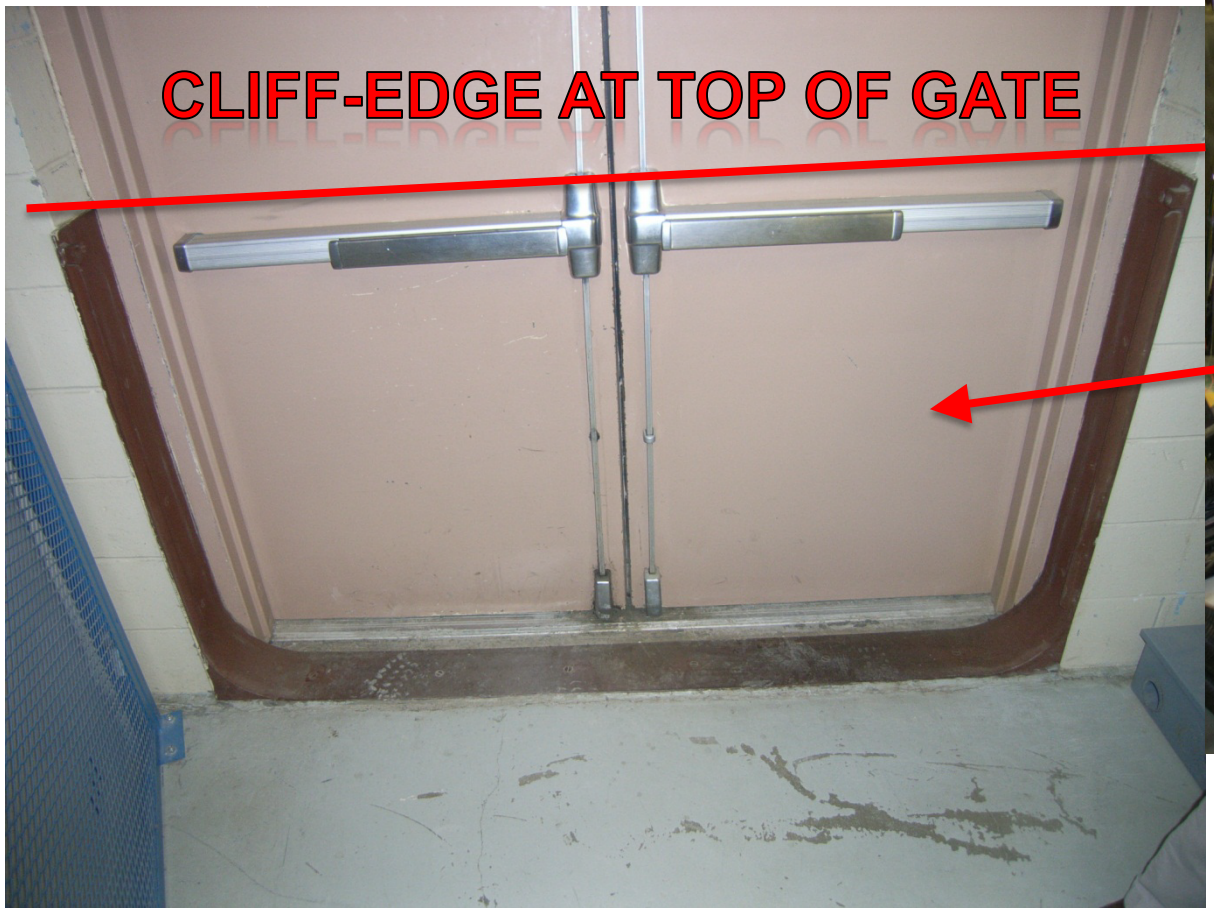
Walkdown Report

- Additional items for Template Walkdown Report:
  - Description design basis flood level(s) at site, including action levels (such as installing protections/shutdown)
  - Description of protection and mitigation features
  - Description of warning systems
  - Information related to implementation of walkdown process (using template)
  - Results of walkdowns (e.g. key findings, degraded conditions)
  - Discussion of any planned or installed flood protection or mitigation measures

RIC Follow-up: Cliff-Edge

Temporary Internal Flood Gate with inflatable gasket seals.



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RIC Follow-up: Cliff-Edge