

**NEI 12-06, Draft C of Rev. 1
Summary of Changes
Following November 19, 2014
Public Meeting**

Public Meeting
January 28, 2015



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STORIED HISTORY
BRIGHT FUTURE

Definition of FLEX Equipment

- **Comment:** Adding the definition of FLEX equipment in large part duplicated the existing definition of on-site FLEX equipment
- **Disposition:** Combined the definition of on-site FLEX equipment with the FLEX equipment definition and eliminated the old on-site FLEX equipment definition.

Plant equipment

- **Comment:** Installed equipment could refer to plant equipment or FLEX equipment
- **Disposition:** Replaced “installed” equipment with “plant” equipment throughout

Hardened Vent

- **Comment:** Vent capability for FLEX needs to be hardened
- **Disposition:** Hardened is not a defined term without Order-13-109. Vent capability for plants implementing FLEX apart from Order-13-109 will be robust per NEI 12-06.

MRule applicability

- **Comment:** Maintenance rule applicability should be addressed in NUMARC 93-01 not in NEI 12-06.
- **Disposition:** Removed proposed paragraph 11.5.3 from Draft A of Rev. 1. NEI submitted a one page change request for NUMARC 93-01.

FLEX Phase 2 Description

- **Comment:** Editorial changes to Phase 2 description
- **Disposition:** Modified description as follows:
 - “Augment ~~installed~~ or transition from plant equipment to ~~sufficient~~ on-site FLEX equipment and consumables to maintain or restore key functions”

Initial Conditions

- **Comment:** If alternative conditions are used in place of Technical Specification minimum conditions for operability, these alternatives need to be controlled and maintained under administrative controls.
- **Disposition:** The conditions being proposed are the normal conditions and are not alternatives. Section 11.2 requires the basis for these conditions to be addressed in the development of the FLEX strategies.

Initial Conditions

- **Comment:** For plant equipment to be considered available it must be robust for the applicable hazards for the site not for all the hazards.
- **Disposition:** Modified the appropriate paragraphs of Section 3.2.1.3 to clarify that the plant equipment specified can be considered available if it is robust for the applicable hazards.

Table 3.2.1.13

- **Comment:** Table lacks inputs for NOTRUMP and Flowserve RCP seals
- **Disposition:** NRC preparing endorsement letter for NOTRUMP? Flowserve?

Shutdown Modes Guidance

- **Comment:** Add reference documents for shutdown modes to Generic Issues table in Section 3.2.1.13
- **Disposition:** Added reference documents to table

Raw Water Analysis

- **Comment:** Section 3.2.2(5)- raw water analysis not required if plan to transition to pure water as soon as practical. Raw analyses are being required and reviewed during audits
- **Disposition:** The guidance language reflects the agreed upon FAQ. A review of the analysis is appropriate if the plant does not have a transition plan.

Section 3.2.2(17)

- **Comment:** Editorial: change “same bus” to “equivalent bus”
- **Disposition:** Change made.

Indefinite Coping

- **Comment:** Elements vital to success such as diesel fuel supply should be planned to some extent beyond 72 hours.
- **Disposition:** Guidance says actions are not required to be explicitly planned. As such there is needs to be some understanding of how the strategy would be deployed but not explicit plans

Design Basis Site Flood Analysis

- **Comment:** Section 6.2.3.1.1.a requires the reasonable protection for the FLEX equipment be based on the most recent “design basis” flood analysis. Rev 0 of NEI 12-06 was not restricted to the design basis flood analysis and this section does not address the reevaluated flood hazard.
- **Disposition:** Sections 6.2.1 and 6.2.2 of Rev 0 state that the flood hazard to be considered is the design basis flood hazard. The guidance does not yet address the reevaluated flood hazard information. It is recognized that the guidance of this section will need to be changed to address the reevaluated flood hazard information once the approach is determined.

11.4.4 Regulatory Screening Process

- **Comment:** Revise this section to reflect proposed rule language.
- **Disposition:** This section will be revised to address language in NRC endorsement of NEI position paper not rule language.

Reasonable Protection 11.5.3.b

- **Comment:** Allowed out of service time should not be the same if remaining FLEX equipment is not protected from the applicable site hazards (except as allowed by 11.5.3.e)
- **Disposition:** If the remaining N equipment is not protected from the applicable hazards, instead of the 90 day allowed out of service time, an allowed out of service time of 45 days will apply (based on 6 week short cycle work scheduling)

3. The unavailability of equipment and applicable connections that directly performs a FLEX mitigation strategy for core, containment, and SFP should be managed such that risk to mitigating strategy capability is minimized.
 - a. The unavailability of plant equipment is controlled by existing plant processes such as the Technical Specifications. When plant equipment which supports FLEX strategies becomes unavailable, then the FLEX strategy affected by this unavailability does not need to be maintained during the unavailability.
 - b. The required FLEX equipment may be unavailable for 90 days provided that the site FLEX capability (N) is met. **If the site FLEX (N) capability is met but not protected for the site's applicable hazards, then the allowed unavailability is reduced to 45 days.**
 - c. Connections to plant equipment required for FLEX strategies can be unavailable for 90 days provided the remaining connection remains available such that the site FLEX strategy is available.

- d. If FLEX equipment is likely to be unavailable during forecast site specific external events (e.g., hurricane), appropriate compensatory measures should be taken to restore equivalent capability in advance of the event.
- e. The duration of FLEX equipment unavailability, discussed above, does not constitute a loss of reasonable protection **from a diverse storage location protection strategy perspective.**
- f. If FLEX equipment or connections becomes unavailable such that the site FLEX capability (N) is not maintained, initiate actions within 24 hours to restore the site FLEX capability (N) and implement compensatory measures (e.g., use of alternate suitable equipment or supplemental personnel) within 72 hours.
- g. If FLEX equipment or connections to permanent plant equipment required for FLEX strategies are unavailable for greater than **45/90** days, initiate actions to restore the FLEX capability and implement compensatory measures (e.g., use of alternate suitable equipment or supplemental personnel) prior to exceedance of the **45/90** days.

Reasonable Protection

- Footnote

¹⁰ The spare FLEX equipment is not required for the FLEX capability to be met. The allowance of 90 day unavailability is based on a normal plant work cycle of 12 weeks. In cases where the remaining N equipment is not fully protected for the applicable site hazards, the unavailability allowance is reduced to 45 days to match a 6 week short cycle work period. Aligning the unavailability to the site work management program is important to keep maintenance of spare FLEX equipment from inappropriately superseding other more risk-significant work activities.

Protection vs Availability

- The 45 day action recognizes there is a difference between taking equipment out of its storage configuration and the equipment being out of service.

Reasonable Protection for Tornados

- **Comment:** Editorial comments to Section 7.3.1.2 example for application of 7.3.1.1.c.
- **Disposition:** Added separation distance words
- **Comment:** Editorial change to add separation distance to 7.3.1.2 example for application of 7.3.1.1.b
- **Disposition:** Separation distance is not specified for 7.3.1.1.b

Reasonable Protection Definition

- **Comment:** Editorial- add the word “required” to the second sentence before FLEX equipment
- **Disposition:** Change made.

Reasonable Protection for High Temperatures

- **Comment:** Restore historical data that was proposed to be removed.
- **Disposition:** Historical data was restored.

Section 11.5.4.g

- **Comment:** This section should not allow equipment to be unavailable more than 90 days.
- **Disposition:** Modified actions to require restoration of equipment prior to exceeding 90 days.

Training of Key Personnel

- **Comment:** Key personnel are not defined.
- **Disposition:** The term key personnel is consistent with NEI 13-06 and the Recommendation 8 regulatory basis. Will keep them consistent.

Configuration Control

- **Comment:** Remove tacit approval from 11.8.4
- **Disposition:** Removed tacit approval
- **Comment:** Logic for section 11.8.3 needs to ensure engineering evaluation is performed for both 3.a and 3.b
- **Disposition:** Revised structure of 3.a and 3.b to ensure engineering evaluation is performed in each case.
- **Comment:** The change process allows for adoption of a change based on NRC approval of that change at another facility provided the basis for that change applies. That provision can only be used if the rule language includes the provision.
- **Disposition:** The guidance and the rule language will be made consistent before issuance.

Section 13

- **Comment:** Applicability section is not needed as it is addressed in the rule.
- **Disposition:** Applicability section removed.

Spent Fuel Pool Spray Capability

- **Comment:** Clarify that spray capability is required for all spent fuel pools on-site that contain spent fuel.
- **Disposition:** Wording clarified to address spent fuel pools that “contain spent fuel.”

Appendix F

- **Comment:** Revert back to Appendix F from Rev. 0
- **Disposition:** Reverted back to Appendix F from Rev. 0

Validation Guidance- Appendix E

- **Comment:** Remove Order references and make conforming changes to Appendix E
- **Disposition:** Removed Order references and made conforming changes.