

Reactor Oversight Process Enhancement Project

Baseline Inspection Program

Inspection Area – Adverse Weather Protection

Background

Inspection Procedure (IP) 71111.01, “Adverse Weather Protection,” addresses the Initiating Events and Mitigating Systems Reactor Oversight Process (ROP) cornerstones and is intended to verify that the design features and implementation of the licensee’s procedures protect mitigating systems from adverse weather effects. This procedure would also be used in response to impending seasonal and/or storm-related adverse weather conditions. For the purposes of this procedure, adverse weather would include events such as high winds, hurricanes, electrical storms, tornadoes, extremely high or low temperatures, conditions affecting the ultimate heat sink (debris, ice blockages, frazil ice, sea grass, fish, etc.), offsite power system, and alternate current (AC) power source. Additionally, the IP focuses on verifying that the licensee’s flooding mitigation plans and equipment are consistent with the licensee’s design requirements and the risk analysis assumptions.

In November of 2009, IP 71111.01 was updated based on the 2009 ROP Realignment adjustment of resource estimate and clarification of sample requirements.

Analysis

The regional, resident and headquarters inspectors and subject matter experts provided feedback on suggested changes to the baseline inspection procedure with intent to enhance flexibility, increase inspection efficiency, and adjust inspection requirements to emphasize increased focus of inspection on the more risk significant activities versus routine activities. Also, special consideration was given to value added inspector field observations that did not result in a finding but where there was an observed safety impact. The inspection procedure owner’s assessment and ROP feedback forms were reviewed as part of the analysis.

Recommendations

1. Capture site specific adverse weather considerations in template guidance. This would facilitate knowledge transfer between inspectors, and allow inspectors to build on previously accumulated site specific information.
2. Delete section 02.04.c.7 “Sources of potential internal flooding that are not analyzed or not adequately maintained” and consider adding to IP 71111.06 “Flood Protection Measures.”
3. Add a more detailed review of the design aspects of sites related to protection from adverse weather situations or incorporate into Component Design Basis Inspection.

Champion: Rick Croteau, RII/DRP
Key Branch Chief: Reinaldo Rodriguez, RII/DRP

4. Review Fukushima and Temporary Instruction 2515/187, "Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns," lessons learned to determine if the procedure could be enhanced.
5. Remove 02.01, "Summer Readiness of Offsite and Alternate AC Power Systems."
6. Add more guidance for inspections due to impending tropical storms and hurricanes.