

ATTACHMENT 71111.16

INSPECTABLE AREA: Operator Workarounds

CORNERSTONES: Mitigating Systems (100%)

INSPECTION BASES: Operator workarounds can impact human performance during event response, due to increasing complexity of tasks and more limiting time to perform required actions.

This inspectable area verifies aspects of the Mitigating System Cornerstone for which there are no indicators to measure performance.

LEVEL OF EFFORT: As required, review risk significant operating work-arounds.

71111.16-01 INSPECTION OBJECTIVE

01.01 To review operator workarounds and identify any potential effect on the functionality of mitigating systems.

71111.16-02 INSPECTION REQUIREMENTS

02.01 Review Selected Operator Workarounds

- a. Use this procedure for any risk significant operator workarounds that are identified through other inspection activities.
- b. Review the selected operator workarounds to determine if the functional capability of the system or human reliability in responding to an initiating event is affected. Specifically evaluate the effect of the operator workaround on the operator's ability to implement abnormal or emergency operating procedures.

02.02 Twice a Year Review the Cumulative Effects of Operator Workarounds

- a. Review the cumulative effects of operator workarounds on the reliability, availability, and, potential for misoperation of a system.
- b. Review the cumulative effects of operator workarounds that could affect multiple mitigating systems.
- c. Review the cumulative effects of operator workarounds on the ability of operators to respond in a correct and timely manner to plant transients and accidents.

02.03 Identification and Resolution of Problems. Verify that the licensee is identifying operator workaround problems at an appropriate threshold and entering them in the corrective action program. For a sample of significant operator workaround problems documented in the corrective action program, verify that the licensee has identified and implemented appropriate corrective actions. See Inspection Procedure 71152, "Problem Identification and Resolution of Problems," for additional guidance.

General Guidance

An operator workaround is defined as operator action(s) taken to compensate for a degraded or non-conforming condition that complicates the operation of plant equipment.

A risk significant operator workaround is defined as operator action(s) taken to compensate for a degraded or non-conforming condition which could result in an increase in the baseline core damage or large early release frequency and, if such actions could not be implemented effectively, would be a finding with potentially greater than green significance.

Specific Guidance

03.01 The intention is to evaluate operator workarounds for mitigating systems as required to determine if the mitigating system function is affected or the operator's ability to implement abnormal and emergency operating procedures is affected. The inspector should be cognizant of: (1) operator workarounds that have not been evaluated by the licensee, (2) operator workarounds that have been formalized as the long-term corrective action for a degraded or non-conforming condition (and therefore may not be tracked by the licensee as an operator workaround), and (3) operator workarounds that increase the potential for personnel error, including operator workarounds that:

- a. Require operations contrary to past training or require more detailed knowledge of the system than routinely provided.
- b. Require a change from longstanding operational practices.
- c. Require operation of system or component in a manner dissimilar from similar systems or components.
- d. Create the potential for the compensatory action to be performed on equipment or under conditions for which it is not appropriate.
- e. Impair access to required indications, increase dependence on oral communications, or require actions under adverse environmental conditions.
- f. Require the use of equipment and interfaces that had not been designed with consideration of the task being performed.

03.02 See the table below for inspection guidance.

Cornerstone	Inspection Objective	Risk Priority	Example
Mitigating Systems	Identify operator workarounds that can have an adverse effect on the functional capability of a mitigating system or that can impact human reliability in responding to initiating events.	Plant and control room deficiencies that affect mitigating system performance.	Operator workarounds that increase operator response time to manually initiate mitigating systems beyond the time available or assumed in the design basis and PRA.

71111.16-04 RESOURCE ESTIMATE

The yearly resource expenditure for this inspection procedure at a site is estimated to be on average as follows: 27 to 37 hours for one reactor unit; 30 to 40 hours for two reactor units; and 36 to 48 hours for three reactor units.

71111.16-05 REFERENCES

NRC Inspection Manual Part 9900 "Resolution of Degraded and Non-Conforming Conditions"

Inspection Procedure 71152, "Problem Identification and Resolution of Problems"

END