

Purpose:

To document that the requirements of 10CFR50.65, Requirements for monitoring the effectiveness of maintenance at nuclear power plants (hereafter referred to as the Maintenance Rule), do not apply to FLEX equipment (including spent fuel pool instrumentation) used solely in response to a beyond-design-basis (BDB) event.

Background:

As implementation of the mitigating strategies proceeds, licensees are facing the question of Maintenance Rule applicability to the largely portable equipment that is being procured for the Phase 2 mitigating strategies. In order to achieve consistency in implementation, a clear position needs to be provided to the industry on this subject.

NEI 12-06 rev 0, Section 11 Programmatic Controls provides guidance for maintenance and testing of FLEX equipment but does not directly address the applicability of the Maintenance Rule. In particular, Section 11.5 does specifically articulate under which set of requirements maintenance and testing is to be established but does not specifically address the applicability of the Maintenance Rule. In addition, Section 11.1 addresses that the FLEX equipment is to be procured as commercial equipment. Pertinent excerpts from NEI 12-06 are provided below.

11.1 QUALITY ATTRIBUTES

Equipment associated with these strategies will be procured as commercial equipment with design, storage, maintenance, testing, and configuration control as outlined in this section. If the equipment is credited for other functions (e.g., fire protection), then the quality attributes of the other functions apply.

11.5 MAINTENANCE AND TESTING

11.5.2

Portable equipment that directly performs a FLEX mitigation strategy for the core, containment, or SFP should be subject to maintenance and testing¹ guidance provided in INPO AP 913, Equipment Reliability Process, to verify proper function. The maintenance program should ensure that the FLEX equipment reliability is being achieved. Standard industry templates (e.g., EPRI) and associated bases will be developed to define specific maintenance and testing including the following:

- a. Periodic testing and frequency should be determined based on equipment type and expected use. Testing should be done to verify design requirements and/or basis. The basis should be documented and deviations from vendor recommendations and applicable standards should be justified.*

¹ Testing includes surveillances, inspections, etc.

- b. *Preventive maintenance should be determined based on equipment type and expected use. The basis should be documented and deviations from vendor recommendations and applicable standards should be justified.*
- c. *Existing work control processes may be used to control maintenance and testing. (e.g., PM Program, Surveillance Program, Vendor Contracts, and work orders).*

As such, the maintenance and testing of FLEX equipment is to be accomplished in accordance with the above guidance and the Maintenance Rule was not intended to apply to such equipment used only for BDB purposes.

Furthermore, in support of this position the industry produced Frequently Asked Question (FAQ) 2013-08 to specifically state that the Maintenance Rule did not generally apply to FLEX equipment.

NUMARC 93-01, Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants, Rev. 4A contains the criteria in Sections 8.2.1.1 through 8.2.1.5 for determining which equipment at nuclear power plants is covered by the Maintenance Rule. The FLEX equipment does not meet these criteria. In particular, it states in Section 8.2.1.3, Nonsafety-Related SSCs that are used in Emergency Operating Procedures, that equipment described in Severe Accident Management Guidelines as well as equipment used in support of 10 CFR 50.54(hh)(2) would not be in the scope of the Maintenance Rule unless otherwise required by 10 CFR 50.65(b). The FLEX equipment is comparable to the equipment described in SAMGs and equipment used in support of 10 CFR 50.54(hh)(2) and, therefore, though the FLEX equipment may be mentioned in the EOPs it would be outside the scope of the Maintenance Rule unless otherwise required by 10 CFR 50.65(b).

Section 8.2.1.6, SSCs Outside the Scope of the Maintenance Rule, states SSCs that do not meet the above criteria (sections 8.2.1.1 through 8.2.1.5) are outside the scope of the Maintenance Rule. These SSCs will continue to have appropriate maintenance activities performed on them. For these SSCs, the degree of maintenance attention will be dependent upon factors such as the consequence of SSC failure on power production and economic importance.

Conclusion:

The intent of 10 CFR 50.65 is to ensure that equipment needed for design basis events is considered reliable and will be available when called upon. The EOPs direct entry into the Flex Support Guidelines (FSG's) when a plant is outside the envelope of design basis analyzed events. Since these SSCs will not be used to mitigate the consequences of the event/symptom that necessitated entry into the EOP, they are outside the scope of the MR. Based on the guidance currently in place with respect to Maintenance Rule applicability for SAMG and 10 CFR 50.54(hh)(2), it is appropriate to apply the same reasoning to exclude equipment required for compliance with order EA-12-049 Mitigating Strategies, and EA-12-051 Spent Fuel Pool Instrumentation from the Maintenance Rule. Additionally, the guidance in NEI 12-06 and NEI 12-02 provide the appropriate maintenance and testing requirements to ensure equipment reliability.