

design basis functions be maintained). To ensure more consistent implementation of § 50.69, the SOC discusses some of these areas for the implementation of proposed § 50.69 about how the treatment processes for low-risk safety-related SSCs should be conducted. The Commission is also giving examples of what it considers good practice to achieve confidence of functionality. The Commission does not believe that it is necessary to include these "expectations" as specific requirements because there may be other means of achieving the specified outcome and failure to implement a particular expectation would not, by itself, be a regulatory concern. The Commission's intent is to place on the licensee the responsibility to determine the necessary treatment to maintain functionality without the Commission having to establish prescriptive requirements.

The categorization process assumes that the functionality of SSCs in performing their safety functions will be retained, although the treatment applied to RISC-3 SSCs may be reduced under proposed § 50.69. Further, the categorization process may include specific reliability assumptions for plant SSCs in performing their intended functions. Therefore, when establishing the performance-based treatment process for RISC-3 SSCs, the licensee should take these assumptions into account to support the evaluations of small increase in risk resulting from implementation of the changes in treatment. It is important to obtain sufficient information on SSC performance to allow the results of the categorization process to remain valid. The Commission considers the risk-informed, performance-based ASME Code Cases (as endorsed in § 50.55a) to be one acceptable method of establishing treatment processes that are consistent with the categorization process.

Proposed § 50.69 identifies four processes that must be controlled and accomplished for RISC-3 SSCs: Design Control; Procurement; Maintenance, Inspection, Testing, and Surveillance; and Corrective Action. The high level RISC-3 requirements are structured to address the various key elements of SSC functionality by focusing in several areas. When SSCs are replaced, RISC-3 SSCs must remain capable of performing design basis functions; hence, the high level requirements focus on maintaining this capability through design control and procurement requirements. During the operating life of a RISC-3 SSC, a sufficient level of confidence is necessary that the SSC

continues to be able to perform its design basis functions; hence, the inclusion of high level requirements for maintenance, inspection, test, and surveillance. Finally, when data is collected, it must be fed back into the categorization and treatment processes, and when important deficiencies are found, they must be corrected; hence, requirements are also provided in these areas.

The Commission notes that use of voluntary consensus standards is an effective means of establishing treatment requirements to achieve functionality. As an example, ASME risk-informed Code Cases have been developed with the purpose of determining appropriate treatment requirements for low safety-significant SSCs in their specific functional areas. Further, the Commission expects that related standards (such as ASME Code Cases N-658 and N-660 on SSC categorization and treatment for purposes of repair and replacement) be used in conjunction with each other as intended by the accredited standards writing body. Where suitable standards do not exist or available standards are not sufficient, the Commission expects the licensee to establish sufficient controls to provide reasonable confidence in the functionality of RISC-3 SSCs, based upon such factors as operating experience and vendor recommendations. However, the Commission also notes that use of a voluntary consensus standard in and of itself might not be sufficient to maintain functionality for particular SSCs under certain service conditions, and that the licensee might need to supplement its processes to achieve the desired results.

The proposed rule would require the treatment processes for RISC-3 SSCs be implemented to provide reasonable confidence in the capability of RISC-3 SSCs to perform their safety-related functions under design basis conditions. That is to say, the pertinent requirements identified in § 50.69 for each process must be satisfied for RISC-3 SSCs unless the requirements are clearly not applicable or are not necessary in the particular circumstance to achieve functionality of the SSC. As an example, a licensee might determine that it is more efficient and effective to replace a particular component before the end of its design life rather than conducting maintenance to repair the component. Further, a licensee might determine that some maintenance activities are within the skill of the craft (such as replacing missing bolts on motor-operated valve switch compartments), such that detailed work orders would not be necessary. On the

other hand, an activity to procure a replacement component with active functions that is not the same as the one being replaced would necessitate use of most of the specified processes, with a greater need for documentation and independent review to achieve the expected result.

As part of the high level requirement that RISC-3 SSCs be capable of performing their safety-related functions under design basis conditions, the Commission emphasizes that implementation of the processes must provide reasonable confidence of the future capability of the SSC (*i.e.*, not just confidence that the SSC works at a certain point in time but rather provides confidence that the component will work when called upon). The level of confidence can be less than was provided by the special treatment requirements listed in § 50.69(b)(1). As an example, exercising of a valve or simply starting a pump does not provide reasonable confidence in design basis capability, will not detect service-induced aging or degradation that could prevent the component from performing its design basis functions in the future, and is insufficient by itself to satisfy the intent of the rule.

A licensee implementing § 50.69 is responsible for implementing the treatment requirements for RISC-3 SSCs in an effective manner to maintain the capability to perform the safety functions under design basis conditions. A licensee should address the potential impact on the functionality of RISC-3 SSCs as a result of the changes to testing programs, such that the categorization process assumptions and results remain valid. To provide a basis to conclude that the potential increase in risk would be small, a licensee is required to conduct evaluations that assume failure rates that might occur as a result of the revisions to treatment. These evaluations would need to consider, for instance, any planned alteration in a licensee's program for diagnostic testing of motor-operated valves. If a likely result of a contemplated change in treatment is an increase in failure rate, outside the bounds of the evaluations, that change in treatment would not be acceptable under proposed § 50.69 because the criterion in § 50.69(c)(i)(iv) about providing reasonable confidence of a small increase in risk would not be met.

V.5.2.1 Section 50.69(d)(2)(i) Design Control Process

Section 50.69(d)(2)(i) specifies that the functional requirements and bases for RISC-3 SSCs be maintained and controlled. The functional requirements