

necessary for a licensee to consider the impact that a change in treatment (as a result of removal of special treatment requirements) might have on the ability of the SSC to perform its design basis function and on reliability of SSCs. The purpose is to provide an understanding of the new treatment requirements and their effects on RISC-3 SSCs due to removal of special treatment requirements. This will help form the basis for the change-in-risk evaluations and will support developing a technical basis for concluding that SSC performance is consistent with the categorization process and its results and with those evaluations performed to show that there is a no more than a small increase in risk associated with implementation of § 50.69. The basis supporting the evaluations that examine potential SSC reliability changes due to treatment changes may be either qualitative or quantitative.

One mechanism that could lead to large increases in CDF/LERF is extensive, across system common cause failures. However, for such extensive CCFs to occur would require that the mechanisms that lead to failure, in the absence of special treatment, were sufficiently rapidly developing or are not self-revealing that there would be few opportunities for early detection and corrective action. Thus, when deciding how much to assume that SSC reliability might change, the applicant or licensee is expected to consider potential effects of common-cause interaction susceptibility, including cross-system interactions and potential impacts from known degradation mechanisms.

Those aspects of treatment that are necessary to prevent SSC degradation or failure from known degradation mechanisms, to the extent that the results of the evaluations are invalidated, must be retained. Identifying those aspects will involve an understanding of what the degradation mechanisms are and what elements of treatment are sufficient to prevent the degradation. As an example of how this would be implemented, the known existence of certain degradation mechanisms affecting pressure boundary SSC integrity might support retaining the current requirements on inspections or examinations or use of the risk-informed ASME Code Cases, as accepted by the NRC regulatory process. An alternative might be to relax certain elements of treatment, but retain those that were assessed to be the most effective in negating the degradation mechanisms. As another example, changing levels of treatment on several similar components that might be

sensitive to CCF potential would require consideration as to whether the planned monitoring and corrective action program, or other aspects of treatment, would be effective in sufficiently minimizing CCF potential such that the evaluations remain bounding.

The treatment for all RISC-3 SSCs may not need to be the same. As an example, motor operated valves (MOVs) operating in a severe environment (*e.g.*, in the steam tunnel) would be more susceptible to failure because of grease degradation if they were not regularly maintained and tested. However, not all MOVs, even if they have the same design and are identical in other respects, will be exposed to the same environment. Therefore the other MOVs may not be as susceptible to failure as those in the steam tunnel and less frequent maintenance and testing would be acceptable. While it may be simpler to increase the unreliability or unavailability of all the RISC-3 SSCs by a certain bounding factor to demonstrate that the change in risk is small and acceptable, the above example suggests that it may also be appropriate to use different factors for different groups of SSCs depending on the impact of reducing treatment on those SSCs.

Section 50.69(c)(1)(iv) requires that the increase in the overall plant CDF and LERF resulting from potential decreases in the reliability of RISC-3 SSCs as a result of the changes in treatment be small. The rule further requires the licensee (or applicant) to describe the evaluations to be performed to meet this requirement. The Commission regards "small" changes for plants with total baseline CDF of 10^{-4} per year or less to be CDF increases of up to 10^{-5} per year, and plants with total baseline CDF greater than 10^{-4} per year to be CDF increases of up to 10^{-6} per year. However, if there is an indication that the CDF may be considerably higher than 10^{-4} per year, the focus of the licensee should be on finding ways to decrease rather than increase CDF and the licensee may be required to present arguments as to why steps should not be taken to reduce CDF in order for the reduction in special treatment requirements to be considered. For plants with total baseline LERFs of 10^{-5} per year or less, small LERF increases are considered to be up to 10^{-6} per year, and for plants with total baseline LERFs greater than 10^{-5} per year, LERF increases of up to 10^{-7} per year. Similarly, if there is an indication that the LERF may be considerably higher than 10^{-5} per year, the focus of the licensee should be on finding ways to decrease rather than increase LERF and the licensee may be

required to present arguments as to why steps should not be taken to reduce LERF in order for the reduction in special treatment requirements to be considered. This is consistent with the guidance in Section 2.2.4 of RG 1.174. It should be noted that this allowed increase shall be applied to the overall categorization process, even for those licensees that will implement § 50.69 in a phased manner.

The licensee can choose a factor for the increase on unreliability such that the corrective action and feedback processes discussed in §§ 50.69(d)(2) and 50.69(e)(3) would provide sufficient data to substantiate that the increased unreliability used in the evaluations is not exceeded.

If a PRA model does not exist for the external initiating events or the low power and shutdown operating modes, justification should be provided, on the basis of bounding analyses or qualitative considerations, that the effect on risk (from the unmodeled events or modes of operation) is not significant and that the total effect on risk from modeled and unmodeled events and modes of operation is small, consistent with Section 2.2.4 of RG 1.174.

V.4.5 Section 50.69(c)(1)(v) System or Structure Level Review

Section 50.69(c)(1)(v) specifies that the categorization be done at the system or structure level, not for selected components within a system. A licensee or applicant is allowed to implement § 50.69 for a subset of the plant systems and structures (*i.e.*, partial implementation) and to phase in implementation over a period of time. However, the implementation, including the categorization process, must address entire systems or structures; not selected components within a system or structure.

V.4.6 Section 50.69(c)(2) Use of Integrated Decision-Making Panel (IDP)

Section 50.69(c)(2) sets forth the requirements for using an IDP to make the determination of safety significance, and for the composition of the IDP. The fundamental requirement for the categorization process (as stated in § 50.69 (c)(1)(ii)) is that it include use of an integrated systematic process. The determination of safety significance of SSCs is to be performed as part of an integrated decision-making process, which uses both risk insights and traditional engineering insights. In categorizing SSCs as low safety-significant, it should be demonstrated that the defense-in-depth philosophy is maintained, that sufficient safety margin is maintained, and that increases in risk