

implement 10 CFR 50.65(a)(4). This program is consistent with RG 1.177 and RG 1.174 in its approach. The implementation guidance for paragraph (a)(4) of the Maintenance Rule addresses controlling temporary risk increases resulting from maintenance activities. This guidance, consistent with guidance in RG 1.177, establishes action thresholds based on qualitative and quantitative considerations and risk management actions. Significant temporary risk increases following an LCO 3.0.4(b) allowance are unlikely to occur unless:

- High-risk configurations are allowed (*e.g.*, certain combinations of multiple component outages), or
- Risk management of plant operation activities is inadequate.

The requirements associated with the proposed change are established to ensure that such conditions will not occur.

The thresholds of the cumulative (aggregate) risk impacts, assessed pursuant to 10 CFR 50.65(a)(4) and the associated implementation guidance, are based on the permanent change guidelines in NRC RG 1.174. Therefore, licensees will manage the risk exercising LCO 3.0.4 in conjunction with the risk from other concurrent plant activities to ensure that any increase, in terms of core damage frequency (CDF) and large early release frequency (LERF) will be small and consistent with the Commission's Safety Goal Policy Statement.

3.2 Oversight

The reactor oversight process (ROP) provides a means for assessing the licensee's performance in the application of the proposed mode change flexibility. The adequacy of the licensee's assessment and management of maintenance-related risk is addressed by existing inspection programs and guidance for 50.65(a)(4). Although the current versions of that guidance do not specifically address application of the licensee's (a)(4) program to support risk-informed technical specifications, it is expected that in most cases, risk assessment and management associated with risk-informed technical specifications would be required by (a)(4) anyway because maintenance activities will be involved.

Adoption of the proposed change will make failure to assess and manage the risk of an upward mode change with inoperable equipment covered by technical specifications, prior to commencing such a mode change, a violation of technical specifications. Further, as explained above in general, under most foreseeable circumstances,

such a change in configuration would also require a risk assessment under 10 CFR 50.65(a)(4). Inoperable systems or components will necessitate maintenance to restore them to operability, and hence a 10 CFR 50.65(a)(4) risk assessment would be performed prior to the performance of those maintenance actions (except for immediate plant stabilization and restoration actions if necessary). Further, before altering the plant's configuration, including plant configuration changes associated with mode changes, the licensee must update the existing (a)(4) risk assessment to reflect those changes.

The Federal Register Notice issuing a revision to the maintenance rule, 10 CFR 50.65, (**Federal Register**, Vol 64 No 137, Monday, July 19, 1999, pg 38553), along with NRC Inspection Procedure 7111.13, and Section 11, dated February 22, 2000, "Assessment of Risk Resulting from Performance of Maintenance Activities," of NUMARC 93-01, all indicate that to determine the safety impact of a change in plant conditions during maintenance, a risk assessment must be performed before changing plant conditions. The bases for the proposed TS change mandate that the risk assessment and management of upward mode changes will be conducted under the licensee's program and process for meeting 10 CFR 50.65(a)(4). Oversight of licensee performance in assessing and managing the risk of plant maintenance activities is conducted principally by inspection in accordance with Reactor Oversight Program Baseline Inspection Procedure (IP) 7111.13, "Maintenance Risk Assessment and Emergent Work Control." Supplemental IP 62709, "Configuration Risk Assessment and Risk Management Process," is utilized to evaluate the licensee's process, when necessary.

The ROP is described in overview in NUREG-1649, Rev 3, "Reactor Oversight Process," and in detail in the NRC Inspection Manual. Inspection Procedure 7111.13 requires verification of performance of risk assessments when they are required by 10 CFR 50.65(a)(4) and in accordance with licensee procedures. The procedure also requires verification of the adequacy of those risk assessments and verification of effective implementation of licensee-prescribed risk management actions. The rule itself requires such assessment and management of risk prior to maintenance activities, including preventive maintenance, surveillance and testing, (and promptly for emergent work) during all modes of plant operation. The guidance documents for

both industry implementation of (a)(4) and NRC oversight of that implementation indicate that changes in plant configuration (which would include mode changes) in support of maintenance activities must be taken into account in the risk assessment and management process. Revisions to NRC inspection guidance and licensee implementation procedures will be needed to address oversight of risk assessment and management required by TS in support of mode changes that are not already required under the circumstances by (a)(4). This consideration provides performance-based regulatory oversight of the use of the proposed flexibility, and a disincentive to use the flexibility without the requisite care in planning.

In addition, the staff is in the process of developing detailed significance determination process (SDP) guidance for use in assessing inspection findings related to 10 CFR 50.65(a)(4). This guidance was issued in draft for comment and is anticipated to become final during 2003. The ROP considers inspection findings and performance indicators in evaluating licensee ability to operate safely. The SDP is used to determine the significance of inspection findings related to licensee assessment and management of the risk associated with performing maintenance activities under all plant operating or shutdown conditions. Unplanned reactor scrams and unplanned power changes are two of the Reactor Safety Performance Indicators that the ROP utilizes to assess licensee performance and inform the public. The ROP will provide a disincentive to entering into power operation (Mode 1), when there is a significant likelihood that the mode would have to be subsequently exited due to failure to restore the unavailable equipment within the completion time.

3.3 Summary

The industry, through the Nuclear Energy Institute (NEI) Risk Informed Technical Specifications Task Force (RITSTF), has submitted a proposed technical specification (TS) change to allow entry into a higher mode of operation, or other specified condition in the TS applicability, while relying on the TS conditions, and associated required actions and completion times, provided a risk assessment is performed to confirm the acceptability of that action. The proposal revises standard technical specification (STS) LCO 3.0.4 and SR 3.0.4, and their application to the TS. New paragraphs (a), (b), and (c) are proposed for LCO 3.0.4.

The proposed LCO 3.0.4(a) retains the current allowance, permitting the mode