FAQ # 06-0006 proposes the following revision to Section B.2.1 of NEI 04-02, Revision 1, to resolve the perceived inconsistency between the definitions used to describe high-low pressure interface boundary valves in NFPA 805, 2001 edition, and NEI 00-01, Revision 1:

"The methodology in NEI 00-01 for post-fire safe shutdown analyses may require additional clarification if the corresponding information in NFPA 805 is not in strict alignment (e.g., definition of high low pressure interfaces in NFPA 805, 2001 edition, Section 1.6.31, and NEI 00-01, Revision 1, Appendix C). For the purpose of the methodology review, the methodology in NEI 00-01 should be used as the basis for acceptability."

The proposed revision to Section B.2.1 of NEI 04-02, Revision 1, appears to touch two issues. One is the determination of which definition for high-low pressure interface boundary valves are to be used in conducting the nuclear safety performance criteria methodology review. The other is to specify which document takes precedence when future inconsistencies arise between NFPA 805 and NEI 00-01 when performing the Nuclear Safety Performance Criteria Transition Review. On both issues, the proposed text favored NEI 00-01 over NFPA 805 as the basis for acceptability.

First and foremost, it is the NRC Staff position that where definitions or methodologies not in strict alignment are found during the Nuclear Safety Performance Criteria Transition Review process, NFPA 805 shall prevail over NEI 00-01, regulatory guides, and all other lower tier documents. Therefore, although the analysis methodologies presented in revision 1 of NEI 00-01 are acceptable for several other previous issues by the Staff as a viable approach in meeting regulatory requirements, NEI 00-01 remains an industry guidance document, thus can not take precedence over NFPA 805.

Secondly, NEI 00-01, Revision 1, established the following criterion in the determination of a high-low pressure interface valve:

"A valve whose spurious opening could result in a loss of RPV/RCS inventory and, due to the lower pressure rating or other breaches such as relief valve operations on the downstream piping, an interfacing LOCA (i.e., pipe rupture in the low pressure piping)."

NFPA 805, 2001 edition, defined high-low pressure interface valves as:

"Reactor coolant boundary valves whose spurious opening could potentially rupture downstream piping on an interfacing system or could cause a loss of inventory that could not be mitigated in sufficient time to achieve the nuclear safety performance criteria."

In reviewing the above definitions, the NRC Staff does not identify any contradiction between the two definitions. These definitions appear to be misaligned because the definition in NFPA 805 is intended to provide some flexibility to allow licensees to make reasonable interpretations of the rule. On this issue, the Staff interprets the NEI 00-01, Revision 1's definition of high-low pressure interface valves as those that could cause any loss of RPV/RCS inventory due to flow diversion or pipe ruptures in the low pressure piping as the result of spurious valve operations. Based on this interpretation, the Staff concludes that the given definition bounded the definition of high-low pressure interface valves presented in the 2001 edition of NFPA 805. As such, for the purpose of analyzing high-low pressure boundary valves in conducting the nuclear safety performance criteria methodology review per revision 1 of NEI 04-02, the Staff concluded that the guidance provided in NEI 00-01, Revision 1, is an acceptable approach.

As a resolution to the proposed FAQ 06-0006, the Staff recommends one of the following alternatives:

1. Change the proposed text to:

   "The definition in NEI 00-01 for high-low pressure interfaces is not in strict alignment with NFPA 805 (2001 edition, Section 1.6.31, and NEI 00-01, Revision 1, Appendix C). For the purpose of the methodology review, the methodology presented in NEI 00-01 could be used as the basis for acceptability for high-low pressure interfaces involving downstream piping for intersystem LOCAs. Reactor coolant boundary valves whose spurious opening could cause a loss of inventory that could not be mitigated in sufficient time to achieve the nuclear safety performance criteria should be considered as part of the plant's nuclear safety analysis, and need not be evaluated in the same stringent manner as high-low pressure interfacing systems are analyzed in NEI 00-01."

2. Resubmit FAQ 06-0006 to identify specific screening criteria (e.g., piping less than 2" in diameter, potential line break inside vs. outside containment, downstream check valve, etc.) that the industry wishes to adopt for evaluating reactor coolant boundary valves whose spurious opening could adversely impact the capability to achieve the nuclear safety performance criteria in performing the nuclear safety performance criteria methodology review.