Summary of the Two Issues Raised in FAQ-06-0006

NEI 04-02, Revision 1, which has been endorsed by RG 1.205, references the use of NEI 00-01 methodology as one acceptable method for meeting the requirements of Section 2.4.2, "Nuclear Safety Capability Assessment," of NFPA 805. During the pilot plant review of the post-fire safe shutdown methodology, licensee noted that the definition of "high-low pressure interface" provided in NEI 00-01, Appendix C, and the definition of that term in provided in NFPA 805, Section 1.6.31 are different. Therefore, through FAQ 06-0006, the licensee requested that the NRC staff provide a clarification on the acceptability of the NEI 00-01's definition of the term "high-low pressure interface" in meeting NFPA 805 requirements.

Section 1.6.31 of NFPA 805 defines High-Low Pressure Interface as follows:

> "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."

Section C.4 of NEI 00-01, establishes the following criterion for the determination of a high-low pressure interface valve:

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

Since the above definitions of high-low pressure interface do not match verbatim, the licensee raised two issues using FAQ-06-006. Issue #1 is the determination of which definition for high-low pressure interface boundary valves is to be used in conducting the nuclear safety performance criteria methodology review. Issue #2 is to specify which document takes precedence when inconsistencies or conflicts arise between NFPA 805 and NEI 00-01 when performing the Nuclear Safety Performance Criteria Transition Review.

Resolution of Issues

On Issue #1, the staff concluded that the definition provided in NEI-00-01 for the term "high-low pressure interface" is acceptable. The staff reviewed the above definitions and determined that NEI 00-01 defines 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. This definition, therefore, bounded the NFPA 805's definition, which focused on inventory loss that could not be mitigated in sufficient time to achieve the nuclear safety performance criteria. In addition, the staff noted that the use of NEI 00-01 methodology to identify and evaluate high-low pressure interface valves has been previously accepted by the NRC. Therefore, for the purpose of analyzing high-low pressure boundary valves in conducting the nuclear safety performance criteria methodology review for NFPA 805 transition, the staff agreed that the guidance provided in NEI 00-01 is one acceptable approach.

On Issue #2, it is the staff's position that where definitions or methodologies are not in strict alignment between documents, regulatory requirement documents (e.g., NFPA 805) take precedence over industry guidance (e.g., NEI 00-01), regulatory guides, and all other lower tier documents. As such, the staff recommended that FAQ 06-0006 be revised to delete the text which may be construed as whenever NFPA 805 and NEI 00-01 are not in strict alignment, the methodology in NEI 00-01 would take precedence and should be used as the basis for acceptability. The licensee accepted the staff recommendation and issued FAQ 06-0006, Rev. 2, to emphasize that the acceptance of NEI 00-01 methodology is only applicable to the high-low pressure interface issue. In addition, texts that implied NEI 00-01 methodology may take precedence over a regulatory document is deleted.