

NRC Vote for Ballot # 11-2083

Record # 11-1475: Disapprove, with the following comments:

1. QDR references ASME Section III, Subsection NF for dynamic restraints' qualification. ASME Section III, NF-3412.5, "Dampers" states that, "dampers provide similar system behavior as snubbers and can be used to mitigate dynamic events. Dampers shall meet the requirements of NF-3412.4, "Snubbers." Footnote 14 of NF-3412.4 states that, "For qualification and inservice information pertaining to snubbers refer to ASME QME-1, Subsection QDR and ASME OM Code Subsection ISTD." The statements related to dampers, as defined in NF-3412.5, are not accurate based on the following: Snubbers and dampers are not be interchangeable because (1) The behavior of snubbers and dampers are not similar; (2) Viscoelastic dampers are not qualified for all dynamic events such as earthquakes; (3) Qualification and inservice inspection and testing requirements for snubbers and viscoelastic dampers are different; and (4) ASME OM Code Subsection ISTD does not specify any requirements regarding inspection and testing of dampers.
2. QDR-6224.2, "Service Condition," implies that viscoelastic dampers may be used for operating basis earthquake (OBE), safe shutdown earthquake (SSE), loss of coolant accident (LOCA), and high energy line break (HELB) environment conditions. There is no data available, in the documentation for viscoelastic dampers, to support the use of these dampers, for the conditions noted above.
3. QME Code Case-006 (Record # 08-989) should not be incorporated into the QDR without sufficient basis. Currently only two or three nuclear plants in the United States (US) are using these viscoelastic dampers for vibration control in non-safety systems. No nuclear plant in the US is using these dampers in safety-related systems or in place of snubbers. There is no data available in the documentation to support the usage of these dampers in nuclear plants. Until more data is available, the QME Code Case-006 should be available only as a code case for the industry to use.
4. New QDR-4400, "Viscoelastic Damper," states that viscoelastic dampers contain fluid. Inservice inspection requirements for dampers and snubbers require visual inspection of the internals, including fluid level. Due to the design of the viscoelastic dampers, the fluid level and internals cannot be inspected or verified, and no equivalent inspection for these dampers is provided.

Record # 11-1477: Disapprove, with the following comment:

1. If Nonmandatory Appendix QDR-A is to be changed to Mandatory Appendix QDR-I, the following items need to be addressed:
 - a. Under QDR-I4000, add QR-4000.
 - b. Under QDR-I5100, define seismic restraint, dynamic force restraints, vibration restraints, pipe wiped restraints, and relief valve restraints.
 - c. Under QDR-I5320, upset, Level C, and faulted conditions need to be defined.

- d. If QME Code Case-006 is incorporated into the QDR, then all the applicable Sections of Appendix QDR-I must be revised to include information related to viscoelastic dampers.

Record # 11-1479: Disapprove, with the following comment:

1. If QME Code Case-006 is incorporated into the QDR, and Nonmandatory Appendix QDR-B, "Restraint Similarity," is to be changed to the new Nonmandatory Appendix QDR-A, then details about viscoelastic dampers must be included in QDR-A.

Record # 11-1480: Disapprove, with the following comment:

1. If QME Code Case-006 is incorporated into the QDR, and Nonmandatory Appendix QDR-C, "Typical Values of Restraint Functional Parameter," is to be changed to new Nonmandatory Appendix QDR-B, then details about viscoelastic dampers must be included in QDR-B.