

*Response:* Technical documents related to this rulemaking are publicly available for inspection and copying at the NRC Public Document Room and may also be viewed and downloaded electronically via the rulemaking website. In accordance with current NRC regulations, a site may store spent nuclear fuel in a given cask for a period of 20 years. Storage of spent nuclear fuel for a period beyond 20 years is beyond the scope of this rulemaking. TS Section 5.2.5 includes a requirement to monitor the thermal performance of each cask, and Section 5.2.3 includes a requirement to develop a radiological environmental monitoring program.

*Comment 11:* One commenter asked who at the NRC has approved cranes, other moving equipment, and casks, and what independent verification process was used.

*Response:* The equipment qualification for lifting and moving heavy loads is addressed in the CoC for the cask design as Condition #5. This item states that a plant-specific safety review (under § 50.59 or § 72.48) is required to show operational compliance with plant-specific heavy load requirements. Each licensee who uses the storage cask is responsible for ensuring that any moving equipment that will be used meets NRC regulatory requirements. The NRC conducts inspections of licensees' loading activities, and such inspections would verify that heavy load issues would be addressed by licensees. The NRC approves cask designs for spent nuclear fuel storage in accordance with the requirements of Part 72.

*Comment 12:* One commenter asked how the NRC's independent verification process for the proposed NUHOMS casks has changed to address problems that arose with other cask designs. Problems included flammable hydrogen gas bubbles, zinc interactions that can cause an explosion, welding problems, procedure adherence, quality control, cracking, helium leaks, cask loading, flaws in neutron shielding material, faulty O-rings, unloading procedures, and cask deterioration within a few years of installation.

*Response:* When problems have arisen, the NRC has taken appropriate action to avoid future problems. The NRC staff conducted its independent safety review of the proposed cask design, keeping in mind design issues that have occurred in other cask designs over the past several years. It found no evidence of design-specific characteristics or issues that could lead to repeat of the design concerns raised in this comment.

*Comment 13:* One commenter stated that the NRC must guarantee the public that the following will not occur if NUHOMS casks are allowed for storage of high-level radioactive waste: (a) Design flaws; (b) vents cut off from air flow due to debris; (c) faulty parts and equipment; (d) cracking; (e) casks approved without NRC's CoC; and (f) exemptions from NRC policies granted to any casks or cask siting, loading, transferring, or transportation procedures.

*Response:* The NRC takes its responsibility as a regulatory agency very seriously along with its mission to protect the health and safety of the public from dangers associated with the use of radioactive materials. The NRC staff of technical experts has completed a thorough review of the Standardized Advanced NUHOMS® System cask design. As needed, NRC may conduct inspections of vendors and contractors and may witness dry run exercises and the first fuel loading of the cask when it occurs to verify that the design methods were acceptable, that cooling capability will be maintained, and that proper parts have been used in the fabrication process. No casks can be approved without a CoC being issued, and any exemptions from NRC regulations must be justified and approved by the NRC. In addition, any licensee that uses one of these casks in the future must purchase, use, and maintain the casks in accordance with an NRC-approved Quality Assurance (QA) program. A QA program provides checks and balances to ensure that the quality of the casks is addressed during all stages of design, fabrication, use, maintenance, loading, and unloading (if required).

*Comment 14:* One commenter asked if there is video footage demonstrating an actual fuel removal into NUHOMS casks at any other nuclear facility? If so, where can the public view a copy? If not, the commenter requested that one be required and sent to all communities that will use NUHOMS casks to store high level radioactive waste onsite for 10–100 years, if not permanently.

*Response:* The commenter's request for such a video is beyond the scope of this rulemaking. There are no NRC regulatory requirements for licensees to use, or submit as part of an application, video footage demonstrating the loading of spent nuclear fuel into a NUHOMS cask.

*Comment 15:* One commenter believed that all information, including the NRC independent verification of SCE's studies, demonstrating that NUHOMS casks are capable of withstanding a 7.5-magnitude

earthquake should be made available to communities within a 50-mile radius of SONGS.

*Response:* The comment about verification of SCE's studies is a site-specific issue and therefore beyond the scope of this rulemaking. It is NRC policy that documents be made public through ADAMS, unless they contain proprietary, safeguards, or other protected information. In this case, NRC staff completed its review of the seismic capability of the cask design to withstand the forces of an earthquake that produces accelerations in two horizontal directions of 1.5 g and a vertical acceleration of 1.0 g acting simultaneously, as documented in the SER.

*Comment 16:* One commenter stated that, according to the NRC in 1990, the "conservative" approach to financing assumptions would entail no repository until 2025, and onsite dry cask storage in the interim. The commenter questioned what assurances (real tests) do residents near the reactor have that casks will not leak, corrode, or in any way negatively impact safety, as the casks are only certified for 20 years and taking into consideration the NRC quote above. The commenter asked what state-of-the-art testing has been done to assure residents within 50 miles of the ISFSI that NUHOMS casks can withstand earthquakes, faulty welds, corroded welds, fuel leakage, and/or terrorism for 100 years, if not permanently.

*Response:* The NRC staff completed its review of the seismic capability of the cask design to withstand the forces of an earthquake, and this is documented in the SER. The capability to deal with security threats or terrorism attacks is addressed under Part 73 and is beyond the scope of this rulemaking. Problems with welds and fuel leaking would be addressed by procedures and the QA program of the licensee and implemented during fabrication and loading which is beyond the scope of this rulemaking as well. Dry casks are designed to maintain their confinement integrity for the licensed period; *i.e.*, 20 years. During the life of a cask, the licensee must conduct periodic inspections and maintenance to ensure that the cask design functions remain as specified in the CoC. Storage of spent fuel in this cask design, beyond 20 years, is beyond the scope of this rulemaking. A separate NRC review and approval would be needed for storage beyond the 20-year period.

*Comment 17:* One commenter asked how damaged fuel assemblies will be handled and what independent verification has the NRC done to assure