

municipal solid waste landfills in California (Code of Regulations Section 66264.25(b), and the International Building Code—2000 (IBC—2000). The California standard requires the municipal waste landfills to be designed to withstand the maximum credible earthquake (MAPE of 4E–4) of the IBC—2000 without decreasing the level of public health and environmental protection. The cask and the cask transfer building at an ISFSI or MRS facility, designed to a DE at a MAPE of 5E–4, has the capacity to withstand earthquakes of greater magnitude than the one associated with the MAPE of 4E–4. This is because of the conservatism in the seismic evaluation criteria and of NRC's NUREG–1536 and NUREG–1567, which significantly exceed those in modern conventional building codes. Additionally, the risk of the ISFSI or MRS facility to public health and safety is lower than the risk for hazardous waste and municipal solid waste landfills because the spent nuclear fuel is contained within a sealed steel cask in an isolated facility away from the public, with a controlled boundary at a minimum distance of 100 m. Landfills, on the other hand, may be open and in close proximity to public areas.

Comment 25: Three commenters stated that the proposed rule provided no basis or quantitative analysis to justify lowering the DE to any particular value. One of these commenters indicated that absent any quantitative evidence justifying a particular value, the conservative, precautionary approach of requiring ISFSIs and MRSs to meet the same design standard as a nuclear power plant is most appropriate. One of these commenters noted that the adequacy of the MAPE should be addressed with respect to the change in the DE. The commenter stated that this could be addressed by using the higher proposed MAPE versus what is currently required and then determining if the change in the level of risk of a release is significant or not.

Response: The DE level proposed in the draft regulatory guide was selected based on the fact that the ISFSI or MRS risk is lower than that of an NPP and on the fact that this level is consistent with the hazard levels used in the nuclear industry for similar facilities. Details of the NRC's analyses for establishing the DE level are provided in the report, "Selection of Design Earthquake Ground Motion Reference Probability". This report may be accessed through the NRC's Public Electronic Reading Room on the Internet at <http://www.nrc.gov/reading-rm/adams.html>. If you do not have access to ADAMS or if there are

problems in accessing the documents located in ADAMS, contact the NRC's PDR reference staff at 1–800–397–4209, 301–415–4737, or by email to pdr@nrc.gov.

Comment 26: Two commenters strongly endorsed the proposal to lower the DE. The commenters stated that the DE provided in the draft regulatory guide at a MAPE of 5E–4 (2,000 year return period) provides a level of relief in establishing the DE that is completely consistent with the risk-informed regulation policy and is an excellent example of the application of the policy. One commenter stated that the philosophy of applying a graded approach to seismic design requirements for facilities of differing risks has been in existence for more than 30 years. The commenter described DOE's approach for seismic design requirements for DOE facilities, which span a range of potential risks. The commenter went on to state that based on the amount of radioactive material stored in a large dry cask ISFSI, the resulting classification using the DOE approach would result in a design standard with a MAPE of 5E–4. The commenter stated that considering the minor radiological consequences from a single canister failure and a lack of a credible mechanism to cause such a failure from a seismic event would suggest that this design criteria level is more than adequately conservative for a dry cask ISFSI.

Response: The commenters support the NRC's recommendation of the seismic design earthquake level to a MAPE of 5E–4 (2,000 year return period).

Finding of No Significant Environmental Impact: Availability

Comment 27: Three commenters challenged the assertion that the NRC has considerable experience in licensing dry cask storage systems and analyzing cask behavior. One commenter noted that the NRC has licensed only four ISFSIs in the western U.S., the most seismically active part of the country, and none as close to major plate-boundary faults as the three planned for coastal California. The commenters also said that analytical experience in licensing does not equate with practical experience. One commenter stated that this will only be achieved when an ISFSI experiences strong ground motions as a result of a major earthquake. As a result, the commenter believes that neither the specific nor general licenses issued have been tested.

Response: As discussed in the NRC response to Comment 4, cask stability can be evaluated with adequate

reliability by using non-linear dynamic analyses because the concept of free-standing structures is not a new one. One does not need to test all structures prior to using them, provided structures are simple and can be reliably analyzed.

Regulatory Analysis

Comment 28: A commenter noted that the proposed changes impose no new burdens on establishing the DE for an ISFSI over the current requirements in 10 CFR part 72.

Response: The NRC's analysis actually indicates that there would be an overall reduction in the total burden placed on licensees from these changes. The estimate of values and impacts to a specific-license applicant indicates additional costs of \$100,000 for addressing uncertainties in seismic hazard analysis. In some cases, ISFSI specific-license applicants have sought exemptions from the design requirements contained in § 72.102, considering site characteristics and other factors. The rule would reduce or eliminate the need for these exemption requests by reducing the DE level for certain structures, systems, and components, resulting in a savings of \$150,000 per license applicant. Further, no structures, systems, and components would be required to be designed to withstand a DE at a MAPE of 1E–4 (equivalent to the SSE of an NPP), resulting in lower analytical and certain capital costs. The overall effect of the rule would be a cost savings to new specific-license applicants. However, the amount of these savings is highly site-specific, depending on site characteristics and the specified DE level.

Finally, the rule will change § 72.212(b)(2)(i)(B) to require written evaluations, prior to use, establishing that cask storage pads and areas have been evaluated for the static and dynamic loads of the stored casks. There are no additional costs associated with evaluating cask pads and areas for dynamic loads because general licensees are already required to consider dynamic loads to meet the cask design basis of the Certificate of Compliance under § 72.212(b)(i)(A).

VII. Summary of Final Revisions

This final rule will make the following changes to 10 CFR part 72:

Section 72.9 Information collection requirements: OMB approval

In § 72.9, the list of sections where approved information collection requirements appear is amended to add § 72.103.