

protection for the public health and safety, whether the NRC-licensed activity is operation of a nuclear power reactor, storage of spent fuel in an ISFSI or an MRS, or disposal of high-level radioactive wastes in a geologic repository. Significantly, however, the goal of comparable protection does not mean ISFSI activities must be regulated by NRC's using the same NRC requirements as for reactors or geologic repositories.

Specifically, the public health and safety risks posed by ISFSI storage, described in various publicly available NRC documents identified below, are very different from the risks posed by the safe irradiation of the fuel assemblies in a commercial nuclear reactor, which requires the adequate protection of the public factor in the conditions of high temperatures and pressures under which the reactor operates. The risks of ISFSI storage are also very different from those posed by the safe disposal of the irradiated fuel in a geologic repository, which would require isolation of the wastes from the accessible environment for thousands of years.

Nuclear fuel irradiated in a power reactor is highly radioactive and produces considerable heat. However, after the minimum 1 year of cooling that precedes its storage in an ISFSI, cooling and some shielding requirements will decrease as a result of the natural decay process over time. See Generic Environmental Impact Statement on the Handling and Storage of Spent Light Water Power Reactor Fuel (NUREG-0575-V-1, August 1979) at 2-2. A fuel assembly cooled for 10 years after discharge from the reactor (typically the age of spent fuel actually placed in dry storage) generates approximately 500 watts of heat, which is on the order of the amount of heat generated by the light bulb in a floodlamp. In addition, its radiation dose rate is approximately one-half the rate when it was discharged from the reactor. ISFSIs are therefore designed to adequately dissipate the remaining heat, provide sufficient shielding from the radioactivity, and safely confine any gaseous and particulate radioactive nuclides.

The potential ability of irradiated fuel to adversely affect public health and safety and the environment is largely determined by the presence of a driving force behind dispersion. Therefore, it is the absence of such a driving force, due to the absence of high temperature and pressure conditions in an ISFSI (unlike a nuclear reactor operating under such conditions that could provide a driving force), that substantially eliminates the likelihood of accidents involving a

major release of radioactivity from spent fuel stored in an ISFSI.

[D]uring normal [storage] operations the conditions required for the release and dispersal of significant quantities of radioactive materials are not present. There are no high temperatures or pressures present during normal operations of under design basis accident conditions to cause the release and dispersal of radioactive materials. This is primarily due to the low heat generation rate of spent fuel with more than the one year of decay before storage in an ISFSI required by the rule and with the low inventory of volatile radioactive materials readily available for release to the environs. (45 FR 74693; November 12, 1980.)

Further, since its radioactive content is in the form of solid ceramic material (except for some gaseous fission products) encapsulated in high-integrity metal cladding, spent fuel is relatively invulnerable to sabotage and natural disruptive forces. See Environmental Assessment for 10 CFR Part 72, "Licensing Requirements for the Independent Storage of Spent Fuel and High-Level Radioactive Waste," at II-15 and -16 (NUREG-1092, August 1984); see also 45 FR 74693 (November 12, 1980).

Although the risks associated with ISFSIs described above differ from those of nuclear power plant operation or geologic disposal, the Commission's regulatory responsibility to ensure adequate protection remains the same. However, the manner in which it discharges those responsibilities will differ. Significantly, because of the very different risks, the Commission would not automatically apply all regulatory requirements to ISFSIs that it applies to other regulated activities. More particularly for this rulemaking, based on its experience to date, the Commission believes it can and should fulfill its public responsibilities, through the ISFSI licensing and inspection process described earlier in this notice, as supervised and directed by the Commission, but without the need for specific Commission authorization of every ISFSI license in the future.

However, as discussed in response to comment 8, the NRC licensing experience that support this rulemaking to eliminate specific Commission approval of ISFSI licenses is not sufficient to support a similar change for the MRS or for an ISFSI at other than a reactor site. Therefore, the Commission intends that NRC rules continue to require specific Commission authorization before issuance of a license for an MRS or a license for an ISFSI that is located at a site other than a reactor site.

5. *Comment:* The cost savings for the agency and utilities are not an appropriate basis for the rulemaking amendments.

Several commenters took issue with the Commission's statement in the proposed rule that the amendments could save money that would otherwise be spent on unnecessary agency reviews. One commenter characterized the prospect of financial savings for the agency and its licensees as "offensive," because it was being used to justify elimination of a "safety-related" review of ISFSIs whose failure could lead to significant adverse consequences to the public health and safety. Another commenter similarly challenged the Commission's rationale for reducing the costs of duplicative Commission review on the ground that the Commission's responsibility is to protect the public health and safety, not the nuclear industry's financial well-being or its profitability for stockholders.

*Response:* As the foregoing responses to comments make clear, the Commission's experience to date leads it to believe it can fully perform its public protection responsibilities without specific authorization of every license for an ISFSI at a reactor site that is now required under the Commission's current process. The extra step of express Commission authorization for each specific license is a minor, ancillary matter in protecting public health and safety. If the Commission thought the additional step was needed for safety, then it would require the review step regardless of its cost.

Therefore, one consequence of the current process (i.e., the process that includes the extra step of specific Commission authorization) is that someone is paying the bill for agency review steps that are not really needed. Because Commission funding is recovered from the nuclear industry through license fees and the like, the people who are paying the bill are normally utility ratepayers. Significantly, however, the Commission would have proposed these rulemaking amendments even if its costs were not recoverable and, in that case, the people paying the bill were the U.S. taxpayers.

The Commission has the public interest responsibility to regulate effectively without imposing unnecessary or overly burdensome regulatory costs. Where, as here, the Commission can make rulemaking amendments that will allow it to perform its public health and safety responsibilities more efficiently, but do not diminish in any way the license applicant's obligation to demonstrate to NRC (and to any member of the public