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OFFICE OF THE
SECRETARY

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

June 24, 1998

STAFF EXHIBIT T

MEMORANDUM TO:

L. Joseph Callan
Executive Director for Operations

FROM:

John C. Hoyle
John C. Hoyle, Secretary

SUBJECT:

STAFF REQUIREMENTS - SECY-98-126 - RULEMAKING PLAN:
GEOLOGICAL AND SEISMOLOGICAL CHARACTERISTICS
FOR SITING AND DESIGN OF DRY CASK INDEPENDENT
SPENT FUEL STORAGE INSTALLATIONS, 10 CFR PART 72

This is to advise you that the Commission has not objected to the proposed Rulemaking Plan as described in the subject paper.

NUCLEAR REGULATORY COMMISSION

cc: Chairman Jackson
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
OGC
CIO
CFO
OCA
OIG
Office Directors, Regions, ACRS, ACNW, ASLBP (via E-Mail)
PDR
DCS

Docket No. _____ Official Exh. No. T
In the matter of _____
Staff ✓ IDENTIFIED ✓
Applicant _____ RECEIVED ✓
Intervenor _____ REJECTED _____
Other 5-11-02 WITHDRAWN _____
DATE 5-9-02 Witness _____
Clerk JMP

DOCKETED
USNRC

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OFFICE OF THE SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

SECY NOTE: THIS SRM AND SECY-98-126 WILL BE MADE PUBLICLY AVAILABLE 5
WORKING DAYS FROM THE DATE OF THIS SRM.

Template = SECY-028

SECY-02



RULEMAKING ISSUE

(NEGATIVE CONSENT)

SECY-98-126

June 4, 1998

FOR: The Commissioners

FROM: L. Joseph Callan
Executive Director for Operations

SUBJECT: RULEMAKING PLAN: GEOLOGICAL AND SEISMOLOGICAL
CHARACTERISTICS FOR SITING AND DESIGN OF DRY CASK
INDEPENDENT SPENT FUEL STORAGE INSTALLATIONS,
10 CFR PART 72

PURPOSE:

To inform the Commission that the Executive Director for Operations intends to sign the enclosed Rulemaking Plan to amend certain sections in 10 CFR 72.102 and 72.212(b).

ISSUE:

The geological and seismological siting requirements for all types of independent spent fuel storage installations (ISFSIs) are contained in 10 CFR 72.102. Section 72.102 requires that, for any ISFSI located west of the Rocky Mountain Front or in any areas of known potential seismic activity, seismicity be evaluated by the techniques of Appendix A of 10 CFR Part 100. For sites evaluated under 10 CFR Part 100 Appendix A criteria, Section 72.102(f)(1) requires that the design earthquake be equivalent to the safe shutdown earthquake (SSE) for a nuclear power plant (NPP).

The issues that require rulemaking are twofold. First, in 1997, the Commission amended Parts 50 and 100 of its regulations to update the criteria used in decisions regarding NPP siting, including geologic, seismic, and earthquake engineering considerations for future NPPs. Part 100 as amended in 1997 placed a new 10 CFR 100.23 section in the regulations to allow the option of using a probabilistic seismic-hazard methodology as part of the geologic and seismic siting criteria. A conforming change to 10 CFR 72.102 is proposed which will allow new dry cask ISFSI licensees to take advantage of the 1997 Part 100 amendments, specifically Part 100.23.

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NOTE: TO BE MADE PUBLICLY AVAILABLE
WHEN THE FINAL SRM IS MADE AVAILABLE

S. Rosenberg, NMSS/SFPO
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The second issue involves section 72.102(f)(1) which requires ISFSI sites west of the Rocky Mountain Front and in other areas of known seismic activity to use the SSE as determined by Appendix A of Part 100 as the design earthquake for the design of structures. The value determined by this process is equivalent to the SSE for a NPP. To date, one exemption to 10 CFR 72.102(f)(1) has been requested and reviewed. This type of exemption request is expected to continue in the future from other ISFSI applicants in the western United States. Thus, a change is proposed that will reduce the need for dry cask ISFSI licensees to request exemptions from Section 72.102(f)(1). The change would allow the use of a risk-informed graded approach to seismic design of ISFSI structures, systems and components (SSCs), while still maintaining reasonable assurance that public health and safety will be adequately protected. The risk-informed graded approach would be comparable to the 10 CFR Part 60 graded approach to design ground motion for SSCs in pre-closure facilities. It should be noted that the graded approach only applies to the seismic design of SSCs. The requirements for site characterization and level of investigation will remain as referenced in Part 72.102 (i.e., 10 CFR 100.23).

The rulemaking plan also proposes a minor amendment to 10 CFR 72.212(b) to require that design of cask storage pads and areas must adequately account for dynamic loads in addition to static loads.

DISCUSSION:

Because the approach in 10 CFR 100, Appendix A for seismic and geologic siting criteria has not explicitly recognized uncertainties in geoscience parameters, probabilistic seismic-hazard analysis methods have been developed that allow explicit expressions for the uncertainty in ground motion estimates and provide a means for assessing sensitivity to various parameters. In 1997, the Commission amended Parts 50 and 100 of its regulations to update the criteria used in decisions regarding NPP siting, including geologic, seismic, and earthquake engineering considerations for future NPPs. Part 100 as amended in 1997 placed a new 10 CFR 100.23 section in the regulations to allow the option of using a probabilistic seismic-hazard methodology. This alternative probabilistic approach is based on developments in the field over the past 2 decades. This rulemaking will provide a conforming change to 10 CFR 72.102 that will require new applicants for dry cask ISFSIs that are West of the Rocky Mountain Front and in other areas of known seismic activity to evaluate seismicity by the techniques of Part 100 as amended in 1997, specifically Part 100.23 (instead of 10 CFR 100 Appendix A). The staff notes that while strict adherence to the requirements in Appendix A would be removed, those ISFSI applicants that are located on existing nuclear power plant sites would still be able to take advantage of all of the geophysical investigation information that was obtained from the original licensing process (which used the Appendix A requirements).

For the past several years, dry cask ISFSIs have become an increasingly used option to store spent fuel. This trend is expected to continue for the foreseeable future. The staff believes the current regulation in 10 CFR 72.102(f)(1) is outdated and places an unnecessary burden on dry cask ISFSI applicants. Section 72.102(f)(1) requires sites west of the Rocky Mountain Front and other areas of known seismic activity to use the SSE for an NPP (as evaluated by

Appendix A to Part 100) as the design earthquake for use in the construction of structures. To date, one exemption to 10 CFR 72.102(f)(1) has been requested and reviewed. The staff is in the process of granting this exemption request, pending Commission approval.

This rulemaking will alleviate the need for new Part 72 applicants to request exemptions from 10 CFR 72.102(f)(1) by providing them with the option of using a risk-informed graded approach to seismic design for ISFSI structures, systems and components. This risk-informed graded approach would be comparable to the 10 CFR Part 60 graded approach to design ground motion for structures, systems, and components in pre-closure facilities. Licensees would still be required to conform to Part 100 for siting characterization. The proposed approach in this rulemaking plan is consistent with SECY-98-071 addressing the exemption to 10 CFR Part 72.102(f)(1) seismic design requirements for Three Mile Island Unit 2 ISFSI.

COORDINATION:

The Office of the General Counsel has no legal objection to this Rulemaking Plan. The Office of the Chief Financial Officer has reviewed this Commission Paper for resource impacts and has no objection.


The Office of Chief Information Officer has reviewed the rulemaking plan for information technology and information management implications and concurs in it. However, the plan suggests changes in information collection requirements that must be submitted to the Office of Management and Budget at the same time the rule is forwarded to the Federal Register for publication.

RESOURCES:

Resources to complete and implement the rulemaking are included in the current budget.

RECOMMENDATION:

Note that it is my intention to approve the Rulemaking Plan within 10 days from the date of this paper, unless otherwise directed by the Commission.


L. Joseph Callan
Executive Director
for Operations

Enclosure: Rulemaking Plan

SECY NOTE: In the absence of instructions to the contrary, SECY will notify the staff on Friday, June 19, 1998, that the Commission, by negative consent, assents to the action proposed in this paper.

RULEMAKING PLAN
GEOLOGICAL AND SEISMOLOGICAL CHARACTERISTICS
FOR THE SITING AND DESIGN OF DRY CASK ISFSIs
10 CFR PART 72

REGULATORY PROBLEM

In 1980, the Commission added 10 CFR Part 72 to its regulations to establish licensing requirements for the storage of spent fuel in an independent spent fuel storage installation (ISFSI), (45 FR 74693). Subpart E of Part 72 contains siting evaluation factors that must be investigated and assessed with respect to the siting of an ISFSI, including a requirement for evaluation of geological and seismological characteristics. The original provision (10 CFR 72.66) (45 FR 74708) distinguished between massive water basin and air-cooled canyon types of ISFSI structures and other types of ISFSI designs. For the former, § 72.66 (now § 72.102) required seismic evaluations equivalent to those required for nuclear power plants (NPPs) when the ISFSI was located west of the Rocky Mountain Front or in areas of known potential seismic activity. At that time, ISFSIs were largely envisioned to be spent fuel pools or single, massive dry storage structures. A seismic design requirement, equivalent to the requirements for an NPP (Appendix A of Part 100) seemed appropriate for these types of facilities, given the potential accident scenarios. For other types of ISFSI designs, the regulation required a site specific investigation to establish site suitability commensurate with the specific requirements of the proposed ISFSI. The Commission explained that "[f]or ISFSI's which do not involve massive structures, such as dry storage casks and canisters, the required design earthquake will be determined on a case-by-case basis until more experience is gained with the licensing of these types of units." [45 FR 74697 (1980)]. NRC staff believed that a major seismic event at an ISFSI storing spent fuel in dry casks or canisters would most likely have minor radiological consequences compared with a major seismic event at an NPP, spent fuel pool, or single massive storage structure.

Part 72 was amended in 1988 to include monitored retrievable storage facilities (MRS), (53 FR 31651). The 1988 amendments also relocated the provision governing evaluation of geological and seismological characteristics to § 72.102. It also eliminated the distinction formerly made between criteria for massive water basin and air-cooled canyon types of ISFSI structures and other types of ISFSI designs such that the criteria designed for massive structures now applied to all ISFSIs and MRSs. Thus, § 72.102 requires that, for any ISFSI located west of the Rocky Mountain Front or in any areas of known potential seismic activity, seismicity be evaluated by the techniques of Appendix A of 10 CFR Part 100 and that, for sites evaluated under the Appendix A criteria, the design earthquake (DE) be equivalent to the safe shutdown earthquake (SSE) for a NPP. For ISFSIs located east of the Rocky Mountain Front and not in areas of known seismic activity, the Appendix A criteria may be used to determine a site specific DE or, alternatively, a standardized DE described by an appropriate response spectrum anchored at a peak ground acceleration of 0.25 g may be used.

The procedures in Appendix A of Part 100 for determining the quantitative vibratory ground motion design basis at a site requires the use of "deterministic" approaches in the development

of a single set of earthquake sources. The applicant develops for each source a postulated earthquake to be used as the source of ground motion that can affect the site, locates the postulated earthquake according to prescribed rules, and then calculates ground motions at the site. Because this approach has not explicitly recognized uncertainties in geoscience parameters, probabilistic seismic hazards analysis methods have been developed that allow explicit expressions for the uncertainty in ground motion estimates and provide a means for assessing sensitivity to various parameters.

In 1997, the Commission amended Parts 50 and 100 of its regulations to update the criteria used in decisions regarding NPP siting, including geologic, seismic and earthquake engineering considerations for future NPPs (61 FR 65157). The 1997 Part 100 amendments placed a new § 100.23 in the regulations (and its accompanying Regulatory Guide 1.165) to allow the option of using a probabilistic seismic hazard methodology. This alternative probabilistic approach takes account of the shortcomings in the earlier siting requirements and is based on developments in the field over the past two decades. The Commission left Appendix A to Part 100 in place to preserve the licensing basis for existing plants and confined the applicability of § 100.23 to new NPPs. Since § 72.102 requires that seismicity be evaluated by the techniques of Appendix A of Part 100, new applicants for ISFSI licenses are not able to take advantage of the amendments to Part 100 and must follow the rules that applied to NPPs before the Part 100 amendments.

For the past several years, dry cask storage ISFSIs have become an increasingly used option to store spent fuel. This trend is expected to continue for the foreseeable future. The purpose of this rulemaking is to provide the same, or even greater flexibility, to applicants for a Part 72 license for dry storage of spent fuel, and thereby relieve potential applicants from unnecessarily burdensome requirements. Section 72.102(f)(1) requires sites west of the Rocky Mountain Front and in other areas of known potential seismic activity to use the safe shutdown earthquake for a nuclear power plant (as evaluated by Appendix A to Part 100) as the design earthquake for use in the design of structures. This rulemaking is intended to alleviate the need for applicants to request exemptions from 10 CFR 72.102(f)(1). For example, DOE requested an exemption from 10 CFR 72.102(f)(1) for an ISFSI at INEEL to store TMI-2 fuel, stating that the requirement is an unnecessary burden. These types of exemption requests are expected to continue in the future from other ISFSI applicants in the Western U.S. unless rulemaking precludes this. New licensees would still be expected to conform to Part 100 (Section 100.23) for siting investigations and characterization. Staff does not intend to revise the Part 72 geological and seismological criteria as they apply to wet storage because of the greater consequences associated with the potential accident scenarios for these facilities.

EXISTING REGULATORY FRAMEWORK

Section 72.102 describes the geological and seismological criteria for siting of ISFSIs and MRS facilities. Separate siting criteria are specified in 10 CFR 72.102 for (1) west of the Rocky Mountain Front and in other areas of known potential seismic activity and (2) east of the Rocky Mountain Front if not located in areas of known seismic activity. Section 72.102(a)(2) allows sites east of the Rocky Mountain Front if not located in areas of known seismic activity to use a standardized design earthquake (DE) described by an appropriate response spectrum (RS) anchored at a peak ground acceleration of 0.25g, if the results from foundation and geological

investigations, literature review, and regional geological reconnaissance show no unstable geological characteristics, soil stability problems, or potential for vibratory ground motion (VGM) at the site in excess of an appropriate RS anchored at a peak ground acceleration of 0.2g. Alternatively, a site-specific DE may be determined by using the criteria and level of investigations required by Appendix A to 10 CFR Part 100. Appendix A describes the principal seismic and geological criteria for assessing the suitability of sites for nuclear power plants and the suitability of the reactor plant design basis. These criteria describe the nature of the investigations required to obtain the geologic and seismic data necessary to determine site suitability. Appendix A describes procedures for determining the quantitative VGM design basis from an earthquake at a site and describes information needed to determine whether and to what extent a nuclear power plant needs to be designed to withstand the effects of surface faulting.

For sites west of the Rocky Mountain Front, and in other areas of known potential seismic activity, seismicity is evaluated by the techniques of Appendix A to 10 CFR Part 100 with the design earthquake for an ISFSI of no less than the safe shutdown earthquake ground motion (SSE), (as defined in Appendix A of 10 CFR 100).

The rule also states that:

- Sites other than those on bedrock must be evaluated for their liquefaction potential or other soil instability caused by VGM (10 CFR 72.102(c)).
- Site specific investigations and laboratory analyses must show that soil conditions are adequate for the proposed foundation loading (10 CFR 72.102(d))
- Sites with unstable geologic characteristics should be avoided (10 CFR 72.102(e))
- For sites evaluated under the criteria of Appendix A to 10 CFR Part 100, the DE must be equivalent to the SSE of the nuclear power plant, with a value of no less than 0.1g with the appropriate RS (10 CFR 72.102(f)(1) and (2)).

HOW THE REGULATORY PROBLEM WILL BE ADDRESSED BY RULEMAKING

Staff intends to leave present § 72.102 in place to preserve the licensing basis of present ISFSIs. However, new provisions would be added to § 72.102 which would provide the requirements that would be utilized by new license applicants.

Rulemaking will be necessary to provide new Part 72 licensees flexibility in evaluating geological and seismological factors in siting and design of dry cask ISFSIs. The rulemaking options are discussed below. It should be noted that all options for rulemaking changes will necessitate a revision to NUREG-1536, "Standard Review Plan for Dry Cask Storage Systems" and NUREG-1567, "Standard Review Plan for Spent Fuel Dry Storage Facilities."

OPTION 1: No action. The siting requirements for new dry cask ISFSIs would conform to the existing requirements of 10 CFR 72.102.

The benefit of this option is that no NRC resources would be expended in conducting a rulemaking. However, new licensees would need to conform to outdated criteria, developed for power reactors, which are very conservative, not risk informed, and may not be cost-effective for dry cask ISFSIs, especially when not located at a NPP site. Hence, this option is not

recommended.

OPTION 2: Require new Part 72 licensees to conform to 10 CFR 100.23 in lieu of 10 CFR Part 100 Appendix A.

The staff notes that while strict adherence to the requirements in Appendix A for determining the SSE will be removed, those ISFSI applicants that are located on existing nuclear power plant sites will be able to use all of the geophysical investigation information obtained from the original licensing process (which used the Appendix A requirements). The benefit of this option is that it would enable potential licensees to take advantage of state-of-the-art methodology for evaluating geological and seismological criteria contained in § 100.23 (revised power reactor regulations). The Regulatory Guide 1.165, Identification and Characterization of Seismic Sources and Determination of Safe Shutdown Earthquake Ground Motion, was developed to provide general guidance on procedures acceptable to the staff for satisfying the requirements of 10 CFR 100.23 for Nuclear Power Plants. This guidance would be considered acceptable for ISFSIs.

Among its other requirements, Section 100.23 stipulates evaluations that must be performed to arrive at estimates of the Safe Shutdown Earthquake ground motion (SSE). The SSE is the vibratory ground motion for which certain structures, systems, and components of an NPP are required to remain functional. However, the criteria for determining which SSCs of an NPP should remain functional during a SSE do not directly relate to ISFSI SSCs. Section 72.102(f)(1) which requires "...ISFSI structures" to be designed to the SSE does not delineate criteria for classification of SSCs, and therefore, may be excessive with respect to what is needed. Thus, this option is not risk-informed and does not achieve the objective of providing sufficient flexibility to licensees consistent with protection of public health and safety. Hence, this option is not recommended.

OPTION 3: Require new Part 72 licensees to conform to 10 CFR 100.23 in lieu of 10 CFR Part 100 Appendix A (Option 2) and also give them the option to use a graded approach to seismic design for ISFSI structures, systems, and components in conjunction with Option 2. In general, a graded approach to design of structures, systems, and components (SSCs) requires those SSCs, whose failure would result in greater accident consequences, to use higher design requirements for phenomena such as earthquakes and tornadoes. Likewise, those SSCs whose failure would result in lesser accident consequences would be designed to less stringent requirements. Therefore, a graded approach to seismic design for new Part 72 licensees would allow them to classify and design SSCs according to their importance-to-safety for seismic events. This graded approach would be in lieu of Section 72.102(f)(1) which requires sites that have been evaluated under the criteria of Appendix A of 10 CFR part 100 to design structures to a design earthquake that is equivalent to the SSE for a NPP. It should be noted that the requirements of 72.102 would still require licensees to conform to Part 100 for siting investigations and characterization.

The specific approach proposed for dry cask ISFSI systems, structures, and components would be comparable to the 10 CFR Part 60 graded approach to design ground motion for SSCs of pre-closure facilities. This graded approach would allow the structures, systems, and components of dry cask ISFSIs to be designed to either Frequency-Category-1 design basis

events or Frequency-Category-2 design basis events, depending upon their importance-to-safety. For seismic events, the staff has accepted the approach described in DOE Topical Report YMP/TR-003-NP, Rev. 2, Preclosure Seismic Design Methodology for a Geologic Repository at Yucca Mountain, pertaining to 10 CFR Part 60. In this approach, Frequency-Category-1 design basis ground motion refers to a mean annual probability of exceedance of $1.0\text{E-}03$, which corresponds to a 1,000-year return period. Frequency-Category-2 design basis ground motion refers to a mean annual probability of exceedance of $1.0\text{E-}04$, which corresponds to a 10,000-year return period. This quantitative interpretation of hazard levels would be provided in a guidance document for ISFSI licensees.

The utility of a graded approach is that it allows certain SSCs to be designed to a lower criteria, while requiring those other SSCs that have a high importance to safety to be designed to a more stringent criteria. An individual SSC may be designed to withstand only Frequency-Category-1 events (the less stringent criteria) if the licensee's analysis provides reasonable assurance that the failure of the SSC will not cause the facility to exceed the radiological requirements of 10 CFR 72.104(a). If the licensee's analysis cannot support this conclusion, then the designated SSC must have a higher importance to safety, and the SSC must be designed such that the facility can withstand Frequency-Category-2 events without impairing the ISFSI's capability to perform safety functions and without exceeding the radiological requirements of 10 CFR 72.106(b). Therefore, designing SSCs commensurate to their importance to safety follows the Commission's risk-informed approach to regulatory decision-making.

The seismic requirements in 10 CFR Parts 50 and 100, effective January 10, 1997, and 10 CFR Part 60, effective January 3, 1997, are based on probabilistic seismic hazard assessment techniques. Allowing new dry cask ISFSI licensees to use 10 CFR 100.23 in lieu of 10 CFR 100 Appendix A is considered a conforming change. Therefore, the technical basis for allowing Part 72 applicants to use 10 CFR 100.23 is the same as the technical basis used to change Part 100. The Part 60 change, also known as the design basis event (DBE) rulemaking, allows probabilistic methods in designing for hazards (including seismic) at a geologic repository, and allows two design levels based on risk (as described above). With the Part 60 DBE rulemaking, NRC adopted a graded approach similar to DOE Standard 1020 for natural hazard characterization and design. The proposed graded approach to dry cask ISFSI seismic design reflects the graded approach of Part 60 for repository pre-closure facilities. The radiological criterion that is required to be met by the present Section 72.102(f)(1), i.e., having the design earthquake equivalent to the SSE for an NPP as evaluated by Appendix A of 10 CFR Part 100, must also be met by this graded approach to seismic design as described in the preceding paragraph. Therefore, although this change for new ISFSI applicants may reduce the regulatory burden, it will continue to provide the level of protection to members of the public provided by present radiological criteria.

The advantages of this option for rulemaking are that (1) it would enable potential licensees to take advantage of state-of-the-art methodology for evaluating geological and seismological criteria contained in § 100.23 (revised power reactor regulations), (2) it would allow the industry the flexibility to design ISFSI SSCs so that the costs would be more commensurate with the probability of radiological consequences from an earthquake at an ISFSI (i.e., more cost-effective) and (3) it would be comparable to the graded approach to design requirements

for systems, structures and components for pre-closure facilities in 10 CFR Part 60 (Disposal of High-Level Wastes in Geologic Repositories).

PREFERRED OPTION

Option 3 is preferred. Under this option, licensees would have the choice of (1) using the newer reactor seismic siting and design criteria in 10 CFR 100.23, or (2) using the newer reactor seismic siting criteria in conjunction with a graded approach to seismic design for ISFSI SSCs.

Option 3 gives the licensees the flexibility to use the particular approach to siting and design that is the most cost-effective for them. This rulemaking option gives licensees the latitude to choose the most appropriate approach for their particular circumstances, but maintains reasonable assurance that public health and safety will be adequately protected.

The staff recommends proceeding with rulemaking for Option 3 for the reasons outlined below.

1. This option gives the licensees the flexibility to use the most suitable approach to siting and design that is the most cost-effective for them.
2. The seismic siting and design criteria would be consistent with both nuclear power reactors and pre-closure facilities of high-level waste geologic repositories.
3. The added criteria reflect the state of the art approach for reactors and the risk-informed, graded approach used for pre-closure facilities of high-level waste geologic repositories.

ADDITIONAL PROPOSED CHANGE

Changes to 10 CFR 72.212(b) are also needed to communicate that licensees for new ISFSI sites under the general license provisions should perform analyses to assure that casks are not placed in an unanalyzed condition. This proposed change to 10 CFR 72.212 would state that design of cask storage pads and areas must adequately account for dynamic loads (in addition to static loads). For example, dynamic effects can cause soil-structure interactions that could amplify ground motion to the point that the acceleration on the casks is greater than the design earthquake acceleration, or that soil liquefaction could cause unacceptable pad and foundation settlement. A dynamic analysis of ISFSI pads and areas would assure that the pad, which may be considered as failed in a seismic event, could continue to support the casks without placing them in an unanalyzed condition. In the past, this issue was addressed on a case-by-case basis. This is consistent with the Palisades Plant - NRC Final Safety Assessment of Independent Spent Fuel Storage Installation (ISFSI) Support Pad, September 20, 1994, which was first ISFSI approved for a general licensee.

OFFICE OF GENERAL COUNSEL LEGAL ANALYSIS

NRC staff has undertaken this rulemaking to reduce unnecessarily burdensome requirements with respect to evaluating the seismicity of potential ISFSI sites and determining a design earthquake for use in designing ISFSI structures as those requirements appear in 10 CFR § 72.102. The rulemaking proposes, as an alternative, a graded approach to seismic design for

ISFSI structures, systems, and components in conjunction with the Commission's revised methodology for evaluating geological and seismological criteria contained in 10 CFR 100.23 or, if the applicant or licensee prefers, use of 10 CFR 100.23 without a graded approach. The rulemaking plan indicates that this alternative will continue to meet the radiological criteria in Part 72 and therefore will continue to provide an adequate level of protection of public health and safety while reducing a regulatory burden. Given this, OGC does not foresee any basis for legal objection to this rulemaking.

The Backfit Rule in 10 CFR 72.62 may be implicated by the proposed amendment to 10 CFR 72.212 and a backfit analysis may be required. An environmental assessment and a regulatory analysis will be required. The options presented would reduce the burden on the licensee in the information collection requirements. An OMB clearance statement would be required in compliance with the Paperwork Reduction Act.

BACKFIT ANALYSIS

A backfit analysis could be implicated by the proposed amendment to 10 CFR 72.212. During of the development of the proposed rule, the staff will assess, if the addition to 10 CFR Part 72.212, a backfit is needed for this rulemaking action.

AGREEMENT STATE IMPLEMENTATION ISSUES

This rule is classified as compatibility category "NRC," and addresses areas of exclusive NRC regulatory authority.

MAJOR RULE

This is not a major rule.

SUPPORTING DOCUMENTS NEEDED

This rulemaking would require a Regulatory Analysis that would estimate the cost savings to licensees for each of the proposed changes. The information provided in the Regulatory Analysis for each change concerning the impact on small entities would be sufficient to support a Regulatory Flexibility Analysis or a certification that the proposed rule would not have a significant economic impact on a substantial number of small entities. An OMB Clearance Package will be needed because the rulemaking is expected to reduce reporting or recordkeeping requirements. An Environmental Assessment would be needed to show, as NRC staff currently believe, that there is no significant impact to public health and safety. A backfit analysis could be implicated by the proposed amendment to 10 CFR 72.212.

ISSUANCE BY EXECUTIVE DIRECTOR FOR OPERATIONS OR COMMISSION

It is recommended that the Commission issue this rulemaking because it involves additions to existing policy on the siting of new dry cask ISFSIs.

RESOURCES NEEDED TO COMPLETE RULEMAKING

The estimated resources to complete and implement the rulemaking are included in the FY1998 budget.

- NMSS 1.8 FTE (develop proposed rule, resolution of public comment, develop final rule)
- Others 0.3 FTE

Contractor: (for environmental assessment, regulatory analysis, assist in public comment analyses) \$100K.

Staff Level Working Group

Concurring Official

NMSS M. L. Au, Task Leader
S. Rosenberg
F. Young

C. Paperiello

OGC Neil Jensen

J. Gray

MANAGEMENT STEERING GROUP

A management steering group is not required for this rulemaking.

PUBLIC PARTICIPATION

There is no need for enhanced public participation for this rulemaking. The rulemaking documents will be placed on the NRC electronic rulemaking bulletin board in addition to publishing the documents for public comments.

SCHEDULE

Establish technical working group
Proposed rule to EDO
Final rule to EDO

1 month after approval of rulemaking plan.
12 months after approval of rulemaking plan.
6 months following expiration of public comment period.

ruleplan.nw9
05-21-98