

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

**RAS 3132**

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COMMISSIONERS:

Richard A. Meserve, Chairman  
Greta Joy Dicus  
Nils J. Diaz  
Edward McGaffigan, Jr.  
Jeffrey S. Merrifield

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In the Matter of )

PRIVATE FUEL STORAGE L.L.C. )

(Independent Spent Fuel )  
Storage Installation) )  
\_\_\_\_\_)

Docket No. 72-22-ISFSI

**CLI-01-12**

**MEMORANDUM AND ORDER**

In a January 31, 2001, order, the Atomic Safety and Licensing Board certified for the Commission's review the issue of whether the Board should adjudicate a request by applicant Private Fuel Storage, L.L.C. for an exemption from NRC's seismic hazards analysis regulations. See LBP-01-03, 53 NRC 84, 100-01 (2001); 10 C.F.R. § 2.718(i). The Board also referred to the Commission its ruling that Utah's challenge to the exemption would be admissible under our contention rule (10 C.F.R. § 2.714(b)) were we to allow the Board to entertain it. See *id.* at 131; 10 C.F.R. § 2.730(f). Consistent with our policy to accept Board certifications and referrals where "early resolution" of issues is desirable, we granted review. See *Private Fuel Storage*, CLI-00-03, 52 NRC 23, 28-29 (2000). We hold that Utah's exemption-related claims meet our admissibility requirements and may be litigated in this adjudication.

## **I. BACKGROUND**

### **A. Seismic Design Standards and the Rulemaking Plan**

Under our rules, an independent spent fuel storage installation (ISFSI) located west of the Rocky Mountain Front must meet the same seismic evaluation and design standards applicable to nuclear power facilities, which are found in 10 C.F.R. Part 100, Appendix A. See 10 C.F.R. § 72.102(b), (f). Appendix A calls for the use of a deterministic seismic hazard analysis, which calculates the maximum credible earthquake for the site. In 1997, Part 100 (but not Appendix A) was amended to allow nuclear power reactor licensees to use a probabilistic analysis, which accounts not only for the intensity of a potential seismic event, but also for the probability that a seismic event of a particular intensity will occur within a given time. See 10 C.F.R. § 100.23. Part 60, which applies to the disposal of high-level waste in geologic repositories, was also amended to allow the use of a probabilistic analysis.

The NRC staff is currently revising Part 72 to conform to this change and allow new ISFSI licensees the option to use a probabilistic analysis. See “Rulemaking Plan: Geological and Seismological Characteristics for Siting and Design of Dry Cask Independent Spent Fuel Storage Installations, 10 C.F.R. Part 72,” SECY-98-126. According to the rulemaking plan:

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 1.0E-03, which corresponds to a 1000-year return period. Frequency Category 2 design basis ground motion refers to a mean annual probability of exceedance of 1.0E-04, which corresponds to a 10,000-year return period.

...

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).<sup>[1]</sup> 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 ....

Under the approach suggested in the rulemaking plan, the applicant would use a seismic hazard analysis to determine the maximum intensity of a potential earthquake likely to occur within 1000 years (the 1000-year "return period") and within 10,000 years (the 10,000 year return period). The applicant would also have to calculate the potential consequences of an earthquake, in terms of how much radiation a person outside the facility's boundary would receive if various structures were to leak or fail. Any structure that would cause radiation doses immediately offsite to exceed the maximum prescribed by our regulations must be designed to the higher standard: the 10,000-year return period. Other structures, the failure of which would not cause excessive offsite radiation doses, would be designed to withstand the 1000-year seismic event.

## **B. The PFS Exemption Request**

In April, 1999, PFS submitted a request pursuant to 10 C.F.R. § 72.7 for an exemption from the regulation requiring it to use a deterministic seismic hazard analysis. It urged the staff to grant the exemption on the following grounds:

The exemption would permit the [design earthquake (DE)] at the PFSF to be calculated using the more recent PSHA methodology, in accordance with the guidance in Regulatory Guide 1.165, and applying the risk-informed approach of 10 CFR Part 60.

PFS has determined that there is an adequate safety basis for an exemption to the requirements of 10 CFR 72.102(f)(1), supported by a site-specific radiological risk analysis, as discussed below. The exemption would be consistent with Commission policy and regulations applicable to other facilities (i.e. nuclear power plants and high

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<sup>1</sup>"During normal operations and anticipated occurrences, the annual dose equivalent to any real individual who is located beyond the controlled area must not exceed 0.25 mSv (25 mrem) to the whole body, 0.75 mSv (75 mrem) to the thyroid and 0.25 mSv (25 mrem) to any other critical organ ...." 10 C.F.R. §72.104.

level waste geologic repositories) that carry greater risk than a Part 72 facility. Considering the minor radiological consequences of accidents analyzed at the PFSF, PFS considers that the present Part 72 requirement for calculating the design earthquake is an unnecessary regulatory burden. PFS considers that the use of probabilistic techniques and a risk-informed approach are compatible with the direction provided by the Commission on Direction Setting Issue 12, "Risk-Informed, Performance-Based Regulation" (Reference 2).

The probabilistic, risk-informed approach for establishing the PFSF DE described below is based on calculating the magnitude of a seismic event with a recurrence interval of 1,000 years. Use of a 1,000 year recurrence interval is justified in the PSHA based on dose consequences of accidents at the PFSF and consideration of relative risk, discussed below.

PFS Exemption Request, pp. 1-2. In August, 1999, in response to the staff's suggestion, PFS amended its request to use a 2000-year return period for all structures.

Utah immediately moved to amend its already-pending Contention Utah L (geotechnical) to challenge the adequacy of the exemption request. The state argued that PFS should either use the current deterministic method, the probabilistic method with the 10,000-year return period contemplated by the rulemaking plan, or a more conservative standard than the 2000-year return period in its request.

The Board determined that the issue would not be ripe until the staff determined whether to grant the exemption. See LBP-99-20, 49 NRC 429, 434 (1999). In its September, 2000 SER, the staff approved the exemption using the 2000-year return period. See SER at 2-42 (Sept. 29, 2000).

### **C. Utah's Contention on the Exemption Request**

The Board restated Utah's existing Contention L, which related to geotechnical matters, as follows:

Relative to the PFS seismic analysis supporting its application and the PFS April 9, 1999 request for an exemption from the requirements of 10 C.F.R. § 72.102(f) to allow PFS to employ a probabilistic rather than a deterministic seismic hazards analysis, PFS should be required either to use a probabilistic methodology with a 10,000-year return period or comply with the existing deterministic analysis requirement of section 72.102(f), or, alternatively, use a return period significantly greater than 2000 years, in that:

1. The requested exemption fails to conform to the SECY-98-126 rulemaking plan scheme, i.e., only 1000-year and 10,000-year return periods are specified for design earthquakes for safety-important SSCs -- SSC Category 1 and SSC Category 2, respectively -- and any failure of an SSC that exceeds the radiological requirements of 10 C.F.R. § 72.104(a) must be designed for SSC Category 2, without any explanation regarding PFS SSC compliance with section 72.104(a).
2. PFS has failed to show that (a) its facility design will provide adequate protection against exceeding the section 72.104(a) dose limits; and (b) its facility and equipment, specifically the components within the [cannister transfer building] involved in the transfer of the spent fuel canister from a transportation cask to a storage cask, including the proposed single-failure transfer crane, are designed to withstand a 2000-year return period earthquake.
3. The PFS accident evaluation is inadequate because (a) it does not bound the design basis accident DE IV under American National Standards Institute (ANSI)/ ANS-57.9-1999; (b) its leakage rate and breach hole assumptions are based on information in NUREG/CR-6487, "Containment Analysis for Type B Packages Used to Transport Various Contents" and NUREG-1617, "Standard Review Plan for Transportation Packages for Nuclear Spent Fuel," which in turn is derived from ANSI standard N14.5 for transportation casks, despite the fact that PFS cannot meet the leak-testing, repair, and maintenance assumptions upon which standard N14.5 is based; and (c) it does not account for beyond design basis accidents involving sabotage using anti-tank devices.
4. The staff's reliance on the reduced radiological hazard of stand-alone ISFSIs as compared to commercial power reactors as justification for granting the PFS exemption is based on incorrect factual and technical assumptions about the PFS facility's mean annual probability of exceeding a safe shutdown earthquake (SSE), and the relationship between the median and mean probabilities for exceeding an SSE for central and eastern United States commercial power reactors and the median and mean probabilities for exceeding an SSE for the PFS facility.
5. In supporting the grant of the exemption based on 2000-year return period, the staff relies upon the DOE standard, DOE-STD-1020-94, and specifically the category-3 facility SSC performance standard that has such a return period, notwithstanding the fact the staff categorically did not adopt the four-tiered DOE category scheme as part of the Part 72 rulemaking plan.
6. In supporting the grant of the exemption based on the 2000-year return period, the staff relies upon the 1998 exemption granted to DOE for the INEEL ISFSI for the TMI-2 facility fuel, which was discussed in SECY-98-071 (Apr. 8, 1998), even though that grant was based on

circumstances not present with the PFS ISFSI, including (a) existing INEEL design standards for a higher risk facility at the ISFSI host site; (b) a settlement agreement with the State of Idaho that required ISFSI construction by the end of 1998; and (c) the use of a peak design basis horizontal acceleration of 0.36 g that was higher than the 2000-year return period value of 0.30 g.

7. Because (a) design levels for new Utah building construction and highway bridges are more stringent; and (b) the PFS return period is based on the twenty-year initial licensing period rather than the proposed thirty to forty year operating period, the 2000-year return period for the PFS facility does not ensure an adequate level of conservatism.

LBP-01-03, 53 NRC at 92-93.

The Board found that item 3 did not meet the late-filing criteria, and that items 2(b) and 6(b) failed to raise a material fact issue. *See id.* at 94, 96, 100. The Board concluded that the remaining items did establish a “genuine material dispute adequate to warrant further inquiry,” and would be admissible if the Commission determines that the exemption request should be the subject of a hearing. *See id.* at 95-100.

## **II. RIGHT TO HEARING ON EXEMPTION REQUEST**

PFS and the NRC staff both oppose the grant of a hearing on issues pertaining to the exemption. First, they argue that the exemption request is not a proceeding in which an interested party is entitled to a hearing under §189a of the Atomic Energy Act, 42 U.S.C. § 2239. Second, they contend that Commission practice would allow a hearing on a contested exemption request only where the exemption is related to an existing contention already raised in the licensing proceeding. In connection with this argument, the NRC staff and PFS argue that Utah’s proffered exemption-related bases for Contention L cannot be the subject of a hearing because they do not relate to existing Contention L (geotechnical). Finally, they maintain that Utah has not raised any admissible contention relating to the exemption request. We disagree with PFS and the NRC staff on all three points.

**A. Exemption Request Related to Initial Licensing**

The Board's certified question and the parties' briefs consider whether PFS's request for an exemption -- *i.e.*, a determination that PFS need not meet the "design earthquake" standard set out in 10 C.F.R. § 72.102(f)(1) -- is an appropriate subject for an NRC hearing. See LBP-01-03, 53 NRC at 100. To speak in terms of a hearing on PFS's exemption is a convenient shorthand, which we ourselves use in today's order. It is important to recognize at the outset, though, that the certified question does not focus directly on the exemption itself, but, as the Board said, on "exemption-related matters." *Id.* At bottom, what Utah proposes to litigate is whether PFS's ISFSI design, which is dependent on an exemption from otherwise controlling seismic regulations, is adequate to withstand plausible earthquake risks. Viewed this way, Utah's proposed revised Contention L (geotechnical) plainly puts into play safety issues that are material to licensing and suitable for consideration at an NRC hearing. With that perspective in mind, we turn now to our jurisprudence on exemptions, and to how it applies to the current case.

Section 189a of the AEA provides that:

In any proceeding under this chapter for the granting, suspending, revoking or amending of any license ... and in any proceeding for the issuance or modification of rules and regulations dealing with the activities of licensees ... the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding ....

Agency actions that are not among those listed do not give rise to a hearing right for interested persons. See *Commonwealth of Massachusetts v. NRC*, 878 F.2d 1516 (1<sup>st</sup> Cir. 1989). The Commission recently restated this proposition in *Commonwealth Edison Co.* (Zion Nuclear Power Station), CLI-00-05, 51 NRC 90 (2000). Both *Massachusetts* and *Zion* rejected requests for an NRC hearing on exemption applications.

The Commission, however, has never excluded exemption-related issues from its hearing process as a categorical matter. We held in *Zion* that there is no right to a hearing under the AEA unless the exemption in question can properly be characterized as one of the “circumstances” specifically identified in section 189a as giving rise to a hearing right. See 51 NRC at 96. *Zion* went on to state that an interested party is not entitled to a hearing on an exemption that “does not change or amend the license.” *Id.* at 99. In a much earlier case, *United States Department of Energy* (Clinch River Breeder Reactor Plant), CLI-82-23, 16 NRC 412, 421 (1982), we had indicated that there was “a statutory right to a hearing on the granting of an exemption,” where the grant was “part of a proceeding for the granting, suspending, revoking or amending ... any license.”

PFS and the staff argue that *Zion* and *Massachusetts* defeat Utah’s request to litigate its concerns about PFS’s seismic exemption. But these two cases are quite different from the present case. In *Zion*, the Commission held that a stand-alone exemption request -- unrelated to initial licensing or a license amendment -- did not fall under the AEA § 189a hearing requirement. The licensee, Commonwealth Edison, had asked for an exemption from certain physical security regulations at an out-of-service, soon-to-be-decommissioned facility, where all fuel had been removed from the reactor. The Commission expressly rejected the Petitioners’ argument that an exemption request of this kind was actually a license “amendment.” Similarly, in *Massachusetts*, the court of appeals found that an exemption from a regulation requiring a full-participation emergency preparedness exercise was not a “license amendment” and did not trigger a hearing right. The court reasoned that the same regulation that imposed the emergency drill requirement also allowed for exemptions to it. “The exemption did not change Edison’s duty to follow NRC rules; it only changed which rule applied for a brief period of time,”



the court explained; “Edison was thus operating in accordance with its unaltered license.” 878 F.2d at 1521.

In contrast to *Zion* and *Massachusetts*, here we face a case where seismic analysis of the site for the proposed facility and establishing the facility’s design earthquake are required elements of the *license application* process. Pursuant to 10 C.F.R. § 72.40, PFS must show that it meets our regulatory requirements, or that an exemption from a particular requirement is in order, before the NRC can find the facility safe and license it. Because resolution of the exemption request directly affects the licensability of the proposed ISFSI, the exemption raises material questions directly connected to an agency licensing action, and thus comes within the hearing rights of interested parties.<sup>2</sup>

In sum, PFS is not an already-licensed facility asking for relief from performing a duty imposed by NRC regulations. Under *Zion* and *Massachusetts*, exemptions of that kind ordinarily do not trigger hearing rights. PFS is in the midst of a licensing proceeding; it is asking to be excused from otherwise applicable seismic analysis and design value regulations and to rely on other analyses and design values that will affect the facility throughout its life and form part of the basis for issuance of a license for the facility. The safe design of the facility is a matter that PFS must establish to obtain a license. In this context, PFS’s “exemption” cannot remove a matter germane to a licensing proceeding from consideration in a hearing, assuming

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<sup>2</sup>The NRC staff also cites *Kelley v. Selin*, 42 F.3d 1501 (6<sup>th</sup> Cir. 1994), *cert. denied*, 515 U.S. 1159 (1995), for the proposition that “the grant of an exemption from a generic requirement does not constitute an amendment to the reactor’s license that would trigger hearing rights.” 42 F.3d at 1517. *Kelley v. Selin* is unhelpful here because that case, like *Zion* and *Massachusetts*, did not consider the question whether an exemption relating to a licensing action triggers a hearing right. Rather, the court rejected petitioners’ claimed right to a hearing in a generic rulemaking that added a type of dry storage cask to a list of NRC-approved casks. The exemption to which the appeals court was referring in the quoted passage was granted to the storage cask manufacturer allowing it to initiate cask construction before it received a certificate of compliance. The petitioners did not ask for a hearing in connection with matters directly related to that exemption. In addition, the court held that the exemption was not an amendment to an operating license that would trigger hearing rights.

an interested party raises an admissible contention thereon.<sup>3</sup> To hold otherwise would exclude critical safety questions from licensing hearings merely on the basis of an “exemption” label.

## **B. Exemption’s Relation to Existing Contention**

PFS and the staff next argue that even if licensing-related exemption issues are litigable, Utah’s exemption issues are not, because they cannot be shown to relate to an existing contention. Unamended, Utah Contention L deals with the general issue of whether PFS has fully investigated potential ground motion from a seismic event. The original Contention Utah L does not, however, address the 2000-year return period design earthquake or the probabilistic hazard analysis. The Board found that the existing contention did not relate to the exemption request or Utah’s objections to it. See LBP-99-21, 49 NRC 431, 436. Neither our case law nor logic, however, supports the proposition that an exemption need only be addressed in a hearing if the intervenor had already raised a related contention prior to the applicant’s exemption request.

The NRC staff offers *Long Island Lighting Company* (Shoreham Nuclear Power Station, Unit 1), CLI-84-8, 19 NRC 1154 (1984), for the proposition that exemption-related issues trigger a hearing right only if related to an existing contention. In *Shoreham*, the Commission overturned a Board’s determination that a certain general design criterion did not apply to the applicant. Noting that the applicant had indicated during oral argument that it would file a

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<sup>3</sup>Although there are licensing cases where the Commission denied a request for a hearing on an exemption related to licensing, these rulings rested on the intervenor’s failure to raise an admissible contention, not on a general principle that the propriety of an exemption cannot be adjudicated in a licensing proceeding. See, e.g., *Carolina Power & Light* (Shearon Harris Nuclear Power Plant), CLI-86-24, 24 NRC 769 (1986), *aff’d*, *Eddleman v. NRC*, 825 F.2d 46 (4<sup>th</sup> Cir. 1987)(exemption granted from regulation that required full Emergency Preparedness Test to be conducted within 1 year prior to plant’s going online, when plant had performed test without incident 1 year, 7 months prior to operations). We are aware of no licensing case where we have declared exemption-related safety issues outside the hearing process altogether. See *U.S. Department of Energy* (Clinch River Breeder Reactor), CLI-81-35, 14 NRC 1100, 1104 n. 2 (1981).

request for an exemption from that design criterion, the Commission directed the applicant to modify its license application to include the exemption request and stated that the hearing on the license would include this issue. The *Shoreham* decision does not discuss what contentions were pending prior to the exemption request, and nowhere in that decision does the Commission hold that exemption requests may only be litigated where existing contentions raised similar issues.<sup>4</sup>

In another exemption case, *Shearon Harris*, the NRC staff referred petitioner Eddleman's request for a hearing on an exemption directly to the Commission, which in turn determined that the petitioner had raised no litigable contentions on the exemption request. See CLI-86-24, 24 NRC at 774-80. On appeal, the U.S. Court of Appeals for the Fourth Circuit rejected the petitioner's argument that granting the exemption "amended" the license and therefore required a hearing:

We find this contention premature, because the Commission's determination that the complaint did not set forth a contention that could be litigated has the effect of rendering the procedural prerequisites for a §189(a) formal hearing unmet. We likewise do not find error in the Commission's decision not to refer this matter to the licensing board. The licensing board did not have this issue, or any related issue, before it, and thus no advantage could have been gained by such a referral.

*Eddleman v. NRC*, 825 F.2d at 50. The appeals court therefore affirmed the Commission decision not to grant a hearing based on Eddleman's failure to set forth an admissible contention. The statement that "the licensing board did not have this issue ... before it" suggests that, were there a matter related to the exemption already pending before the board, an "advantage could have been gained by such a referral"; that is, a hearing might have been

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<sup>4</sup>A later Licensing Board, refusing to reopen the record in a licensing proceeding to admit a contention on an applicant's exemption request, distinguished *Shoreham* by saying that the exemption request there dealt with a contention already under litigation in that proceeding. See *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), LBP-85-33, 22 NRC 442 (1985). As a Board decision, rather than a Commission decision, *Perry* is not controlling here.

appropriate. But the statement does not support the argument that there can be no hearing, even where the petitioner has offered an admissible contention, unless there is already a hearing pending on a related issue.

Finally, in two other decisions, the Commission determined that the exemption requests were so closely related to the subject matter of ongoing hearings that the exemption requests should be rejected outright. In *Louisiana Power and Light Co.* (Waterford Steam Electric Generating Station, Unit 3), CLI-73-25, 6 AEC 619 (1973), the Commission found that because there were seriously contested environmental issues under litigation, granting an exemption request to permit commencement of construction prior to issuance of a permit would inappropriately “circumvent normal adjudicatory procedures.” 6 AEC at 622 n.3. *Washington Public Power Supply System* (WPPSS Nuclear Project Nos. 3 and 5), CLI-77-11, 5 NRC 719 (1977), also involved a request to commence site preparation activities prior to the issuance of the construction permit. In *WPPSS*, the Board granted in part and denied in part the applicant’s request for a limited work authorization allowing it to do early site preparation work. When WPPSS then applied to the Commission for an exemption from the regulations that prevented it from doing the early site preparation activities, the Commission found that the applicant was asking it to “displace the Board’s function” prior to the Board’s final order. *Id.* at 722. The Commission denied the exemption request without a hearing, on the ground that doing so would usurp the function of an existing Licensing Board.

Rather than suggesting that an exemption must deal with an existing contention to trigger a hearing right, these cases imply that existing proceedings before the Board on the same issue could, in some circumstances, displace the separate work on the exemption. We need not go that far here, but *Waterford* and *WPPSS* at a minimum indicate that exemption grants do not supersede hearing rights in licensing proceedings.

Not only our cases but also sound logic show that requiring a specific link between already-pending contentions and exemption-related contentions would set an impossibly high standard for admissibility of exemption-related safety questions. An intervenor must base its challenges on the information provided in the application. If the application fails to comply with the regulations, the intervenor may challenge the claimed shortcoming. But an intervenor cannot raise a contention, prior to an exemption request, arguing that the applicant should be required to comply with all applicable regulations. Until the applicant asks to be excused from complying with a particular regulation, the intervenor would not necessarily have any way to know that the applicant cannot or will not comply.

The case before us illustrates the dilemma. Utah's geotechnical contention, Contention Utah L, challenged the site assessment used to determine the design earthquake by arguing that the applicant had not included site-specific information in its calculation. However, once the necessary, site-specific information is considered, the design earthquake is determined by methods set out in our regulations. See 10 C.F.R. § 72.102(f). Our rules prohibit the intervenor in an individual licensing proceeding from challenging generic decisions made by the Commission in rulemakings absent special circumstances. See 10 C.F.R. § 2.758. See also, e.g., *Massachusetts v. NRC*, 924 F.2d 311, 330 (D.C. Cir. 1991), *cert. denied*, 502 U.S. 899 (1991); accord, *North Atlantic Energy Service Corporation* (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 217 n.8. (1999). Utah thus could not have argued that the design earthquake should be set more conservatively than our regulations require, because that would have constituted an impermissible collateral attack on our regulations. By filing its exemption request, however, PFS itself raised the issue of what constitutes an appropriately conservative design earthquake. It is the exemption request that put the design earthquake in question.

Because the design earthquake must be established for PFS to get its license, the design earthquake is now a legitimate subject of litigation.

In conclusion, it is not true that the Commission only grants a hearing on exemption requests that are directly related to an already-admitted contention. The proper focus is on whether the exemption is necessary for the applicant to obtain an initial license or amend its license. Where the exemption thus is a direct part of an initial licensing or licensing amendment action, there is a potential that an interested party could raise an admissible contention on the exemption, triggering a right to a hearing under the AEA.

### **C. Admissibility of Exemption-Related Contentions**

PFS and the NRC staff argue that Utah failed to raise an admissible contention. Both PFS and the staff argue that Utah cannot base contentions on the applicant's failure to meet the standards contemplated by the rulemaking plan, because PFS is not bound by that plan. PFS and the staff also argue that items 4 through 7 of Utah's proffered amended bases cannot be admitted because they challenge the adequacy of the staff's review rather than the exemption request itself. PFS also contends that Utah's complaints all center on the generic issue whether a 2000-year return period is acceptable, which as a generic issue should not be adjudicated in an individual proceeding.

#### **1. Effect of the Rulemaking Plan**

Several of the new issues Utah seeks to interject into this proceeding deal with PFS's failure to conform to the proposed rulemaking plan. PFS points out that the rulemaking plan has no binding effect and that PFS is in no way obligated to conform to the regulation envisioned by this plan.

With respect to the plan's effect, the Board reasoned:

[T]he rulemaking plan and the regulatory scheme it outlines do[ ] not preclude the staff from allowing PFS to use another return period, such as 2000 years, in connection with

the proposed PFS facility. We do not agree, however, that this rulemaking plan has no role to play as the basis for an admissible contention relative to the PFS exemption request. Certainly, its existence creates the reasonable expectation that, as a part of the rationale provided in support of the exemption, an explanation will be provided as to why the scheme, as set forth in the plan, is not appropriate relative to the exemption. That explanation is, in turn, subject to scrutiny in a properly pled contention.

LBP-01-03, 53 NRC at 96.

PFS is correct that it is not required to comply with this plan. In seeking an exemption from our existing regulations, it needs only to justify the seismic hazard analysis and design standards it proposes to use. See 10 C.F.R. § 72.7. But PFS itself uses the rulemaking plan to support its exemption request. For example, its exemption request states: “In the proposed rulemaking for Part 72 (Reference 5) however, the staff has proposed to modify the Part 72 seismic requirement to a level commensurate with the risks of cask and canister ISFSIs by providing for the use of PSHA methodology.” PFS uses the existence of this plan as a justification for allowing it to use a probabilistic seismic hazard analysis.

PFS also uses the plan’s scheme as partial justification for a 1000-year return period. PFS, arguing that all structures should be designed for a 1000-year design earthquake, claimed that a hypothetical beyond-design-basis accident “involving failure of an SSC important to safety in which a canister is postulated to leak continuously for 30 days under hypothetical accident condition with 100% of the fuel rod cladding assumed to have failed,” would result in a total effective dose equivalent (TEDE) to an off-site individual of 74.9 mrem. PFS argued that this dose is “well below the .05 Sv (5 rem) requirement of §72.106(b), but also well below the 100 mrem public dose level of 10 C.F.R. 20.1301(a).” The applicant went on to say that

Based on the NRC’s risk-informed policy for establishing the DE stated in [SECY 98-126 and SECY 98-071], the 1,000-year seismic recurrence interval is appropriate and conservative for use at the PFSF since worst-case accident consequences are below the 10 C.F.R. 20.1301(a)(1) public dose limit of 100 mrem.

See PFS Exemption Request, p. 5-6.<sup>5</sup> In addition, PFS argues on appeal that its exemption request justified using the 1000-year return, so that an even more protective, 2000-year return period should not be subject to question. See PFS Brief, p. 15. PFS's repeated references to the rulemaking plan convince us that PFS cannot both use the plan to justify the exemption and then claim the plan has no relationship to the exemption request.

PFS is not bound by the rulemaking plan, but it does have the burden to show that the 2000-year design standard is sufficiently protective of public safety and property. While Utah may not rely solely on the rulemaking plan to prove its contention, the state may use the plan to support its claim that a 10,000-year return period is the appropriately conservative standard. Therefore, the Board correctly found that references to the rulemaking plan in Utah's proffered contention amendment are no reason to reject the contention.

## **2. Challenges to Adequacy of Staff's Review.**

Utah's proposed amended contention repeatedly challenges the NRC staff's rationale for granting the exemption, rather than attacking the adequacy of the exemption request itself. The staff gave four reasons for granting the exemption: (1) the risk associated with dry cask storage is lower than the risk of operating a nuclear power reactor; (2) the mean annual probability of exceeding the ground motion limits at the PFS site "may be" less than  $10^{-4}$  (which is no more than the median annual probability for a power reactor safe shutdown earthquake); (3) a dry spent fuel storage facility has failure consequences similar to Department of Energy

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<sup>5</sup>While the information in PFS's exemption request cited above bolsters PFS's claim that the exemption will not harm public safety, it does not show that PFS meets the standard under the rulemaking plan for a 1000-year return period, as PFS has claimed. See PFS Brief at 16, n. 22; PFS Reply Brief, p. 5. Under the plan, an individual SSC could only be designed to the Frequency Category 1 events (the less stringent criteria) if its failure would not cause the facility to exceed the radiological requirements of 10 C.F.R. 72.104(a) (no more than 25 mrem), not the requirements of 72.106(b) (less than 5 rem). The SER concluded that PFS did not provide a technical basis for classifying all SSCs for a Frequency Category 1 design basis. See SER 2-41.



Category 3 facilities, which use a 2000-year recurrence period design earthquake; and (4) the NRC allowed an exemption for the DOE to use a 2000-year design earthquake at an ISFSI to store Three Mile Island Unit 2 waste. SER at 2-41 -42.

NRC case law holds that contentions must challenge the adequacy of the application, not the adequacy of the staff's review. See, e.g., *Curators of the University of Missouri*, CLI-95-1, 41 NRC 71 (1995). In *University of Missouri*, we stated that:

[T]he [applicant] rather than the staff bears the burden of proof in this proceeding. Consequently, the adequacy of the Staff's safety review is, in the final analysis, not determinative of whether the application should be approved.

41 NRC at 121.

Considering the decision in *University of Missouri*, the Board reasoned that as long as the applicant provides appropriate justification for its request, its sufficiency should not be questioned "notwithstanding any staff actions." LBP-01-03, 53 NRC at 97. This would be true, however, only where the applicant submits materials that fully support the request. Reviewing the relevant materials, the Board concluded that the staff, not the licensee, actually provided most of the justification for the use of the 2000-year return period to which Utah objects. See LBP-01-03, 53 NRC at 97-98. Therefore, the Board found that although the contentions attacking the staff's reasons for granting the exemption were not artfully pleaded, the substance of Utah's complaints was that the 2000-year return period has not been shown to be adequately protective. The Board concluded that the contentions should not be dismissed simply because they referred to the staff's reasoning.

We agree with the Board. PFS has the burden to show that the exemption is "authorized by law, will not endanger life or property or the common defense or security, and [is] otherwise in the public interest." 10 C.F.R. §72.7. PFS essentially adopted the staff's reasoning when it agreed to use the 2000-year return period the staff recommended. It is,

therefore, appropriate under these circumstances to consider the staff's bases for granting the exemption.

### **3. *Litigation of Generic Issue***

PFS argues that the acceptability of using a probabilistic seismic hazard analysis and a 2000-year return period design earthquake is a generic issue that should be resolved through a rulemaking, rather than in an individual adjudicatory proceeding. PFS relies on *Duke Energy Corporation* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328 (1999), in support of this argument.

*Oconee* involved a license renewal application that the Petitioners contended was incomplete for failing to discuss the ramifications of the growing problem of disposing of spent nuclear fuel. Petitioners argued that the application should address the storage of spent fuel and the other radioactive substances on the site of the Oconee Nuclear Station, the status and capacity of the current spent fuel storage facility, and the "real and potential availability and viability of other High Level Waste storage sites." 49 NRC at 343. We held that where the NRC "can determine that particular analyses or findings are applicable to all nuclear power plants with common plant characteristics," it may choose to codify the findings in its regulations. *Id.* The Commission found that with one exception, the concerns raised by Petitioners had already been addressed generically. The regulations, for instance, specifically provided that applicants did not need to discuss the impacts of spent fuel storage and waste disposal. See 10 C.F.R. §51.53(c)(2). Further, the one issue that had not already been addressed by a rule, the impacts of transporting high-level waste to a permanent repository, was about to be the subject of a similar rule allowing applicants to avoid this discussion. We concluded that there was nothing to be gained by having an adjudicatory hearing on the impacts of high-level waste

storage when the issue was being comprehensively explored in a current rulemaking. See 49 NRC at 345.

PFS argues that, similarly, the acceptability of a probabilistic seismic hazard analysis (PSHA) and a 2000-year return period design earthquake is appropriately resolved as a generic issue through a rulemaking. PFS's request does not rely on site-specific factors but on its rationale that the PSHA is an acceptable seismic analysis, and the 2000-year return period an appropriate design earthquake, for any site. Because the staff is currently drafting a proposed regulation to allow a PSHA, PFS argues, it is not appropriate for the Board to consider these general issues in an individual adjudication.

As a general matter, agencies are free either to determine issues on a case-by-case basis through adjudications or, when appropriate, to resolve matters generically through the rulemaking process. See *Oconee*, CLI-99-11, 49 NRC at 343 (1999), citing *Heckler v. Campbell*, 461 U.S. 458, 467 (1983). Thus, the NRC is free to resolve the issues associated with the design earthquake in an individual adjudication. It is true, as we held in *Oconee*, that our policy is not to consider for individual licensing proceedings contentions which are (or are about to become) the subject of general rulemaking by the Commission. See 49 NRC at 345. But in this case, there is already a generic rule in place, which PFS has asked to be waived. Moreover, PFS's exemption would not comply with the new generic standard envisioned by the rulemaking plan.<sup>6</sup> PFS in effect argues that upcoming regulations with which it proposes not to comply preclude the state from litigating its seismic issue. This is hardly persuasive. We conclude that just as the Commission's power to make rules on the acceptability of one type of analysis does not preclude an applicant from asking for an exemption from that generic rule,

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<sup>6</sup>See n. 5 and accompanying text.

the Commission's rulemaking powers should not place the exemption itself beyond questioning in an otherwise litigable contention.

PFS's position might have more force were our rulemaking closer to completion. In *Oconee*, a final rule on the issue of the impact of transporting high-level waste to a permanent repository was expected within six months of the decision, more than a year prior to the scheduled completion date of the licensing action. Further, the Commission had stated in a staff requirements memorandum that applicants should not address this issue, unless waiting for the rule would delay the licensing proceeding. 49 NRC at 345. In contrast, here a final regulation allowing a PSHA for ISFSI sites does not appear to be imminent, and it is unlikely prior to the scheduled final NRC decision on PFS's license application next year.

With our new generic seismic rule still under development, and in view of PFS's claim to an exemption from current or contemplated generic standards, we hold that Utah is free to challenge PFS's proposed use of a PSHA and a 2000-year return period.

### **III. Form of Hearing**

PFS and the NRC staff have proposed that, should we determine a hearing to be necessary, the proceedings be held informally by the Commission in a manner similar to that ordered in *Clinch River*, CLI-81-35, 14 NRC at 1103-05. There, the co-applicant, the Department of Energy, requested a limited work authorization to begin site preparation activities prior to obtaining a construction permit for a liquid metal fast breeder reactor. DOE maintained that the limited work authorization could avoid a 1-2 year delay and \$120-240 million in increased costs. The Commission concluded that neither the AEA nor the National Environmental Policy Act dictated the form of proceedings on DOE's exemption request. The Commission decided to hear the case itself, and ordered that the proceedings include oral presentations and written comments, but no discovery, live testimony, or cross-examination. *Id.*

*Clinch River* involved special circumstances that made an informal proceeding before the Commission particularly appropriate. At the time the Commission considered the DOE exemption request, the Clinch River Project had been suspended by order of the Carter Administration, and the related NRC licensing proceedings had been suspended by the Commission.<sup>7</sup> Therefore, unlike the case before us now, there was no licensing board hearing scheduled on any matter relating to the proposed facility. In addition, as Clinch River would have been the first demonstration scale fast-breeder reactor in the United States, the Commission decided to hear the request itself because it found “major and novel policy and legal issues that are best resolved by the Commission itself as the highest policy-making entity within the agency.” Although the scale of PFS’s proposed ISFSI is unprecedented, there are other operating ISFSIs in the United States that use the same or similar technology for storage. Therefore, the scale alone does not give rise to any major and novel policy issues. Further, the decision to proceed informally in *Clinch River* was based on the relatively high ratio of costs to benefits from allowing live testimony, formal evidence, and cross-examination in a proceeding before the Commission.<sup>8</sup> But the burden of using these procedures here is diminished if the exemption request is combined with formal proceedings before the Board. See 14 NRC at 1103-05. Finally, unlike the case before us, the *Clinch River* intervenors agreed that the

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<sup>7</sup>The proposed Clinch River Breeder Reactor was a joint project between government and industry to develop a demonstration fast-breeder reactor. The Carter Administration canceled the project in 1977, after which the Board suspended its proceedings and the staff suspended its review of the application. Despite this, Congress continued to appropriate funds, and research and development of the project continued for the next several years until Congress finally terminated funding in fiscal 1984. See *United States Department of Energy* (Clinch River Breeder Reactor Plant), LBP-84-4, 19 NRC 288, 296 (1984).

<sup>8</sup>After the informal proceeding and two public meetings on the request, the Commission denied the limited work authorization. See *United States Department of Energy* (Clinch River Breeder Reactor Plant), CLI-82-4, 15 NRC 362, 363 (1982).

Commission should itself decide at least threshold legal and policy issues, using informal proceedings.<sup>9</sup>

Here, the Licensing Board already is considering a number of fact-intensive issues, including seismic issues. The question of the appropriate threshold for seismic safety may call for expert witnesses. In these circumstances, there seems to us no reason of fairness or efficiency to slice off exemption-related questions and decide them ourselves without an initial Board review. As with all other issues in this case, we retain ultimate authority, of course, to resolve contested exemption issues under our appellate and supervisory powers. But we find it appropriate for the Board to address the exemption-related issues first.

#### **IV. Conclusion**

In conclusion, we find that PFS's seismic exemption request is directly related to its initial license application, and, therefore, Utah's contentions on the propriety of the exemption should be the subject of a hearing. Further, we affirm the Board's findings concerning the admissibility of Utah's proffered contentions. Finally, we hold that the Board, not the Commission, is the proper forum to hear Utah's exemption-related contention in the first instance. The Commission expects the new exemption-related contentions, if they go to hearing, to be included in the hearing contemplated for other admitted issues.

We therefore remand this proceeding to the Board for further proceedings on those portions of proposed Amended Contention Utah L that the Board found would be admissible.

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<sup>9</sup>The *Clinch River* intervenors requested formal Board proceedings if the Commission did not decline the limited work authorization based on the threshold issues. The intervenors argued that a unique project should not be excused from the rule against pre-permit construction activities and that a project intended to demonstrate the licensability of a breeder reactor should not receive exemptions from our regulations.

IT IS SO ORDERED.

For the Commission

*/RA/*

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Annette Vietti-Cook  
Secretary of the Commission

Dated at Rockville, Maryland  
this 14<sup>th</sup> day of June, 2001

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
PRIVATE FUEL STORAGE L.L.C.	)	Docket No. 72-22-ISFSI
	)	
(Independent Spent Fuel Storage	)	
Installation)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing COMMISSION MEMORANDUM AND ORDER (CLI-01-12) have been served upon the following persons by deposit in the U.S. mail, first class, as indicated by an asterisk (\*) or through the Nuclear Regulatory Commission's internal distribution as indicated by double asterisks (\*\*), with copies by electronic mail.

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Docket No. 72-22-ISFSI  
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 (CLI-01-12)

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[Original signed by Evangeline S. Ngbea]

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Dated at Rockville, Maryland,  
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