

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of)	
)	
PRIVATE FUEL STORAGE L.L.C.)	Docket No. 72-22
)	
(Private Fuel Storage Facility))	

DECLARATION OF JOHN G. THORGERSEN

John G. Thorgersen states as follows under penalties of perjury:

1. I am currently employed by Wisconsin Electric Power Company ("WEPCo"). Prior to April 1999 (when I began training to become an Operating Supervisor), I served as the Manager-Quality Verification at the Point Beach Nuclear Plant (PBNP). In this position, I was responsible for the oversight of PBNP's Quality Assurance (QA) activities. My responsibilities included coordinating QA oversight activities for the construction of WEPCo's independent spent fuel storage installation (ISFSI), off-site fabrication of storage casks for the ISFSI, and onsite loading of dry fuel storage containers for storage at the ISFSI. I also served as the Chairman of the QA Committee for Private Fuel Storage, L.L.C. (PFS) (and its predecessor, Mescalero Fuel Storage, L.L.C.) from its formation in 1996 through the Spring of 1997. I am providing this declaration in support of a motion for summary disposition of Contention Utah G in the above captioned proceeding to show that PFS's QA program for the Private Fuel Storage Facility (PFSF) satisfies the requirements of Subpart G of 10 C.F.R. Part 72.

2. My professional and educational experience is summarized in the curriculum vitae attached as Exhibit 1 to this declaration. By virtue of being Manager-Quality Verification at PBNP and my previous positions as Senior Project Engineer for

Quality Assurance at PBNB and Quality Assurance Auditing Supervisor at the Kewaunee Nuclear Power Plant, I am knowledgeable of the NRC requirements for QA plans, including 10 C.F.R. 50 Appendix B and 10 C.F.R. Part 72, Subpart G, as well as applicable industry QA standards.

3. As the Chairman of the PFS QA Committee through the Spring of 1997, I am knowledgeable of PFS's QA Program and the QA procedures that implement the program. By letter dated November 3, 1995 (attached as Exhibit 2 to this declaration), the NRC approved a Quality Assurance Program Description (QAPD) that had been submitted by PFS's predecessor, the Mescalero Fuel Storage, L.L.C.; the NRC concluded that the QAPD satisfied the requirements of 10 C.F.R. Part 71, Subpart H and indicated that it could also be used to satisfy the requirements of 10 C.F.R. Part 72, Subpart G, since the requirements are substantively the same. In August 1996, PFS submitted to the NRC a revised version of the Mescalero QAPD which the NRC approved by letter dated September 16, 1996 as meeting the requirements of 10 C.F.R. Part 71, Subpart H. The August 1996 QAPD is attached as Exhibit 3 to this declaration and the NRC's September 16, 1996 approval is attached as Exhibit 4. The current version of the PFS QAPD, dated May 1999, is attached as Exhibit 5 to this declaration. It contains only minor revisions from the August 1996 QAPD, primarily concerning organizational changes, none of which reduce any commitments made in the August 1996 QAPD. Exhibits 6, 7, and 8 to this declaration are updated SAR Figures 9.1-1, 9.1.-2, and 9.1-3 (which will be filed as part of the next PFS License Amendment) showing the PFS organization for the three phases of the project – pre-licensing, construction and operation.

4. In the bases for Contention G, as admitted by the Licensing Board, the State alleges that PFS's QA Program is inadequate to satisfy the requirements of 10 C.F.R. Part 72, Subpart G, in that 1) the PFS QA Program Description (QAPD) lacks sufficient detail (basis 1), and 2) the QA organization lacks adequate independence (basis 4). I have reviewed these claims and believe that they have no merit.

5. The State's claim that the QAPD lacks sufficient detail reflects a fundamental misunderstanding of the purpose of a QAPD in the context of an overall QA program. Section 72.24(n) of 10 C.F.R. Part 72, which is the provision of the NRC regulations that covers what must be filed as part of a license application, requires that "[a] description of the quality assurance program that satisfies the requirements of subpart G" be included as part of any ISFSI license application. Subpart G of Part 72, specifically 10 C.F.R. § 72.140(c), describes what an applicant must submit regarding its QA program: "Each [applicant] shall file a description of its quality assurance program, including a discussion of which requirements of [Subpart G] are applicable and how they will be satisfied" Thus, NRC regulations do not require an applicant to provide as part of a license application the detailed means or procedures by which a QA program is to be implemented, which appears to be the basis of the State's claim.

6. In accordance with well established NRC requirements, the PFS QA program consists of a hierarchy of documents extending down from 10 C.F.R. Part 72 Subpart G to the PFS QAPD and its various implementing procedures. Each layer in the hierarchy is intended to provide more detail as to the requirements to be followed. Subpart G establishes the basic requirements for a QA program. The PFS QAPD provides more specific details as to how the PFS intends to satisfy these requirements, while the procedures provide the detailed methodology for implementing these requirements.

7. The level of detail required for the QA program description in a Part 72 ISFSI license application can be inferred from the level of detail required for an application for a reactor construction permit (10 C.F.R. § 50.34(a)(7)), an application for an operating license (10 C.F.R. § 50.34(b)(6)(ii)), or the QA program described or referenced in the FSAR for a licensed commercial nuclear power plant (10 C.F.R. § 50.54(a)). Those regulations require an applicant or a licensee to describe the quality assurance program applicable to the reactor under the requirements of 10 C.F.R. Part 50, Appendix B, which are almost identical to the requirements of 10 C.F.R. Part 72, Subpart G. Reactor license applications do not contain detailed procedures implementing the QA program

but normally consist of general descriptions of how the applicants will satisfy QA program requirements. Therefore, the PFS QAPD is to reflect PFS's commitment as to how it will implement the QA program required by the NRC for the PFSF. Indeed, as quoted above, 10 C.F.R § 72.140(c) requires an ISFSI license applicant to "file a description of its quality assurance program, including . . . how [the applicable requirements of Subpart G] will be satisfied."

8. The NRC's focus on the commitments in a QAPD is also apparent from the regulations that govern the changes that reactor licensees may make to their QA programs without prior NRC approval. Those regulations do not focus on the licensees' QA procedures. Section 50.54(a)(3) of 10 C.F.R. Part 50, as amended effective April 26, 1999, states that a licensee is free, without prior approval from the NRC, to make changes to a previously accepted QAPD that do not reduce the commitments the QAPD contains. The April 26, 1999 amendment to Section 50.54(a)(3) designated certain types of changes that might have previously been considered to be reductions in commitment to be allowable without prior NRC approval based on the NRC's conclusion that they are "of minor safety significance." Therefore, because reactor and ISFSI QAPD requirements are very similar, the NRC's focus with respect to QAPDs for ISFSI licensees is also on commitments rather than procedures.

9. In my professional opinion, based on the NRC's review and acceptance of the PFS QA program as satisfying the requirements of 10 C.F.R. Part 71, Subpart H, my review of the QA Program as Chairman of the PFS QA Committee, and my familiarity with the QA plans of other nuclear facilities, the description of the QA program provided in Chapter 11 of the SAR and in the PFS QAPD (which is referenced in SAR Section 11.1) describes the PFS QA Program to a level of detail adequate to satisfy 10 C.F.R. §§ 72.24(n) and 72.140(c). The SAR and the QAPD contain the commitments that form the basis of the PFS QA program. Specifically, SAR Chapter 11, Sections 11.1.1 through 11.1.18, and the PFS QAPD, Sections 1.0 through 18.0, describe the 18 sections of the PFS QA Program and how PFS will meet the individual requirements of 10 C.F.R. §§

72.142-72.176. In the QAPD (at page 2), PFS commits further that “the QA [Program] and implementing procedures shall be designed and administered to meet the 18 criteria of 10 C.F.R. 71, Subpart H and 10 C.F.R. 72, Subpart G.” These commitments are sufficient to satisfy the requirements of 10 C.F.R. Part 72, Subpart G.

10. In basis 1 for Utah G, the State claims that PFS must “descri[be] the means by which quality assurance will be achieved.” In my professional opinion, this is not an accurate statement of the NRC’s regulatory requirements. Under 10 C.F.R. 72.140(c), a description of the QA program must include a “discussion” of which requirements of Subpart G are applicable and how they will be “satisfied.” The “means” by which quality assurance will be achieved is reflected in the QA program implementing procedures, which are not required to be submitted with the license application (but which PFS has committed to developing and administering so as to meet the criteria of 10 C.F.R. Part 71, Subpart H and Part 72, Subpart G).

11. The State also claims in basis 1 that the description of the PFS QA Program is “utterly inadequate” to provide sufficient detail for the NRC staff to determine the plan’s sufficiency. On the contrary, as indicated in paragraphs 5-9 above, based on my review of the QA Program and my familiarity with the QA programs of other applicants and licensees, the PFS QA Program contains more than enough detail for the NRC Staff to conduct a thorough review and the Staff has done so in approving the Program under 10 C.F.R. Part 71, Subpart H.

12. The State also claims in basis 1 that the QA Program does not provide sufficient information to show that PFS’s design control will satisfy the NRC requirements. In my professional opinion, this is incorrect. Section 11.1.3 of the SAR and Section 3.0 of the PFS QAPD adequately describe how the QA Program will ensure that the nearly identical requirements of 10 C.F.R. § 71.107 and 10 C.F.R. § 72.146 are satisfied. As Section 3.0 of the PFS QAPD clearly describes, the QA program will assure that the design of all structures, systems and components meet applicable regulatory requirements, codes and standards. The QA Program will establish written procedures to ensure that

“[d]esign input and criteria are [properly] translated into specifications, drawings, procedures, calculations, instructions and procurement documents prepared and reviewed by qualified personnel.” Exh. 5 at 5. In addition, these procedures will describe and control the design and any changes throughout the project’s design and construction, will identify and control the design interfaces, and will provide for coordination between participating design organizations. However, as stated above, these detailed implementing procedures are not required to be included in a description of the QA program.

13. In basis 1 of Utah G, the State also claims that the plan is inadequate because it does not state how design reviews will be conducted and by whom. This is incorrect; the PFS QA Program does describe how design reviews will be performed and by whom. Section 3.0 of the PFS QAPD states in part: “The procedure shall provide for a design review by qualified personnel other than those performing the design.” This adequately describes how PFS will satisfy the requirement of 10 C.F.R. § 72.146(b) in that verification of the design be performed by “individuals or groups other than those who were responsible for the original design.” The procedures by which the actual design review will be conducted and by which individuals is a level of detail normally found in the implementing procedures and is not required to be included in the description of the QA program.

14. The State also claims in basis 1 that the QA Program is inadequate because it does not specify the type of and the level of training for QA employees or identify what training will be provided as a QA measure to all personnel. This type of information, however, is not required in the license application; it is normally supplied in the implementing procedures. Furthermore, the State’s assertion is simply wrong. Section 2.0 of the QAPD states:

Training and/or evaluation of personnel qualifications are required for all Quality Assurance functions in accordance with written procedures. The training program requires that all employees who participate in the QA Program will receive a level of classroom and on-the-job training commensurate with their involvement in the licensed activities.

When required by applicable codes and standards, qualified personnel shall be appropriately certified in accordance with approved procedures.

Exh. 5 at 4. In my opinion, this description adequately describes the training to be provided to QA employees and other employees as a quality assurance measure. Any additional level of detail regarding QA training would be described in implementing procedures, which are not required to be included in the description of the Quality Assurance program. Furthermore, the adequacy of PFS's overall training program, including that for QA, is described in the declaration of Michael Ladd, the Training Process Manager at the Prairie Island nuclear plant.

15. The State also claims in basis 1 that "while the QAPD . . . states that the QA program will be reviewed at established intervals, it does not specify the minimum review intervals nor does it define what will trigger an earlier review" The State's claim is immaterial and incorrect. First, NRC regulations, 10 C.F.R. § 72.144(d), require a licensee to review its QA program "at established intervals" but do not require any particular interval. The review interval is normally included in QA implementing procedures. Indeed, PFS Quality Assurance Procedure 6.1 § 5.3 provides that the PFS Quality Assurance Program is to be reviewed periodically "or at a minimum interval of two years." Second, the events that would trigger early review are also normally included in the implementing procedures, but nevertheless, QAPD § 18.0 indicates that in the event of the discovery of a deficiency or nonconformance during a QA audit, "[f]ollow-up actions, including a reaudit, shall be performed to verify that corrective actions have been taken."

16. The State claims in basis 4 of Utah G that the PFS QA program is deficient because it fails to adequately demonstrate the independence of the PFS QA organization. This claim is meritless. NRC regulations, 10 C.F.R. § 72.142(b), require that:

The persons and organizations performing quality assurance functions must have sufficient authority and organizational freedom to identify quality problems; to initiate, rec-

commend, or provide solutions; and to verify implementation of solutions

The persons and organizations performing quality assurance functions shall report to a management level that ensures that the required authority and organizational freedom, including sufficient independence from cost and schedule considerations when these considerations are opposed to safety considerations, are provided.

The PFS QAPD shows that the QA organization will have sufficient independence to ensure that the QA program has been effectively implemented.

17. In order to ensure the independence of the QA organization, the standard industry practice in the case of a licensed commercial nuclear power plant is for the QA organization to report to the level above the Plant Manager (e.g., to the Site Vice President) or higher (e.g., to the Senior Vice President or Chief Nuclear Officer), which is a level above the management position that has direct responsibility for production. In the case of a vendor, the QA organization usually reports to the highest level at the facility. The top quality position is also at the same level as most department heads in the line organization. This ensures that the quality organization is independent of production considerations (i.e., it has organizational freedom from cost and schedule considerations) and provides a level playing field (authority) to verify that the QA program has been developed, documented, and is being effectively implemented. Irrespective of the organizational structure, the persons and organizations assigned the quality assurance functions must have direct access to the levels of management necessary to perform these functions.

18. In my professional opinion, the description of the PFS QA organization provided in Section 11.1.1 of the SAR satisfies the requirements for 10 C.F.R. § 72.142 and meets industry standards for independence of the organization. The pre-licensing organization (Exhibit 6 – SAR Figure 9.1-1) shows the PFS QA Committee reporting directly to the Board of Managers, which is the highest level in the organization. The li-

censing and construction organization for the construction phase (Exhibit 7 – SAR Figure 9.1-2) shows the QA organization reporting to the Project Director with an interface (dashed line) to the Board of Managers. This interface provides sufficient independence in that it provides direct access to the Board of Managers so that the QA organization can regularly report on the status and adequacy of the QA program and have the organizational freedom to report any concerns to the Board of Managers, as described in Section 1.0 of the PFS QAPD. As stated there, “Quality Assurance shall be independent from other organizations and shall have direct access to the Board of Managers.” Exh. 5 at 3. Further, both the SAR and the PFS QAPD expressly provide the QA organization with the necessary authority to act to ensure that the PFS QA program is being effectively implemented. Section 0.0 of the QAPD (Exh. 5 at 2) provides that “Quality Assurance has the authority and resources to maintain oversight and initiate management action to limit further processing on items of indeterminate quality, to initiate management action to resolve any deficiencies, and to assure that satisfactory resolutions have been achieved prior to authorizing further processing,” as does Section 11.1.1 of the SAR in similar language.

19. The operational organization (Exhibit 8 – SAR Figure 9.1-3) shows the QA organization reporting to the General Manager/Chief Operating Officer with an interface (dashed line) to the Board of Managers and the Safety Review Committee. This is similar to a vendor organization in that the QA organization reports to the highest level of management at the facility. Further, similar to the construction phase of the project, the interface with the Board of Managers provides QA direct access to the Board so that the QA organization can regularly report on the status and adequacy of the QA program and can have the organizational freedom both to report any concerns to the Board of Managers and to ensure the effective implementation of the QA program in accordance with Sections 0.0 and 1.0 of the PFS QAPD and Section 11.1.1 of the SAR. Similarly, the interface with the Safety Review Committee provides QA direct access to this important Committee which provides additional oversight as to the status and adequacy of the QA program. Finally, the QA organization is represented on the Operations Review Com-

mittee, which acts in an advisory role to the General Manager/Chief Operating Officer. Thus, the PFS QA organization will have sufficient independence to ensure that the PFS QA program is being effectively implemented.

20. In basis 4, the State claims that PFS “fails to describe the interrelationship between the Architect/Engineer group and the QA Committee and how the relationship enhances QA.” The first part of the State’s assertion is wrong; PFS does describe the relationship between the Architect/Engineer and the PFS QA organization. The Architect/Engineer is a qualified vendor that provides services to PFS under its own QA program, which is separate from PFS’s QA Program, but subject to review and auditing by the PFS QA Committee. As described in SAR Sections 11.1.1 and 11.1.7, and Section 7.0 of the PFS QAPD, the Architect/Engineer QA program has been reviewed and approved by the PFS QA Committee in order to allow for the provision of A/E services. In addition, as described in Sections 11.1.1 and 11.1.7 of the SAR, and Section 7.0 of the PFS QAPD, the PFS QA organization performs audits and surveillance of the services provided by vendors and suppliers, including the Architect/Engineer, to ensure that these services are provided in accordance with the reviewed and approved QA programs of the vendors/suppliers. Further, the SAR specifically provides that the QA organization has “the authority to ‘stop work’ where project activities are not in compliance” with project requirements or “when the quality of Structures, Systems and Components . . . are indeterminate,” SAR at 11.1-2, as does the QAPD, Exh. 5 at 2-3. The Architect/Engineer QA program must also satisfy the requirements of 10 C.F.R. Part 72, Subpart G (and the QA program of Stone & Webster has in fact been approved by the NRC under 10 C.F.R. Part 50, Appendix B (SAR at 11.1-4)). As such, the Architect/Engineer is required to review the status and adequacy of its own QA program at established intervals (10 C.F.R. § 72.144(d)), and to carry out a comprehensive system of planned and periodic audits to verify compliance with all aspects of its QA program and to determine the effectiveness of the program (10 C.F.R. § 72.176). Therefore, both the Architect/Engineer’s QA organization and the PFS QA organization are verifying the quality of the services provided by the Architect/Engineer under its QA program.

21. Thus, PFS has described the relationship between the Architect/Engineer and the PFS QA organization and that relationship comports with the requirements of 10 C.F.R. Part 72, Subpart G. There is no requirement to describe "how the relationship enhances QA," such as claimed by the State. The description of the relationship between the two entities and the described responsibilities of each adequately set forth how QA will be maintained.

22. In basis 4 the State also claims that "the SAR fails to identify who is responsible for pre-licensing 'day-to-day activities, costs, or schedules' and how the organizational structure ensures QA in quality- and safety-related activities." This claim has no foundation. The SAR shows that the QA Committee, which is the responsible QA entity during the pre-licensing phase, "is an independent organization" reporting to the Board of Managers that "shall not be responsible for day to day activities, costs, or schedules." SAR at 11.1-2; Figure 9.1-1. Thus, the PFS QA Committee has no direct responsibilities in those areas which it audits (as required by 10 C.F.R. § 72.176). Moreover, Section 1.0 of the QAPD indicates that the Project Director is responsible for "the day-to-day direction of all aspects associated [with PFS], including licensing activities and enforcement actions," and that the Architect/Engineer is responsible for "project design, preparation of license applications and any other activities as directed by the Project Director." Exh. 5 at 3.

23. Further, the discussion in SAR Section 11.1.1, various parts of SAR Section 9.1, and the PFS QAPD describe the responsibilities of the Board of Managers, the QA Committee and other project participants, such as the Architect/Engineer, for ensuring QA in the performance of quality- and safety-related activities. For example, the Board of Managers is responsible for ensuring the proper establishment and the effective implementation of the QA program. SAR Sections 9.1.1.1 and 11.1.1; QAPD Section 1.0. The Quality Assurance Committee is provided the organizational independence and authority for implementing the quality assurance program as described in Sections 9.1.1.2 and 11.1.1 of the SAR and Sections 0.0 and 1.0 of the QAPD. The Architect/Engineer,

subcontractors and cask vendors are required to perform work under approved quality assurance programs, subject to oversight and audit by PFS QA and other PFS committees and staff as described in Sections 9.1.1.3 and 11.1.1 of the SAR and Section 7.0 of the QAPD.

24. Thus, PFS's organization for pre-licensing activities clearly describes the general functional responsibilities of the various organizations, makes clear that QA is not to have responsibilities for day-to-day activities and cost and schedule, and describes how the QA of quality- and safety-related activities is to be ensured. Any further level of detail is not required at the license application stage. Section 72.142 requires the licensee to clearly establish and delineate in writing the authority and duties of persons and organizations performing the functions associated with attaining quality objectives and the quality assurance functions. Section 72.144(a) also requires the licensee to identify the major organizations participating in the program, and the designated functions of these organizations. The discussion in SAR Sections 9.1.1 and 11.1.1 and Sections 0.0, 1.0 and 7.0 of the PFS QAPD, along with SAR Figure 9.1-1 provide sufficient detail to describe how the above requirements are satisfied in the pre-licensing phase of the project.

25. The State also claims in basis 4 that the SAR "fails to provide any meaningful description of the licensing and construction, and operational functional responsibilities, interrelationships, and various authority for performing quality and safety related activities." This claim is simply wrong. As discussed above in paragraphs 18-19, the PFS QAPD and SAR describe how PFS's organizational structure maintains the necessary independence of the QA organization throughout the PFS project. In addition, the SAR describes the functions and interrelationships of the other PFS organizations in all phases of the project. The interrelationships during the pre-licensing phase have been described in paragraphs 20-24 above. Further, SAR Sections 9.1.1.1 and 9.1.1.2.2 (and Fig. 9.1-2) similarly describe the PFS organizational and functional responsibilities and interrelationships for the construction phase; SAR Sections 9.1.1.1 and 9.1.1.2.3 (and Fig. 9.1-3) describe the same for the operational phase; and SAR Sections 9.1.1.3 and 9.1.4

describe the functional responsibilities and relationships with outside contractors, suppliers and vendors. In both phases, the QA organization is responsible for establishing and verifying the effective implementation of the QA Program, as reflected in those sections of the SAR as well as Section 11.1.1 of the SAR and the QAPD. Other PFSF functions are performed by other PFS organizations as described in the cited SAR provisions. Further, as indicated above, the PFS QAPD and SAR expressly provide that the PFS QA organization shall be an "independent" organization" that "shall have direct access to the Board of Managers" and "shall not be responsible for day to day activities, costs, or schedules." QAPD at 3; SAR at 11.1-2.

26. Finally, in basis 4, the State, citing QA Docket 71-0829 (the PFS QAPD) at page 4, alleges that "[a]llowing responsible individual organization management to determine the adequacy of the QA over their own programs does not allow independent oversight nor objectivity in establishing QA procedures." The State's claim is misplaced. To support its allegation, the State quotes Section 2.0 of the QAPD, which states that "[m]anagement of other organizations participating in the Quality Assurance program shall regularly review the status and adequacy of that part of the program which they are executing." Contrary to the State's claim, however, the QAPD statement does not impermissibly allow responsible individual organization management to determine the adequacy of the QA of their own programs. The QAPD statement is almost a verbatim recitation of the regulatory language of 10 C.F.R. 72.144(d) which requires that "[m]anagement of other organizations participating in the quality assurance program shall regularly review the status and adequacy of that part of the quality assurance program which they are executing." Hence, this commitment represents the realization by PFS, and the NRC, that each organization within PFS must work to ensure the quality and safety of the project's design, construction and operation. The PFS QA organization will independently audit the implementation of the QA Program by other PFS organizations and determine the adequacy of the implementation of the QA Program. But, as reflected in 10 C.F.R. 72.144(d) and QAPD 2.0, other organizations are to review the status and adequacy of that part of the program they are executing in light of the QA audit results,

and take appropriate action as may be necessary. Thus, the section of the QAPD quoted by the State does not reflect a lack of independence of the PFS QA organization, but the proper manner in which other organizations are to ensure the proper implementation of QA requirements.

27. In its responses to PFS's first discovery requests, the State raised a number of issues which it asserts relate to its QA contention but which in fact do not concern or indicate the inadequacy of the PFS QA program description in the license application. First, the State claims that PFS has not provided sufficient quality assurance design or operational information with its application, in that Chapter 4 of the SAR (Facility Design) does not provide sufficient detail to show that PFS has complied with all regulatory and industry code requirements. The State asserts that licensing under 10 C.F.R. Part 72 requires the submission of "detailed design information" that PFS has not provided. This assertion has nothing to do with the adequacy of the PFS QA program description, which is the subject of Contention Utah G. Specifically, it is unrelated to either basis 1 "Lack of detail" or basis 4 "Failure to Demonstrate Independence of QA Organization."

28. Second, the State asserts in its discovery responses that QA problems with a storage cask vendor and its subcontractors "indicate the clear need for a comprehensive and detailed quality assurance program for PFS." Indeed, the PFS QA program description in the license application must satisfy and does satisfy the requirements of 10 C.F.R. Part 72, Subpart G, in particular the level of detail required by the NRC's regulations as discussed above. Nevertheless, the fact that a storage cask vendor may have had QA problems in the past does not implicate the PFS QA program, nor does it alter the NRC's regulatory requirements concerning the level of detail required as part of the QAPD. Moreover, PFS will audit its vendors to ensure that they are implementing all necessary QA practices:

The QA program shall be reviewed at established intervals to assure that it is being effectively implemented and is adequate. All QA program requirements shall be required of subcontractors and suppliers and translated within pro-

cedures, instructions, purchase orders, contracts, specifications, plans, and drawings.

.....

To the extent necessary to assure quality, procurement documents shall require suppliers of material, equipment, and services to have a QA program complying with the pertinent provisions of 10 CFR 71, Subpart H or 10 CFR 72, Subpart G.

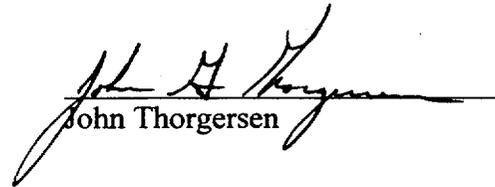
SAR at 11.1-4, -5. PFS QA procedures will include criteria for the performance of supplier audits and supplier performance evaluations will be performed on a periodic basis. QAPD § 7.0, Exh. 5 at 9.

29. Third, the State asserts in its discovery responses that because the PFS project consists of a large number of independent utilities handling half the nation's spent fuel, the project presents a "major problem with respect to verifying the construction of each of the 4,000 [spent fuel] casks" and "PFS must verify the integrity of the irradiated fuel that is put inside the cask, the loading of the fuel, and the welding of the canister." First, the State's claim has nothing to do with the adequacy of the PFS QA program description that is the subject of Contention Utah G, specifically, the level of detail in the PFS QAPD or the independence of the QA organization. Second, the State's assertion rests on faulty premises. The loading of the spent fuel canisters and spent fuel transportation casks will take place at reactor sites under the NRC-approved QA programs of the reactor licensees. Thus, it will be unnecessary for PFS to verify the quality of those activities (although PFS will inspect the spent fuel shipping casks and canisters when they arrive at the PFSF). Moreover, the PFS QAPD expressly states that "Design and fabrication of shipping casks shall not be conducted under this Quality Assurance Program." QAPD at 1. PFS does, however, ensure as discussed in paragraph 28 above, that cask vendors have an approved quality assurance program and PFS will conduct supplier audits and performance evaluations on a periodic basis

30. In summary, the PFS QA Program satisfies applicable NRC requirements. The QA Program contains an adequate level of detail to satisfy 10 C.F.R. § 72.24(n) requirements for a "description" of the QA program. The QA Program also ensures the independence of the QA organization through all phases of the design, construction and operation of the PFS facility to satisfy 10 C.F.R. § 72.142.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 24, 1999


John Thorgersen