November 10, 1992

POLICY ISSUE
(Notation Vote)

SECY-92-382

For: The Chairman
Commissioner Rogers
Commissioner Curtiss
Commissioner Remick
Commissioner de Planque

From: William C. Parler
General Counsel

Subject: DECOMMISSIONING - LESSONS LEARNED

Purpose: To advise the Commission of the results of the Office of the General Counsel's (OGC) case study of the issues involving the decommissioning of the Shoreham Nuclear Power Station, Unit 1, and to obtain Commission guidance on the recommendations provided in this paper.

Summary: This paper identifies the problems that arose in the decommissioning of the Shoreham Nuclear Power Station, Unit 1, determines the cause of the problems, and provides recommendations for corrective changes to the decommissioning regulations and policies, especially as applicable to premature decommissioning.

Discussion: In conjunction with the NRC's issuance of an order approving the licensee's plan for the decommissioning of the Shoreham Nuclear Power Station, Unit 1, the Commission, in the Staff Requirements Memorandum (SRM) regarding SECY-92-140, (dated June 10, 1992) requested OGC prepare a paper on lessons learned from the Shoreham decommissioning proceeding. In cooperation with the staff, OGC reviewed 10 C.F.R. Parts 50 and 51 in the context of the Shoreham proceeding to determine the applicability of these regulations to facilities shut down prematurely. In doing

090042

3/11/93

Contact: Mitzi Young, OGC
504-1523

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

XA

9211130217 Dorothy Michaels, OGC
504-1630

DF03

so, various issues were raised regarding the requirements of the decommissioning regulations and the procedures (including hearing matters) to be followed in processing the decommissioning plan.

The two main issues discussed in this paper are: (1) what actions should be permissible after cessation of plant operations and before NRC approval of a decommissioning plan (e.g., what activities/actions may proceed without approval of a decommissioning plan, what is the role of a possession-only license (POL), what safety and environmental review is required, when should funding and other decommissioning information be submitted); and (2) what is the nature of a decommissioning order and what hearing rights should be offered in processing decommissioning plans?

To an extent, the problems posed by *Shoreham* were atypical. For example, the most significant issue raised by *Shoreham* was whether the NRC had an obligation under NEPA to consider continued operation as an alternative to decommissioning, and a related obligation to preserve operation as a viable option pending full consideration of that alternative. This issue pervaded early NRC staff and Commission consideration of Shoreham decommissioning issues and was addressed in two Commission adjudicatory decisions. Although there was no judicial endorsement of the Commission's positions since the case was settled, there appears to be no reason to revisit the question here on a generic basis. The recommendations which follow are based on the *Shoreham* experience but are believed to be useful for other decommissioning as well.

Recommendations: The paper concludes and recommends as follows:

1. The staff will provide guidance on the activities permissible prior to approval of a D-Plan. The guidance will be consistent with the criteria that the activities must not (1) foreclose the release of the site for unrestrictied use, (2) significantly increase decommissioning costs, and (3) cause any significant environmental impact not previously reviewed. (For more

information see pages 18 - 37 of the attached report.)

2. 10 C.F.R. § 50.59 should be amended to make it expressly applicable to holders of licenses not authorizing operation, and provide guidance for applying 10 C.F.R. § 50.59, after permanent shutdown, to the effect that one need not presume operation so long as there is a POL or confirmatory order. (See pages 18 - 25 and 33 - 37 of the attached report.)

3. Require licensees of shutdown plants to inform the NRC, at an early stage, of their plans for post-shutdown activities at the facility. (See pages 33 - 37 of the attached report.)

4. The regulations should be amended to define and provide for (1) issuing a confirmatory order after a permanent cessation of operations, (2) defining a POL, and (3) clarifying which regulations in Part 50 apply to POLs. Application for a POL and consolidation of requests for relief from requirements premised on operation would not be required. The POL rulemaking would explain the role of a POL in the decommissioning process and for each POL, the NRC would explain to the public the role of the POL and the decommissioning process to follow. (See pages 37 - 47 of the attached report.)

5. Absent case-specific considerations warranting a stay under 10 C.F.R. § 2.788 criteria, offer a post-effectiveness hearing on decommissioning at the decommissioning plan approval stage. (See pages 47 - 58 of the attached report.)

6. As a matter of policy, the Commission may choose to provide an earlier opportunity for public hearing on decommissioning. However, in order for such hearing to be meaningful, the Commission would need to modify its decommissioning regulations to provide for the earlier submission of proposed decommissioning plans. Alternatively, the Commission may provide

an informal process for earlier public input, such as soliciting public comment, through public meetings or other means, on issues unique to the locale. (See pages 54 - 58 of the attached report.)

7. Amend the regulations to provide for an informal hearing as in materials licensing cases. Provide guidance that the approval of the decommissioning plan includes any and all approvals needed to fully implement the decommissioning plan, including any license amendments and TS changes needed. (See pages 50 - 58 of the attached report.)

Coordination: The EDO agrees with the recommendations in this paper.

William C. Parler
General Counsel

Enclosures:
1. Decommissioning-Lessons Learned
2. Appendix A: Shoreham Case History
3. Appendix B: Regulations That Do Not Expressly Apply To A POL

Commissioners' comments or consent should be provided directly to the Office of the Secretary by COB Tuesday, December 1, 1992.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Wednesday, November 18, 1992, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

DISTRIBUTION:
Commissioners
OGC
OCAA
OIG
OPP
EDO
ACRS
ACNW
ASLBP
SECY

TABLE OF CONTENTS

SHOREHAM DECOMMISSIONING: LESSONS LEARNED

SHOREHAM DECOMMISSIONING: LESSONS LEARNED

INTRODUCTION

The settlement of the controversy between the licensee and others[1] over the decommissioning of the Shoreham Nuclear Power Station removed the last formal opposition to decommissioning of the plant.[2] The actions taken by the licensee to decommission Shoreham soon after receiving its full power license, long before the expiration of the license, surfaced ambiguities and apparent deficiencies in the Commission's decommissioning regulations and associated guidelines as regards their application to a prematurely shut down facility. At the end of the *Shoreham* proceeding, the Commission directed the Office of General Counsel to examine what lessons can be learned from this experience and to apply them to other decommissioning cases.[3] This memorandum seeks to identify the problems that arose in the decommissioning of Shoreham to date, to determine the cause of the problems, and to provide recommendations for corrective changes to the decommissioning regulations and guidelines, especially as applicable to premature decommissioning.

---

[1] The Shoreham-Wading River Central School District ("School District") and the Scientists and Engineers for Secure Energy, Inc. ("SE2").

[2] Decommissioning means to remove a facility safely from service and reduce radioactivity to a level that permits release of the property for unrestricted use and termination of license. 10 C.F.R. § 50.2.

[3] SRM on SECY-92-140 (June 10, 1992).

The Regulatory Scheme

The procedure for decommissioning a nuclear power plant is set out principally in 10 C.F.R. §§ 50.82, 50.75, 51.53 and 51.95. The formal process begins with the filing of an application by the licensee, normally after the plant has ceased permanent operations, for authority to surrender its license and to decommission the facility. The regulations contemplate, however, that the actual process begins even before the licensee makes a decision to cease operations permanently.[4] Five years before the licensee expects to end operation of the plant, the licensee is obligated to submit a preliminary decommissioning plan containing a cost estimate for decommissioning and an up-to-date assessment of the major technical factors that could affect planning for decommissioning. 10 C.F.R. § 50.75(f). Then, within two years following "permanent cessation of operations," but no later than one year prior to expiration of its license, a licensee must submit to the Commission an application for "authority to surrender a license voluntarily and to decommission that facility," together with an environmental report covering the proposed decommissioning activities. 10 C.F.R. §§ 50.82, 51.53. The application must also be accompanied, or preceded, by a proposed decommissioning plan (D-Plan) that includes:

---

[4] The regulations do not define when a plant permanently ceases operation.

(1) A description of the decommissioning alternative chosen and the activities involved.[5] Generally, the alternative is acceptable if it provides for completion of decommissioning within 60 years. 10 C.F.R. § 50.82(b)(1)(i).

(2) A financial plan showing a cost estimate for decommissioning, the amount of funds currently available for decommissioning, and plans for assuring the availability of adequate funds for completion of decommissioning. 10 C.F.R. § 50.82(b)(4).[6]

---

[5] The regulations contemplate three different decommissioning methods: DECON, SAFSTOR and ENTOMB. Final Rule: General Requirements for Decommissioning Nuclear Facilities, 53 Fed. Reg. 24018, 24020-24 (June 27, 1988). Under DECON, equipment, structures and portions of a facility, and site containing radioactive contaminants are removed or decontaminated to a level that permits the property to be released for unrestricted use shortly after cessation of operations. Under SAFSTOR, often considered "delayed DECON," a nuclear facility is placed and maintained in a condition that allows safe storage and is subsequently decontaminated to levels that permit release for unrestricted use. Under ENTOMB, radioactive contaminants are encased in a structurally long-lived material such as concrete and the entombed structure is appropriately maintained and monitored until (over 60 years later) the radioactivity decays to a level permitting unrestricted release of the property. *See* Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities (GEIS), NUREG-0586 (August 1988), at §§ 2.4 - 2.4.4. These decommissioning alternatives are not totally discrete actions inasmuch as some decontamination and other preparatory activities like component disassembly may be performed under both the SAFSTOR and ENTOMB alternatives. *See e.g.*, GEIS at §§ 4.3.3, 4.3.5 and Table 4.3-4.

[6] Assurance that sufficient funds will be available to cover all future decommissioning costs may be provided through one or more of three basic funding mechanisms: prepayment, external sinking fund, and surety/insurance/guarantee. The cost of decommissioning does not include the cost of removal and disposal of spent fuel or of nonradioactive structures and materials beyond that necessary to terminate the license and does not include costs

(continued...)

The Commission reviews the decommissioning plan, prepares an environmental impact statement (EIS) or environmental assessment (EA), as appropriate (10 C.F.R. § 51.95), and gives notice to interested persons. If the Commission finds the plan to be satisfactory (that is, the plan is in accordance with the regulations and is not inimical to the common defense and security or to the health and safety of the public), the Commission issues a decommissioning order that approves the plan, subject to any conditions or limitations it deems appropriate, and authorizes decommissioning. 10 C.F.R § 50.82(e).[7] Upon completion of decommissioning activities, including the completion of a terminal radiation survey in accordance with the plan and the order authorizing decommissioning, the Commission will issue an order that terminates the license.[8]

---

[6](...continued)
for disposal of nonradioactive hazardous wastes not necessary for NRC license termination. 53 Fed. Reg. 24031; 10 C.F.R. § 50.75(c); 10 C.F.R. § 50.54(bb).

[7] This does not mean that a licensee is precluded from taking any steps toward decommissioning prior to receipt of such an order. The Statement of Considerations accompanying the Decommissioning Rule indicates that, under 10 C.F.R. § 50.59, a licensee generally has the authority to make certain changes to the plant, including decontamination, minor component disassembly, and shipment and storage of spent fuel, without prior Commission approval as long as the changes are permitted by the "operating license" and do not involve "major structural changes to radioactive components of the facility or other major changes." 53 Fed. Reg. 24024-25. The applicability of 10 C.F.R. § 50.59 is questionable, however, after the issuance of a possession-only license (POL) because that provision expressly applies to the "holder of a license authorizing operation."

[8] It is not clear whether a hearing must be offered in connection with Commission issuance of a decommissioning order, a termination order, or both. There is no regulatory provision
(continued...)

After cessation of permanent operations but before receiving the order authorizing decommissioning, the applicant may seek to amend its operating license to reduce it to a "possession-only license" (POL).[9] The POL serves two principal purposes. It confirms the nonoperating status of the plant by removing the authority to operate. More significantly, it provides a basis to remove requirements that are not necessary for a plant that will no longer operate. *See* 53 Fed. Reg. 24018, 24024. Thus, a POL provides a basis for a licensee to begin eliminating personnel, equipment and activities unnecessary for maintenance of the plant in a safe, shutdown status without endangering the public health and safety pursuant to 10 C.F.R. § 50.59 analyses and without materially affecting costs, methods or options for decommissioning the facility.

The Commission, however, has declared that a POL is not a necessary step in the decommissioning process. *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-91-1,

---

[8](...continued)
specifically mandating such a hearing, although an opportunity for hearing may be required under section 189 of the Atomic Energy Act if the order involves issuance of a license, or an amendment or revocation of a license. 42 U.S.C. § 2239.

[9] A POL is not defined anywhere in the regulations. It is discussed in Regulatory Guide 1.86 (1974), which includes a description of the information to be submitted in an application for a POL. Also, the Statement of Considerations to the final Decommissioning Rule mentions that decommissioning will be conducted under a POL, 53 Fed. Reg. 24018, 24024, and 10 C.F.R. § 171.5 indicates that fee requirements for a holder of an "operating license" do not apply to licenses authorizing "possession of special nuclear material after the Commission has received a request from a licensee to amend its licensee [sic] to permanently withdraw its authority to operate or the Commission has permanently revoked such authority."

33 NRC 1, 6 (1991). A POL is essentially an amended operating license. It is only one way of allowing a licensee to obtain relief from requirements applicable only to plant operation. A licensee may also obtain such relief through exemptions and waivers from the regulatory requirements, or other license amendments. Any amendment sought may be subject to a pre-effectiveness or post-effectiveness hearing depending on whether the amendment involves a significant hazards consideration. *See* 10 C.F.R. §§ 50.91, 50.92.

Although premature decommissioning can occur, as demonstrated by Shoreham, Fort St. Vrain, Rancho Seco and TMI-2,[10] the regulations and associated guidelines provide little guidance on when and to what extent the normal decommissioning procedures (such as the requirement for a preliminary decommissioning plan) are to be applied to premature decommissioning. The regulations themselves contain no mention of premature decommissioning. The Statement of Considerations accompanying the issuance of the final Decommissioning Rule, however, clearly indicates that premature decommissioning is covered by the rule. 53 Fed. Reg. 24018, 24019. *See also*, GEIS at §§ 2.6.2, 4, and A.1.1. Nevertheless, there is little information concerning which steps in the regular decommissioning process, and their timing, apply to the decommissioning of a prematurely shutdown plant.

---

[10] Other plants currently involved in (or expected soon to begin) premature decommissioning include: Yankee Rowe, Trojan and San Onofre-1.

The *Shoreham* Proceedings[11]

After receiving a full power operating license on April 21, 1989, the Shoreham Nuclear Power Station shut down in June 1989 pursuant to an agreement between the State of New York and the Long Island Lighting Company (LILCO or Licensee). The agreement provided that LILCO would cease operations at Shoreham and sell the facility to the Long Island Power Authority (LIPA), a New York State agency, for decommissioning.[12] Soon thereafter, LILCO removed all fuel from the reactor, stored the fuel in the spent fuel pool as permitted under its full power license, and, under regular procedures, began to seek a series of license amendments and exemptions to allow it to reduce staffing and other requirements applicable to operation.[13]

Beginning in July 1989, the School District and SE2 (jointly referred to as "Petitioners") filed petitions, pursuant to 10 C.F.R. §§ 2.206 and 2.714, opposing the defueling and destaffing

---

[11] This section only briefly summarizes the history of *Shoreham*. A more detailed discussion is contained in Appendix A (attached).

[12] Prior to shutdown, Shoreham operated for only two effective full power days under the terms of its earlier low power license.

[13] For example, beginning in December 1989, LILCO filed applications seeking relief from regulations or license conditions concerning emergency preparedness, physical security, fitness for duty, property insurance, operator training, and decommissioning funding. *See* Onsite Property Insurance Coverage Exemption, 55 Fed. Reg. 18993 (May 7, 1990); Emergency Preparedness Amendment and Exemption, 55 Fed. Reg. 31914, 31915 (August 6, 1990); Physical Security Plan Amendments and Exemptions, 55 Fed. Reg. 25387 (June 21, 1990), 57 Fed. Reg. 4223, 4224 (February 4, 1992); Fitness for Duty Exemption (chemical testing), 55 Fed. Reg. 35223 (August 28, 1990); Operator Training Exemption, 56 Fed. Reg. 47108 (September 17, 1991); Decommissioning Funding Exemption, 56 Fed. Reg. 61265 (December 2, 1991).

activities that LILCO planned to undertake, and any actions that they believed would lead to decommissioning of the facility, including the transfer of the license to LIPA. Petitioners claimed (1) that individual actions were attempts illegally to segment Commission consideration of the environmental consequences of the larger action of decommissioning the facility required by the National Environmental Policy Act ("NEPA")[14] and (2) that the Commission must consider resumed operation as an alternative to decommissioning Shoreham.[15] Separately, the Secretary of Energy, through letters and other means, urged the Commission to preserve Shoreham as a nuclear facility, and to prohibit LILCO from taking steps to dismantle the plant without first holding hearings and preparing an EIS on decommissioning. In addition, the Chairman of the Council on Environmental Quality (CEQ) wrote letters arguing that the NRC must prepare an EIS on decommissioning before authorizing any changes to the license. Uncertain as to whether the Department of Energy would take steps to preserve Shoreham as a nuclear facility, the staff obtained a commitment from LILCO to maintain the plant in a defueled state and to preserve systems needed for operation.

On March 29, 1990, the NRC issued an immediately effective, Confirmatory Order modifying the Shoreham license to prohibit the

---

[14] 42 U.S.C. § 4321, *et seq.*

[15] *See e.g., Shoreham,* DD-90-8, 32 NRC 469 (1990); *id.*, CLI-90-8, 32 NRC 201 (1990), *aff'd on reconsideration,* CLI-91-2, 33 NRC 61 (1991) (license amendments and Confirmatory Order); *id.*, CLI-91-1, 33 NRC 1 (1991) (possession-only license); *id.*, CLI-91-8, 33 NRC 461 (1991); CLI-92-4, 35 NRC 69 (1992) (license transfer).

reloading of fuel into the reactor without prior NRC approval.[16] The petitioners filed requests for hearing on the order asserting the need for an EIS prior to its issuance.

The Commission consolidated Petitioners' requests for hearing concerning the Confirmatory Order[17] and amendments reducing physical security and emergency preparedness requirements. In CLI-90-8 (October 17, 1990),[18] the Commission, in response to Petitioners' arguments, ruled that the decision to decommission a reactor was a private (not federal) decision and that the federal decision involved only the method of decommissioning. Thus, the broadest NRC action related to decommissioning is review and approval of the method of accomplishing decommissioning. 32 NRC 201, 206-07, *aff'd on reconsideration*, CLI-91-2, 33 NRC 1, 69-70 (1991).[19] The Commission also ruled that resumed operation was not

---

[16] It should be noted that although such orders were issued to the Shoreham, Rancho Seco and Ft. St. Vrain licensees, they are not contemplated by the decommissioning rule and were not intended to be issued in the ordinary course of decommissioning.

[17] Petitioners unsuccessfully challenged the Confirmatory Order in federal court. *Shoreham-Wading River Central School District v. NRC*, 931 F.2d 102 (D.C. Cir. 1991). The court found that "even assuming a de facto decommissioning proposal," the Confirmatory Order and the Insurance Exemption are not "interdependent part of a larger action [that] depend on the larger action for their justification." *Id.* at 107, *citing*, 40 C.F.R. § 1508.25(a)(1)(iii) (1990).

[18] 32 NRC 201 (1990), *affirmed on reconsideration*, CLI-91-2, 33 NRC 61 (1991). The staff had previously, in SECY-90-194 (May 31, 1990) (internal document), asked the Commission to make a policy determination that resumed operation is not a reasonable alternative to be considered under NEPA.

[19] The Commission stated that its responsibility was to ensure that LILCO (1) complies with the requirements applicable to the plant in its mode or condition and (2) refrains from taking actions

(continued...)

considered a "reasonable alternative" for Shoreham under NEPA since the likelihood of such operation, which would require significant changes in governmental policy and legislation (i.e., reversal of the opposition to Shoreham by the Governor and Legislature of New York), was extremely remote. CLI-90-08, 32 NRC at 208-09; CLI-91-2, 33 NRC at 70-71.

In December 1990, the Director of NRR denied the 10 C.F.R. § 2.206 petitions seeking to prevent LILCO from deferring maintenance activities and engaging in alleged decommissioning activities, finding that the activities complained of were authorized by the license and were not irreversible. DD-90-8, 32 NRC 469, 475-78 (1990).

On January 5, 1990, LILCO filed an application for "a defueled operating license" that would remove the authority to operate and would delete a number of Technical Specifications (TSs) to reflect the defueled condition at Shoreham. Upon receipt of notice of the application, Petitioners filed petitions to intervene and requests for hearing. They asserted that under the Commission's decommissioning regulations and NEPA, the Commission could not approve the application because of the absence of a D-Plan. According to Petitioners, any approval of the application must be preceded by Commission approval of the plan based on an Environmental Impact Statement (EIS) prepared by the Commission in accordance with NEPA and a hearing on the D-Plan.

---

[19](...continued)
that would materially affect decommissioning methods, options or costs prior to approval of a decommissioning plan. 32 NRC at 207 n.3.

In CLI-91-1 (January 24, 1991), the Commission ruled on the defueled operating license application. It ruled that: (1) LILCO's request for a defueled operating license was a request for a POL; (2) the decommissioning rules do not contemplate that, in normal circumstances, a POL would have to be preceded by submission of any particular environmental information or accompanied by any NEPA review related to decommissioning;[20] and (3) the rules do not require the submission of any preliminary or final decommissioning information before a POL could issue. 33 NRC 1, 5-7 (1991).

In two Staff Requirements Memorandums (SRMs) with generic implications, the Commission declined to provide guidance or criteria beyond that contained in CLI-90-8 and CLI-91-1 for the issuance of a POL, but indicated it would continue to consider POLs for prematurely decommissioned plants on a case-by-case basis. SRMs on SECY-90-421 (February 15 and May 20, 1991).[21] The

---

[20] The Commission noted that, although 10 C.F.R. § 51.95(b) requires a supplemental review in connection with approval of the final decommissioning plan, "the categorical exclusion applicable to POLs in 10 C.F.R. § 51.22(c)(9) was left unchanged." 33 NRC at 6.

[21] In SECY-90-421 (December 27, 1990), the staff sought guidance on three phases in processing D-Plans. Before issuance of a POL, licensees would be required to preserve from degradation systems needed for operation and to comply with operating license requirements and regulations applicable to whatever mode or condition the plant was in after shutdown. After issuance of a POL, licensees would have to maintain staffing and systems necessary only for safety in the shutdown mode or defueled condition. After approval of the D-Plan, licensees would have to conduct their activities in accordance with the approved D-plan. Until plan approval, licensees were to refrain from any actions that would affect decommissioning methods or options or increase decommissioning costs. The Commission responded that the staff should follow the guidance in CLI-90-8 and CLI-91-1. SRMs (February 15 and May 20, 1991).

Commission also approved the staff's proposal to reject LILCO's planned shipment of fuel support castings and peripheral pieces offsite absent the issuance of a POL. SRM on SECY-91-014 (February 21, 1991).[22] The staff subsequently denied the request for an amendment authorizing the shipment. 56 Fed. Reg. 16132 (April 19, 1991).[23]

In June 1991, the Commission approved the staff's proposal (SECY-91-129, May 13, 1991) to issue an immediately effective amendment[24] reducing the operating license to a POL, and denied Petitioners' requests that the Commission reconsider its rulings in CLI-90-8 and CLI-91-2 regarding the scope of the NEPA review on decommissioning. CLI-91-8, 33 NRC 461 (1991). The Commission

---

[22] Commissioner Curtiss' position was that there was no basis to require preservation of systems for full power operation and argued that operation was not the relevant baseline for a § 50.59 analysis since the Confirmatory Order prohibited operation.

[23] In DD-91-3, 33 NRC 453 (1991), the Director of NRR denied in part, and granted in part, a supplemental § 2.206 petition filed by the petitioners asking the NRC (1) to find LILCO's storage of the fuel support castings and peripheral pieces on the roof above the turbine deck in violation of the March 29, 1990 Confirmatory Order that required continued maintenance of structures, systems and components necessary for full-power operation; and (2) to prevent shipment of the parts prior to judicial review of any POL authorized and a NEPA analysis of decommissioning. The Director determined that storage of the items did not violate the Order and that the Staff had already taken actions to preclude shipment of the reactor parts by denying the amendment request.

[24] Amendments that involve no significant hazards considerations may be made effective without a prior hearing. 42 U.S.C. § 2239(a); 10 C.F.R. § 50.91. The Commission, as a matter of discretion, may order that a pre-effectiveness hearing be held if potentially significant public health and safety issues are raised in a proceeding. *See e.g.*, 35 NRC at 77-79. The staff's determination of no safety hazards consideration (NSHC) is not reviewable, except where the Commission does so on its own initiative. 10 C.F.R. § 50.58(b)(6).

explained that, even if Petitioners were to obtain a court decision affecting the validity of the Shoreham settlement agreement, as they alleged, such decision would not affect the primary holdings in CLI-90-8 and CLI-91-2, that the decision not to operate Shoreham is a private decision, and that, in the circumstances, NEPA requires only that the NRC consider alternative methods of decommissioning. CLI-91-8, 33 NRC at 469-70.[25]

Petitioners sought Commission and judicial review of the decision to issue a POL, but were unsuccessful. CLI-91-10, 34 NRC 1, 2 (1991) (stay denied even though POL "would render full-power operations moot"); *Shoreham Wading River Central School District v. NRC*, No. 91-1140 (D.C. Cir. July 19, 1991); 112 S. Ct. 9 (1991).[26]

In January 1992, Petitioners filed intervention requests which alleged that the proposed license transfer to LIPA was an

---

[25] The POL was issued based on a final determination of NSHC, 56 Fed. Reg. 28434 (June 20, 1991), but its effective date was stayed until July 19, 1991, as a result of an administrative stay imposed by the Commission. *See* CLI-91-8, 33 NRC at 471-72. The POL prohibited operating the facility at any power level and revised the TSs to remove or modify requirements applicable to an operating facility. It allowed activities such as decontamination and component disassembly (including the shipment and offsite burial of the fuel support castings and peripheral pieces), as long as the activities did not substantially affect decommissioning methods, options or costs. *See* POL Safety Evaluation at 17-18.

[26] In a letter dated December 11, 1991, LILCO informed the staff that LILCO had acted consistent with the stipulation in SECY-91-129, that no actions foreclosed decommissioning options or substantially increased costs or constituted an unreviewed safety question under 10 C.F.R. § 50.59. LILCO's actions included core borings in the biological shield wall and the reactor pressure vessel to conduct radiation surveys, removal of reactor water clean-up piping and pressure vessel mirror insulation, shipment of salvageable pumps and control rod blade guides to other reactors, and initiation of the process of segmenting and removing the reactor pressure cavity shield blocks.

interdependent part of decommissioning that could not be granted without a prior hearing. In CLI-92-4, 35 NRC 69, 76-81 (1992), the Commission ruled that transfer of the license could be approved by order without a pre-effectiveness hearing. The transfer order issued on February 29, 1992. 57 Fed. Reg. 8150 (March 6, 1992).

Also, in January 1992, the Petitioners sought leave to intervene regarding the proposed issuance of an order approving the Shoreham D-Plan and the DECON decommissioning method at Shoreham and again claimed that an EIS and prior hearing were required. The staff subsequently recommended issuance of an immediately effective order authorizing decommissioning of Shoreham accompanied by the no significant hazards consideration (NSHC) determination. SECY-92-140 (April 17, 1992). The staff acknowledged that approval of the D-Plan would "permit irreversible actions to be taken inasmuch as the licensee's method of decommissioning is the DECON alternative, and could affect the ability to select another decommissioning alternative." *Id.* (footnote omitted).

On June 3, 1992, the Petitioners, based on a settlement agreement with the licensee, filed joint motions to withdraw their pending petitions and appeals in all *Shoreham* proceedings, which were subsequently granted.[27] Because the oppositions were withdrawn, the Commission, while not necessarily accepting the staff's legal and policy arguments on procedures for issuing its

---

[27] The Commission and Licensing Board dismissed all Shoreham proceedings before them on June 10 and June 17, 1992, respectively. Commission Orders, dated June 10, 1992 (OLA, POL, and DECOM proceedings); LBP-92-14, 35 NRC 207 (1992) (License Transfer); LBP-92-15, 35 NRC 209 (1992) (Decommissioning Order).

approval of the Shoreham D-Plan, did not object to the issuance of the order authorizing decommissioning of Shoreham. SRM on SECY-92-140 (June 10, 1992).[28] Accordingly, on June 11, 1992, the NRC issued an order authorizing the decommissioning of Shoreham as provided by the D-Plan.

ISSUES RAISED BY *SHOREHAM*

The premature shutdown of Shoreham raised a number of issues regarding the requirements of the decommissioning regulations and the procedures (including hearing matters) to be followed in processing D-Plans. The issues discussed in this paper are: (1) what actions are permissible after cessation of operation and before NRC approval of a D-Plan (*e.g.*, what activities/actions may proceed without approval of a D-Plan, what is the role of a POL, what safety and environmental review is required, when should funding and other decommissioning information be submitted); and (2) what is the nature of a decommissioning order and what hearing rights should be offered in processing D-Plans?

Of course, the most significant issue raised by *Shoreham* was whether the NRC had an obligation under NEPA to consider continued operation as an alternative to decommissioning, and a related obligation to preserve operation as a viable option pending full consideration of that alternative. This issue pervaded early NRC

---

[28] The Commission indicated, however, that generic guidance regarding hearings and procedures in decommissioning proceedings would follow receipt of an OGC paper.

staff[29] and Commission consideration of Shoreham decommissioning issues. With the issuance of the *Shoreham* decisions on this question, the matter was resolved. While the Commission's decision was not judicially reviewed, and hence there is no judicial endorsement of the Commission's position, there appears to be no reason to revisit the question here on a generic basis.

---

[29] The staff's position regarding decommissioning was predicated on its broad interpretation of the definition of "decommissioning" in 10 C.F.R. § 50.2, as well as language in the Statement of Considerations which suggests that the term encompasses any and all activities undertaken when a licensee decides to terminate operation. *See* 53 Fed. Reg. 24018, 24019. Thus, the staff was concerned that the failure to fully evaluate not only the safety and environmental aspects of a specific licensing action but also the substance of the D-Plan, at the first logical juncture after cessation of operation, would constitute an impermissible segmentation of the Commission's NEPA obligations. For that reason, the staff argued both in the then-pending adjudications as well as in SECY-89-247 (August 14, 1989), SECY-90-421 (December 27, 1990), and SECY-91-014 (January 18, 1991), that a POL was a significant milestone in the context of decommissioning, and that preliminary decommissioning information should be provided.

I. Actions Permissible Before Approval of A D-Plan

After permanent shutdown,[30] utilities generally desire relief from costly requirements needed for operation and the flexibility to take other steps that decrease the economic and administrative burdens associated with the terminated facility.[31] In granting relief, the NRC must ensure that all activities are conducted in compliance with the license and the regulations, and consistent with safety and environmental requirements. Unless a licensee is prohibited from conducting certain decommissioning activities prior to approval of the D-Plan, substantial decommissioning could be conducted before the NRC ever completes its review of a D-Plan.[32] These matters are discussed further below.

---

[30] This paper does not define what constitutes a "permanent cessation of operations." It is not clear whether any health and safety concerns are raised by permitting a licensee of a prematurely shutdown facility to postpone the deadline for submitting a D-Plan until a year prior to expiration of its license. *See* 10 C.F.R. § 50.82(a)(1)(i). The current regulation apparently leaves that determination to the sole discretion of a licensee. The licensee fee regulations (Part 171) and other requirements for an operating license might encourage licensees to seek a POL or comparable relief shortly after shutdown, but is it not clear that declaration of a permanent cessation of operations would be a condition precedent to issuing such relief.

[31] Plants that have mode-specific TSs might focus their efforts on obtaining exemptions or other relief from regulatory requirements. For example, licensed reactor operators might be replaced with certified fuel handlers.

[32] For example, a failure to declare a permanent cessation of operations could leave the NRC unaware of the permanent removal and offsite shipment of major radioactive components that would have been replaced after an outage. Thus, decommissioning options for the affected components could be limited or, at worst and depending on the extent of the activities, substantial decommissioning could be completed prior to approval of the D-Plan.

A. Ambiguities in the Regulations

The regulations broadly define the term "decommission" as the removal of a facility from service and the reduction of residual radioactivity so as to permit unrestricted use and termination of the license. 10 C.F.R. § 50.2. In promulgating the Decommissioning Rule, the Commission explained:

> [D]ecommissioning . . . means to remove nuclear facilities safely from service and to reduce residual radioactivity to a level that permits release of the property for unrestricted use and termination of the license. *Decommissioning activities are initiated when a licensee decides to terminate license activities. Decommissioning activities do not include the removal and disposal of spent fuel which is considered to be an operational activity or the removal and disposal of nonradioactive structures and materials beyond that necessary to terminate the NRC license.*

53 Fed. Reg. 24018, 24019 (emphasis added). While the Commission has stated that "[d]ecommissioning activities are initiated when a licensee decides to terminate license activities," 53 Fed. Reg. 24019, it has also stated that the definition of decommissioning in § 50.2 "is general and its application in any given case will depend on specific circumstances," 53 Fed. Reg. 24021. Moreover, the regulations currently do not expressly prohibit a licensee from conducting all decommissioning activities prior to obtaining NRC approval. In fact, as discussed below, the Commission has indicated that some activities such as decontamination, minor component disassembly and shipment and storage of spent fuel are allowed if they are permitted by the license and/or 10 C.F.R. § 50.59. 43 Fed. Reg. 24025-26. It is not clear, however, to what extent decommissioning activities are permissible after shutdown, when decommissioning commences or what decommissioning activities

require prior NRC approval. In the past, the Commission has decided this on a case-by-case basis after a plant shuts down.

The regulations merely state that the Commission will issue an order authorizing decommissioning in accordance with a D-Plan if such plan demonstrates that decommissioning will be performed in accordance with the regulations. 10 C.F.R. § 50.82(e).

In response to a comment raised during the Decommissioning rulemaking that the regulations should be clarified to delineate those decommissioning related activities that could proceed without approval of a D-Plan, the Commission noted that licensees could conduct those activities allowed by the operating license and § 50.59. The Commission said:

> [I]t should be noted that § 50.59 permits a holder of an operating license to carry out certain activities without prior Commission approval unless these activities involve a change in the technical specifications or an unreviewed safety question. However, when there is a change in the technical specifications or an unreviewed safety question, § 50.59 requires the holder of an operating license to submit an application for amendment to the license pursuant to § 50.90. Section 50.59(a)(2) contains criteria as to what is deemed to be an unreviewed safety issue. The amendments contained in this rulemaking do not alter a licensee's capability to conduct activities under § 50.59. *Although the Commission must approve the decommissioning alternative and major structural changes to radioactive components of the facility or other major changes, the licensee may proceed with some activities such as decontamination, minor component disassembly, and shipment and storage of spent fuel if these activities are permitted by the operating license and/or § 50.59.* These matters will be further discussed in a revision to Regulatory Guide 1.86 under consideration.

43 Fed. Reg. 24025-26.[33] Thus, it would appear that a licensee may

---

[33] Although the Commission stated that § 50.59 allows "holders of an operating license" to carry out certain activities without (continued...)

proceed with some D-Plan actions (decontamination, minor component disassembly), including preparatory or preliminary decommissioning activities, if such activities would be permissible under its operating license or § 50.59.[34] The Commission apparently recognized that there is an overlap between those activities that may be conducted during operation and those related to decommissioning. This is an area that needed further study to eliminate any overlap or to provide guidance for dealing with such activities, particularly since there is a risk that certain licensee actions, unless prohibited, could result in substantially completing decommissioning before a D-Plan for the facility is ever reviewed or approved.

A question raised in *Shoreham* was whether the determination of actions permissible under 10 C.F.R. § 50.59, after the decision to permanently terminate operations and completion of defueling, turns on whether safety is evaluated (a) based on the maximum activity authorized by the license (*i.e.*, power generation under a full-power operating license) or (b) based on the actual mode or

---

[33](...continued)
prior approval, the language of that provision is more restrictive (*i.e.*, "holder of a license authorizing operation"). That provision may not be applicable to plants that are no longer authorized to operate; for example, those with a POL. The Reg. Guide revision that was to discuss permissible activities has not been published. The current version merely states that "major structural changes to radioactive components of the facility, such as removal of the pressure vessel or major components of the primary system," should be submitted in a dismantlement plan for NRC approval. Reg. Guide 1.86 (June 1974).

[34] Even if § 50.59 applies to holders of POLs, a matter subject to dispute, the Commission apparently contemplated that a determination would be made as to whether the affected components are "minor" for the plant as licensed.

condition of the reactor.[35] There is no problem with basing such evaluation on the actual mode or condition of the reactor, provided a licensee is not authorized to operate.[36] This could be accomplished by either issuance of a POL or a confirmatory order. Thus, between permanent shutdown and approval of a decommissioning plan, a licensee may take actions consistent with its license, but inconsistent with future operation (*e.g.*, LILCO's drilling of holes in the Shoreham reactor vessel) so long as it satisfies applicable licensing and regulatory requirements (*i.e.*, maintains the operability of all systems necessary for safety in the existing plant condition or mode and appropriate staffing). The current Commission position, which will be examined below, is that licensee must also refrain from taking any actions, prior to submission and approval of a decommissioning plan, which would substantially

---

[35] It might be helpful for the Commission to provide guidance on the threshold for § 50.59 analysis during the three periods that precede termination of a license. For example, the staff had proposed that: (1) after shutdown and before issuance of a POL, changes must be evaluated in terms of a facility licensed to operate; (2) after a POL and before approval of the D-Plan, changes must be evaluated in terms of those FSAR or license provisions applicable to a permanently shutdown and defueled reactor -- necessary for safety in the defueled condition; and (3) after D-Plan approval, changes are to be evaluated in terms of the safety and environmental analysis supporting plan approval. SECY-90-421 (December 27, 1990). The Commission, however, declined to accept this recommendation indicating that the staff should follow the case-by-case approach described in CLI-90-8 and CLI-91-1. SRMs on SECY-90-421 (February 15 and May 20, 1991).

[36] If a licensee is authorized to operate, the plant clearly should be preserved for operation. Accordingly, it is necessary to require adherence to all operating requirements and operability of systems required for operation as is required for plants in maintenance or refueling outages. The § 50.59 analysis for plants that have not permanently ceased operations should thus be performed against this baseline.

substantially increase decommissioning costs, or that "would materially and demonstrably affect the methods or options available for decommissioning." CLI-90-8, 32 NRC at 207 n.3; CLI-91-1, 33 NRC at 6-7.[37] It is not clear whether this was intended as a stand-alone standard or as an interpretation of the language in the preamble to the decommissioning rule quoted above.

B. Considerations Warranting Prior NRC Approval of Decommissioning Activities

A principal issue is whether the regulations should require NRC approval of a D-Plan before permitting certain decommissioning-related activities after shutdown. The answer depends on several considerations, namely: (1) the extent to which decommissioning activities are authorized or permissible under the current license, a matter mentioned above; (2) whether certain other safety considerations warrant delaying activities until approval of the plan; and (3) whether NEPA considerations warrant delaying such activities until approval of the D-Plan.

The issue is easily phrased but hard to answer. Some decommissioning activities (*i.e.*, minor component dismantlement, decontamination and shipment of waste or contaminated components), are routinely conducted under an operating license and could presumably be undertaken at a permanently defueled facility pursuing decommissioning. For example, during maintenance activities, equipment (including a steam generator) may be

---

[37] With respect to item (1), it is not clear how significant the Commission viewed the existence of the Confirmatory Order modifying the Shoreham license. Absent that order, which was the functional and legal equivalent of a POL, a different outcome may have been recommended. *See* SECY-90-421, *supra*.

disassembled, repaired or replaced and affected components decontaminated or sent offsite for burial.[38] It would not seem logical, from the standpoint of safety, to suggest that the scope of a licensee's Part 50 license activities is more limited after shutdown than during operation, particularly since a permanently defueled facility poses less danger to the public health and safety. On the other hand, it may not be prudent to allow major dismantlement activities that could limit decommissioning alternatives or complete decommissioning before a D-Plan is evaluated and approved.[39]

The Commission's *Shoreham* decisions provide little guidance about what dismantlement or other changes constitute "major structural changes to radioactive components of the facility or

---

[38] Decommissioning activities might be distinct from decontamination or other actions taken after an accident. For example, Section 8 of the GEIS categorizes activities following premature shutdown due to an accident into three stages (stabilization, accident cleanup and decommissioning). A determination of whether decommissioning encompasses cleanup activities may have to be determined on a case-by-case basis, the current approach under the decommissioning regulations. *See* 53 Fed. Reg. 24019, 24021, 24022.

[39] Arguably, the issuance of an operating license does not authorize a licensee to completely dismantle its facility since such acts could be contrary to acts authorized by the Part 50 license, i.e., the possession and use of a "facility" (equipment or device capable of making use of special nuclear material in such quantity as to be safety significant) even where the authorization to operate is removed. *See* AEA §§ 11cc, 101, 103b. If dismantlement activities render the facility incapable of sustaining a nuclear reaction, a Part 50 license would no longer be required because a licensee would no longer possess a "utilization facility" as defined in 10 C.F.R. § 50.2. It might also be argued that complete dismantlement would be prohibited because the absence of a utilization facility would provide grounds to revoke the license under section 186a (*i.e.*, a reason which would warrant the Commission to refuse to grant a license on an original application).

other major changes" as opposed to "decontamination, minor component disassembly, and shipment and storage of spent fuel" permissible under the license and § 50.59. *See* 53 Fed. Reg. 24025-26.[40] This is an area that warrants further study and recommendation in this report.

1. Safety Considerations

One category of safety concerns regarding actions taken prior to approval of a D-plan relate to whether such actions could make later decontamination, dismantlement or other decommissioning activities less safe or more costly, thereby possibly squandering funds needed to accomplish decommissioning safely.

The Shoreham POL included almost a wholesale revision of the TSs to remove requirements for operation. Because no active systems were required to store fuel with a burnup of approximately two full-power days and LIPA chose the DECON decommissioning alternative, no additional TS changes were needed to implement the D-Plan. If site-specific considerations warrant active systems for spent fuel cooling and radiation monitoring in the defueled condition, the deletion of some TSs could pose safety hazards to personnel and the public. Also, some activities might increase the probability of accidents described in the safety analysis report or create a different type of accident than those previously

---

[40] As noted above, the Commission accepted the staff's view that shipment of reactor internals (contaminated fuel support castings and peripheral pieces) needed for operation could proceed only after issuance of a POL. Aside from the possible effect of the shipment on decommissioning options, methods or costs, arguably the components were not "major" for a plant with a POL since they were not needed to maintain safety in the defueled condition.

evaluated.[41] *See* 10 C.F.R. § 50.59(a)(2). Clearly, such actions should require prior NRC review. Thus, § 50.59 should be clarified to make it applicable to holders of licenses that do not authorize operation (whether due to a POL or other NRC action). Also, § 50.59 could be clarified with regard for its applicability following decommissioning plan approval. After D-Plan approval, § 50.59 analysis would refer to the safety analysis supporting such approval.

The remaining safety question is whether actions after shutdown but before decommissioning approval could adversely affect later safety of decommissioning. If so, these could conceivably be identified as an unreviewed safety question so that prior NRC approval would be required. However, it is not clear that any actions prior to approval of a D-Plan, consistent with the license and 10 C.F.R. § 50.59, could adversely affect the safety of eventual decommissioning so long as decommissioning funds are not used to pay for these interim activities. From a safety standpoint, the principal function of D-Plan review is to provide site-specific guidance to the licensee on what is necessary and sufficient, from a safety standpoint, to terminate the license.

---

[41] Requests for license amendments or other relief after permanent shutdown could also address these matters.

This restriction on the use of decommissioning funds would avoid the possibility of squandering funds prior to D-Plan approval.

2. Environmental Considerations

As noted above, Petitioners repeatedly alleged that decommissioning of Shoreham was a major federal action with a significant environmental impact and that the licensing actions preceding approval of the D-Plan constituted illegal segmentation of the NEPA review of decommissioning.

The Commission rulings in *Shoreham* squarely hold that resumed operation is beyond the scope of the NRC's NEPA review of decommissioning. CLI-90-8, *supra*. A legitimate concern that remains for future decommissioning actions is the potential that the host of licensing actions prior to approval of the D-plan might result in illegal segmentation of the overall larger action of approving the D-Plan and possibly have a significant environmental impact by limiting the choice of reasonable alternatives for decommissioning. *See* 10 C.F.R. § 51.101.[42] In essence, decisions on how decommissioning may be accomplished would be decided implicitly before the D-Plan is submitted or reviewed.

Unless there are site specific considerations to the contrary, no EIS on decommissioning is required because the impacts have been considered generically in the GEIS prepared in connection with the

---

[42] The Commission found that, since the decision to terminate operations at Shoreham was not a federal action, licensing actions taken in anticipation of decommissioning do not trigger a NEPA review of decommissioning if they have no prejudicial effect on how decommissioning will be accomplished. CLI-90-8, 32 NRC at 208-09.

rule. 53 Fed. Reg. 24039; *see* 10 C.F.R. §§ 51.53(b), 51.95(b).[43] The staff's EA regarding the decommissioning of Shoreham concluded that the impacts of decommissioning Shoreham, a plant that shut down prematurely with fuel burnup of approximately two effective full power days, were bounded by the GEIS. 57 Fed. Reg. 24832 (June 6, 1992).[44] However, until the D-Plan environmental review

---

[43] The GEIS concluded that the major environmental impact in decommissioning a reactor occurs when the decision is made to operate the reactor and that no significant environmental impacts will occur from decommissioning unless there are site specific factors. Notice of Availability of GEIS, 53 Fed. Reg. 24681 (June 30, 1988). As the Commission stated in promulgating its decommissioning regulations:

> The GEIS shows that the difference in impacts among the basic decommissioning alternatives is small, whatever alternative is chosen, in comparison with the impact accepted from 40 years of licensed operation. The relative impacts are expected to be similar from plant to plant, so that a site-specific EIS would result in the same conclusion as the GEIS with regard to methods of decommissioning. . . [I]f the impacts for a particular plant are significantly different from those studied generically because of site-specific considerations, the environmental assessment would discover those and lay the foundation for the preparation of an EIS. If the impacts for a particular plant are not significantly different, a Finding of No Significant Impact would be prepared.

53 Fed. Reg. 24039. Occupational exposures experienced over a four year period of decommissioning would be similar to exposures at an operating facility on a yearly basis. 53 Fed. Reg. 24022; *see also* 53 Fed. Reg. 24026.

The GEIS did not consider in great detail the nonradiological impacts of decommissioning (such as the destruction of nonradiological structures, transportation of heavy loads, and noise), but indicates that the impacts are minor and subsumed in the environmental impacts examined for plant operation. GEIS at 4-15 to 4-17, 5-15 to 5-17, 15-11, A-32.

[44] Petitioners also claimed that there was a failure to evaluate adequately the nonradiological impacts of decommissioning. Under Section 102 of NEPA, 42 U.S.C. § 4332, the NRC is required to evaluate the environmental impacts of its proposed actions (both radiological and nonradiological).

is done, it cannot be presumed that the impacts will be within the scope of those impacts evaluated in the GEIS. The Commission recognized that the applicability of the GEIS will be determined on a plant-specific basis when it promulgated the rule. 53 Fed. Reg. 24039.

With respect to concerns about illegal segmentation of the NEPA review of decommissioning, the Commission ruled that petitioners must show that an EIS is required and the alleged inseparable licensing action would foreclose "alternative decommissioning methods or some other NEPA based considerations." 33 NRC at 236-37; *see also* 33 NRC at 7.[45] The concern underlying this ruling was that, if decommissioning methods or options are foreclosed due to cost or technical factors, there could be greater or unacceptable environmental consequences (both radiological and nonradiological) associated with decommissioning, thus potentially endangering the quality of the human environment.[46] Such actions might leave only one decommissioning alternative viable without other options ever being considered or reviewed. Actions prior to

---

[45] After *Shoreham*, a question still remains what "other NEPA based considerations" warrant the preparation of an EIS. Such other considerations might include the environmental impacts that directly result from the proposed action.

[46] For example, removal and offsite shipment of a steam generator prior to approval of D-Plan, an action permissible under § 50.59 on the assumption that the component will be replaced, could result in a major structural change to a radioactive component and, arguably, foreclose ENTOMB or SAFSTOR of the component if it is not replaced because the licensee later decides to permanently cease operations.

approval of the D-Plan would have determined how decommissioning can be accomplished.[47]

However, on reexamination of the NEPA considerations, it appears that the foreclosure criteria discussed in the Shoreham case can be refined. The general decommissioning objective is release of the site for unrestricted use and this objective is supported and confirmed by the decommissioning GEIS. Thus, more specific NEPA foreclosure criteria can properly focus on foreclosure of that objective rather than the decommissioning options to be used to achieve it (SAFSTOR, etc.). Thus, for example, there should be no NEPA foreclosure (segmentation) concern with dismantlement and offsite shipment of reactor components prior to D-Plan approval even though this forecloses the SAFSTOR option for these components because the goal of releasing the site for unrestricted use is not prejudiced, but probably advanced. (This assumes, of course, that the offsite shipment itself causes no significant environmental impact not reviewed previously.) A possible remaining foreclosure concern is that certain activities could make later release of the site more difficult by, for example, increasing decommissioning costs.

---

[47] Arguably, one of the criteria for proceeding with individual actions pending preparation of a programmatic EIS -- whether an action has independent utility regardless of the method of decommissioning that ultimately may be in the approved D-Plan -- could assist that determination. *See Conservation Society of Southern Vermont v. Secretary of Transportation,* 531 F.2d 637, 640 (2d Cir. 1976); *Sierra Club v. Froehlke,* 534 F.2d 1289, 1297 (8th Cir. 1976). If the action has no substantial benefit other than forwarding a particular method of decommissioning, it may not, under this theory, be granted before approval of the D-Plan. *See Conservation Society of Southern Vermont v. Secretary of Transportation, supra; Sierra Club v. Froehlke, supra.*

Because there is a risk even under the revised criteria that actions prior to approval of a D-Plan would have affected whether successful decommissioning can be accomplished, it is important for the NRC to have timely information about post-shutdown activities at a site and their impact on decommissioning costs and ultimate release of the site for unrestricted use. Staff will develop more detailed guidance as to what activities may be conducted before approval of a D-Plan consistent with this paper.

3. Decommissioning Funding Considerations

Another concern after permanent cessation of operations is that premature decommissioning might adversely affect the licensee's decommissioning funding plan because sufficient funds would not have been accumulated.[48]

As a practical matter, this was not a significant issue for Shoreham. Under the agreement with New York State, LILCO (an electric utility that operated other power plants) remained responsible for all costs associated with decommissioning Shoreham notwithstanding the transfer of the license to LIPA. The funding scheme did not, however, comport with 10 C.F.R. § 50.72.

In 1988, the Decommissioning Funding Rule, 10 C.F.R. § 50.75, established several methods by which power reactor licensees may provide assurance of sufficient funds to decommission by the time

---

[48] Potential inadequacies in decommissioning funding could create incentives to "cut corners" in order to conserve resources, 57 Fed. Reg. 30387, and thereby, potentially endanger public health and safety, particularly if cost-cutting measures result in increased radiation exposures to personnel or the general public.

the plants are permanently shut down.[49] 53 Fed. Reg. 24018, 24043. Subsequently, three power reactors[50] (the Fort St. Vrain Nuclear Generating Station, the Shoreham Nuclear Power Station, and the Rancho Seco Nuclear Generating Station) shut down prematurely. In SECY-90-386 (November 26, 1990), the staff sought Commission guidance on the appropriate collection period for collecting funds for these reactors to compensate for any shortfalls. The Commission decided that the collection period should be determined on a case-by-case basis and directed the staff to prepare the appropriate rulemaking. SRM on SECY-90-386 (December 21, 1990).

The proposed rule on decommissioning funding for prematurely shut down reactors was published on August 21, 1991 (56 Fed. Reg. 41493) and the final rule was published on July 9, 1992 (57 Fed. Reg. 30384). The final rule provides that the collection period will be determined on a case-by-case basis taking into account the specific financial situation of each licensee. 57 Fed. Reg. 30387.[51]

---

[49] The footnote to 10 C.F.R. § 50.75(c) points out that these costs "do not include the cost of removal and disposal of spent fuel or nonradioactive structures and materials beyond that necessary to terminate the license."

[50] The Yankee Rowe Nuclear Power Station was shut down prematurely in October, 1991. The Staff has been notified that San Onofre Nuclear Generating Station, Unit 1, will be shut down in late 1992, and the Trojan Nuclear Plant, Unit 1, in 1996 (or possibly sooner). These, too, are premature terminations of operation.

[51] The Statement of Considerations (57 Fed. Reg. 30385) accompanying the rule states that an "A" bond rating would serve as a recommended screening test of whether additional financial data was required to determine whether the licensee should be allowed to fund decommissioning into the storage period. Licensees that do

(continued...)

This rule provides the framework for determining necessary assurances of funding. However, licensees that have been shut down for an extended period without objective evidence of a planned resumption of operation and who have not declared "permanent cessation of operation" could delay submitting funding information until they are required to submit their D-Plan. Also, the lack of guidance regarding what constitutes "premature shutdown" (presumably a permanent, not temporary, cessation of operations prior to expiration of a license), may lead to uncertainty in determining when a case-by-case analysis is appropriate. While this is a potential problem area, it seems sufficient at present to flag the issue for case-specific resolution if some future problem arises.

---

[51](...continued)
not have an "A" rating would still be allowed to fund decommissioning into the storage period based on several criteria, including:

(1) A licensee's financial history including its past funding of reactor safety expenditures;

(2) The local rate regulatory environment and other relevant State laws including public utility commission (PUC) commitments;

(3) The number of other generating plants, both nuclear and non-nuclear, in its system. This is another way of measuring the relative impact of decommissioning costs on a particular licensee's finances; and

(4) Other factors that a licensee can demonstrate as being relevant.

4. Need for Timely Information About Post-Shutdown Activities

As a result of the safety, environmental and policy concerns noted above, the NRC will have to determine whether a particular action (that allows dismantlement and decontamination activities prior to approval of a D-Plan) must await approval of the D-Plan -- the document that contains information regarding the technical, safety and environmental aspects of decommissioning, including funding information.

Apart from the safety or environmental foreclosure issues discussed above, there may be no reason to prohibit a licensee from conducting decommissioning activities prior to approval of a D-Plan, particularly where the impacts of decommissioning a facility fall within the scope of those analyzed in the GEIS. Statements made in promulgating the rule to the effect that no "major structural changes to radioactive components of the facility or other major changes" may proceed prior to approval of a D-Plan could be viewed in this NEPA context.[52] Alternatively, the phrase might suggest that the Commission has other health and safety reasons, or policy reasons, for delaying substantial decommissioning activities until after Commission review and approval of a D-Plan.

---

[52] Once a decommissioning plan has been docketed, a licensee should maintain the accuracy and completeness of the D-Plan submitted for NRC review, as required by 10 C.F.R. § 50.9(a). Namely, any changes in proposed decommissioning activities encompassed by the D-Plan, but which may be performed before approval of the D-Plan pursuant to a 10 C.F.R. § 50.59 analysis, should be submitted on the docket to ensure that the NRC has accurate and complete information about the application pending before it.

Unless the staff has sufficient and timely information about activities after shutdown (radiation levels at the site and the effect of licensee's actions on decommissioning safety and environmental issues), it may be difficult to determine whether activities after shutdown will present foreclosure issues of the type discussed above. For example, plans for onsite burial or entombment of radioactive components would need to be examined carefully to determine their effect on later release of the site for unrestricted use.

Some of this information could be provided in preliminary and final D-Plans submitted pursuant to § 50.82 and § 50.75(f), either within 5 years of the projected end of operation, two years after shutdown or one year before a license expires. Since the regulations do not specifically address premature shutdown, plants that cease operations before license expiration would not submit any information until a proposed D-Plan is submitted for NRC approval.

The Commission ruled in *Shoreham* that no decommissioning information need be submitted in conjunction with a POL, but recognized that a NEPA review of a POL related to decommissioning would be required if "it could be shown that a POL foreclosed alternative ways to conduct decommissioning that would mitigate or alleviate some environmental impact." CLI-91-1, 33 NRC at 6-7.[53]

---

[53] The Commission stated that "our regulations do not require a POL" and that "neither regulations, NEPA, nor policy considerations require a decommissioning plan be submitted in conjunction with a POL application." The Commission noted that, although § 51.95(b) requires the preparation of an EA to determine

(continued...)

To enable the NRC to determine whether safety or NEPA considerations are adversely affected by post-shutdown activities or licensing actions, the NRC needs timely information about planned post-shutdown activities and their impact on unrestricted release of the site shortly after shutdown of a plant. This will aid the determination of whether certain actions should await approval of a D-Plan. This would also ensure that the effect of activities prior to approval of a D-Plan are confronted early and dealt with accordingly and would avoid the risk that release of the site for unrestricted use would be foreclosed by actions taken prior to review and approval of a D-Plan.

Another way to remedy the difficulties associated with determining whether actions prior to approval of a D-Plan are permissible under the license or should be prohibited due to the impact on decommissioning considerations (both safety and environmental) would be to revise the regulations to prohibit all substantial decontamination and/or dismantlement activities until approval of the D-plan. But this may be excessive, as many decontamination and dismantlement activities may proceed with few safety or NEPA implications before the D-Plan is approved. For example, the NRC did not object to the fact that, after issuance of the POL, the Shoreham licensee bored holes in the biological shield

---

[53](...continued)
whether an EIS is necessary for decommissioning, the categorical exclusion applicable to POLs (§ 51.22(c)(9)) was not changed by the rule. CLI-91-1, 33 NRC at 6; *see* 53 Fed. Reg. 24039.

Under § 51.22(c)(9), no EA or EIS need be prepared for an amendment that changes a requirement to a facility component located within the restricted area, that involves NSHC and has no significant offsite or occupational environmental impact.

wall and reactor pressure vessel to conduct radiation surveys, removed reactor water clean-up piping and pressure vessel mirror insulation, shipped salvageable pumps and control rod blade guides to other reactors, began segmenting and removing pressure cavity shield blocks, and shipped fuel support castings and peripheral pieces offsite.

In sum, licensees should be required to provide timely information about the nature of their post-shutdown activities, their possible environmental impacts and the impact of such activities on later release of the site for unrestricted use. The Commission could revise its regulations or issue guidance that would require such information periodically after shutdown and/or in connection with the various license amendments or other relief sought before approval of a D-Plan.

Recommendation: The staff will provide guidance on the activities permissible prior to approval of a D-Plan. The guidance will be consistent with the criteria that the activities must not (1) foreclose the release of the site for unrestricted use, (2) significantly increase decommissioning costs, and (3) cause any significant environmental impact not previously reviewed.

In addition, the Commission should revise § 50.59 to make it expressly applicable to holders of licenses not authorizing operation, and provide guidance for applying § 50.59, after permanent shutdown, to the effect that one need not presume operation so long as there is a POL or confirmatory order. Finally, the Commission should require licensees of shutdown plants

to inform the NRC, at an early stage,[54] of their plans for post-shutdown activities at the facility.

C. The Role of a POL in the Decommissioning Process

1. Incorporating a POL in the regulations

A POL is generally viewed as an initial step in the process by which a plant is relieved from the requirements of a full power license and is (permanently) removed from service. *See* 53 Fed. Reg. 24024. In this sense, it would seem to fall within the definition of decommissioning in § 50.2, since a POL is among the first actions that "safely removes a plant from service." When a POL issues, the operating license is amended to delete references to operation or power generation to reflect that the licensee may "use, possess, but-not-operate" the facility.[55] The TSs may be revised at that time,[56] processed individually, or delayed until

---

[54] The timing of this submission may depend on a more precise understanding of when a facility permanently ceases operation. *See* note 30, *supra*.

[55] For example, the licensee would not be permitted to receive special nuclear or source material, except as needed to conduct monitoring activities. Given that a POL is an amended operating license, it cannot be issued for a term that would extend the previous operating license beyond 40 years, 10 C.F.R. § 50.51, unless there is an application for license renewal.

[56] The Shoreham POL not only modified license conditions regarding operation, but also contained the so-called defueled TS which were consistent with the defueled, nonoperating condition of the reactor. Safety Evaluation, dated June 14, 1991, at 1. The Rancho Seco POL, on the other hand, revised no TS provisions, but changed only the operating authority. 57 Fed. Reg. 10778 (March 30, 1992). Permanently Defueled TS for Rancho Seco, which had been applied for prior to submitting an application for a POL, were issued separately two days later. *See* 57 Fed. Reg. 13145 (April 15, 1992).

approval of the TSs associated with the proposed D-Plan, including storage of the facility.[57] As the Commission stated:

> Normally, an amended Part 50 license authorizing possession only will be issued prior to the decommissioning order to confirm the nonoperating status of the plant and to reduce some requirements which are important only for operation prior to finalization of decommissioning plans.

53 Fed. Reg. 24024. The Commission further noted that a POL had usually been issued before approval of decommissioning,[58] and such amended Part 50 licenses had covered periods of safe storage and entombment as well as initial decommissioning, with a "dismantlement order" issued to cover only the actual dismantlement and disposal of the facility. 53 Fed. Reg. 20424.

---

[57] Such changes might not only reflect the possession-only status of the facility, but may also implement, for example, a SAFSTOR decommissioning plan and include TSs for spent fuel pool monitoring, if needed. The application for approval of a SAFSTOR decommissioning plan for Humboldt Bay, a plant decommissioned before the Rule, included a request for modification of the license to a possess-but-not-operate status. (A 1976 order maintained the plant in cold shut down for failure to meet seismic criteria.) The staff acted on part of the application, amending the license terms to a POL based on a NSHC determination, 50 Fed. Reg. 31081 (July 31, 1985), and offered a prior hearing on the request to modify the TSs, renew the license term and approve SAFSTOR, 51 Fed. Reg. 24458 (July 3, 1986).

[58] The staff has issued POLs that merely remove operating authority and permission to receive special nuclear material such as fuel, and has issued amendments modifying other TSs relevant to operation in conjunction with the subsequent approval of a decommissioning plan and its TSs. Fermi 1, Humboldt Bay 3, LaCrosse, and Dresden were granted POLs that modified their operating authority only. The deletion of the operating TS for Fermi, Humboldt and LaCrosse was later done in conjunction with the approval of their decommissioning plans and decommissioning TSs. LaCrosse, however, was the first decommissioning authorized by order after the 1988 Rule. The Peach Bottom POL, decommissioning plan and D-Plan TS approval was done in a single amendment in 1975.

The Commission emphasized that, except for a change in nomenclature, "there has been no change from past practice" and renaming the "dismantlement order" a "decommissioning order" was done "because, according to the amendments, the overall approach to decommissioning must now be approved shortly after the end of operation rather than an amended 'possession-only' Part 50 license being issued without plans for ultimate disposition." *Id.* The Commission specifically noted that, although the rule requires the submission of a decommissioning plan shortly after the end of operations (2 years), the practice of issuing POLs "to reduce some requirements which are important only for operation prior to finalization of a decommissioning plan" was to continue. *Id.*

Generally, POL applications are noticed and issued in due course after the determination that a plant will be decommissioned and the facility shut down, thus removing the authorization to operate.[59] The benefit of a POL is that it confirms the nonoperating, defueled status of the facility and prevents a licensee from unilaterally resuming operation without notice to the public of the proposed licensing action, since such operation would require NRC approval.[60]

---

[59] Due to the limited onsite storage capacity, described in SECY-90-421 (December 27, 1990), the POL issued for Fort St. Vrain authorized a possession-only status with two-thirds of the core still in the reactor. The fuel onsite is currently being stored in an independent spent fuel storage installation (ISFSI) and will either remain there or be shipped to a DOE facility.

[60] There is no precedent for a resumption of operation after issuance of a POL. The scope of the safety and environmental review necessary for restart is not clear and could require a *de novo* review of the entire operating license application, as well as opportunity for hearing on all relevant issues.

Similarly, a POL can play an important role in the decommissioning process, enabling a licensee to take actions that prevent restart[61] and, where TS revisions are requested, revising the baseline on which analyses under 10 C.F.R. § 50.59 (if that section applies) are performed.[62] While such relief might be viewed strictly as economic, there is no apparent health and safety basis to require adherence to requirements if such requirements are not necessary to maintain a permanently defueled facility in a safe condition.

The issuance of a POL may be used as a turning point for analyses performed concerning removal of a facility from service and changes to a facility under 10 C.F.R. § 50.59. Although it is not clear that the regulation is applicable to POLs (it applies to "holders of a license authorizing operation of a production or utilization facility"), the Commission has acknowledged that a POL would not only permit decontamination and minor component disassembly under § 50.59, *see* 53 Fed. Reg. 24025-26, but also activities that would render full power operations moot, CLI-91-10, 34 NRC at 2.

---

[61] Concerns about preserving Shoreham for future operation, in part, led the Staff to deny LILCO's request to ship fuel support castings and peripheral pieces offsite and to view such shipment as more than "minor component disassembly" until after the issuance of a POL. *See* SECY-91-014 (January 19, 1991); Notice of Denial, 56 Fed. Reg. 16132 (April 17, 1991).

[62] In this sense, a POL may be a good point at which to consider all requests for relief from operating requirements, including exemptions from the regulations.

However, so long as a confirmatory order is issued prohibiting resumed operation without prior NRC approval, § 50.59 evaluations can proceed on the basis of a permanently shutdown plant. Moreover, in principle, license amendments and other requests for relief could proceed on the same basis (indeed such relief could easily be conditioned on the plant remaining in a shutdown status). This would obviate the need for any POL prior to D-Plan approval. Thus, POLs are not strictly necessary. However, the POL has been a "traditional" practice. Moreover, it is a visible and easily understood NRC action that confirms that the plant will no longer operate.

The decommissioning regulations could be revised to grant a POL, by operation of rule, after a licensee has permanently ceased operations at a facility, assuming the staff could generically determine the safety of amending full-power operating licenses to POLs so as to support such a rule. The principal benefit would be to eliminate the potential for litigation over POL issuance. TSs changes and exemption requests, however, would still have to be submitted and any amendments needed would be subject to a notice of opportunity for hearing.

In sum, a POL has some benefits. If the regulations in Part 50 can be reviewed and revised to define a POL and specify which requirements are applicable only to plants authorized to operate, POL issuance would eliminate some of the need for later exemptions from the regulations. On the other hand, there is no basis to *require* a POL, and a POL is not defined at the regulation.

This causes some uncertainty as to a POL's significance with respect to the decommissioning process.[63]

2. Alternatives to a POL

Although the Commission has endorsed the use of POLs as a step towards decommissioning, 53 Fed. Reg. 24039, the Commission expressed the view in *Shoreham* that a POL is just one way to obtain relief from operating requirements, CLI-91-1, 33 NRC at 6. The above discussion suggests that a confirmatory order can serve the same purpose.

Shoreham, Fort St. Vrain and Rancho Seco were issued Confirmatory Orders modifying the licenses to prohibit restart without NRC approval. These orders were issued based on the concern that staffing and plant maintenance after shutdown would decline to the extent that, if restart were to occur, the plant would not be safe. Alternatively, an order suspending the authority to operate could be issued. Such suspension orders, however, are not traditionally used in this manner, but reserved

---

[63] Clarification of the regulations could specify that a POL is an amended, Part 50 operating license. This would be consistent with the AEA requirement that a Class 103 or 104b license is required for a production or utilization facility. Clarification of the regulatory status of a POL and its role in the decommissioning process might readily answer questions concerning hearing rights regarding decommissioning and the POL.

For example, if a utility plans to permanently cease operation in the near future, the NRC could grant a POL in advance of actual permanent shutdown conditioned upon a licensee's later certification that the plant had permanently ceased operation. Thus, the effective date of any POL issued would be delayed until the NRC verifies that the plant is permanently shut down and defueled. San Onofre Unit 1 has proposed this course.

for addressing noncompliances with requirements or endangerment of the public, health and safety.

Another alternative would be to convert the license to a materials license (*e.g.*, under Parts 30, 40 or 70) after certain licensee acts render the facility incapable of being considered a production or utilization facility (*i.e.*, making the facility incapable of sustaining a nuclear reaction). *See* 10 C.F.R. § 50.2 ("utilization facility"). The AEA defines a "utilization facility" as any equipment or device determined by rule of the Commission to be capable of making use of special nuclear material in such quantity significant to the common defense or security, or affecting the public health and safety. AEA Sections 11v and 11cc, 42 U.S.C. § 2014.

A utilization facility is also defined in the Commission's regulations as "any nuclear reactor other than one designed or used primarily for the formation of plutonium or U-233." 10 C.F.R. § 50.2. As the note to 10 C.F.R. § 50.2 indicates, the Commission, pursuant to subsections 11v and 11cc of the AEA, has the authority to alter the definition of utilization facility and "may also include as a facility an important component part especially designed for a facility, but has not at this time included any component parts in the definitions." It is not clear what dismantlement or alteration of a facility would preclude a finding that there is a "reactor" requiring a Part 50 license,[64]

---

[64] In the past, the NRC concluded that (1) Zimmer no longer needed a Part 50 license after the reactor was permanently disabled (the main steam lines and main feedwater lines were severed) and (continued...)

and it is difficult to determine -- even on a case-by-case basis -- when a plant no longer is a "utilization facility." Similarly, it is not clear what acts by a licensee (whether under the POI or pursuant to § 50.59) allow a finding that there is no "utilization facility" at the site, thereby justifying termination of the facility license and leaving in effect only the materials license provisions authorizing possession of the remaining fuel and contaminated equipment.[65]

---

[64](...continued)
(2) Pathfinder could surrender its Part 50 license and hold an amended Part 30 after it was permanently disabled (the reactor vessel filled with gravel). *See* Order Revoking [Zimmer] Construction Permit, 50 Fed. Reg. 21378 (May 23, 1985); Environmental Assessment [Zimmer], 50 Fed. Reg. 15018 (April 16, 1985); [Notice of Proposed Amendment to Pathfinder Materials License], 54 Fed. Reg. 35287 (August 24, 1989).

[65] Rulemaking would be necessary to resolve this issue on a generic basis. If licensees are considered to hold materials licenses after certain actions, it might affect assurances of whether sufficient funds have been accumulated for decommissioning. The policy underlying the decommissioning regulations is to assure that both funding plans and technical plans are developed in advance of decommissioning actions. To transform a Part 50 license into a materials license would subject licensees to less stringent requirements. This would also affect the funding assurances provided by the Price-Anderson Act. 42 U.S.C. § 2210.

This raises the question of whether any of the decommissioning process may be carried out under a materials license. Materials licensing is not possible unless there has been sufficient decommissioning that there is no longer a utilization facility as defined by the regulations and the AEA, possibly some time after approval of a D-plan but before license termination.

The conversion to a materials license regime would add an additional step in the decommissioning process between approval of the decommissioning plan and license termination, namely the surrender of the Part 50 license and leaving the surviving materials license(s) (as amended) in effect. In the event that a Part 50 license is converted to a Part 30 and 70 materials license, the sufficiency of funding provided by sections 30.35 and 70.25 for a site where a nuclear power reactor was located would need to be reviewed.

(continued...)

D. Other Licensing Issues

1. In *Shoreham*, the multiple and piecemeal requests for relief from full power operating requirements led to a proliferation of proceedings and requests for intervention by those opposing the decommissioning of a facility. Also, granting relief from operating requirements through a myriad of licensing actions might be viewed as an attempt to withhold from public scrutiny the overall reduction of operating requirements (and the fact that under § 50.59, minor dismantlement and other activities regarding contaminated components would be permitted). Agency adjudicatory resources could be conserved and the public better informed by requiring a licensee to include in its application for a POL all related requests for amendments and, thereafter, offering an opportunity for hearing on that integrated request. This would reduce the potential for multiple hearing requests. The extent of the technical review required would not be substantially affected by consolidation of the requests.

A disadvantage of this "one shot" approach is that relief from certain routine, but costly, requirements might be controlled by review of more complex safety issues, potentially resulting in needless delay and economic consequences for the licensee. Such

---

[65](...continued)
Conversion of the Part 50 license to a Part 72 license (ISFSI) or any other materials license would also be inconsistent with the current policy that decommissioning be accomplished under an amended Part 50 license which is terminated after decommissioning. 53 Fed. Reg. 24024. Also, conversion to a materials license could have the effect of removing a facility from NRC jurisdiction in an agreement state.

Thus, there seems to be little advantage to conducting decommissioning of a power reactor under a materials license.

delay could be avoided by prioritization of certain portions of the consolidated amendment request and by issuance of those portions as reviews are completed. Also, a licensee might have to postpone requests for relief until it could be certain that the consolidated request was complete. Thus, the licensee would lose the flexibility to submit individual reliefs according to its own priorities. Moreover, if a POL cannot be issued until the related TS changes and other requests for relief are submitted, it could unnecessarily delay issuance of such license and relief from the annual fee requirement for an operating reactor.

Finally, given that the agency could draft a notice that would fully disclose to the public that the issuance of a POL could provide a basis for removal of numerous requirements for an operating facility or authorize minor dismantlement activities prior to approval of a D-Plan, there is no need to require a consolidated request or a single *Federal Register* notice concerning such actions for public informational purposes. Also, the circumstances surrounding Shoreham were unique and it is unlikely that the public will often again contest licensing actions after plant shutdown based on a desire to preserve operation.[66] Thus,

---

[66] Aside from Shoreham, Rancho Seco is the only other facility that has had its applications to remove operating requirements and for approval of its D-Plan opposed primarily or the grounds that resumed operation and the impacts of replacement power should be considered. An appeal of the decision terminating the *Rancho Seco* Decommissioning Plan Proceeding is currently pending before the Commission. *See Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station, Facility Operating License No. DPR-54), LBP-92-23, 36 NRC ___ (August 20, 1992).

the special sensitivity in *Shoreham* to concerns about piecemealing the decommissioning process is not likely to be repeated in the future. Recommendation: The regulations should be amended to define and provide for (1) issuing a confirmatory order after a permanent cessation of operations, (2) defining a POL, and (3) clarifying which regulations in Part 50 apply to POLs. Application for a POL and consolidation of requests for relief from requirements premised on operation would not be required. The POL rulemaking would explain the role of a POL in the decommissioning process and, for each POL, the NRC would explain to the public the role of the POL and the decommissioning process to follow.

II. Hearing Rights on Decommissioning

Under the current licensing scheme, the Commission, after notice to interested persons, will approve the plan (subject to such conditions and limitations as it deems appropriate and necessary) and issue an order authorizing the decommissioning if a D-Plan demonstrates that decommissioning will be performed in accordance with the regulations and will not be inimical to the common defense and security or to the health and safety of the public. 10 C.F.R. § 50.82(e). If major dismantlement activities will be delayed by first placing the facility in storage (SAFSTOR), planning for the delayed activities may be less detailed, but updated plans must be submitted and approved prior to the start of dismantlement. 10 C.F.R. § 50.82(d). If the licensee is an electric utility, the decommissioning alternative selected in a D-Plan is acceptable if it provides for completion of

decommissioning within 60 years. 10 C.F.R. § 50.82(b)(1)(i). For licensees that are not utilities, an alternative is acceptable "if it provides for the completion of decommissioning without significant delay," but delayed completion will be considered only when necessary to protect the public health and safety and must meet certain criteria. 10 C.F.R. § 50.82(b)(1)(ii).[67]

The Commission's regulations do not specify discrete requirements for hearings associated with decommissioning. In promulgating the rule, the Commission responded to concerns that decommissioning decisions would be made without public input by stating that "decommissioning involves amendment of the operating license and the NRC rules provide an avenue for public input with respect to license amendment." 53 Fed. Reg. at 24039.

In *Shoreham,* Petitioners, consistent with their challenges to previous actions authorized after the termination of operation at Shoreham, argued that decommissioning could not be authorized without a prior hearing, and argued that the Sholly procedures were not applicable to an amendment of a POL or an amendment authorizing decommissioning because such actions did not involve amendment of an operating license. *E.g.,* Petitions for Leave to Intervene

---

[67] There is no provision that addresses how a decommissioning plan may be modified after the issuance of a decommissioning order. Thus, it is not clear whether revisions to a plan may be authorized by order or amendment, particularly if TS changes are needed.

The Shoreham decommissioning order outlined procedures for taking limited actions not described in the plan and without prior NRC approval as long as the NRC was given prior notice and the changes were encompassed by the existing environmental or safety analyses regarding the *D*-Plan. 57 Fed. Reg. 27078, 27079. The order did not specify whether there would be any hearing rights associated with changes requiring NRC approval.

[DECOM], dated January 22, 1992, at 1-2. Due to the withdrawal of Petitioners from the proceeding, that issue was not decided.

The facts surrounding Shoreham, however, demonstrate that a facility might not require revision of its TSs to implement the decommissioning plan. Unless the SAFSTOR option is selected and radiological monitoring or active systems are required to maintain safety of the spent fuel at the facility, no additional TS revisions after removal of unnecessary operating requirements may be needed at the defueled facility. The Shoreham POL removed license conditions and TSs not needed for a permanently defueled facility. It was not viewed as a step that commenced or authorized decommissioning of a facility, in part, because the POL did not, in and of itself, commit the licensee to a particular method of decommissioning, or foreclose decommissioning considerations.

The *Shoreham* experience may be contrary to assumptions the Commission made in promulgating the rule (and reflected in the language of certain regulations) that all decommissionings would require amendments to an operating license and that the issue of hearing rights would be those traditionally offered with respect to operating license amendments.[68] *See* 53 Fed. Reg. 24039; 10 C.F.R. §§ 51.53, 51.95. No TS revisions were required after the issuance of the POL (with associated TS changes) to implement the DECON option at Shoreham. If no TSs revisions are required to implement

---

[68] Whether an application for a POL together with TS changes removing requirements for operation will be sufficient to implement other D-Plans is often dependent on the decommissioning option selected. Fermi-1, for example, applied for TS changes subsequent to receiving its POL in connection with is application for approval of its SAFSTOR D-Plan.

a plan, does approval of decommissioning require a separate license authorization? If something separate from a Part 50 license is required to implement the D-Plan (*i.e.*, the amended Part 50 license (POL) only authorizes possession and use of a "utilization facility" as defined under the AEA and complete dismantlement is prohibited), what hearing rights are required?

A. Nature of Approval

Pursuant to 10 C.F.R. 50.82(e), the NRC may approve a decommissioning plan "after notice to interested persons" and "will issue an order authorizing the decommissioning." The regulations do not specify what hearing rights, if any, are associated with plan approval or whether such approval may be accomplished by means of a license amendment or other means.

Section 189a(1) of the AEA provides, in part, that:

> [i]n any proceeding under this Act, for the granting, suspending, revoking, or amending of any license or construction permit, or any application to transfer control, . . . the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding and shall admit any such person as a party to such proceeding.

42 U.S.C. § 2239(a)(1). Thus, the first issue is whether approval of a D-Plan is one of these five actions listed as requiring a hearing.

Depending on the actions taken prior to approval of a D-Plan, such approval could merely be a ministerial action that provides a basis to terminate the license following completion of decommissioning. Such approval would not authorize any action not previously authorized by the license or preceding licensing actions. This view would set a D-Plan approval apart from the five

actions listed in section 189a(1) of AEA. As a result, the approval would require no hearing rights. However, the discussion in Section I.B, *supra,* indicates that there may be certain NEPA-based or safety-based prohibitions against some actions prior to approval of a D-Plan. Therefore, approval of a D-Plan should not be viewed as merely ministerial.

A better approach is to consider such approval, at a minimum, as an authorization that lifts implied NEPA- or safety-based prohibitions against commencement of decommissioning discussed above. After approval, decommissioning can be undertaken without NRC approval to the extent consistent with the license, technical specifications, and 10 C.F.R. § 50.59 (no change in the facility presents an unreviewed safety question). In this manner, plan approval becomes a form of regulatory permission and in legal effect a kind of "license." Although this "license" may not be among the licenses traditionally envisioned by the AEA, it would represent a permission not only to "use" or "possess" a facility, but also to dismantle the facility during the period prior to termination of the Class 103 or 104b license and release of the site for unrestricted use. If approval of a D-Plan is considered a "license," the approval would have attendant hearing rights under the first sentence of section 189a of the AEA. Inasmuch as decommissioning approvals are not among the actions listed as requiring a prior opportunity for hearing, a question remains whether the hearing has to be completed prior to the effectiveness of the D-Plan approval.

In addition, given that the safety hazards posed by a shut down facility are considerably less than those posed by an operating facility, a hearing on approval of a decommissioning plan may warrant procedures akin to the informal procedures applicable to materials licenses -- Subpart L -- and no prior hearing would always be required. However, the provisions of 10 C.F.R. § 2.105(a)(1) (requiring a hearing for a "license for a facility") and 10 C.F.R. § 2.700 indicate that formal Subpart G hearing procedures would be required since approval of the D-Plan is arguably a "license for a facility."[69]

Another approach would be to view approval of a D-Plan as an amendment to the license that enables a licensee to conduct all decommissioning activities covered by the D-Plan, including those that might otherwise be prohibited by the operating license and regulations. If it is considered a license amendment, then the hearing rights would be those currently offered with such actions.

If approval of a D-Plan encompasses any and all license amendments needed to implement the D-Plan, the hearing rights would be those associated with amendments to licenses. The amendment would supersede license provisions and TSs that would be violated by such acts or that are not needed for decommissioning (if amendments were /not previously issued) and provide authority to conduct activities that might otherwise raise an unreviewed safety

---

[69] These regulations could be amended to provide for informal hearings on decommissioning plan approvals.

questions under the existing license.[70] This option is consistent with the Commission's statements in promulgating the decommissioning regulations that "decommissioning is carried out under an amended license in accordance with the terms of the decommissioning order" and that the "Commission will follow its customary procedures, set out in 10 C.F.R. Part 2 of the NRC Rules of Practice, in amending Part 50 licenses to implement the decommissioning process." 53 Fed. Reg. 24024. It also comports with the general requirements of 10 C.F.R. § 50.82(e), which provides that after notice and making the requisite findings, the Commission will approve the plan subject to any appropriate conditions "and issue an order authorizing the decommissioning."

Based on the above, it is apparent that interested persons will have a right to a hearing on approval of a D-Plan whether the approval is treated as a permission or license to conduct decommissioning or an amendment to an existing license. Under current regulations, that hearing would be a formal adjudicatory proceeding.

However one choses to characterize D-Plan approval, there should be no effect on whether the hearing is a prior hearing or a post-effectiveness hearing. If a POL and revisions to technical specifications have been issued (as was done in *Shoreham)* and no other license revisions are required to implement the D-Plan, there would be no statutory right to a prior hearing because hearing

---

[70] For example, the SAFSTOR option sometimes requires renewal of license to cover the storage period and a prior opportunity for hearing has been offered.

rights are defined solely by the first sentence of section 189a(1). Application of the Sholly regulations would allow decommissioning to proceed prior to the hearing but only where there are no significant hazards considerations, but this would treat a D-Plan approval as an amendment to an "operating license" or require the Commission to view the Sholly regulations as applicable to Part 50 licenses in general.

Petitioners argued that license amendments authorizing decommissioning of a facility would not amend an "operating" license as the term is used in section 189a(2)(A) of the AEA. If approval of a D-Plan is not a license to construct or operate, or an amendment of a such a license, the approval would fall within the first sentence of section 189a of the AEA, which the Commission has repeatedly found requires no prior hearing. *See* CLI-92-4, *supra;* 10 C.F.R. §§ 2.1201 - 2.1263 (Subpart L). Therefore, there would be no statutory requirement to offer a prior hearing even if the Commission were to determine that an order approving a D-Plan is a license amendment but does not amend an operating license.

In sum, no matter how one views approval of a D-Plan, there is no statutory right to a prior hearing unless there are case-specific considerations, as discussed below.

B. Nature and Timing of D-Plan Approval Hearing

Under the prior recommendations in this paper, many decommissioning activities may be undertaken prior to D-Plan approval. The principal constraints would be consistency with safety requirements, especially those related to spent fuel storage, possible foreclosure of later release of the site for

unrestricted use, and possible creation of significant environmental effects. Even with these constraints a wide range of decommissioning activities could be undertaken prior to D-Plan approval, and a hearing on the D-Plan will not provide a meaningful forum to challenge the full range of decommissioning actions. As noted earlier, D-Plan approval would under the recommendations of this paper function more as guidance for what remains to be done to terminate the license rather than as a constraint on decommissioning actions which can be taken. A hearing on D-Plan approval would then focus legitimately on what needs to be done to terminate the license. Viewed in this light, there would be no reason why, in general, decommissioning activities could not proceed pending the hearing.

Nevertheless, a D-Plan hearing could still serve as the forum to challenge actual decommissioning activities in specific cases. A D-Plan hearing would hardly be meaningful to intervenors if, while the hearing is underway, controverted decommissioning activities proceed in such a way that no effective relief can be given. For example, if it is alleged that immediate demolition should not proceed because of unacceptable environmental effects (noise, dust, etc.) or radiation exposure to workers, allowing such activities during the pendency of a hearing would make the hearing meaningless and could result in irreversible consequences. This concern is similar to the Commission's sensitivity regarding whether amendments processed under the Sholly regulations involve irreversible consequences. *See* 10 C.F.R. § 50.92(b). It is also a concern underlying the provision in Subpart L which allows

interveners to ask the Licensing Board to stay staff actions pending completion of a hearing (10 C.F.R. § 2.1263). However, this concern may be insufficient to require a prior hearing in all cases. For example, if it is alleged that the D-Plan will leave too much residual radioactivity in place to permit release of the site for unrestricted use, relief could be provided by a post-effectiveness hearing, assuming the allegations are true, if additional clean-up could easily be accomplished after the hearing. Thus, the need to stay licensee actions under a staff-approved D-Plan pending completion of a hearing as the D-Plan can be determined on a case-by-case basis using traditional stay criteria.

The next question is when a hearing should be offered and held. There are several possible points at which a hearing, whether it is a full adjudicatory hearing or an informal hearing, could be held concerning actions authorizing decommissioning of a facility. First, when the preliminary decommissioning plan is submitted. Licensees of prematurely decommissioned facilities could not submit this information unless they are able to anticipate their early shut down five years in advance. Even where a preliminary decommissioning plan is submitted, a hearing at this juncture may not prove to be an efficient use of agency resources since decommissioning plans would only be preliminary.

Second, at the time a plant is shut down. However, a licensee's decommissioning decisions may not be known at this time (especially in cases of premature shutdown). A hearing without

detailed D-Plans would be premature and would unnecessarily consume agency and the public resources.

Third, a hearing could be held in connection with individual license amendments granting relief from operational requirements. However, final D-Plans may still be unavailable.

Fourth, in connection with the issuance of a POL. Unless the regulations are revised to require the submission of a D-Plan in conjunction with an application for a POL or to require licensees to submit an analysis of the impact on decommissioning, still little may be known about plans for decommissioning or what effect a POL may have on decommissioning costs, methods, or options.

Fifth, after the D-Plan is submitted (now two years after permanent cessation of operations per § 50.82), but before agency approval. This would be the logical point to offer a hearing since public participation could be meaningful based on information on record.

Recommendation: The hearing on decommissioning should be offered at the D-Plan approval stage and should, absent case specific considerations warranting a stay under 10 C.F.R. § 2.788 criteria, be a post-effectiveness hearing. The regulations should also be revised to provide for an informal hearing as in materials licensing cases. Finally, approval of the D-Plan should be understood as including any and all approvals needed to fully-implement the D-Plan, including any license amendments and TS changes needed. As a matter of policy the Commission may choose to provide an earlier opportunity for public hearing on decommissioning. However, in order for such hearing to be

meaningful, the Commission would need to modify its decommissioning regulations to provide for the earlier submission of proposed decommissioning plans. Alternatively, the Commission may provide an informal process for earlier public input, such as soliciting public comment, through public meetings or other means, on issues unique to the locale.

Appendix A: Shoreham Case History

The Shoreham Nuclear Power Station was licensed to operate on April 21, 1989, but shut down in June 1989 pursuant to an agreement between the State of New York and LILCO which provided that LILCO would cease operations at Shoreham and would sell the facility to the Long Island Power Authority (LIPA), a New York State agency, for decommissioning.[1]

Defueling was completed on August 9, 1989 and the fuel stored in the spent fuel pool. LILCO thereafter began reducing staffing at the facility and sought various license amendments and exemptions to obtain relief from full-power license requirements not applicable to a defueled reactor.[2]

In July 1989, the Shoreham-Wading River Central School District ("School District") and the Scientists and Engineers for Secure Energy, Inc. ("SE2") filed petitions, pursuant to 10 C.F.R. § 2.206, asking the NRC staff to issue an order requiring LILCO to

---

[1] Although a full power license was issued, that authorization was never used as Shoreham operated for only two effective full power days under the terms of its earlier low power license.

[2] For example, beginning in December 1989, LILCO filed applications seeking relief from regulations or license conditions concerning emergency preparedness, physical security, fitness for duty, property insurance, operator training, and decommissioning funding. *See* Onsite Property Insurance Coverage Exemption, 55 Fed. Reg. 18993 (May 7, 1990); Emergency Preparedness Amendment and Exemption, 55 Fed. Reg. 31914, 31915 (August 6, 1990); Physical Security Plan Amendments and Exemptions, 55 Fed. Reg. 25387 (June 21, 1990), 57 Fed. Reg. 4223, 4224 (February 4, 1992); Fitness for Duty Exemption (chemical testing), 55 Fed. Reg. 35223 (August 28, 1990); Operator Training Exemption, 56 Fed. Reg. 47108 (September 17, 1991); Decommissioning Funding Exemption, 56 Fed. Reg. 61265 (December 2, 1992).

cease defueling and destaffing activities.[3] They claimed that the actions involved potentially hazardous conditions, raised unreviewed safety and environmental questions, violated the full-power license, and were attempts to avoid Commission consideration of the environmental consequences of the larger action of transferring the license and decommissioning the facility. DD-90-8, 32 NRC at 471-72.

On July 27, 1989, the Secretary of Energy, Admiral Watkins, wrote to Chairman Carr urging that Shoreham be preserved as a valuable energy resource and that the NRC should not segment its safety and environmental review of decommissioning. The Secretary expressed support for the issuance of an order prohibiting LILCO from taking actions that, in effect, would initiate the decommissioning process and urged that a prior hearing be held regarding the various actions under the settlement agreement that were steps towards the dismantlement of Shoreham (i.e., possession-only license, license transfer, and decommissioning approval).

Uncertain whether (1) DOE would take steps to preserve Shoreham as a nuclear facility, (2) LIPA would be the transferee of a plant authorized to operate, a POL, or a plant approved for decommissioning, and (3) resumed operation would have to be considered in any NEPA analysis of decommissioning, the staff sought to prevent LILCO from taking any actions that would constitute *de facto* decommissioning of the facility, and reminded LILCO of its obligations to maintain the plant in accordance with

---

[3] *See* DD-90-8, 32 NRC 469 (1990) (petitions denied).

its operating license, including preserving systems needed for operation.

In August 1989, the staff recommended that the plant be preserved in nondegraded status pending review of the Shoreham decommissioning plan. SECY-89-247 (August 14, 1989). This meant that: (1) LILCO was expected to comply with all conditions of the license and the regulations per the terms of its full power operating license, or make changes pursuant to 10 C.F.R. § 50.59; (2) even though no Technical Specifications (TSs) governed the operability or surveillance of certain systems in the shutdown mode, LILCO was to preserve all systems required for full-power operation so as to preclude deterioration (*i.e., de facto* decommissioning); (3) LILCO was required to keep all systems required for safety in the defueled mode fully operable; and (4) LILCO was to retain an adequate number of properly trained staff. SECY-89-247 at 4. The NRC staff further indicated that it would offer an opportunity for hearing and prepare an EIS before approving decommissioning, offer an opportunity for hearing on license transfer, and offer an opportunity for hearing on actions modifying license conditions, noting that some amendments might involve no significant hazards considerations. SECY-89-247 at 6.[4]

---

[4] The staff sought to avoid segmentation (through piecemeal approvals) of a potentially major federal action significantly impacting the environment, without a prior NEPA review of decommissioning. *Id.* at 3. Ultimately, an EA, not an EIS, was prepared in connection with the approval of decommissioning Shoreham and the EA evaluated the site specific characteristics of Shoreham as compared with the impacts considered in the GEIS. 57 Fed. Reg. 24832 (June 6, 1992).

The Commission approved the staff's planned actions, but directed the staff to (1) obtain a written commitment from LILCO that it would maintain the facility as described in SECY-89-247, (2) require LILCO to submit staffing, maintenance and funding plans for preventing degradation of Shoreham pending approval of license transfer or decommissioning, and (3) ensure that LILCO maintained the required emergency preparedness capability until their license was amended. Staff Requirements Memorandum (SRM) on SECY-89-247 (August 25, 1989) (internal document).

In comments quoted in the SRM, Commissioner Curtiss stated that LILCO was entitled to engage in any activities authorized by its license and consistent with the regulations and there was no legal basis to require preservation of systems required for full-power operation. SRM on SECY-89-247 (August 25, 1989). Commissioner Curtiss would have required compliance with applicable license and regulatory provisions for, and staffing sufficient to maintain, the plant in its mode (i.e., defueled), precluding only those actions that would have a material and demonstrable impact on decommissioning prior to the approval of the decommissioning plan (D-Plan). Thus, actions that would materially and demonstrably affect decommissioning methods or options, or substantially increase decommissioning costs, would be precluded until approval of the decommissioning plan. *Id.*

By letter dated September 19, 1989, LILCO committed to protect systems required for safety in the defueled mode and systems necessary for full-power operations (on a cost-effective basis) consistent with its license and NRC regulations.

In January 1990, LILCO informed the NRC that it would not place fuel in the reactor without NRC approval. In SECY-90-084 (March 12, 1990), the staff informed the Commission of the proposed issuance of an order modifying the Shoreham license to prohibit placement of fuel in the reactor without prior NRC approval.[5] Although the Commission did not object to the staff's proposal, Commissioner Curtiss asked to be advised of any actions that would affect decommissioning methods, costs and options. SRM on SECY-90-084 (March 27, 1990).

On March 29, 1990, the NRC issued an immediately effective, confirmatory order modifying the license to prohibit the reloading of fuel into the reactor without prior NRC approval.[6] Shortly

---

[5] SECY-90-084 also informed the Commission that the number of licensed reactor operators at Shoreham was fewer than 30 (down from 60 at the time of the settlement agreement) and listed a number of requests for licensing actions consistent with the defueled status of the plant, including elimination of the requirement for the local emergency response organization (LERO).

[6] Confirmatory Order Modifying License, 55 Fed. Reg. 12758 (April 5, 1990). The Order stated:

> The NRC has determined that the public health and safety require that the licensee not return fuel to the reactor vessel for the following reasons: (1) The reduction in the licensee's onsite support staff below that necessary for plant operations, and (2) the absence of NRC-approved procedures for returning to an operational status systems and equipment that the licensee has decided to deactivate and protect rather than maintain until ultimate disposition of the plant is determined. Such systems and equipment include all emergency core cooling systems, most of the plant's safety-related systems, and most of the plant's auxiliary support systems. If LILCO were to place nuclear fuel into the reactor vessel, this could result in a core configuration that could become critical and produce power without a sufficient number of adequately trained personnel to control operation. In addition, it is

(continued...)

thereafter, a notice of opportunity for hearing concerning the proposed amendment deleting offsite emergency preparedness requirements was published. 54 Fed. Reg. 12076 (March 30, 1990).

Petitioners unsuccessfully challenged the Confirmatory Order in Federal court. *Shoreham-Wading River Central School District v. NRC*, 931 F.2d 102 (D.C. Cir. 1991). They argued that the Confirmatory Order would lay the foundation for future Commission orders exempting LILCO from full-power license requirements and that the order, as well as the exemption from § 50.54(w) (reducing onsite property damage insurance coverage from $1.06 billion to $337 million based on Shoreham's defueled status), were within the scope of a *de facto* decommissioning proposal that required a prior EIS on the entire proposal. 931 F.2d. 105-07. The court rejected their claim and stated:

> Even assuming a de facto decommissioning proposal, the Confirmatory Order and the Insurance Exemption are not "interdependent part of a larger action [that] depend on the larger action for their justification." 40 C.F.R. § 1508.25(a)(1)(iii) (1990). Neither action commits Lilco [LILCO] or the Commission to decommissioning or constrains their choices one whit. Should Lilco (or a successor) decide to operate Shoreham as a nuclear facility and obtain release from the bar of its settlement agreement with New York State, the Commission could simply reverse the Confirmatory Order and the Insurance Exemption. Lilco could then secure additional insurance coverage and begin refueling. Thus the two decisions cannot possibly be seen as unlawful

---

[6](...continued)
questionable whether necessary safety equipment would be available.

The Order further stated that it did not relieve the licensee of the terms and conditions of its operating license or its commitments covering the continued maintenance of structures, systems and components outlined in its September 19, 1989 commitment letter. 55 Fed. Reg. 12759.

> segmentation of a decommissioning proposal to avoid NEPA obligations. They are simply means of avoiding a waste of resources in the meantime. See SECY-89-247 at 4 (Shoreham to be "preserved as a physical entity capable of being returned to service without untoward resource expenditure").

Id. at 107. The court further emphasized that the commitment of SE2 and the School District to nuclear power could not "turn a license to operate into a sentence to do so." *Id.*

Scope of NEPA Analysis for Decommissioning

In SECY-90-194 (May 31, 1990) (internal document), the staff asked the Commission to make a policy determination that resumed operation is not a reasonable alternative to be considered under NEPA.

In April 1990, SE2 and the School District ("Petitioners") each filed intervention petitions regarding the Confirmatory Order, the proposed emergency preparedness amendment, and a previously noticed physical security plan amendment (which would reclassify certain vital areas and equipment),[7] arguing that no action authorizing a move from full-power operations could be granted without a prior hearing and the preparation of an EIS on decommissioning which considered resumed operation.[8]

---

[7] A proposed no significant hazards determination and opportunity for hearing was published on March 21, 1990. 55 Fed. Reg. 10528, 10540.

[8] [School District's] Petition for Leave to Intervene and Request for Hearing [on Physical Security], dated April 20, 1990; [SE2's] Petition for Leave to Intervene and Request for Hearing [on Physical Security], dated April 20, 1990); [School District's] Petition[s] for Leave to Intervene and Request for Hearing [EP and Confirmatory Order], dated April 30, 1990; SE Petitions [EP and Confirmatory Order], dated April 30, 1990.

While the petitions were pending, the staff processed a number of actions. In June and July 1990, the NRC made a final determination of no significant hazards considerations (NSHC) and issued the emergency preparedness and physical security plan amendments under 10 C.F.R. §§ 50.91 and 50.92. LILCO was granted exemptions from 10 C.F.R. § 50.54(w) (onsite property insurance coverage) and 10 C.F.R. § 26.24 (fitness for duty). *See* note 1, *supra*. The NRC also published a proposed NSHC determination and opportunity for hearing regarding the proposed issuance of a possession-only license to LILCO. 55 Fed. Reg. 34098 (August 21, 1990).

The Secretary of Energy again, on September 18, 1990, wrote the Chairman of the NRC expressing concern about Shoreham in the context of the energy crisis, the need for an EIS and the need to preserve systems necessary for nuclear operations.[9] The Chairman of the Council on Environmental Quality (CEQ) also wrote to the Commission on October 9, 1990, arguing that any change in the Shoreham license would require the preparation of an EIS and that a POL was the interdependent part of the proposal to decommission the facility.

---

[9] That same month, James Partlow, Associate Director, Office of Nuclear Reactor Regulation, responded to a letter from the Nuclear Management and Resources Council clarifying the 10 C.F.R. § 50.59 evaluation process from plant closure to decommissioning, stating that pre-POL evaluations to be done would be similar to those for plants shut down for an extended period for major inspection or repair work. Letter, dated September 10, 1990.

In CLI-90-8 (October 17, 1990),[10] the Commission addressed the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 *et seq.*, issues raised by the Petitioners with respect to the Confirmatory Order, the Security Plan Amendment, and the Emergency Preparedness Amendment. It held that the decision to decommission a reactor was a private (not federal) decision and, thus, the broadest action the NRC could review and approve was the method of accomplishing decommissioning. 32 NRC 201, 206-07.[11] The Commission also found that NEPA's rule of reason does not require consideration of "resumed operation" as an alternative for Shoreham since such operation would require significant changes in governmental policy or legislation (*i.e.*, reversal of the New York State's opposition to Shoreham). *Id.* at 208-09.[12]

---

[10] 32 NRC 201 (1990), *aff'd on reconsideration*, CLI-91-2, 33 NRC 61 (1991).

[11] The Commission stated that its responsibility was to ensure that LILCO (1) complies with the requirements applicable to the plant in its mode or condition and (2) refrains from taking actions that would materially affect decommissioning methods, options or costs prior to approval of a decommissioning plan. 32 NRC at 207 n.3.

[12] Although the Commission stated that it made no other conclusion regarding the need for an EIS addressing decommissioning in general, or with respect to Shoreham in particular, 32 NRC at 208-09, it subsequently emphasized that its ruling that a utility's decision to terminate operations is not a federal action was generic. CLI-91-2, 33 NRC at 70-71; CLI-91-8, 33 NRC 461, 470 (1991). That determination has been followed in the *Rancho Seco* proceeding. Like Shoreham, Rancho Seco was under a Confirmatory Order that prohibited reload without prior NRC approval. Although a voter referendum instead of a contractual agreement led to the utility's voluntary decision to terminate operations, the Commission addressed only the issues raised on appeal and did not disturb the Licensing Board's rulings based on CLI-90-8 and CLI-91-2 that resumed operation was not within the scope of the proceeding. *See Rancho Seco*, CLI-92-2, 35 NRC at n.3; *id.*, LBP-91-17, 33 NRC 379, 387-90 (1991).

Petitioners sought reconsideration of the Commission's ruling. In October and November 1990, the Commission received amicus comments from DOE, CEQ, Long Island Power Authority (LIPA), and the State of New York. In CLI-91-2 (February 21, 1991), the Commission affirmed its ruling that the scope of an EIS would be limited to impacts associated with decommissioning methods, reiterating that the decision to terminate operations is not a federal action. 33 NRC at 70-71. The Commission also noted, without amplification, that its ruling that NEPA did not require consideration of resumed operation as a reasonable alternative was based on the circumstances in Shoreham -- the indisputable facts and circumstances surrounding the licensee's decision to terminate operations at Shoreham and the Congressional action and other statutory prerequisites before DOE or the NRC could require operation of the facility. 33 NRC at 71-74.[13]

In CLI-91-4, 33 NRC 233 (April 3, 1991), the Commission stated that its ruling in CLI-90-8 would not necessarily exclude claims alleging "illegal segmentation" of the Shoreham decommissioning process as beyond the scope of the Notice of Hearing on the three licensing actions (Confirmatory Order, security plan and emergency plan amendment). Although the Commission did not view the actions as prejudicial to decommissioning options, the Commission noted that 10 C.F.R. Part 51 provides that any party to a proceeding may

---

[13] This NEPA holding was an alternative basis for finding that consideration of resumed operation was precluded, in addition to the Commission's determination that the broadest action the NRC could consider was the approval of a decommissioning method, not the private decision to terminate operations. CLI-91-8, 33 NRC at 470.

take a position and offer evidence on the aspects of the proposed action within the scope of NEPA and Part 51. 33 NRC at 236, *citing*, 10 C.F.R. §§ 51.104(b), 51.34(b).[14] The Commission stated:

> [A]s a general proposition, it is within the scope of NEPA and a proceeding on any license amendment to claim that the amendment requires [EIS] because it is an inseparable segment of a larger major federal action with a significant environmental impact . . . Thus, a claim that the amendments at issue are an inseparable segment of an NRC action on something else -- such as the approval of a decommissioning plan -- and that approval of such a decommissioning plan requires an EIS, would normally be within the scope of the proceeding. Our comments in CLI-90-8 were not intended to preclude the Licensing Board as a matter of law and jurisdiction from entertaining properly supported contentions that such an EIS must be prepared at this time.

Id. at 236-37 (emphasis in original). The Commission acknowledged, however, that the actions in question in *Shoreham* were wholly separate from decommissioning and expressed substantial doubt that Petitioners could make a credible showing on that point. *Id.* at 237. Nevertheless, the Commission made it clear that, if standing were demonstrated, the Board could consider a properly pled contention alleging the need for an EIS on the actions. As the Commission explained:

> A properly pled contention will at a minimum need to offer some plausible explanation why an EIS might be required for an NRC decision approving a Shoreham decommissioning plan *and* how these actions here could by foreclosing alternative decommissioning methods or some other NEPA-based considerations, constitute an illegal segmentation of the EIS process.

---

[14] The Commission noted, however, that "[u]nder 10 C.F.R. § 51.10(d), orders issued pursuant to 10 C.F.R. Part 2, Subpart B, such as the Confirmatory Order . . . are not subject to these requirements." 33 NRC at 236 n.1.

Id.[15]

Activities Allowed Before D-Plan Approval

In December 1990, while the request for reconsideration of CLI-90-8 was pending, the Director of NRR denied the 10 C.F.R. § 2.206 petitions, finding that LILCO satisfied all applicable terms of its license, removal and storage of spent fuel were activities normally associated with an operating license and were permitted by TSs, and that LILCO was performing sufficient maintenance and surveillance necessary to demonstrate operability of systems required to be operable at all times. DD-90-8, 32 NRC at 475-77. As the Director stated:

> The NRC has determined that LILCO's decision to defer maintenance on systems and components unnecessary to support their current configuration is a reasonable action. This deferral of maintenance renders these items inoperable, and surveillance requirements are not applicable to inoperable equipment. These systems and components are not required by the terms of LILCO's license or the NRC's regulations to be operable in a defueled condition. If the Licensee were to resume operation after shutdown, it would be obligated to perform all required maintenance and surveillance activities to restore system and component operability.

Id. at 477. With respect to the claim that the actions were part of decommissioning, the Director stated:

> LILCO has not engaged in decommissioning of the facility. None of the actions taken at Shoreham are inconsistent with the operation of the facility by some entity other than LILCO, and the NRC does not consider LILCO's actions to date to be "irreversible."

Id. at 478. The Director further observed that 10 C.F.R. § 51.95(b) requires applicants for a license amendment authorizing

---

[15] The Commission never defined the term "other NEPA-based considerations" in any of its *Shoreham* decisions.

decommissioning of a production or utilization facility to submit a supplement to the plant's environmental report, and that the NRC will prepare an EIS or EA in connection with the amendment issued. *Id.*

A week following the issuance of the Director's decision, the Staff submitted a paper outlining its approach to the decommissioning of prematurely shutdown reactors. SECY-90-421, Decommissioning Criteria for Fort St. Vrain as a Prematurely Shutdown Plant (December 27, 1990). The paper described three phases in handling the decommissioning process (Phase 1: permanent shutdown before issuance of a POL; Phase 2: after POL issuance, but prior to D-Plan approval; and Phase 3: issuance of a decommissioning order). The Staff provided no criteria for entering Phase 1 because it viewed shut down as a licensee decision. For Phase 2, it recommended the licensee be required to submit a preliminary decommissioning plan per 50.82, and for Phase 3, the licensee would be required to submit a decommissioning plan. In SRMs dated February 15 and May 20, 1991, the Commission approved the criteria in Phases 1 and 3, but declined to establish or approve criteria and guidance regarding information needed for a POL beyond that stated in CLI-90-8 and CLI-91-1.

LILCO notified the NRC, by letter of November 8, 1990, that it intended to ship 137 fuel support castings and 12 peripheral pieces to the low-level waste repository at Barnwell, South Carolina. The staff informed LILCO that such activity would require NRC approval and the staff would treat the letter as a request for an amendment.

In January 1991, the staff recommended rejecting LILCO's

planned shipment of fuel support castings and peripheral pieces offsite based on the view that the OL precluded actions that would prevent a timely restart (or move irreversibly toward decommissioning) and based on LILCO's September 1989 commitment to protect systems necessary for full-power operation. SECY-91-014 (January 19, 1991). The staff argued that (1) an operating license precluded certain license actions that would prevent a timely restart (or move irreversibly toward decommissioning),[16] (2) LILCO had committed in September 1989 to protect systems necessary for full-power operation, and (3) that the planned disposal was more than the minor component disassembly permissible prior to approval of a decommissioning plan. In addition, the staff argued that such shipment was not permissible until the issuance of a POL and that any 10 C.F.R. § 50.59 analysis for Shoreham would be based on the effect of the change on a plant licensed to generate power, and viewed the shipment as more than minor component disassembly permissible without approval of a D-Plan.[17]

Although the Commission approved denial of the shipment (SRM, dated February 21, 1991), Commissioner Curtiss reiterated that there was no basis to require preservation of systems for full power operation. In addition, he argued that operation was not the relevant baseline for a § 50.59 analysis since the Confirmatory

---

[16] The Staff noted that approximately 60 weeks would be needed to fabricate replacement parts for the facility. SECY-91-014, at 4-5.

[17] This position illuminated the staff's view that a POL is a major turning point in the decision to decommission the facility.

Order prohibited operation.[18] "The benchmark for addressing facility changes that may be made without prior NRC approval should be the operating license as modified by any amendment or order restricting or prohibiting operation." Commissioner Curtiss' Comments at 2.

The staff subsequently denied the request for an amendment authorizing shipment of the fuel support castings and peripheral pieces. 56 Fed. Reg. 16132 (April 19, 1991).[19]

Request for POL

As previously noted, LILCO sought numerous amendments and exemptions that would provide relief from requirements necessary for operation, but not needed for safety in the defueled, nonoperating condition. In August 1990, a notice concerning LILCO's January 5, 1990 application for "a defueled operating license" (which the staff considered to be a POL since it would remove the authority to operate and delete certain TSs to reflect the defueled condition at Shoreham) was published. 55 Fed. Reg.

---

[18] It should be noted that such orders, although issued to the Shoreham, Rancho Seco and Ft. St. Vrain licensees, were and are not actions contemplated by the decommissioning rule and are not intended to be issued in the ordinary course.

[19] In DD-91-3, 33 NRC 453 (1991), the Director of NRR denied, in part, and granted, in part, a supplemental § 2.206 petition filed by the Petitioners asking the NRC (1) to find LILCO's storage of the fuel support castings and peripheral pieces on the roof above the turbine deck in violation of the March 29, 1990 Confirmatory Order that required continued maintenance of structures, systems and components necessary for full-power operation; and (2) to prevent shipment of the parts prior to judicial review of any POL authorized and a NEPA analysis of decommissioning. The Director determined that storage of the items did not violate the Order and that the Staff had already taken actions to preclude shipment of the reactor parts by denying the amendment request.

30498 (August 21, 1990). In addition to authorizing possession-only of the facility, the licensee sought revision of its TSs to reflect the defueled status of Shoreham. In September 1990, the Petitioners again filed petitions to intervene, arguing that an EIS on decommissioning, approval of decommissioning plan and a prior hearing were required before a POL could issue.

In CLI-91-1 (January 24, 1991), the Commission ruled that (1) LILCO's request for a defueled operating license was a request for a POL, (2) "the decommissioning rules do not contemplate that a POL would, in normal circumstances, need be preceded by submission of any particular environmental information or accompanied by any NEPA review related to decommissioning"[20] and (3) the rules do not require the submission of any preliminary or final decommissioning information before a POL could issue. 33 NRC 1, 5-7 (1991).

In May 1991, the staff sought permission to issue an immediately effective amendment that would reduce the operating license to a POL, finding that the amendment involves NSHC. *See* SECY-91-129 (May 13, 1991).[21] The following month, the Commission authorized the issuance of the POL, denying Petitioners' requests to reconsider it rulings in CLI-90-8 and CLI-91-2, to hold further

---

[20] The Commission noted that, although 10 C.F.R. § 51.95(b) requires a supplemental review in connection with approval of the final decommissioning plan, "the categorical exclusion applicable to POLs in 10 C.F.R. § 51.22(c)(9) was left unchanged." 33 NRC at 6.

[21] In recommending issuance of the POL, the Staff stated its view that the POL would enable LILCO to ship the reactor internals to Barnwell under § 50.59. SECY-91-129 (May 13, 1991) at 6.

adjudicatory proceedings in abeyance, and to direct the staff to cease review of all other pending applications for amendments to the Shoreham license. CLI-91-8, 33 NRC 461 (1991). The Commission emphasized that any court decision affecting the validity of the Shoreham settlement would not affect its primary holding in CLI-90-8, 32 NRC 207-08 and CLI-91-2, 33 NRC at 70-71, that the decision not to operate Shoreham is a private decision and that NEPA only requires the NRC to consider alternative methods of decommissioning. CLI-91-8, 33 NRC at 469-70.

The POL (an amendment to the operating license) was issued based on a final determination of NSHC,[22] but its effective date was stayed until July 19, 1991, in accordance with a brief administrative stay. *See* CLI-91-8, 33 NRC at 471-72. The POL prohibited operating the facility at any power level, revised the TSs to remove or modify requirements applicable an operating facility. The POL, however, allowed activities such as decontamination and component disassembly, as long as the activities did not substantially affect decommissioning methods, options or costs. *See* POL SE at 17-18.

Petitioners sought Commission and judicial review of the decision to issue a POL, but were unsuccessful. CLI-91-10, 34 NRC 1 (1991); *Shoreham Wading River Central School District v. NRC,* ___*(July 19, 1991); id.,* 112 S. Ct. 9 (1991). When the Commission declined to stay the effectiveness of the POL to enable a Supreme Court Justice to hear Petitioners' appeal, it acknowledged that

---

[22] 56 Fed. Reg. 28434 (June 20, 1991).

LILCO could take actions under the POL that would render full-power operations moot. CLI-91-10, 34 NRC at 2.[23]

License Transfer

In February 1992, the staff sought permission to issue an immediately effective amendment (with a final determination of NSHC) approving the transfer of the Shoreham POL to LIPA during the pendency of the Petitioners' hearing requests, which alleged that license transfer was a interdependent part of decommissioning that could not be granted without a prior hearing. SECY-92-041 (February 6, 1992).

In CLI-92-4, 35 NRC 69, 76-81 (1992), the Commission concluded that a license transfer is not an amendment, but a separate and distinct action under the AEA that could be approved by order without a pre-effectiveness or prior hearing. The Commission found that Section 189a(1) of the AEA only requires a pre-effectiveness hearing on applications for construction permits, an operating license, or certain amendments to construction permits or operating licenses. CLI-92-4, 35 NRC 69, 76-77.[24]

---

[23] In a letter dated December 11, 1991, LILCO informed the staff that LILCO had acted consistent with the stipulation in SECY-91-129 that no actions foreclose decommissioning options or substantially increase costs or constitute an unreviewed safety question under 10 C.F.R. § 50.59. LILCO's actions included core borings in the biological shield wall and the reactor pressure vessel to conduct radiation surveys, removal of reactor water clean-up piping and pressure vessel mirror insulation, shipment of salvageable pumps and control rod blade guides to other reactors, and initiation of the process of segmenting and removing the reactor pressure cavity shield blades.

[24] Amendments that involve no significant hazards considerations may be made effective without a prior hearing. 42 U.S.C. § 2239(a)(2). Of course the Commission may order that a (continued...)

On February 29, 1992, the NRC issued an order approving the joint request by LILCO and LIPA to transfer the license, subject to the condition that LILCO retain qualifications necessary to hold the license in the event that LIPA ceased to exist or lacked the requisite qualifications.[25]

Decommissioning Approval

In January 1992, the Petitioners sought leave to intervene in response to the notice of the proposed issuance of an order authorizing Decommissioning of Shoreham, 56 Fed. Reg. 66459 (December 23, 1991), and argued that a prior hearing was required.

In SECY-92-140 (April 17, 1992), the staff recommended the issuance of an immediately effective order authorizing decommissioning of Shoreham accompanied by a NSHC determination, relying in part on the Commission's statements in CLI-91-4 regarding the hearing rights associated with an order authorizing transfer of a facility. Specifically, the staff claimed that an order authorizing decommissioning, like an order authorizing license transfer, was not among the actions listed in the AEA as

---

[24](...continued)
pre-effectiveness hearing be held as a matter of discretion if potentially significant public health and safety issues are raised in a proceeding. *See* CLI-92-4, 35 NRC at 77-79. The Staff's determination that an amendment involves NSHC is final and is not reviewed, except where the Commission does so on its own initiative. 10 C.F.R. § 50.58( )(6).

[25] In CLI-92-4, 35 NRC at 77 n.6, the Commission noted that the transfer could be finalized after a hearing on the amendment. While the hearing requests have been withdrawn, the amendment conforming the license and TS, with supporting safety evaluation, has not yet issued.

requiring an opportunity for a pre-effectiveness hearing. SECY-92-140 at 3-4.

Indicating that other interpretations were possible, the staff opined that "a decommissioning order does not, itself, constitute an operating license or an amendment of the outstanding possession-only license, but permits the conduct of activities which are ancillary to the possession-only license." *Id.* at 4. Since the order would not modify fundamental provisions in the POL, it could be issued without a prior hearing and any amendments to the POL necessary to implement the decommissioning plan would be processed using the traditional license amendment procedures. *Id.*

The staff noted that, alternatively, a decommissioning order, could be generically treated as another type of license amendment which could be made immediately effective using the NSHC determination permitted by the Sholly procedures. *Id.* at 4-5; *See* 10 C.F.R. § 50.90-50.92. The staff observed, however, that approval of the LIPA plan would "permit irreversible actions to be taken inasmuch as the licensee's method of decommissioning is the DECON alternative, and could affect the ability to select another decommissioning alternative." *Id.* (footnote omitted).[26] Finding that the D-Plan could be implemented safely without significant environmental impact, the staff asked the Commission to approve the

---

[26] Notably, the POL had already made it possible for the licensee to drill holes in the reactor vessel, sever vessel piping, thus rendering the plant inoperable. *Id.* at 6. The Staff reported that LIPA had informed the NRC that it intended to start dismantling the reactor pressure vessel and internals promptly after approval of the decommissioning in anticipation of offsite disposal before the end of 1992.

issuance of an order approving the plan, accompanied by a NSHC determination.

Subsequently, on June 3, 1992, the Petitioners filed a joint motion to withdraw their pending petitions and appeals in all Shoreham proceedings.[27] Due to the withdrawal of the Petitioners, the Commission, while not accepting the staff's recommendation concerning the timing of the hearing to be offered, did not object to the issuance of the order authorizing decommissioning of Shoreham. SRM on SECY-92-140 (June 10, 1992). Accordingly, on June 11, 1992, the NRC issued an Order authorizing the decommissioning of Shoreham according to the Decommissioning Plan (D-Plan) subject to certain conditions.[28]

---

[27] The Commission and Licensing Board dismissed all Shoreham proceedings before them on June 10 and June 17, 1992, respectively. Commission Orders, dated June 10, 1992 (OLA, POL, and DECOM proceedings); LBP-92-14, 35 NRC 207 (1992) (License Transfer); LBP-92-15, 35 NRC 209 (1992) (Decommissioning Order).

[28] The conditions were that: (1) all fuel be removed from the site within six years of the date of the Order, or suspend decommissioning activities and request NRC approval for additional storage; (2) all solid radioactive waste be shipped offsite within five years of the date of the Order, or apply for license amendments authorizing additional storage; (3) if a temporary liquid radwaste system is used to complete decontamination, the NRC must review and approve the system design prior to dismantlement of the installed system; and (4) changes to the D-Plan must be made in accordance with the procedures set forth in the Order.

Appendix B: Regulations That Do Not Expressly Apply To A POL

This table identifies those sections of Part 50 which address requirements for a "holder of an operating license", a "license authorizing operation", a "license to operate", and "an applicant and holder of an operating license". Since "possession-only" of a reactor (whether by means of a POL or confirmatory order) is not mentioned in these sections, the NRC should decide whether these sections should be amended to include the same or similar requirements for such licenses. A brief analysis of the sections listed in the table is provided below.

50.30(a)	Filing of application for licenses; oath or affirmation. "a license to ... operate a production or utilization facility"
50.30(d)	"or an amendment to an application for a license to...operate a production or utilization facility for the issuance"
50.33(k)(2)	Contents of applications; general information. "each holder of an operating license for a production or utilization facility"
50.34(b)	Final safety analysis report. "Each application for a license to operate a facility...."
50.34(c)	Physical security plan. "Each application for a license to operate a production or utilization facility...."
50.34(d)	Safeguards contingency plan. "Each applicant for a license to operate a production or utilization facility ..."
50.36(a)	Technical specification "Each applicant for a license authorizing operation of a production or utilization facility ..."

50.36(b)	"Each license authorizing operation of a production or utilization facility...."
50.36a	Technical specifications on effluents from nuclear power reactors. "each license authorizing operation of a nuclear power reactor will include"
50.36b	Environmental conditions. "Each license authorizing operation of a production or utilization facility...."
50.44(c)(3)(vi)(A)	Standards for combustible gas control system in light-water-cooled power reactors. "Each applicant for or holder of an operating license for a boiling light-water nuclear power reactor...."
50.44(c)(3)(vii)(A)	"each applicant for or holder of an operating license subject to the requirements of"
50.44(c)(3)(vii)(B)	"For each applicant for an operating license as of..."
50.44(c)(3)(vii)(C)	"for those holders of operating licenses containing"
50.46(a)(3)(i)	Acceptance criteria for emergency core cooling systems for light water nuclear power reactors. "Each applicant for or holder of an operating license or construction...."
50.48	"Each operating nuclear power plant must have fire protection...."
50.49(g)	Environmental qualification of electric equipment important to safety for nuclear power plants. "Each holder of an operating license issued prior...."
50.54(k)	Conditions of licenses. "Applicants for and holders of operating licenses...."
50.54(q)	"A licensee authorized to possess and operate a nuclear power reactor"

50.59(a)(1)	Changes, tests and experiments. "The holder of a license authorizing operation of a production or utilization facility...."
50.59(c)	"The holder of a license authorizing operation of a production or utilization facility...."
50.62	This section applies to all commercial light-water-cooled nuclear power plants.
50.63	"Each light-water-cooled nuclear power plant licensed to operate"
50.65(a)(1)	Requirements for monitoring the effectiveness of maintenance at nuclear power plants. "Each holder of an operating license under section 50.21...."
50.71(e)	Maintenance of records, making of reports. "Each person licensed to operate a nuclear power reactor pursuant to...."
50.73(a)	Licensee event report system. "The holder of an operating license for a nuclear power plant (licensee) shall submit...."
50.75(b)	Reporting and recordkeeping for decommissioning planning. "Each electric utility applicant for or holder of an operating license for a production or utilization facility...."
50.75(d)	"Each non-electric utility applicant for or holder of an operating license for a production or utilization facility shall ubmit a decommissioning report...."
50.90	Application for amendment of license or construction permit. "Whenever a holder of a license or construction permit desires to amend the license or permit...."

Sections 50.30(a); 50.30(d)

Section 50.30(a) requires the filing of Part 50 license applications and amendments under oath or affirmation. Because a request for a POL is a request for an amended operating license, these provisions could be revised to clarify that applicability to POLs.

Section 50.33

Section 50.33 sets forth the requirements for general information necessary for the contents of an application for either a construction permit or operating license and requires an applicant to identify the "class of license applied for." This regulation should be amended to expressly apply to a POL or to add a separate section outlining what information should be provided with a POL application.

Sections 50.34(b); 50.34(c),(d),(e); 50.71(e)

Section 50.34 requires an application for a "license to operate" to include a final safety analysis report (FSAR). Because it could be assumed that is does not apply to POL applicants, the section could be amended to require the submission of a defueled SAR. The record requirements of 50.71 should also be revised to tailor them as necessary to requirements needed for holders of a POL.

Sections 50.36(a)(b); 50.36a; 50.36b

These sections contain requirements regarding technical specifications and environmental conditions for each "license authorizing operation of a production or utilization facility." Because some decommissioning activities, particular SAFSTOR, may be

controlled by TSs, and TSs are in effect under a POL, these sections could be revised to clarify their applicability to a POL.

Sections 50.44(c)(3)(vii)(A),(B),(c); 50.46(a)(3)(i); 50.48; 50.49(g); 50.54(k); 50.62; 50.63; 50.65(a)(1); 50.73(a); 50.75(b); 50.75(d)

Each of these sections sets forth requirements for "holders of operating licenses." It should be confirmed that these provisions need not apply to entities only authorized to possess, but not operate, a nuclear power plant.

Sections 50.54(q)

These sections set forth emergency plan requirements for licensees who are authorized to possess and operate a nuclear power reactor (and those who are authorized to possess and/or operate a research reactor). The emergency planning requirements for "possession-only" of a nuclear power reactor should be clarified.

Sections 50.59(a)(1); 50.59(c)

These sections allow holders of a license "authorizing operation of a production or utilization facility" to make changes without prior NRC approval. While a POL does not authorize operation, the Commission has indicated that § 50.59 is available to licensees after issuance of a POL. Thus, the regulation should be amended to make it applicable to holders of a POL (or others not authorized to operate).

Section 50.90

This section sets forth the requirement for an application to amend a license. This section could be revised to clarify its applicability to POLs (an amended OL).