State of New Jersey)
: SS.
County of Essex)

AFFIDAVIT OF EDWIN A. LIDEN

EDWIN A. LIDEN, being first duly sworn according to law, deposes and states:

1. I am employed by Public Service Electric and Gas Company as Project Licensing Manager. In that capacity I was responsible for the coordination of licensing activities related to the application to the NRC to install new spent fuel racks in the Salem Unit 1 spent fuel pool capable of holding 1170 elements. In that capacity, I have become familiar with the design, construction, installation and surveillance of these racks, as well as the confirmatory testing done by the supplier. A copy of my professional qualifications is attached hereto as Appendix A and incorporated by reference herein. I have reviewed the allegations made regarding each of the admitted contentions in this proceeding.

Coleman's Contentions 2 and 6

2. The only materials used in the fuel storage racks, the rack interties and wall restraints are Type 304 stainless steel and Boral material sealed between an inner and outer stainless steel shroud.[1/] The shroud protects the Boral from exposure to the spent fuel pool water environment. Boral is a trade name for an aluminum and boron carbide matrix.[2/]

1/ Application, response to Question 13 dated December 22, 1978.

2/ Application, Amendment 1 at 22.

The material properties for structural components used in the various analyses of the racks were taken from Appendix I of Section III of the ASME Boiler and Pressure Vessel Code. Type 304 was chosen for its compatibility with the spent fuel pool water, which contains boric acid at a nominal concentration of 2000 ppm boron, and is the same material which is utilized in the present spent fuel racks. Stainless steel of this type has been widely utilized in the nuclear industry. The Licensee is unaware of any corrosion or other deterioration of stainless steel in environments similar to the Salem spent fuel pool.

3. Unirradiated stainless fixtures have been exposed in pools up to 20 years without evidence of degradation.[3/] Zircaloy - clad U. S. fuel has been in pool storage for up to 18 years.[4/] Salem Unit 1 uses Zircaloy clad fuel. The Battelle study concludes that pool operators have not seen evidence that stainless-or-Zircaloy-clad uranium oxide fuel is degraded during pool storage, based on visual examinations and radiation monitoring.[5/]

3/ A. B. Johnson, Behavior of Spent Nuclear Fuel in Water Pool Storage, BNWL-2256, September 1977 at 1. A copy of the Summary section of this report is attached as Appendix B and is incorporated by reference herein.

4/ *Id.*

5/ *Id.* at 2.

The survey reaches the following conclusions:

> Based on current experience and on an assessment of the relevant literature, prospects are favorable to extend storage of spent nuclear fuel in water pools, recognizing the following considerations:
>
> - Zircaloy-clad fuel has been stored satisfactorily in pools up to 18 years; stainless-clad fuel has been stored up to 12 years.
> - Low temperatures and favorable water chemistries are not likely to promote cladding degradation.
> - There are no obvious degradation mechanisms which operate on the cladding under pool storage conditions at rates which are likely to cause failures in the time frame of probable storage.6/

4. The Salem Unit 1 spent fuel pool, with the new racks installed, has the capacity to hold fuel elements for 15 annual refuelings and retain the capacity for a full core discharge or 18 annual refuelings without that capacity. Thus, there has been actual experience with the storage of Zircaloy clad spent fuel for the period needed to completely fill the Salem spent fuel pool.7/

6/ *Id.* at 4. The Batelle report recommends that although there is sufficient evidence of satisfactory integrity of pool stored fuel to warrant extending fuel storage times and expanding fuel storage capacities, some additional exploratory examination of selected pool-stored fuel of selected pool-stored fuel is needed if storage is to move into the 20-100 year timeframe.

7/ At that time (or prior thereto) the older elements would presumably have to be removed from the pool to permit further discharges from their reactor.

5. The Licensee has assured that the fabricated racks are built and installed to a high level of quality in accordance with design specifications. As part of this effort, careful control of the manufacturing process and non-destructive testing of the fuel cells was conducted to assure at least 95% leak tightness with a 95% confidence level. (See October 31, 1978 submittal to NRC)

6. The details of the welding processes and other manufacturing and non-destructive and metallographic examination which assure the high degree of leak tightness are described in Licensee's October 31, 1978 submittal to the NRC. Also described therein is a helium leak test utilizing a helium mass spectrometer which is capable of detecting very small pin holes, smaller than any which would be significant in the fuel storage pool environment. (See October 31, 1978 submittal to NRC)

7. Exxon Nuclear Co., Inc. has conducted a series of experiments to determine the effect of a leak in the stainless steel. Such a leak could potentially cause some minor corrosion of the aluminum in the aluminum-boron carbide matrix, and the evolvement of hydrogen gas. Initially, the water leaking in the void between the shroud would compress the gas at the top of the cell until an equilibrium pressure was reached. The hydrogen gas would increase the pressure in the gap between shrouds pushing the water level down until gas bubbles escape at the elevation of the crack.

The worst location for a leak would thus be at the bottom due to the higher static pressure. The pressure would cause the inner shroud to bulge and move toward the center of the cell. (See October 31, 1978 submittal to NRC).

8. These tests revealed that in the unlikely event that a leak in a fuel storage cell exists after installation in the water filled storage pool and before fuel is inserted, the worst potential consequence would be failure to be able to insert the fuel thereby losing the affected cell from service. Prior to loading fuel in any location, a procedure will be utilized to determine whether cell swelling exists at that location. (See October 31, 1978 submittal to NRC)

9. If a leak develops in a fuel storage cell with fuel already in place, the most severe result would be that the fuel could not be withdrawn from the storage cell with a force that is within the limits of the fuel handling crane. In this event, semi-remote tooling will be utilized to provide vent holes in the top of the storage cell annulus to relieve the gas pressure on the fuel assembly and permit routine removal. (See October 31, 1978 submittal to NRC)

10. In another series of tests, Exxon Nuclear examined the ability of the Boral to withstand the spent fuel pool environment. A number of test coupons of varying configurations, some of which were similar to the storage rack shapes, were exposed to fuel pool type environments for periods up to one year.

The coupons were examined for corrosion rate, pitting, bonding, edge attack and bulging. These experiments showed that simulated storage cells, with a leak simulating hole purposely made in the cell, will sustain aluminum corrosion which will consume only a small percentage of the aluminum in the Boral core after a 40-year exposure. Moreover, while some pitting, edge attack, and internal gas pressurization could occur to Boral plates, the inert B_4C particles would attach themselves to the corrosive product and would not be dislodged in the process.

11. The Licensee, in addition to these test programs, has committed to a long-term fuel storage cell surveillance program to verify that the spent fuel storage cell retains the material stability and mechanical integrity over its service life under actual spent fuel pool service conditions. Sample flat plate sandwich coupons and short fuel storage cells are provided for periodic surveillance and testing. The samples are fabricated from the same materials and are produced using the same manufacturing and quality assurance procedures specified for the fuel storage cells. One short fuel storage cell and one flat plate sandwich coupon will be prepared such that the Boral material will be exposed to the spent fuel pool environment. (The details of the program are discussed in Licenssee's Response to NRC Questions dated December 22, 1978).

The planned frequency of examination would be about one year after rack replacement and about every two years thereafter.

12. I am familiar with the problems encountered at the Monticello and Connecticut Yankee[8/] facilities related to spent fuel storage and as discussed below, they present no health and safety problem related to the storage of spent fuel at Salem Unit 1. Initially, the spent fuel racks at these facilities were not supplied by Exxon Nuclear Company, which provided the racks for Salem. Secondly, the quality assurance program carried out by Exxon and PSE&G already described in paragraph five assures the integrity of the racks. Even if there were to be leaks, the experiments conducted by Exxon demonstrate, as previously described, that no health and safety problem exists.

13. The minimum loading of Boron of .02 gms $B\text{-}10/cm^2$ which results in a conservatively calculated K eff of less than 0.95, is assured by specification of a higher average concentration of Boron during the fabrication process. The density of the Boron is assured by the quality assurance program which utilizes chemical analyses and batch traceability to assure the proper loading.

14. The Licensee has analyzed and conducted an experimental program to determine the effect of dropping a fuel assembly over the spent fuel storage racks.

8/ The problems encountered at the Connecticut Yankee facility involved a polymer used as a bonding agent, not Boral.

The local crushing of the cell from such an event is limited to the upper seven inches of the lead-in section, above the rack module upper grid structure and above stored fuel assemblies. Thus, there would be no impact on the assemblies and no effect on criticality safety. (As described in Description and Safety Analysis Spent Fuel Storage Rack Replacement, Revision 1 at 37 and response A-21 submitted on May 17, 1978).

15. It is alleged that two or more fuel bundles could fail to be inserted fully into the cells due to distortion or swelling of the cell walls. As discussed in paragraph 7, PSE&G will conduct a program to assure that there has been no swelling of a fuel cell prior to loading of spent fuel. (See "Handling, Shipping & Receiving Inspection, Spent Fuel Storage Racks and In Plant Testing Program, Spent Fuel Storage, Spent Fuel Storage Racks at 1-2 appended to the October 31, 1978 submittal.)

16. The intervenors assert that the fuel handling crane could tip or lift a spent fuel rack module. The spent fuel handling crane has load limiting devices set at approximately 2500 lbs. which render it incapable of lifting or tipping even a single module, which weighs on the order of 32,000 lbs. Morever, the modules are tied together such that the postulated event is not credible.

LACT Contention 1 and Colemans' Contention 9

17. Alternatives to the proposed expansion of the capacity of the Unit 1 spent fuel pool have been considered. In addition, I would note that the proposed action has a negligible environmental impact.

18. It is not practicable to store the spent fuel from Salem Unit 1 at Salem Unit 2 or either unit of the Hope Creek Generating Station. In the case of Salem Unit 2, since that unit is expected to begin operation shortly and will have an annual discharge of fuel, both unenlarged fuel pools would be full by 1983. Due to the uncertainty in the availability of an Independent Spent Fuel Storage Installation ("ISFSI") by that time (EIA at 16), such an alternative could impact adversely on Unit 2 operation, and can be considered only a short term temporary alternative. Moreover, the environmental impacts of the extra handling of irradiated spent fuel, such as the dose received by workers during the transfer, would have to be attributed to this alternative inasmuch as the spent fuel pools for the units are completely separated and the element would have to be placed in a cask prior to transfer. If only the Unit 2 fuel pool were expanded, while additional capacity would be provided, it would suffer the same environmental impacts associated with fuel transfer as was the case for the case previously discussed, i.e., those associated with fuel transfer.

19. With regard to storage of Salem Unit 1 spent fuel at the Hope Creek units, it is unlikely that these units would be sufficiently complete to enable fuel to be stored prior to the unmodified Salem unit being full. Storage at Hope Creek would involve replacement of the Hope Creek racks with racks capable of holding Salem 1 Fuel, further limiting storage capacity at those units. Again fuel would have to be transported to these units and those impacts weighed against this alternative.

20. Considering that the same problem with spent fuel pool storage is being faced by all utilities, it is unlikely that there will be storage space available at any reactor. The costs associated with such storage would be at least comparable to those associated with the new racks at Salem Unit 1. Moreover, such alternative has no environmental impacts associated with an additional transfer of spent fuel.

21. The Allied-General Nuclear Services ("AGNS") reprocessing plant has not yet been licensed to receive and store spent fuel in the onsite storage pool. I have contacted AGNS and have been informed that in no event will the facility be utilized by AGNS for the storage of reactor fuel absent reprocessing. Considering the President's April 7, 1977 statement deferring indefinitely commercial reprocessing and recycling of the plutonium produced in the U. S. nuclear power programs, the storage capacity of that facility cannot be relied upon.

22. The NRC had under review an application by Exxon Nuclear Company for a storage pool and reprocessing facility to be located at Oak Ridge, Tennessee. A construction permit has not yet been issued and in view of the President's announced policy, and the termination of that proceeding by the NRC, reliance upon the construction of a storage pool in time for Salem Unit 1 is not prudent.

23. The fuel storage pool at the Morris, Illinois facility is being utilized for General Electric Company owned fuel which had been leased to utilities or for fuel which General Electric had previously contracted to reprocess. Other spent fuel is not being stored in the absence of an express commitment to do so. There is no such commitment for Salem. (EIA at 14). Similarly, the Nuclear Fuel Service facility at West Valley, New York is not accepting additional spent fuel for storage, even from those reactor facilities with which it had reprocessing contracts. (EIA at 14).

24. Should an ISFSI be constructed, the costs would be much higher than those associated with the new racks for Salem Unit 1 inasmuch as a pool structure and supporting systems would have to be erected, and spent fuel transported to such a facility. The environmental impacts associated with constructing such a facility would also be greater than the minor impacts associated with replacing the racks.

25. All alternatives previously discussed considered that the spent fuel pool could be filled prior to the alternative being needed. This is not quite the case. After the next (second) refueling, scheduled for the first part of 1980, the facility will lose its capacity to discharge a full core from the reactor. While this capability is not a safety related consideration, it is prudent from an operational standpoint to have such capability. Therefore the ability to sustain full core discharge capability should be weighed in favor of the proposed fuel rack expansion.

26. The Company has discounted the possibility for disposing of the spent fuel outside the United States. Considering the President's announced policy statement on nuclear power, it is unlikely that permission would be granted to export spent nuclear fuel. In fact the President's April 7, 1977 statement on nuclear power policy states that the U. S. is exploring "measures to assure access to nuclear fuel supplies and spent fuel storage for nations sharing common non-proliferation objectives".

27. The Licensee has estimated that a shutdown of Salem Unit 1 with a net electrical output of 1090 megawatts would cause incremental replacement power costs alone of $500,000 per day, based on the differential costs of producing energy from Salem as compared to production from other available units in the PSE&G and Pennsylvania New Jersey Maryland ("PJM") Interconnection.

The Staff, looking at the long term economic impacts other than the short term incremental effects, factored in a capacity factor range of 60-70% to arrive at annual replacement costs associated with the discontinuance of operation on the order of $300,000 to $350,000 per day.[9/] Using either figure, these costs would still be far in excess of the costs associated with the proposed modification, i.e., $3300 per fuel assembly or $3,000,000 for the entire cost of replacing the racks.[10/]

9/ EIA at 18-19

10/ *Id.* at 19

LACT Contention 3

28. PSE&G has also made application to the NRC to expand The Salem Unit 2 fuel pool capacity to 1170 elements utilizing racks supplied by Exxon Nuclear Company, Inc. Thus, as a result of this modification, there will be no need nor incentive to store spent fuel from Salem Unit 2 at Salem Unit 1.

29. Since the spent fuel storage facilities for the two Salem units are completely separate, if Unit 2 fuel were hypothetically to be stored at Unit 1, spent fuel transfer from Unit 2 to Unit 1 in a transfer cask would be required.

30. Truck casks which would have to be used for the transfer can accommodate only one Pressurized Water Reactor fuel assembly. The cask would have to be sealed, decontaminated and then opened in the Unit 1 cask pool. This process is slow and cumbersome. There is therefore no incentive for storing Unit 2 or Hope Creek spent fuel in the Unit 1 spent fuel pool.

31. The Hope Creek Generating Station utilizes two boiling water reactors. Five assemblies for these units are different in size from those utilized in Salem Unit 1 and cannot be stored in the new fuel storage racks in the Salem Unit 1 fuel pool.

Neither is there additional room in the Salem 1 spent fuel pool to place new racks to accommodate such fuel.

EDWIN A. LIDEN

Sworn and subscribed to)
before me this 21st day)
of February, 1979.

W. A. VANDERCLOCK
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires Mar. 18, 1979

APPENDIX A
TECHNICAL QUALIFICATIONS

EDWIN A. LIDEN
PROJECT LICENSING MANAGER

PUBLIC SERVICE ELECTRIC AND GAS COMPANY

My name is Edwin A. Liden. My business address is 80 Park Place, Newark, New Jersey. I am Project Licensing Manager in the Engineering and Construction Department of Public Service Electric and Gas Company and have served in this capacity since 1977. In my present position, I am responsible for directing the licensing activities for the Salem Nuclear Generating Station.

I was graduated from the State University of New York Maritime College with a Bachelor of Marine Engineering degree in 1963. I also served in the U. S. Merchant Marine as a licensed engineering officer.

From 1963 to 1966, I was employed by Newport News Shipbuilding and Dry Dock Company. I was certified by the NRC as Shift Test Engineer on the A2W and C1W naval nuclear power plants. I was the senior shipyard representative on shift during refueling and overhaul operations on both the USS Enterprise and USS Long Branch.

From 1966 to 1967, I was staff engineer at Combustion Engineering, Inc., working on fuel channel development for the heavy water organic cooled reactor (HWOCR) project.

From 1967 to 1970, I was department head at the Saxton Nuclear Facility and, in that capacity, held a Senior Reactor Operator license. I was responsible for nuclear plant maintenance, performance, health physics, radiochemistry, radwaste and nuclear fuel.

From 1970, when I joined PSE&G, until 1977, I have participated in the licensing process for the Salem Nuclear Generating Station which included preparation of the FSAR, Environmental Report, and Safety and Environmental technical specifications.

I am a member of the American Nuclear Society.

EAL:kd
2/15/79

BNWL - 2256
UC - 70

APPENDIX B

Behavior of Spent Nuclear Fuel in Water Pool Storage

by
A. B. Johnson, Jr.

September 1977

Prepared for the Energy Research and Development Administration under Contract EY-76-C-06-1830

Battelle
Pacific Northwest Laboratories

BNWL - 2256

BNWL-2256
UC-70

BEHAVIOR OF SPENT NUCLEAR FUEL IN WATER POOL STORAGE

by
A. B. Johnson, Jr.

September 1977

BATTELLE
Pacific Northwest Laboratories
Richland, Washington 99352

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BEHAVIOR OF SPENT NUCLEAR FUEL IN WATER POOL STORAGE

SUMMARY AND CONCLUSIONS

Storage of irradiated nuclear fuel in water pools (basins) has been standard practice since nuclear reactors first began operation ∿34 years ago. Pool storage is the starting point for all other fuel storage candidate processes and is a candidate for extended interim fuel storage until policy questions regarding reprocessing and ultimate disposal have been resolved.

This report assesses the current performance of nuclear fuel in pool storage, the range of storage conditions, and the prospects for extending residence times. The assessment is based on visits to five U.S. and Canadian fuel storage sites, representing nine storage pools, and on discussions with operators of an additional 21 storage pools. Spent fuel storage experience from British pools at Winfrith and Windscale and from a German pool at Karlsruhe (WAK) also is summarized.

At the end of 1976 there were ∿8700 power reactor fuel bundles in storage in U.S. pools. Approximately 90% of the bundles have Zircaloy cladding; the remainder have stainless steel cladding. Approximately 70,000 Zircaloy-clad bundles (∿50 cm long) were stored in Canadian pools at the end of 1976.

Maximum pool residence for Canadian fuel is 14 years. Zircaloy-clad U.S. fuel has been in pool storage up to 18 years. Experimental stainless-clad fuel has been stored up to 12 years; commercial stainless-clad fuel has been stored up to 7 years; unirradiated stainless steel fixtures have been exposed in pools up to ∿20 years without evidence of degradation. Maximum burnups for stored commercial fuel are ∿33,000 MWd/MTU for both Zircaloy- and stainless-clad fuel.

Perceptions regarding the status of the stored spent fuel are based principally on visual observations during fuel handling operations and on visible portions of the bundles during storage. Radiation monitoring of

water and air in pool storage areas also is conducted to detect evidence of radiation releases from the stored fuel.

The results of the survey indicate that pool operators have not seen evidence that stainless- or Zircaloy-clad uranium oxide fuel is degrading during pool storage, based on visual examinations and radiation monitoring.

Irradiated Canadian Zircaloy-clad fuel was returned to a reactor after up to 10 years of pool storage, with satisfactory performance. Shippingport fuel was removed from pool storage to a hot cell inspection in air after 4 years in pool storage. There was no visual evidence of degradation and no radiation releases occurred.

Mechanical damage to spent fuel during reactor discharge and fuel handling in the pools is minimal. The number of incidents where fuel was dropped during fuel handling operations appears to have been less than a dozen cases in 1974 to 1976. Only two cases were identified where fuel damage resulted in breached cladding.

Several hundred fuel bundles having rods which developed cladding defects during reactor exposures are in pool storage. Radioactive gases were expelled to the reactor coolant and therefore are not released from the reactor-induced cladding defects during pool storage. However, non-gaseous fission products are released to the pool water. Steady-state radioactivity concentrations in pool water can be maintained in the range 10^{-3} to 10^{-4} μCi/ml with ion exchange and filtration. Higher values (up to $\sim$0.5 μCi/ml) occur during fuel discharges at reactor pools. Spent fuel with defective cladding has been stored, shipped and reprocessed, frequently on the same basis as intact fuel.

The range of storage conditions in fuel pools is outlined below:

- <u>Water Chemistries</u>

  BWR and ISFSI[a] pools:

  Oxygen-saturated deionized water

  PWR pools:

  Oxygen-saturated deionized water + $\sim$2000 ppm boron as boric acid

[a] Independent Spent Fuel Storage Installation; the only U.S. ISFSI pools which now store spent fuel are GE-Morris and Nuclear Fuel Services.

- **Temperature Range**

  70 to 120°F (20 to 50°C), bulk water temperatures

  Pools with adequate heat exchanger capacity maintain temperatures below 100°F, even with freshly-discharged fuel; clad temperatures for freshly-discharged fuel are ~18°F (10°C) above the bulk water temperatures. Mild temperature transients, within the range cited above, have occurred in pools during temporary shutdown of heat exchangers.

- **Materials**

  Pool walls--painted concrete, stainless steel, fiberglass

  Fuel canisters and racks--stainless steel or aluminum alloys

  Grapples and hoists--stainless- or chromium-plated steel

Detailed, systematic examinations of fuel bundle materials have not been conducted specifically to define storage behavior, because of the expectation that the fuel would be reprocessed after relatively short pool residence. Also, there is minimal reason to expect that the corrosion-resistant fuel bundle materials would degrade in the relatively benign storage environments over the expected storage period. Over the range of pool storage experience cited above, there have been no observations which raise concerns. However, it is not now clear how long pool storage of spent fuel may be extended. If storage times of the spent fuel inventory are expected to extend into the 20-to-100-year time frame, there is an increasing incentive to determine whether any slow degradation mechanisms are operative.

Further assurances regarding fuel cladding integrity can be based on selected destructive exams of spent fuel having a previous exam history, which defined the results of the reactor exposure. Also, periodic visual and non-destructive surveillance of selected stainless- and Zircaloy-clad bundles can provide a systematic, sustained approach to verify the integrity of the spent fuel inventory. Such an approach, of limited scope, has in fact begun in Germany (Karlsruhe). The inspections also should include fuel having reactor-induced defects. Unless evidence of degradation develops in exploratory investigations, a surveillance program involving large numbers of bundles is not justified.

To define certain aspects of long-term (20-to-100-year) spent fuel and pool equipment integrity, some laboratory investigations may be useful. Any detailed fuel investigations and laboratory studies should consider the action of possible degradation mechanisms on either interior or exterior cladding surfaces and on lifting members such as fuel bundle bails. Cladding stresses are not expected to be high, but whether they are sufficient to participate in certain slow degradation mechanisms is not clear. Pitting or other localized corrosion, particularly of stainless steel, cannot be ruled out by present levels of inspection, again in regard to very long exposures.

Based on current experience and on an assessment of the relevant literature, prospects are favorable to extend storage of spent nuclear fuel in water pools, recognizing the following considerations:

- Zircaloy-clad fuel has been stored satisfactorily in pools up to 18 years; stainless-clad fuel has been stored up to 12 years.
- Low temperatures and favorable water chemistries are not likely to promote cladding degradation.
- There are no obvious degradation mechanisms which operate on the cladding under pool storage conditions at rates which are likely to cause failures in the time frame of probable storage.

Recommendations

- There is sufficient evidence of satisfactory integrity of pool-stored fuel to warrant extending fuel storage times and expanding fuel storage capacities.
- Exploratory examination of selected pool-stored fuel is warranted, particularly if the stored fuel inventory is expected to move into the 20-to-100-year time frame, to define whether slow degradation of the fuel bundle materials is operative. To be effective, the examinations must involve bundles having previous destructive examinations which define the effects of the reactor exposure, followed by substantial pool exposures. Periodic visual and non-destructive surveillance of selected bundles can provide further assurance of sustained fuel bundle integrity.

State of New Jersey)
: SS.
County of Essex

AFFIDAVIT OF ROBERT L. MITTL

ROBERT L. MITTL, being first duly sworn according to law, deposes and states:

1. I am General Manager - Licensing and Environment of Licensee, Public Service Electric and Gas Company. In that capacity, I am familiar with the design and construction of the Salem Nuclear Generating Station and Hope Creek Generating Station.

2. PSE&G plans to increase the spent fuel capacity of Salem Unit 2 to 1170 elements by making essentially the same modifications as for Unit 1.

3. With regard to the Hope Creek Generating Station, because of the projected operating dates, the Company has not yet decided on the ultimate number of spent fuel elements to be stored in each pool. At this time, however, the Company is considering the storage capability for 1.6 cores. As presently contemplated, the design would be such that additional racks could be added should that become necessary.

4. PSE&G has applied to the NRC to amend its license for Salem Unit 1 to increase the storage of spent fuel resulting from the operation of that unit. The additional capacity of the new racks was based upon the needs of that unit and the size of the existing fuel pool. It provides for 15 annual discharges while maintaining the capability for a full core discharge.

5. PSE&G has never considered nor has it any plans to utilize the spent fuel storage capacity of the Salem Generating Station for storage of any other facilities' fuel.

Robert L. Mittl

ROBERT L. MITTL

Sworn and subscribed to)
before me this 21st day)
of February, 1979.)

Barbara Vallee

BARBARA VALLEE
A NOTARY PUBLIC OF NEW JERSEY
My Commission Expires Nov. 8, 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of PUBLIC SERVICE ELECTRIC AND GAS COMPANY, et al. (Salem Nuclear Generating Station, Unit 1)	)))))))	Docket No. 50-272

CERTIFICATE OF SERVICE

I hereby certify that copies of the following documents:

1. "Licensee's Motion For Summary Disposition"

2. "Licensee's Statement Of Material Facts As To Which There Is No Genuine Issue To Be Heard"

3. "Licensee's Memorandum In Support Of Its Motion For Summary Disposition"

all dated February 27, 1979, in the captioned matter, have been served upon the following by deposit in the United States mail this 27th day of February, 1979:

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