Public Service
Electric and Gas
Company

Harold W. Keiser
Chief Nuclear Officer & President
Nuclear Business Unit

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609-339-1100

NOV 12 1998

LR-N98530

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

RESPONSE TO GENERIC LETTER 98-04 DATED JULY 14, 1998
HOPE CREEK GENERATING STATION
SALEM GENERATING STATION UNITS 1 AND 2
FACILITY OPERATING LICENSES NPF-57, DPR-70, AND DPR-75
DOCKET NOS. 50-354, 50-272 AND 50-311

Gentlemen:

On July 14, 1998, the Nuclear Regulatory Commission issued the referenced generic letter addressing issues which have generic implications regarding the impact of potential coating debris on the operation of safety related systems, structures, and components (SSC) during a postulated design basis LOCA. Protective coatings are necessary inside containment to control radioactive contamination and to protect surfaces from erosion and corrosion. The generic letter requests information under 10 CFR 50.54(f) to evaluate the addressees' programs for ensuring that Service Level 1 protective coatings inside containment do not detach from their substrate during a design basis LOCA and interfere with the operation of the emergency core cooling system (ECCS) and the safety related containment spray system (CSS). The NRC intends to use this information to assess whether current regulatory requirements are being correctly implemented and whether these requirements need to be revised.

The generic letter requires, within 120 days, that licensees provided the information outlined below for each of their facilities:

(1) A summary description of the plant-specific program or programs implemented to ensure that Service Level 1 protective coatings used inside the containment are procured, applied, and maintained in compliance with applicable regulatory requirements and the plant-specific licensing basis for the facility. Include a discussion of how the plant-specific program meets the applicable criteria of 10 CFR Part 50, Appendix B, as well as information regarding any applicable standards, plant-specific procedures, or other guidance used for: (a) controlling the procurement of coatings and paints used at the facility, (b) the qualification testing of protective coatings, and (c) surface preparation, application, surveillance, and maintenance activities for protective coatings. Maintenance

activities involve reworking degraded coatings, removing degraded coatings to sound coatings, correctly preparing the surfaces, applying new coatings, and verifying the quality of the coatings.

(2) Information demonstrating compliance with item (i) or Item (ii):

(i) For plants with licensing-basis requirements for tracking the amount of unqualified coatings inside the containment and for assessing the impact of potential coating debris on the operation of safety-related SSCs during a postulated DB LOCA, the following information shall be provided to demonstrate compliance:

(a) The date and findings of the last assessment of coatings, and the planned date of the next assessment of coatings.

(b) The limit for the amount of unqualified protective coatings allowed in the containment and how this limit is determined. Discuss any conservatism in the method used to determine this limit.

(c) If a commercial-grade dedication program is being used at your facility for dedicating commercial-grade coatings for Service Level 1 applications inside the containment, discuss how the program adequately qualifies such a coating for Service Level 1 service. Identify which standards or other guidance are currently being used to dedicate containment coatings at your facility; or,

(ii) For plants without the above licensing-basis requirements, information shall be provided to demonstrate compliance with the requirements of 10 CFR 50.46b(5), "Long-term cooling" and the functional capability of the safety-related CSS as set forth in your licensing basis. If a licensee can demonstrate this compliance without quantifying the amount of unqualified coatings, this is acceptable. The following information shall be provided:

(a) If commercial-grade coatings are being used at your facility for Service Level 1 applications, and such coatings are not dedicated or controlled under your Appendix B Quality Assurance Program, provide the regulatory and safety basis for not controlling these coatings in accordance with such a program. Additionally, explain why the facility's licensing basis does not require such a program.

Public Service Electric & Gas Company (PSE&G) provides the required 120-day response for Hope Creek Generating Station and for Salem Generating Station Units 1 and 2 in the attachments to this letter. There are no new commitments being made by PSE&G in connection with this response for Hope Creek or Salem.

Should you have any questions regarding this response, please contact Paul Duke at 609-339-1466.

Sincerely,

Affidavit
Attachments (2)

C Mr. H. Miller, Administrator - Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. R. Ennis
Licensing Project Manager - Hope Creek (Acting)
U. S. Nuclear Regulatory Commission
One White Flint North
Mail Stop 14E21
11555 Rockville Pike
Rockville, MD 20852

Mr. P. Milano
Licensing Project Manager - Salem
U. S. Nuclear Regulatory Commission
One White Flint North
Mail Stop 14E21
11555 Rockville Pike
Rockville, MD 20852

Mr. S. Pindale (X24)
USNRC Senior Resident Inspector - HC

Mr. S. Morris (X24)
USNRC Senior Resident Inspector - Salem

Mr. K. Tosch, Manager IV
Bureau of Nuclear Engineering
P. O. Box 415
Trenton, NJ 08625

REF: LR-N98530

STATE OF NEW JERSEY)
) SS.
COUNTY OF SALEM)

H. Keiser, being duly sworn according to law deposes and says:

I am Chief Nuclear Officer and President - Nuclear Business Unit of Public Service Electric and Gas Company, and as such, I find the matters set forth in the above referenced letter, concerning the Hope Creek Generating Station and the Salem Generating Station, are true to the best of my knowledge, information and belief.

H Keiser

Subscribed and Sworn to before me
this 12th day of November, 1998

Kimberly J. Brown
Notary Public of New Jersey

My Commission expires on 12/16/2003

ATTACHMENT 1
GENERIC LETTER 98-04 REQUESTED INFORMATION
HOPE CREEK GENERATING STATION
FACILITY OPERATING LICENSE NPF-57
DOCKET NO. 50-354

REQUIRED INFORMATION:

(1) A summary description of the plant-specific program or programs implemented to ensure that Service Level 1 protective coatings used inside the containment are procured, applied, and maintained in compliance with applicable regulatory requirements and the plant-specific licensing basis for the facility. Include a discussion of how the plant-specific program meets the applicable criteria of 10 CFR Part 50, Appendix B, as well as information regarding any applicable standards, plant-specific procedures, or other guidance used for: (a) controlling the procurement of coatings and paints used at the facility, (b) the qualification testing of protective coatings, and (c) surface preparation, application, surveillance, and maintenance activities for protective coatings. Maintenance activities involve reworking degraded coatings, removing degraded coatings to sound coatings, correctly preparing the surfaces, applying new coatings, and verifying the quality of the coatings.

PSE&G RESPONSE:

PSE&G has implemented controls for the procurement, application, and maintenance of Service Level 1 protective coatings used inside the containment in a manner that is consistent with the licensing basis and regulatory requirements applicable to Hope Creek. The requirements of 10 CFR 50 Appendix B are implemented through specification of appropriate technical and quality requirements for the Service Level 1 coatings program which includes ongoing maintenance activities.

For Hope Creek, Service Level 1[1] coatings are subject to the requirements of ANSI N101.2, Protective Coatings (Paints) for Light Water Nuclear Reactor Containment Facilities as described in Hope Creek Updated Final Safety Analysis Report (UFSAR) section 6.1.2.2. Hope Creek complies with the requirements of ANSI N101.4-1972, Quality Assurance for Protective Coatings Applied to Nuclear Facilities, as endorsed and modified by Regulatory Guide 1.54. Service Level 1 coatings are subject to the requirements of PSE&G's technical standard for primary containment coatings. Based

[1] This response applies to Service Level 1 coatings used in primary containment that are procured, applied and maintained by PSE&G or its contractor. It does not address the relatively small amount of coatings applied by vendors on supplied equipment and miscellaneous structural supports.

on guidance in the ASTM Manual of Maintenance Coatings (NML8), the Service Level 1 designation is applied to coatings in five areas:

- the drywell;
- the suppression chamber (torus)
- structural steel and gallery steel;
- concrete surfaces inside the drywell; and
- exposed uninsulated carbon steel surfaces of mechanical equipment, piping, electrical equipment and auxiliaries.

Adequate assurance that the applicable requirements for the procurement, application, inspection, and maintenance are implemented is provided by procedures and programmatic controls, approved under the PSE&G Quality Assurance program.

(a) Materials used for new applications or repair of Service Level 1 coatings are procured in accordance with PSE&G's technical standard for Hope Creek primary containment coatings from vendors with quality assurance programs meeting the applicable requirements of 10 CFR 50 Appendix B. The applicable technical and quality requirements which the vendor is required to meet are specified by PSE&G in procurement documents. Acceptance activities are conducted in accordance with procedures which are consistent with ANSI N 45.2 requirements (e.g., receipt inspection, source surveillance, etc.). This specification of required technical and quality requirements combined with appropriate acceptance activities provides adequate assurance that the coatings received meet the requirements of the procurement documents.

(b) The qualification testing of Service Level 1 coatings used for new applications or repair/replacement activities inside containment meets the applicable requirements contained in the standards and regulatory commitments referenced above. These coatings, including any substitute coatings, have been evaluated to meet the applicable standards and regulatory requirements previously referenced. PSE&G's technical standard for Hope Creek primary containment coatings requires documentation that coating materials meet the applicable standards referenced in ASTM D 3842, Standard Guide for Selection of Testing Coatings Used in Light Water Nuclear Power Plants. For coating touch-up operations (remedial work on coating defects where the defect is less than one square foot in area), the coating materials are required to be the same as those originally applied, unless otherwise specified.

(c) The surface preparation, application and surveillance during installation of Service Level 1 coatings used for new applications or repair/replacement activities inside

containment meet the applicable portions of the standards and regulatory commitments referenced above. The requirements for application (including surface preparation), touchup, repair, inspection and testing of Service Level 1 protective coatings are contained in the PSE&G technical standard for Hope Creek primary containment coatings. Documentation of completion of these activities is performed consistent with the applicable requirements. Where the requirements of the standards and regulatory commitments did not address or were not applicable to repair/replacement activities, these activities were performed in a manner consistent with the generally accepted practices for coatings repair/replacement. These practices are described in various ASTM standards and coating practice guidelines by industry organizations issued subsequent to those to which PSE&G has a regulatory commitment. PSE&G recognizes that the NRC has not formally endorsed many of the more recent ASTM standards or industry guidelines, but nonetheless, they provide useful information which can be appropriately applied to provide assurance that repair/replacement activities on Service Level 1 coatings are effective in maintaining the acceptability of the coatings.

Inspections and tests during surface preparation and coating application are performed in accordance with PSE&G's technical standard for Hope Creek primary containment coatings. Deviations from technical requirements identified during surface preparation or coating application are documented, evaluated and corrected in accordance with the technical standard. Coating non-conformances and degraded conditions observed during plant shutdowns when the containment is accessible are required to be documented and evaluated in accordance with PSE&G's corrective action program. Documentation, evaluation and the resulting repair/replacement activities assure that the amount of Service Level 1 coatings which may be susceptible to detachment from the substrate during a LOCA event is minimized.

PSE&G currently plans to perform an examination of the Hope Creek containment during the next refueling outage in accordance with Subsection IWE, "Requirements for Class MC and Metallic Liners of Class CC Components of Light-Water Cooled Power Plants," of Section XI of the ASME Code (1992 edition with 1992 addenda). During this examination, the overall condition of Hope Creek containment coatings will be observed and visible non-conformances and degraded conditions will be documented and evaluated in accordance with PSE&G's corrective action program. The next refueling outage is currently scheduled to begin in February 1999.

REQUIRED INFORMATION:

(2) Information demonstrating compliance with item (i) or Item (ii):

(i) For plants with licensing-basis requirements for tracking the amount of unqualified coatings inside the containment and for assessing the impact of potential coating debris on the operation of safety-related SSCs during a postulated design basis LOCA, the following information shall be provided to demonstrate compliance:

(a) The date and findings of the last assessment of coatings, and the planned date of the next assessment of coatings.

(b) The limit for the amount of unqualified protective coatings allowed in the containment and how this limit is determined. Discuss any conservatism in the method used to determine this limit.

(c) If a commercial-grade dedication program is being used at your facility for dedicating commercial-grade coatings for Service Level 1 applications inside the containment, discuss how the program adequately qualifies such a coating for Service Level 1 service. Identify which standards or other guidance are currently being used to dedicate containment coatings at your facility.

PSE&G RESPONSE:

Hope Creek does not have licensing-basis requirements for tracking the amount of unqualified coatings inside the containment and for assessing the impact of potential coating debris on the operation of safety-related SSCs during a postulated design basis LOCA.

REQUIRED INFORMATION

(ii) For plants without the above licensing-basis requirements, information shall be provided to demonstrate compliance with the requirements of 10 CFR50.46b(5), "Long-term cooling" and the functional capability of the safety-related CSS as set forth in your licensing basis. If a licensee can demonstrate this compliance without quantifying the amount of unqualified coatings, this is acceptable.

PSE&G RESPONSE:

In response to NRC Bulletin 96-03, PSE&G is installing large passive replacement ECCS strainers at Hope Creek. One replacement strainer was installed on the "D" RHR pump suction during the refueling outage completed in December 1997. The remaining strainers will be installed during the refueling outage beginning in February 1999. Consequently the following discussion addresses the anticipated licensing basis pending resolution of NRC Bulletin 96-03.

The design input to the ECCS strainer calculations for the amount of unqualified coatings, qualified coatings in steam/water jet zone of influence, and degraded qualified coatings in the containment (as identified from periodic visual inspections) is documented in the new ECCS strainer hydraulic calculations. Consequently the amount of these coating materials must be managed, in addition to the quantity of fibrous, particulate, and other miscellaneous debris, to assure that the analyzed functional capability of the ECCS is not compromised.

The new ECCS pump suction strainers have been designed to perform satisfactorily in the presence of 100% of the containment coatings which are installed in the LOCA pipe break steam/water jet zone of influence. This amount of coating debris is determined in accordance with the methodology documented in the BWR Owners' Group Utility Resolution Guidance (URG) document (NEDO-32686), Section 3.2.2.2.2.1.1. The conservative methodology used to establish the amount of coating debris has been accepted by the NRC, as documented in the Safety Evaluation Report (SER) on the URG dated August 20, 1998.

An additional amount of coating debris is added to the debris from the zone of influence. This amount accounts for potential debris which may result from coatings which are unqualified and/or degraded. Results of BWR Owners' Group LOCA testing of coupons representing unqualified coating systems provide compelling evidence that failure of typical unqualified coating systems which pass a visual inspection is highly unlikely in the first 30 minutes of the LOCA. Only for the first 2 to 15 minutes of the

LOCA event, depending upon the pipe break size, are suppression pool turbulence levels adequate to maintain coating debris in suspension in the pool where it would be available for accumulation on the ECCS strainers. Since the coating debris will quickly settle to the bottom of the suppression pool after the turbulence subsides, none of the coating debris (if eventually released sometime after the first 30 minutes of the LOCA) would be available to accumulate on the strainers. In sizing the replacement ECCS strainers for Hope Creek, no credit was taken for the delayed release of coating debris; therefore, these designs are conservative with respect to the limit on this coating debris source. PSE&G is participating in the BWR Owners' Group Containment Coatings Committee, and activities in progress are expected to result in an increase in the quantity of containment coating debris that can be accommodated on the strainers without challenging their functional capability.

REQUIRED INFORMATION:

The following information shall be provided:

(a) If commercial-grade coatings are being used at your facility for Service Level 1 applications, and such coatings are not dedicated or controlled under your Appendix B Quality Assurance Program, provide the regulatory and safety basis for not controlling these coatings in accordance with such a program. Additionally, explain why the facility's licensing basis does not require such a program.

PSE&G RESPONSE:

PSE&G does not currently employ commercial grade dedication for Service Level 1 coatings used inside containment at Hope Creek.

ATTACHMENT 2
GENERIC LETTER 98-04 REQUESTED INFORMATION
SALEM GENERATING STATION UNITS 1 AND 2
FACILITY OPERATING LICENSES DPR-70, AND DPR-75
DOCKET NOS. 50-272 AND 50-311

REQUIRED INFORMATION:

(1) A summary description of the plant-specific program or programs implemented to ensure that Service Level 1 protective coatings used inside the containment are procured, applied, and maintained in compliance with applicable regulatory requirements and the plant-specific licensing basis for the facility. Include a discussion of how the plant-specific program meets the applicable criteria of 10 CFR Part 50, Appendix B, as well as information regarding any applicable standards, plant-specific procedures, or other guidance used for: (a) controlling the procurement of coatings and paints used at the facility, (b) the qualification testing of protective coatings, and (c) surface preparation, application, surveillance, and maintenance activities for protective coatings. Maintenance activities involve reworking degraded coatings, removing degraded coatings to sound coatings, correctly preparing the surfaces, applying new coatings, and verifying the quality of the coatings.

PSE&G RESPONSE:

PSE&G has implemented controls for the procurement, application, and maintenance of Service Level 1 protective coatings used inside the containment in a manner that is consistent with the licensing basis and regulatory requirements applicable to Salem. The requirements of 10 CFR Part 50 Appendix B are implemented through specification of appropriate technical and quality requirements for the Service Level 1 coatings program which includes ongoing maintenance activities.

For Salem, Service Level 1[2] coatings are subject to the requirements of PSE&G's technical standard for primary containment coatings. As described in the Salem Updated Final Safety Analysis Report (UFSAR) Appendix 3A, quality assurance requirements for safety related coatings are based on the requirements of ANSI N101.4-1972, Quality Assurance for Protective Coatings Applied to Nuclear Facilities, as endorsed and modified by Regulatory Guide 1.54. Based on guidance in the ASTM

[2] This response applies to Service Level 1 coatings used in primary containment that are procured, applied and maintained by PSE&G or its contractor. It does not address the relatively small amount of coatings applied by vendors on supplied equipment and miscellaneous structural supports.

Manual of Maintenance Coatings (NML8), the Service Level 1 designation is applied to coatings in four areas:

- the reactor containment building liner plate;
- structural steel, steam generator support steel, and gallery steel;
- concrete surfaces inside the reactor containment building; and
- exposed uninsulated carbon steel surfaces of mechanical equipment, piping, electrical equipment and auxiliaries.

Application (including surface preparation), touch-up, repair, inspection and testing activities are controlled by procedure. Adequate assurance that the applicable requirements for the procurement, application, inspection, and maintenance are implemented is provided by procedures and programmatic controls, approved under the PSE&G Quality Assurance program.

(a) Materials used for new applications or repair of Service Level 1 coatings are procured in accordance with PSE&G's technical standard for Salem primary containment coatings from vendors with quality assurance programs meeting the applicable requirements of 10 CFR 50 Appendix B. The applicable technical and quality requirements which the vendor is required to meet are specified by PSE&G in procurement documents. Acceptance activities are conducted in accordance with procedures which are consistent with ANSI N 45.2 requirements (e.g., receipt inspection, source surveillance, etc.). This specification of required technical and quality requirements combined with appropriate acceptance activities provides adequate assurance that the coatings received meet the requirements of the procurement documents.

(b) The qualification testing of Service Level 1 coatings used for new applications or repair/replacement activities inside containment meets the applicable requirements contained in the standards and regulatory commitments referenced above. These coatings, including any substitute coatings, have been evaluated to meet the applicable standards and regulatory requirements previously referenced. PSE&G's technical standard for Salem primary containment coatings requires documentation that coating materials meet the applicable standards referenced in ASTM D 3842, Standard Guide for Selection of Testing Coatings Used in Light Water Nuclear Power Plants. For coating touch-up operations (remedial work on coating defects where the defect is less than two square feet in area), the coating materials are required to be the same as those originally applied, unless otherwise specified.

(c) The surface preparation, application and surveillance during installation of Service Level 1 coatings used for new applications or repair/replacement activities inside containment meets the applicable portions of the standards and regulatory commitments referenced above. The requirements for application (including surface preparation), touchup, repair, inspection and testing of Service Level 1 protective coatings are contained in the PSE&G technical standard for Salem primary containment coatings. Documentation of completion of these activities is performed consistent with the applicable requirements. Where the requirements of the standards and regulatory commitments did not address or were not applicable to repair/replacement activities, these activities were performed in a manner consistent with the generally accepted practices for coatings repair/replacement. These practices are described in various ASTM standards and coating practice guidelines by industry organizations issued subsequent to those to which PSE&G has a regulatory commitment. PSE&G recognizes that the NRC has not formally endorsed many of the more recent ASTM standards or industry guidelines, but nonetheless, they provide useful information which can be appropriately applied to provide assurance that repair/replacement activities on Service Level 1 coatings are effective in maintaining the acceptability of the coatings.

Inspections and tests during surface preparation and coating application are performed in accordance with PSE&G's technical standard for Salem primary containment coatings. Deviations from technical requirements identified during surface preparation or coating application are documented, evaluated and corrected in accordance with the technical standard. Other coating non-conformances and degraded conditions are required to be documented and evaluated in accordance with PSE&G's corrective action program. Documentation, evaluation and the resulting repair/replacement activities assure that the amount of Service Level 1 coatings which may be susceptible to detachment from the substrate during a LOCA event is minimized.

PSE&G currently plans to perform examinations of the Salem containments during the next refueling outages in accordance with Subsection IWE, "Requirements for Class MC and Metallic Liners of Class CC Components of Light-Water Cooled Power Plants," and Subsection IWL, "Requirements for Class CC Concrete Components of Light Water Cooled Power Plants," of Section XI of the ASME Code (1992 edition with 1992 addenda). During this examination, the overall condition of the containment coatings will be observed and visible non-conformances and degraded conditions will be documented and evaluated in accordance with PSE&G's corrective action program. The next refueling outages are currently scheduled to begin in April 1999 (Salem Unit 2) and October 1999 (Salem Unit 1).

Condition assessments of containment coatings for Salem Units 1 and 2 were performed during the recently completed extended plant shutdowns. The assessments consisted of visual inspections by technical consultants and PSE&G personnel and reviews of coating application and inspection records. The impact of non-conforming and degraded conditions was assessed and coating repairs were made where required. The results of the assessments were documented in engineering evaluations.

REQUIRED INFORMATION:

(2) Information demonstrating compliance with item (i) or item (ii):

(i) For plants with licensing-basis requirements for tracking the amount of unqualified coatings inside the containment and for assessing the impact of potential coating debris on the operation of safety-related SSCs during a postulated design basis LOCA, the following information shall be provided to demonstrate compliance:

(a) The date and findings of the last assessment of coatings, and the planned date of the next assessment of coatings.

(b) The limit for the amount of unqualified protective coatings allowed in the containment and how this limit is determined. Discuss any conservatism in the method used to determine this limit.

(c) If a commercial-grade dedication program is being used at your facility for dedicating commercial-grade coatings for Service Level 1 applications inside the containment, discuss how the program adequately qualifies such a coating for Service Level 1 service. Identify which standards or other guidance are currently being used to dedicate containment coatings at your facility; or,

PSE&G RESPONSE:

Salem does not have a licensing basis requirement for tracking the amount of unqualified coatings inside the containment or for assessing the impact of potential coating debris on the operation of safety related SSCs during a postulated design basis LOCA.

REQUIRED INFORMATION:

(ii) For plants without the above licensing-basis requirements, information shall be provided to demonstrate compliance with the requirements of 10 CFR50.46b(5), "Long-term cooling" and the functional capability of the safety-related CSS as set forth in your licensing basis. If a licensee can demonstrate this compliance without quantifying the amount of unqualified coatings, this is acceptable.

PSE&G RESPONSE:

The following description and referenced materials describe the licensing basis for Salem relative to conformance with 10 C.F.R. 50.46(b)(5), "Long-term cooling," specifically with regard to Salem's ability to provide extended decay heat removal including related assumptions for debris that could block containment emergency sump screens.

The Emergency Core Cooling System (ECCS) automatically delivers cooling water to the reactor core in the event of a loss-of-coolant accident (LOCA). This limits the fuel clad temperature and thereby ensures that the core will remain substantially intact and in place, with its essential heat transfer geometry preserved. This protection is afforded for all pipe break sizes and locations in the Reactor Coolant System (RCS) up to and including the hypothetical instantaneous circumferential rupture of a reactor coolant loop, assuming unobstructed discharge from both ends.

During the recirculation phase of operation after a LOCA, water collected in the containment sump is cooled and returned to the reactor coolant system (RCS) by the low head/high head recirculation flow path. The RCS can be supplied simultaneously from the residual heat removal (RHR) pumps, and from a portion of the discharge from the residual heat exchangers that is directed to the charging pumps and safety injection pumps, which return the water to the RCS. Flow from the containment sump to the RHR pump suction passes through sump screens.

The method used to calculate net positive suction head (NPSH) for the RHR pumps meets the intent of Regulatory Guide 1.1, Net Positive Suction Head for Emergency Core Cooling and Containment Heat Removal Pumps. Head loss across the sump screen is based on blockage of up to 50% of the effective screen area from debris generated as a result of a loss of coolant accident (LOCA). Model testing was performed to determine the head loss for 50% screen blockage.

When Salem was licensed, no distinction was drawn between the various potential sources for post-LOCA debris; these systems were intended to function, even with debris partially obstructing the sumps, from whatever source derived. The analyses submitted as part of the licensing basis for Salem demonstrate, however, that, even with this blockage, the emergency core cooling and containment spray systems will continue to provide cooling flow sufficient to fulfill the long-term cooling functions required to conform with 10 C.F.R. 50.46(b)(5).

The NRC accepted these analyses and these systems as meeting the requirements of 10 C.F.R 50.46(b)(5) in the Safety Evaluation Report for Salem (NUREG-0517). Supplement 4 to the SER dated April 18, 1980 concluded that, with assumed screen blockage of 50%, there is adequate net positive suction head for the emergency core cooling system pumps.

Salem's licensing basis, as accepted by the NRC's SER, provides both the regulatory and safety basis for safety system performance. Coatings are not treated separately in the licensing basis for Salem because the sump screen blockage assumption does not distinguish among the source terms for the LOCA-generated debris. As the NRC noted in NRC Generic Letter 85-22, "Potential for Loss of Post-LOCA Recirculation Capability due to Insulation Debris Blockage," a change in regulatory guidance for the basis for sump screen blockage would constitute a generic backfit. Accordingly, a separate demonstration of the regulatory and safety basis for safety system performance is not required.

REQUIRED INFORMATION:

The following information shall be provided:

(a) If commercial-grade coatings are being used at your facility for Service Level 1 applications, and such coatings are not dedicated or controlled under your Appendix B Quality Assurance Program, provide the regulatory and safety basis for not controlling these coatings in accordance with such a program. Additionally, explain why the facility's licensing basis does not require such a program.

PSE&G RESPONSE:

PSE&G does not currently employ commercial grade dedication for Service Level 1 coatings used inside containment at Salem.