



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

August 27, 1981



Mr. Richard A. Udell
Critical Mass Energy Project
P. O. Box 1538
Washington, DC 20013

IN RESPONSE REFER
TO FOIA-81-313

Dear Mr. Udell:

This is in response to your letter dated July 30, 1981 in which you requested, pursuant to the Freedom of Information Act, eight categories of information pertaining to steam generators. This confirms the information relayed during the telephone conversation between you and Linda Robinson on August 17, 1981.

As noted below, where there are existing records subject to the various categories of your request, most of the requested records are already available for public inspection and copying at the NRC Public Document Room (PDR), 1717 H Street, N.W., Washington, DC 20555 and, in the case of NUREG reports, available for purchase through the Government Printing Office (GPO) Sales Program, Division of Technical Information and Document Control, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

Categories one, two, and three. Documents subject to these categories are normally plant specific and routinely placed in the PDR under the appropriate plant docket files. Summaries of statistics available in relevant docket files, and other pertinent materials, are presented in the following NUREG reports, which are available both at the PDR and the GPO sales office.

1. NUREG-0523, "Summary of Operating Experience with Recirculating Steam Generators", January 1979. (GPO price: \$3.50)
2. NUREG-0571, "Summary of Tube Integrity Operating Experience With Once Through Steam Generators", March 1980. (GPO price: \$3.25)
3. NUREG-0651, "Evaluation of Steam Generator Tube Rupture Events", March 1980. (GPO price: \$4.25)
4. NUREG-0743, "FES on Turkey Point Plant Units 3 and 4" (GPO price: \$5.00)
5. NUREG-0756, "SER on Turkey Point Plant Units 3 and 4". (GPO price \$3.25)

You may wish to inspect docket files in the PDR for these plants:

Indian Point 2&3	Arkansas 1	Robinson 2
Surry 1&2	Palisades	Maine Yankee
Prairie Island 1&2	San Onofre 1	Millstone
North Anna 1	Haddam Neck	
Point Beach 1&2	Turkey Point	
Three Mile Island 1	Oconee	
Trojan	Ginna	

To assist you in search for pertinent records in the PDR, we are enclosing a partial list of records, for the Indian Point 2 and 3, Surry 1 and 2 Turkey Point 3 and 4, Oconee, and Ginna plants, plus a list of pertinent topical reports from Babcock and Wilcox and Westinghouse (see Appendix A). While any information from Westinghouse (category two of your request) would be found in appropriate docket files, we are also providing for your convenience a computer printout of documents received from Westinghouse (see Appendix B).

In addition, we are enclosing the documents identified on Appendix C.

Category four. NRC does not require submissions from the Electric Power and Research Institute (EPRI) and Steam Generator Owners Group concerning such problems. However, we receive such information on a cooperative and informal basis. For your information, we are enclosing a computer printout of documents received from EPRI (see Appendix B).

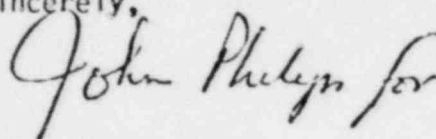
Categories five and six. Although a staff member recalls suggesting formation of a task force project on steam generators, the suggestion was not pursued. Since no task force was formed, no documents were obtained from domestic vendors. You may, however, locate correspondence from vendors to licensees during your inspection of pertinent docket files.

Category seven. NRC staff members were not invited to attend or participate in the cited conference. For your information, several NRC staff members did attend and participate in the American Nuclear Society (ANS) Conference, entitled "Material Performance in Nuclear Steam Generators", from October 5 to October 9, 1980 in Florida. During the telephone conversation between you and Linda Robinson on August 17, 1981, you stated that you will contact ANS to request a copy of published conference materials.

Category eight. The Surry plant is now operating under full power. Most records related to replacement of the steam generators (e.g., application for replacement; safety evaluation report; license amendment) are maintained in the PDR under the Surry docket file. Additional records, identified on Appendix C, are enclosed.

Several additional documents located during search for records subject to your request are presently undergoing review for releasability determinations. We will notify you as soon as the determinations are made.

Sincerely,

A handwritten signature in cursive script that reads "John Phillyn for". The signature is written in dark ink and is positioned above the typed name.

J. M. Felton, Director
Division of Rules and Records
Office of Administration

Enclosures: As stated

Appendix A

A. STEAM GENERATOR DOCUMENTS

INDIAN POINT 2 DOCKET NO. 50-247

December 8, 1976 (Amendment No. 23)
May 13, 1977 (Amendment No. 30)
May 12, 1978 (Amendment No. 40)
September 7, 1979 (Amendment No. 58)
May 15, 1981 (SER, no Amendment)

INDIAN POINT 3 DOCKET NO. 50-286

June 27, 1980 (Amendment No. 31)
November 20, 1980 (SER, no Amendment)
January 19, 1981 (Amendment No. 34)

SURRY UNIT 1 DOCKET NO. 50-280

February 8, 1977 (Order)
February 11, 1977 (SER)
May 6, 1977 (Order)
December 3, 1977 (Order)
June 23, 1978 (Order)
December 29, 1978 (Amendment No. 46)
February 5, 1980 (Amendment No. 55)
July 28, 1980 (Amendment No. 59)

SURRY UNIT 2 DOCKET NO. 50-281

April 1, 1977 (Order)
August 17, 1977 (Order)
October 8, 1977 (Order)
April 7, 1978 (Order)
October 3, 1978 (Amendment No. 44)

TURKEY POINT UNIT NO. 3 DOCKET NO. 50-250

January 14, 1977 Amendment No. 22
July 15, 1977 Amendment No. 26
August 16, 1977 Amendment No. 27
January 31, 1978 Amendment No. 32
June 2, 1978 Amendment No. 36
October 16, 1978 Amendment No. 39
March 30, 1979 Amendment No. 46

Appendix A

A. STEAM GENERATOR DOCUMENTS CONTINUEDOCONEE DOCKET NOS. 50-269, 50-270, AND 50-287

August 26, 1977 (DPC) Status report of investigations of Steam Generator tube leakage
 July 21, 1977 (DPC) Advises 4 tubes plugged in 2B Steam Generator
 July 21, 1977 (DPC) Informs NRC of 3B Steam Generator inspection
 June 17, 1977 (DPC) Informs NRC of 3B Steam Generator tube leak
 May 11, 1977 (DPC) Response to NRC 4/5/77 request for information on Steam Generator tube leaks

GINNA DOCKET NO. 50-244

July 8, 1980 Accession No. 8007280142
 November 6, 1980 Accession No. 8011140103
 December 12, 1980 Accession No. 8012220229
 November 6, 1980 Accession No. 8011120399, New 151 Program for Steam Generators - Still Under Staff Review
 December 1, 1980 Accession No. 8012090278, Correction to 151 Program
 February 10, 1981 Accession No. 8102180453, Updated Questionnaire Response
 April 13, 1981 Accession No. 8104220307, Nonproprietary Version of S/G Test Program
 April 23, 1981 Accession No. 8104280386, Revisions to S/G 151 Program
 April 23, 1981 Accession No. 8104280466
 April 30, 1981 Accession No. 8105260135, Meeting Summary
 May 29, 1981 Accession No. 8106030317, LER on S/G Inspection
 May 15, 1981 Accession No. 8106040270, Reportable Occurrence - S/G Degradation
 July 2, 1981 Accession No. 8108060349, Followup LER on S/G Inspection and Repair

B. APPLICABLE TOPICAL REPORTS FROM B&W AND WESTINGHOUSE

1. BAW-10027(NP), Once Through Steam Generator Research and Development
2. BAW-10027s(NP), Once Through Steam Generator Research and Development Report
3. WCAP-7832(NP), Evaluation of Steam Generator Tube, Tube Sheet and Divider Plate Under Combined LOCA Plus SSE Conditions
4. WCAP-9237(NP), A Nodal Transient Steam Generator and General Network Code
5. WCAP-9398(NP), Westinghouse Steam Generator Retubing and Refurbishment

Appendix A

A. STEAM GENERATOR DOCUMENTS CONTINUED

TURKEY POINT UNIT NO. 3 DOCKET NO. 50-250

September 26, 1979 Amendment No. 50
January 25, 1980 Amendment No. 52
July 30, 1980 Amendment No. 59
October 30, 1980 Amendment No. 60
June 24, 1981 Amendment No. 69

TURKEY POINT UNIT NO. 4 DOCKET NO. 50-251

December 3, 1976 Both Amendment No. 20 and Order
February 8, 1977 Order
May 3, 1977 Order
August 3, 1977 Order
February 10, 1978 Order
March 8, 1978 Order
September 22, 1978 Amendment No. 31
March 23, 1979 Amendment No. 38
June 15, 1979 Amendment No. 41
December 14, 1979 Amendment No. 43
February 22, 1980 Amendment No. 44
March 21, 1980 Amendment No. 49
June 12, 1980 Amendment No. 51
January 15, 1981 Amendment No. 54
July 6, 1981 Amendment No. 62

OCONEE DOCKET NOS. 50-269, 50-270, AND 50-287

May 8, 1981 (DPC) Steam Generator Operating Histories Report Units 1, 2 and 3
November 8, 1979 (DPC) Unit 1 tube failure report
October 22, 1979 (NRC) Request for information on Unit 1 tube failure
May 14, 1979 (DPC) Steam Generator Operating Histories Units 1 and 2
November 28, 1978 (DPC) Steam Generator History Unit 3
February 16, 1978 (DPC) Steam Generator Operating Histories Units 1, 2 and 3
December 30, 1977 (DPC) Response to NRC questions (11/23/77) on Steam Generator tube leakage
November 23, 1977 (NRC) Request answered on 12/30/77

September 24, 1977 (DPC) Steam Generator tube leakage status report
September 9, 1977 (DPC) Report "Safety Assessment of Steam Generator Tube Leakage at the ONS" (This report is PROPRIETARY)

Appendix B

THIS DOCUMENT WAS PRODUCED BY THE
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DOCUMENT CONTROL SYSTEM

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Appendix C

1. 3/20/75 Handwritten notes of J. D. Neighbors re: Connecticut Yankee.
2. 1/21/76 Memo to Shao from Schwencer, "Steam Generator Tube Failures at Oconee Nuclear Station".
3. 4/8/76 Memo to Kouts from Rusche, "Confirmatory Research for Experimental Determination of Failure Pressures of Steam Generator Tubes".
4. 5/4/76 Memo to Ross from Shao, "Technical Assistance Request No. ORB-4-39".
5. 6/29/76 Memo to Eisenhut from Shao, "Summary of Meeting with Representatives of Westinghouse Corporation on Steam Generator Tube Support Plate Cracking", w/enclosures.
6. 9/15/76 Memo to Levine from Rusche, "Supplementary Request for Confirmatory Research for Experimental Determination of Failure Pressures of Steam Generator Tubes (Supplement 1 to RSR 76 - ?)", without enclosures (see item 3 above).
7. 9/27/76 Memo to Stolz from Kintner, "Technical Specifications and Associated Bases for Steam Generator Tube Surveillance - Farley Unit 1".
8. 11/24/76 Telecopy to Ilberman from DeLawrence, "Steam Generator Inspection".
9. 1/18/77 Memo to Eisenhut from Shao, "Technical Specifications and Associated Bases for Steam Generator Tube Surveillance".
10. 2/22/77 Memo to Eisenhut from Stuart, "Trip Report - Westinghouse, Tampa Division", w/attachments.
11. 2/23/77 Memo to Eisenhut from Shao, "Trip Report - ASME Code Committee (SC-X1) Meetings", w/enclosures.
12. 3/15/77 Memo to Stuart from Strosnider, "Summary of 'Hourglassing' in Steam Generator Tube Support Plates at Turkey Point Units 3 and 4, Surry Units 1 and 2, Indian Point Unit 2, and San Onofre Unit 1", w/attachment.
13. 3/29/77 Memo to Almeter from Weeks, Brookhaven Nat'l Lab, "Technical Specifications for PWR Secondary Water Chemistry".
14. 4/13/77 Memo to Shao from Liaw, "Trip Report - B&W Facilities at Mt. Vernon, Indiana", w/enclosures.

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15. 4/26/77 Memo to Lear from Elliott, "Turkey Point Unit No. 4 Steam Generator Leak".
16. 4/27/77 Memo to Kehnemuyi from Eisenhut, "Winter 1975 Addenda, Section XI ASME Code - Inservice Inspection of Nuclear Power Plant Components".
17. 5/19/77 Memo to Eisenhut from Almeter, "Maine Yankee Steam Generator Tube Denting".
18. 6/29/77 Memo to Eisenhut from Shao, "Steam Generator Tube Integrity - Report to Congress", w/attachment
19. 7/6/77 Memo to Eisenhut from Shao, "Turkey Point Units 3 and 4".
20. 7/11/77 Memo to Knight from Rajan, "Westinghouse Model F Steam Generator", w/enclosure.
21. 7/26/77 Memo to Shao from Almeter, "Li OH Addition to PWR Secondary Coolant".
22. 8/17/77 Memo to Shao from Liaw, "Criteria for Defining Degree of Steam Generator Tube Denting".
23. 9/7/77 Memo to Levine from Case, "Request for Confirmatory Research for the Experimental Determination of Susceptibility of Stress Corrosion Cracking of Inconel-500 Tubing (RR-NRR-77-17)".
24. 9/12/77 "Meeting Minutes to Discuss Chemical Cleaning of PWR Steam Generators" by Di Ianni and Fairtile, w/enclosure.
25. 9/?/77 Memo to Shao from Zudons, "Trip Report - Lynchburg B&W Meeting: Safety Related Research and Development" with enclosures.
26. 10/7/77 Memo to Div. Directors, NRR, from Stello, "Information Memorandum No. 5, Control of Radioactivity in Secondary System of PWR's"
27. 10/21/77 Letter to Virginia Electric & Power Company from Reid re: steam generator replacement program for Surry 1 and 2, w/enclosure.
28. 11/2/77 Memo to Goller from Eisenhut, "PWR Steam Generator Tube Denting", w/enclosure.
29. 11/10/77 Memo to Eisenhut from Stuart, "Meeting of Operational Technology Branches to Discuss Steam Generator Repair/Replacement Program Review Plan", w/enclosure.

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30. 12/9/77 Memo to Stello from Eisenhut, "Steam Generator Replacement and Repair Contract", w/enclosure
31. 12/14/77 Memo to Shao from Liaw, "NRC Sponsored Research & Technical Assistance Programs Related to PWR Steam Generator Tube Integrity", w/enclosure.
32. 1/27/78 Memo to Buckley from MacKay, "Oconee Power Oscillations", w/enclosure.
33. 2/1/78 Memo to Eisenhut from Shao, "Oconee Unit 2 Steam Generator Leak".
34. 3/11/78 Memo to Eisenhut from Shao, "Acquisition of Replaced Steam Generator for Research Study".
35. 4/21/78 Memo to Shao from Di Ianni, "Trip Report Consolidated Edison Indian Point 1 & 2 (IP-1 & IP-2) Chemical Cleaning 50-010, 50-247".
36. 6/2/78 Memo to Files from Weeks, Brookhaven, "Trojan Steam Generator Inspection, Spring 1978".
37. 6/8/78 Memo to Eisenhut from Acting Branch Chief, DOR, "Recent Steam Generator Tube Leak at Trojan Station".
38. 8/3/78 Memo to Stello from Easterling, Sandia, "NRC Technical Assistnace - Statistical Assessment of Steam Generator Tube Degradation and Integrated Sampling Plan for Inservice Inspection, NRR Letter No. 84", w/attachment.
39. 12/15/78 Memo to Eisenhut from Noonan, "Summary of Recent Adverse Steam Generator Operating Experience", w/attachment.
40. 3/23/79 Memo to Schwencer from Knighton, "Review of Turkey Point Steam Generator Repair Program (TAC 7126)", w/enclosure.
41. 5/18/79 Memo to Liaw from Abramson, "Westinghouse Report on 'Steam Generator Retubing and Refurbishment', W-9398, January, 1979".
42. 10/15/79 Memo to Shao from Noonan, "Outline and Assignments for Engineering Branch Input to Report on Four (4) Steam Generator Tube Rupture Incidents", w/enclosure.
43. 2/12/80 Memo to Mattson from Eisenhut, "Pre-01 Steam Generator Modifications", w/enclosure.

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44. 2/14/80 Memo to Shao from Noonan, "Generic Implications of Recent Eddy Current Testing Experience at Point Beach Unit 1".
45. 5/19/80 Memo to Crutchfield from Pawlicki, "R.E. Ginna Unit No. 1 - April 1980 Steam Generator Inservice Inspection", w/enclosure.
46. 6/9/80 Memo to Noonan from Lainas, "IE Inquiry into Steam Generator Tube Support Plate Cracking - Southern California Edison's San Onofre Unit 1".
47. 6/30/80 Memo to Vollmer from Pawlicki, "San Onofre Unit 1 - Steam Generator Leak - Widespread Inter-granular Attack and Circumferential Cracking at top of Tubesheet", w/enclosure.
48. 8/19/80 Memo to Vollmer, et. al., from Eisenhut, "Operating Reactor Event Memorandum No. 80-18: Steam Generator Manway Stud Cracking at Oconee Unit 3", w/cover handwritten note of 8/22/80.
49. 9/30/80 Memo to Novak from Noonan, "Arkansas Unit 1 Steam Generator Leak - Concerns Regarding Detectability of Defects".
50. 2/10/81 Memo to Noonan from Novak, "Turkey Point Plant Steam Generator Inspection".
51. 3/12/81 Letter to Benaroya from Weeks, Brookhaven, "Recent Observation of Secondary Side Corrosion at Prairie Island 2", w/o enclosure.
52. 3/12/81 Letter to Pawlicki from Weeks, Brookhaven, "U-Bend Cracking in the Trojan Steam Generators: Review of the Portland General Electric Submittal of January 30, 1981".
53. 4/4/81 Memo to Novak from Noonan, "Ginna Station Steam Generator Tubes Inservice Inspection Program for the 1980-1989 Interval (TAC #43196)".
54. Undated Memo to Shao from Liaw, "Trip Report - Combustion Engineering Facilities at Windsor, Connecticut, on June 3, 1977", w/enclosure.
55. Undated Memo to Acting Chief from Eisenhut, "Confirmatory Research Study of a Replaced Steam Generator for Various Causes and Forms of Degradation".
56. Undated "San Onofre Steam Generator Tube Degradation".
57. Undated "Radiological Consequences of a Main Steam Line Failure with Large Steam Generator Tube Leaks".