U.S. NUCLEAR REGULATORY COMMISSION

RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) REQUEST

NRC FOIA REQUEST NUMBER(S)
FOIA — 96-351

RESPONSE TYPE
[ ] FINAL [X] PARTIAL 5th

DATE
JAN 13 1997

DOCKET NUMBER(S) *(If applicable)*

REQUESTER
Mr. J. H. O'Neill, Jr. ATTN: W. R. Holloway

PART I.—AGENCY RECORDS RELEASED OR NOT LOCATED *(See checked boxes)*

[ ] No agency records subject to the request have been located.

[ ] No additional agency records subject to the request have been located.

[ ] Requested records are available through another public distribution program. See Comments section.

[ ] Agency records subject to the request that are identified in Appendix(es) _____ are already available for public inspection and copying at the NRC Public Document Room, 2120 L Street, N.W., Washington, DC.

[X] Agency records subject to the request that are identified in Appendix(es) K are being made available for public inspection and copying at the NRC Public Document Room, 2120 L Street, N.W., Washington, DC, in a folder under this FOIA number.

[ ] The nonproprietary version of the proposal(s) that you agreed to accept in a telephone conversation with a member of my staff is now being made available for public inspection and copying at the NRC Public Document Room, 2120 L Street, N.W., Washington, DC, in a folder under this FOIA number.

[ ] Agency records subject to the request that are identified in Appendix(es) _____ may be inspected and copied at the NRC Local Public Document Room identified in the Comments section.

[ ] Enclosed is information on how you may obtain access to and the charges for copying records located at the NRC Public Document Room, 2120 L Street, N.W., Washington, DC.

[X] Agency records subject to the request are enclosed.

[ ] Records subject to the request have been referred to another Federal agency(ies) for review and direct response to you.

[ ] Fees

- [ ] You will be billed by the NRC for fees totaling $ _____.
- [ ] You will receive a refund from the NRC in the amount of $ _____.

[ ] In view of NRC's response to this request, no further action is being taken on appeal letter dated _____, No. _____

PART II. A—INFORMATION WITHHELD FROM PUBLIC DISCLOSURE

[X] Certain information in the requested records is being withheld from public disclosure pursuant to the exemptions described in and for the reasons stated in Part II, B, C, and D. Any released portions of the documents for which only part of the record is being withheld are being made available for public inspection and copying in the NRC Public Doc[illegible] Room, 2120 L Street, N.W., Washington, DC in a folder under this FOIA number.

COMMENTS

The review of additional records subject to your request is continuing.

FIA1
0/1

SIGNATURE, DIRECTOR, DIVISION OF FREEDOM OF INFORMATION AND PUBLICATIONS SERVICES

Russell A. Scarano

RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) REQUEST
(CONTINUATION)

FOIA NUMBER(S): FOIA – 96-351

DATE: JAN 13 1997

PART II.B – APPLICABLE EXEMPTIONS

Records subject to the request that are described in the enclosed Appendix(es) L are being withheld in their entirety or in part under the Exemption No.(s) and for the reason(s) given below pursuant to 5 U.S.C. 552(b) and 10 CFR 9.17(a) of NRC regulations.

	1.	The withheld information is properly classified pursuant to Executive Order. (Exemption 1)
	2.	The withheld information relates solely to the internal personnel rules and procedures of NRC. (Exemption 2)
	3.	The withheld information is specifically exempted from public disclosure by statute indicated. (Exemption 3)
		Sections 141-145 of the Atomic Energy Act, which prohibits the disclosure of Restricted Data or Formerly Restricted Data (42 U.S.C. 2161-2165).
		Section 147 of the Atomic Energy Act, which prohibits the disclosure of Unclassified Safeguards Information (42 U.S.C. 2167).
	4.	The withheld information is a trade secret or commercial or financial information that is being withheld for the reason(s) indicated. (Exemption 4)
		The information is considered to be confidential business (proprietary) information.
		The information is considered to be proprietary information pursuant to 10 CFR 2.790(d)(1).
		The information was submitted and received in confidence pursuant to 10 CFR 2.790(d)(2).
X	5.	The withheld information consists of interagency or intraagency records that are not available through discovery during litigation. (Exemption 5). Applicable Privilege:
	X	Deliberative Process. Disclosure of predecisional information would tend to inhibit the open and frank exchange of ideas essential to the deliberative process. Where records are withheld in their entirety, the facts are inextricably intertwined with the predecisional information. There also are no reasonably segregable factual portions because the release of the facts would permit an indirect inquiry into the predecisional process of the agency.
		Attorney work-product privilege. (Documents prepared by an attorney in contemplation of litigation.)
		Attorney-client privilege. (Confidential communications between an attorney and his/her client.)
	6.	The withheld information is exempted from public disclosure because its disclosure would result in a clearly unwarranted invasion of personal privacy. (Exemption 6)
	7.	The withheld information consists of records compiled for law enforcement purposes and is being withheld for the reason(s) indicated. (Exemption 7)
		Disclosure could reasonably be expected to interfere with an enforcement proceeding because it could reveal the scope, direction, and focus of enforcement efforts, and thus could possibly allow recipients to take action to shield potential wrongdoing or a violation of NRC requirements from investigators. (Exemption 7 (A))
		Disclosure would constitute an unwarranted invasion of personal privacy. (Exemption 7(C))
		The information consists of names of individuals and other information the disclosure of which could reasonably be expected to reveal identities of confidential sources. (Exemption 7 (D))
		OTHER

PART II. C – DENYING OFFICIALS

Pursuant to 10 CFR 9.25(b) and/or 9.25(c) of the U.S. Nuclear Regulatory Commission regulations, it has been determined that the information withheld is exempt from production or disclosure, and that its production or disclosure is contrary to the public interest. The persons responsible for the denial are those officials identified below as denying officials and the Director, Division of Freedom of Information and Publications Services, Office of Administration, for any denials that may be appealed to the Executive Director for Operations (EDO).

DENYING OFFICIAL	TITLE/OFFICE	RECORDS DENIED	APPELLATE OFFICIAL		
			EDO	SECRETARY	IG
J. Lieberman	Director, Office of Enforcement	Appendix L	X		

PART II. D – APPEAL RIGHTS

The denial by each denying official identified in Part II.C may be appealed to the Appellate Official identified there. Any such appeal must be made in writing within 30 days of receipt of this response. Appeals must be addressed, as appropriate, to the Executive Director for Operations, to the Secretary of the Commission, or to the Inspector General, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and should clearly state on the envelope and in the letter that it is an "Appeal from an Initial FOIA Decision."

Re: FOIA-96-351

APPENDIX K
RECORDS BEING RELEASED IN THEIR ENTIRETY

NO.	DATE	DESCRIPTION/(PAGE COUNT)
1.	Undated	Salem restart meeting questions (1 page)
2.	Undated	Review of AITs at Salem 1&2 (4 pages)
3.	Undated	Recommended Actions PGE&G/NRC/Other Actions (2 pages)
4.	Undated	Drawings (7 pages)
5.	Undated	Exit Meeting PSE&G and NRC Augmented Inspection Team Turbine Generator Failure Event 11/9/91 (29 pages)
6.	Undated	SAP comments for 12/11 Meeting (1 page)
7.	Undated	Attachment 1, Salem Generating Station "Review of Current Safety Performance in Selected Areas of Concern" w/attached Rev.1 of Salem SIT Findings (4/26 - 5/12) Summary of Negatives (4 pages)
8.	Undated	Draft Salem Assessment Plan which includes the Salem Assessment Schedule (Summer 1994) (5 pages)
9.	Undated	Draft letter to R. Dowling from W. Russell (2 pages)
10.	Undated	Memo to E. Wenzinger from S. Morris, Subject: Common root causes of recent significant events at Salem Generating Station with attached PSE&G Management Assessment of the 4/7/94 reactor trip (16 pages)
11.	Undated	NRC Official Record Copy Ltr to PSE&G - Steven Miltenberger - Notice of Violation and Imposition of Civil Penalty - 50-272/94-80; 50-311/94-80 - (16 pgs)
12.	11/14/91	"Preliminary Sequence of Events..." (2 pages)
13.	11/21/91	PSE&G News Release (2 pages)
14.	01/07/92	Inspection report 50-311/91-81 with annotations (23 pages)

APPENDIX K
(continued)

RECORDS BEING RELEASED IN THEIR ENTIRETY

NO.	DATE	DESCRIPTION/(PAGE COUNT)
15.	02/25/92	Memo for T. Martin from J. Partlow, Subject: R-I Request for NRR Evaluation of Generic Issues Relating to the Salem Unit 2 Turbine Overspeed Event (TAC NO. M82696) (2 pages)
16.	05/13/92	Letter to Senator J. Biden from I. Selin with enclosures (EA 94-112) (7 pages)
17.	12/15/92	Memo to C. Hehl, et al., from T. Martin, Subject: Augmented Inspection Team Charter for Review of the December 13, 1992, Annunciator System Failure at Salem 2 (5 pages)
18.	12/31/92	Salem AIT Debrief (1 page)
19.	02/02/93	Memorandum to B. Boger, Director, Division of Reactor Controls and Human Factors from J. Wermiel, Chief Instrumentation and Controls Branch, DRCHF - Emergency Action Level Regarding Loss of Annunciation - (25 pgs)
20.	02/04/93	Memorandum to J. Sniezek, from T. Murely and E. Jordan - Delcaration of Alert for Loss of Annunciators - (5 pgs)
21.	02/09/93	Note to E. McCabe, K. Barr, J. McCormick-Barger, B. Murray, B. Pate, from F. Kantor, NRR - Loss of Annunicators - (6 pgs)
22.	04/11/94	Sequence of Events (2 pages)
23.	04/12/94	Handwritten notes (1 page)
24.	05/05/94	E-mail from J. White to M. Bridgers Subject: JRW1 (1 page)
25.	05/06/94	Letter to Senator Biden from I. Selin (EA 94-112) (1 page)
26.	05/09/94	Slides: Commission Meeting Salem 4/7/94 Event Presented by T. Martin (14 pages)

APPENDIX K
(continued)

RECORDS BEING RELEASED IN THEIR ENTIRETY

NO.	DATE	DESCRIPTION/(PAGE COUNT)
27.	05/10/94	Memo for J. Taylor from T. Martin Subject: Salem 1 Augmented Inspection Team (AIT) Findings (1 page) with attachments 1. Preliminary Salem 4/7/94 Event AIT Findings (11 pages) 2. Viewgraphs from 4/26/94 Inspection Exit Meeting (21 pages)
28.	06/24/94	E-mail from R. Cooper to T. Martin, Subject: Bagman trip - Salem pilot inspection (1 page)
29.	06/24/94	Memo to Commissioners from J. Taylor, EDOSubj: Conducting Open Enforcement Conference with Salem 94-112) (2 pages)
30.	10/05/94	Memo to J. Taylor from J. Hoyle, Subject: SECY-94-242 - Proposed $500,000 Civil Penalty to Public Service Electric & Gas Company Concerning Violations at Salem Unit 1 (EA 94-112) (1 page)
31.	11/04/94	Ltr to W. Sellers, DOJ from J. Fitzgerald, Acting Director, OI (2 pages) (EA 94-239)
32.	11/22/94	Memo to T. T. Martin from B. R. Letts, Subject: Salem Generating Station, Units 1 and 2: Alleged Harassment, Intimidation, and Discrimination (Case No 1-93-021S) (1 page)
33.	01/95-05/95	Salem Unit 1 - Mech Maint 1st Level (1st line) Supervisors w/attached organization charts (3 pages)
34.	01/03-05/01/95	Salem Unit 2 Mech Maint (4 pages)
35.	05/10/95	Salem SIT Observation Rev. 2, Rev. 1, Rev. 0 (25 pages)
36.	07/06/95	Memo to J. Linville from T. Martin, Subject: Salem Assessment Panel Charter (3 pages)

APPENDIX E
(continued)

RECORDS BEING RELEASED IN THEIR ENTIRETY

NO.	DATE	DESCRIPTION/(PAGE COUNT)
37.	10/26/95	Salem Inspection Program with attached 8/2/95 Salem Assessment Panel Meeting (7 pages)
38.	11/14/95	Salem Assessment Panel Meeting (2 pages)
39.	01/12/96	Salem Restart Equipment Issues (7 pages)
40.	05/09/96	E-mail to SAP from L. Nicholson re: SAP Presentations (1 page)
41.	06/12/96	E-mail to JTW1 from L. Nicholson re: Commitments restart item
42.	06/12/96	E-mail to JTW1, LEN from A. Blough re: Commitments restart item-reply (1 page)
43.	06/21/96	E-mail to SAP from G. Barber re: Salem RAP-Revision 1 with attachment (6 pages)
44.	06/21/96	E-mail to SAP from G. Barber re: Salem CAL Item #1 with attachment (5 pages)
45.	06/25/96	E-mail to SAP from G. Barber re: Restart item closeout status (1 page)
46.	07/22/96	E-mail to SAP from R. Depriest re: Action item matrix with attachment (11 pages)
47.	08/13/96	E-mail to LEN from G. Barber re: Input on NRR assessment of Salem Unit 2 SGs tube integrity-forwarded-forwarded-reply-reply (1 page)
48.	09/03/96	E-mail to SAP from L. Nicholson re: Next SAP mtg (1 page)
49.	09/05/96	E-mail to Branch 3, ALD1 from L. Nicholson re: State interfact (1 page)
50.	09/05/96	E-mail to LEN from R. Cooper re: state Interface-reply (1 page)

APPENDIX K
(continued)

RECORDS BEING RELEASED IN THEIR ENTIRETY

NO.	DATE	DESCRIPTION/(PAGE COUNT)
51.	09/05/96	E-mail to SAP, JTW1, ARB, RRK from L. Nicholson re: Next SAP mtg (1 page)
52.	09/06/96	E-mail to CSM, ADL1, EMK, WHR, LNO, etc. from L. Nicholson with attachment (7 pages)

Re: FOIA-96-351

APPENDIX L
RECORDS BEING WITHHELD IN PART

NO.	DATE	DESCRIPTION/(PAGE COUNT)/EXEMPTIONS
1.	11/04/94	Memo to T. Martin, from J. Fitzgerald, Subject: Salem Generating Station, Alleged Harassment, Intimidation, and Discrimination (Case 1-93-021R), with OE cover sheet (dated 11/8) with handwritten notes (1 page) **EX. 5**
2.	02/23/96	Fax from R. Matakas to D. Rosano, subject: Confidential material, (EA 96-064) (3 pages) **EX. 5**

SHAW, PITTMAN, POTTS & TROWBRIDGE
A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS

2300 N STREET, N.W.
WASHINGTON, D.C. 20037-1128
(202) 663-8000
FACSIMILE
(202) 663-8007

JOHN H. O'NEILL, JR. P.C.
(202) 663-8148

FOIA/PA REQUEST
Case No. 96-351
Date Rec'd 9-3-96
Action Off:
Related Case:

August 30, 1996

Director, Division of Freedom of
Information & Publications Services
Office of Administration
U.S. Nuclear Regulatory Commission
Two White Flint North Building
11545 Rockville Pike
Rockville, MD 20852

Re: Freedom of Information Act Request Regarding the Salem Generating Station, Docket Nos. 50-272 and 50-311

Dear Sir or Madam:

This is a Freedom of Information Act request pursuant to 5 U.S.C. § 552(a)(3) and 10 C.F.R. § 9.23. We request that you make available to Shaw, Pittman, Potts & Trowbridge the documents responsive to the attached Request for Production of Documents. These documents need to be made available as soon as possible to support depositions in an accelerated legal action. In order to expedite production of the documents, we have deliberately tailored this request to be narrow in scope and straightforward in the type of documents requested. We have already obtained copies of relevant documents presently available at the N.R.C. Public Documents Room and they need not be produced again in response to this request. Of course, we agree to bear the cost of this request as per 10 C.F.R. §§ 9.23(b)(4), 9.33, 9.39, and 9.40, and we authorize you to respond to this request piecemeal as documents become available. Please contact me at (202)663-8148, or William Hollaway at (202)663-8294, at your convenience if you have any questions regarding this request.

Please direct your response, pursuant to 10 C.F.R. § 9.27, to:

William R. Hollaway, Ph.D.
Shaw, Pittman, Potts & Trowbridge
2300 N Street, N.W.
Washington, D.C. 20037-1128
(202)663-8294
Fax: (202)663-8007

9612030313 62pp

Thank you for your cooperation in this matter.

Sincerely,

John H. O'Neill, Jr.

Attachment

348107-01 / DOCSDC1

REQUEST FOR PRODUCTION OF DOCUMENTS

I. DIRECTIONS AND INSTRUCTIONS

1. The term "NRC" means the United States Nuclear Regulatory Commission, all offices and/or branches thereof specifically including, but not limited to, headquarters in Rockville, Maryland and the Region I office in King of Prussia, Pennsylvania, and also includes all employees, consultants, agents, and representatives to the maximum extent permitted by 10 C.F.R. § 9.3, unless otherwise indicated by the request.

2. The term "Salem" means one or both units of the Salem Generating Station located in Hancocks Bridge, New Jersey and operated by the Public Service Electric and Gas Company.

3. The term "SAP" means the Salem Assessment Panel that was developed in 1995 specifically to review Salem Generating Station on an ongoing basis, including all members and supervisors thereof.

4. The term "PSE&G" refers the operator of Salem, Public Service Electric and Gas Company.

5. The term "PECO Energy" refers to PECO Energy Company, formerly known as Philadelphia Electric Company.

6. The term "Delmarva" refers to Delmarva Power & Light Company.

7. The term "Atlantic Electric" refers to Atlantic City Electric Company.

8. The term "SALP" means the Strategic Assessment of Licensee Performance, a comprehensive review of plant performance, performed for each plant on an 18-month cycle. The most recent SALP review for Salem was issued on January 3, 1995.

9. The term "Enforcement Action" means a civil penalty levied by the NRC against the licensees of Salem pursuant to single or multiple violations at Salem. The most recent Enforcement Action regarding Salem was issued on October 16, 1995.

10. The term "AIT" means the Augmented Inspection Teams that performed investigations of Salem in 1992, 1993, and 1994, including all members and supervisors thereof.

11. The term "SIT" means the Special Inspection Team that performed an investigation of Salem in 1995, including all members and supervisors thereof.

12. The term "PA" means the comprehensive Performance Assessment evaluation of Salem performed in July-August, 1995 to aid in focusing future NRC inspection resources at Salem.

13. The term "Confirmatory Action Letter" means the letter from the NRC to PSE&G on June 9, 1995 confirming PSE&G commitments to take specific actions prior to the restart of Salem and confirming that failure to take these actions may result in enforcement action.

II. DOCUMENTS REQUESTED

1. All documents concerning the NRC's Salem Assessment Panel ("SAP") established on August 2, 1995, especially including but not limited to:

   a. All internal NRC discussions concerning the formation and purpose of the SAP;

   b. Transcripts, meeting minutes, summaries, and handouts of all meetings of the SAP;

   c. Lists of attendees at all meetings of the SAP;

   d. All materials presented to the SAP;

   e. All notes taken during presentations and meetings of the SAP;

   f. All reports or memoranda of the SAP;

   g. All reports or memoranda written by any members of the SAP concerning Salem.

2. All documents concerning the NRC's Systematic Assessment of Licensee Performance ("SALP") reviews of Salem from 1990 through the present, especially including but not limited to:

   a. Transcripts, meeting minutes, summaries, and handouts of all NRC meetings on the Salem SALP reports;

   b. Lists of attendees at all meetings on the Salem SALP reports;

   c. Variances, differences or changes between consecutive Salem SALP reports;

   d. Internal NRC discussions about interim drafts of the Salem SALP reports;

   e. Internal NRC discussions about final drafts of the Salem SALP reports;

f. Internal NRC discussions about variances, differences or changes between interim reports and the final Salem SALP reports;

g. The basis for each of the findings in the Salem SALP reports;

h. Region I's knowledge of issues raised in the Salem SALP reports;

i. Region I's knowledge of PSE&G's plans to address issues raised in the various Salem SALP reports;

j. Internal Region I discussions concerning the findings and conclusions expressed in the Salem SALP reports;

k. Whether NRC or Region I ever expressed any concerns about poor or declining performance or the like to PSE&G related to the Salem SALP reports;

l. Communications between NRC and Region I personnel concerning consistencies or inconsistencies between the various Salem SALP reports;

m. All documents setting forth or discussing the deliberations and considerations of the SALP boards reviewing Salem performance from 1990 to the present;

n. To the extent not covered by previous requests, all other documents regarding the Salem SALP reports.

3. All documents concerning potential and actual NRC enforcement actions regarding Salem from 1990 to the present, including but not limited to:

a. Transcripts, meeting minutes, summaries, and handouts from all Enforcement Conferences concerning Salem between NRC and PSE&G, including but not limited to meetings on February 2, 1992; April 9, 1992; April 6, 1993; February 1, 1994; July 28, 1994; February 10, 1995; June 1, 1995; June 23, 1995; July 13, 1995; and July 28, 1995;

b. Lists of attendees at all Enforcement Conferences concerning Salem between NRC and PSE&G;

c. Transcripts, meeting minutes, summaries, and handouts from all internal NRC meetings concerning enforcement actions regarding Salem;

d. Lists of attendees at all internal NRC meetings concerning enforcement actions regarding Salem;

e. Communications with PSE&G concerning potential and actual NRC enforcement actions regarding Salem;

f. Communications with others concerning potential and actual NRC enforcement actions regarding Salem, especially including but not limited to PECO Energy, Delmarva, and Atlantic Electric;

g. Internal NRC discussions concerning potential NRC enforcement actions regarding Salem;

h. Internal NRC discussions concerning actual NRC enforcement actions regarding Salem, including but not limited to the $50,000 civil penalty issued March 9, 1994; the $500,000 civil penalty issued October 5, 1994; $80,000 civil penalty issued April 11, 1995; and the $600,000 civil penalty issued October 16, 1995;

i. The basis and rationale for taking each of the enforcement actions regarding Salem;

j. Internal NRC discussions about drafts of the enforcement actions regarding Salem;

k. Internal NRC discussions concerning the findings and conclusions expressed in the enforcement actions regarding Salem;

l. Internal NRC discussions concerning PSE&G's responses to each of the enforcement actions regarding Salem;

4. All documents concerning meetings between the NRC and PSE&G management or Board of Directors concerning the performance of Salem from 1990 to the present, including but not limited to:

a. Transcripts, meeting minutes, summaries, and handouts from all meetings, including but not limited to meetings on June 25, 1992; July 1, 1992; October 10, 1992; July 16, 1993; July 18, 1993; August 6, 1993; May 7, 1994; March 20, 1995; March 21, 1995; April 3, 1995; June 5, 1995; and May 24, 1996;

b. Lists of attendees at all such meetings;

c. Communications with PSE&G concerning such meetings;

d. Communications with others concerning such meetings, especially including but not limited to PECO Energy, Delmarva, and Atlantic Electric;

e. Internal NRC discussions concerning such meetings.

5. All documents concerning the NRC Augmented Inspection Team ("AIT") investigations of incidents at Salem from November 11-December 3, 1991; December 14-23, 1992; June 5-28, 1993; and around April 1994, including but not limited to:

a. Transcripts, meeting minutes, summaries, and handouts from all AIT meetings regarding Salem;

b. Lists of attendees at all AIT meetings regarding Salem;

c. Communications with PSE&G concerning the AIT investigations at Salem and AIT meetings regarding Salem;

d. Communications with others concerning the AIT investigations at Salem and AIT meetings regarding Salem, especially including but not limited to PECO Energy, Delmarva, and Atlantic Electric;

e. Internal NRC discussions concerning the AIT meetings regarding Salem;

f. The reasons why the NRC decided to do the AIT investigations at Salem.

g. The basis for each of the findings in the AIT reports of investigations at Salem;

h. Notes taken by inspectors during and after the AIT investigations at Salem;

i. Internal NRC discussions about interim drafts of the AIT reports of investigations at Salem;

j. Internal NRC discussions about final drafts of the AIT reports of investigations at Salem;

k. Internal NRC discussions concerning the findings and conclusions expressed in the AIT reports of investigations at Salem.

6. All documents concerning the NRC Special Inspection Team ("SIT") review of Salem performance from March 26-May 12, 1995, including but not limited to:

a. Transcripts, meeting minutes, summaries, and handouts from all SIT meetings regarding Salem;

b. Lists of attendees at all SIT meetings regarding Salem;

c. Communications with PSE&G concerning the SIT investigation at Salem and SIT meetings regarding Salem;

d. Communications with others concerning the SIT investigation at Salem and SIT meetings regarding Salem, especially including but not limited to PECO Energy, Delmarva, and Atlantic Electric;

e. Internal NRC discussions concerning the SIT meetings regarding Salem;

f. The reasons why the NRC decided to perform the SIT investigation at Salem;

g. The basis for each of the findings in the SIT report regarding Salem;

h. Notes taken by inspectors during the SIT investigation at Salem;

i. Internal NRC discussions about interim drafts of the SIT report regarding Salem;

j. Internal NRC discussions about final drafts of the SIT report regarding Salem;

k. Internal NRC discussions concerning the findings and conclusions expressed in the SIT report regarding Salem.

7. All documents concerning the NRC's Performance Assessment ("PA") review of Salem from July 11-August 25, 1994, including but not limited to:

a. Transcripts, meeting minutes, summaries, and handouts from all meetings concerning the PA review regarding Salem;

b. Lists of attendees at all meetings concerning the PA review regarding Salem;

c. Communications with PSE&G concerning the PA review and PA review meetings regarding Salem;

d. Communications with others concerning the PA review and PA review meetings regarding Salem, especially including but not limited to PECO Energy, Delmarva, and Atlantic Electric;

e. Internal NRC discussions concerning the PA review meeting regarding Salem;

f. The reasons why the NRC decided to do a PA review regarding Salem;

g. The basis for each of the findings in the report regarding the PA review regarding Salem;

h. Notes taken during the PA review regarding Salem;

i. Internal NRC discussions about interim drafts of the PA review report regarding Salem;

j. Internal NRC discussions about final drafts of the PA review report regarding Salem;

k. Internal NRC discussions concerning the findings and conclusions expressed in the PA review report regarding Salem.

8. All documents concerning the Confirmatory Action Letter of June 9, 1995 (CAL No. 1-95-009), including but not limited to:

   a. Communications with PSE&G concerning the Confirmatory Action Letter;

   b. Communications with others concerning the Confirmatory Action Letter, especially including but not limited to PECO Energy, Delmarva, and Atlantic Electric;

   c. Internal NRC discussions concerning the Confirmatory Action Letter;

   d. Discussions with Region I concerning non-final drafts of the Confirmatory Action Letter;

   e. Discussions with Region I concerning final drafts of the Confirmatory Action Letter;

   f. Region I's knowledge of the issues raised in the Confirmatory Action Letter;

   g. Region I's knowledge of PSE&G's plans to address issues raised in the Confirmatory Action Letter.

348574-01 / DOCSDC1

SALEM RESTART MEETING QUESTIONS

1* IS SALEM 1 READY TO RESTART? WHY?

2* ARE ALL REQUIRED CORRECTIVE ACTIONS COMPLETED?

? 3* WHY HAVEN'T PREVIOUS CORRECTIVE ACTIONS BEEN EFFECTIVE IN PREVENTING THIS OR ANY OF THE PREVIOUS SIGNIFICANT EVENTS AT SALEM?

CONNECTIVITY

[11/91 AIT-TURBINE, 12/92 AIT-ANNUNCIATOR, 5/93 AIT CONTROL RODS]

? 4* YOUR PREVIOUS "COMPREHENSIVE PERFORMANCE ASSESSMENT TEAM" [CPAT] IDENTIFIED MANAGEMENT, EQUIPMENT AND PROCEDURE PROBLEMS. HAS THIS EVENT DISCLOSED ADDITIONAL DEFICIENCIES? DOES THIS EVENT CHANGE THE PRIORITIES OF THE CPAT IDENTIFIED CORRECTIVE ACTIONS?

INTEGRATED PLAN

? 5* RESTART ISSUES YOU HAVE IDENTIFIED TO DATE HAVE INCLUDED OPERATOR, HARDWARE AND PROCEDURE IMPROVEMENTS. HAVE YOU IDENTIFIED ANY MANAGEMENT OR SUPERVISORY ISSUES REQUIRING EITHER SHORT OR LONG TERM CORRECTIVE ACTIONS?

HOW WE

6* OPERATORS MADE AN NUMBER OF ERRORS DURING THIS EVENT. WHAT ACTIONS HAVE BEEN TAKEN TO IMPROVE OPERATOR PERFORMANCE?

? 7* EQUIPMENT PROBLEMS WERE SIGNIFICANT CONTRIBUTORS TO THIS EVENT, IF NOT PART OF THE ROOT CAUSE. SOME OF THE PROBLEMS INVOLVED HAVE BEEN AROUND FOR AWHILE, SOME FOR YEARS. HAVE YOU LOOKED TO SEE WHAT OTHER PROBLEMS EXIST AT SALEM THAT HAVE BEEN "WORKED AROUND"? WHAT HAS BEEN DONE TO IDENTIFY AND CORRECT THESE PRIOR TO START UP OF UNIT 1? WHY IS IT ACCEPTABLE TO NOT CORRECT SOME OF THESE ISSUES PRIOR TO START UP?

~~WHY~~ NEW HYPOTHESIS

e.g.:
- RESET-WINDUP
- STEAM FLOW INSTRUMENT SENSITIVITY TO PRESSURE PULSES
- STEAM FLOW TRIP CIRCUIT SENSITIVITY TO ELECTRICAL NOISE.
- STEAM FLOW INSTRUMENT CALIBRATION DRIFT
- STEAM FLOW LOGIC INPUT RELAY "CHATTERING"
- REACTOR CONTROL CIRCUIT PROBLEMS
- GRASS INTRUSION

? 8* WHEN WILL CHANGES MADE TO UNIT 1 BE COMPLETED ON UNIT 2? WHY IS IT OK TO WAIT TO PERFORM THE MODIFICATIONS AT UNIT 2?

U2 Op

9* HAVE NEEDED PROCEDURE CHANGES IDENTIFIED BY THIS EVENT BEEN MADE FOR BOTH UNITS?

10* WHAT DO YOU PLAN TO DO TO ADDRESS THE GRASS INTRUSION PROBLEM, SHORT AND LONG TERM?

11* WHAT ACTIONS WILL YOU TAKE TO VERIFY THE EFFECTIVENESS OF YOUR CORRECTIVE ACTIONS?

K11

REVIEW OF AITs AT SALEM 1&2

root causes? FPM?

- **Unit 2, November 9, 1991:** Turbine overspeed event during conduct of routine turbine testing. Turbine damaged and generator damaged by hydrogen and oil fed fire that occurred.

- **Unit 2, December 13, 1992:** Control room overhead annunciator system out of service for 90 minutes before discovery by control room operators.

- **Unit 2, May and June, 1993:** Multiple failures of rod control system during startup following the unit's seventh refueling outage.

- **Unit 1, April 7, 1994:** Reactor scram with multiple safety injection actuations complicated by anomalous equipment responses.

REGIONAL RESPONSE TO UNIT 1 TRIP & AIT IMPLEMENTATION

- PSE&G calls resident staff on 4/7/94, and informs them of unit trip. SRI responds to control room (CR) at 1115. Continuous resident coverage in the CR until arrival of AIT on the morning of 4/8/94.

- Resident staff informs NRC of situation from phone line in CR. PSE&G declares Unusual Event at 1100 and later declares an Alert at 1316. Region I activates response center in monitoring mode at 1300; PSE&G terminates Alert at 2020.

- Following discussions between Bill Kane, Region I DRA, and headquarters managers (NRR and AEOD), decision made to send an Augmented Inspection Team (AIT) to the site to investigate this event.

- AIT initiated in accordance with NRC Management Directive 8.3, NRC Incident Investigation Program, and NRC Manual Chapter 0325, Augmented Inspection Team.

AIT INSPECTION AND FOLLOWUP ACTIVITIES

- AIT arrived on site 4/8/94 and completed on-site inspection activities on 4/15/94.
- AIT leader maintains daily contact with Region I and Headquarters managers on AIT status, team findings and their significance, and PSE&G's activities and findings.
- AIT post-site activities conducted in Region I: investigation documentation, data analysis, and report preparation.
- AIT preliminary findings presented to PSE&G at public exit meeting held on 4/26/94 at the Salem Processing Center, near the Salem facility.
- Resident staff performs inspection for restart issues identified by the AIT.
- Region I managers brief Senator Biden's staff on 5/5/94 about this event and other issues related to PSE&G's operation of the Salem units.
- Public meeting held on 5/6/94 at the Salem Processing Center, so PSE&G could present their findings and corrective actions for this event, and to explain their readiness for plant restart.
- Commissioner briefing conducted on 5/9/94.
- AIT report to be issued by end of May, 1994.

MAJOR ACTIONS TAKEN PER NRC MANUAL CHAPTER 0325

- Per 05.02.a., AIT initiated because of multiple failures in safety systems during the event and possible operator errors.

- Per 03.02.d., AIT Team Leader selected; Bob Summers, Project Engineer, Division of Reactor Projects, Region I. Other team members from Region I, and Headquarters specialists, assigned to the AIT.

- Per 03.02.f., AIT Charter developed and issued on 4/8/94. Charter stated basis for performing the AIT and team was assigned the following major objectives:

  - Conduct a thorough review of the scram and loss of the pressurizer steam bubble
  - Assess the operators' actions prior to and following the scram
  - Develop a sequence of events and causal factors for the plant's and operators' responses and human factors associated with the event and compare expected to actual plant response
  - Review PSE&G's event classification and notifications for appropriate responses
  - Examine the equipment failures and identify any associated root causes

- Per 03.02.h., Confirmatory Action Letter (CAL) 1-94-005 issued on 4/8/94. In the CAL, PSE&G agreed to coordinate certain activities with the AIT leader, to make various equipment, documentation and personnel available to the AIT, and gain agreement of the Regional Administrator prior to commencing any plant startup.

RECOMMENDED ACTIONS

PSE&G

REVIEW AND AMEND CONTROLS FOR COMMITMENT TRACKING SYSTEM TO ASSURE COMMITMENTS ARE EXECUTED AS INTENDED

ESTABLISH CM AND PM PROGRAM FOR SOLENOIDS

ESTABLISH SURVEILLANCE TEST THAT HYDRAULICALLY AND ELECTRICALLY VERIFIES VALVE FUNCTION FOR EACH UNIT

REVIEW AND REVISE FRONT STANDARD TEST SUCH THAT THE FOUR TRIP AND ONE SOLENOID TRIP ARE NOT BYPASSED AT THE SAME TIME

REVIEW RISK ASSESSMENT FOR FREQUENT TRIP TESTING

IMPROVE TRIP INSTRUMENTATION RELATIVE TO CONFIGURATION, INDICATION OF TRIP DEMAND, CALIBRATION OF INSTRUMENTS, INDICATION OF ROTOR SPEED, AND LABELLING OF INSTRUMENTS

AMEND TS 3/4.3.4 FOR CONSTRUCTION AND INTERPRETATION BETTERMENT

REVIEW AND EVALUATE OPERATING PHILOSOPHY, COMMUNICATIONS, TRAINING, AND ATTITUDE THAT WOULD ALLOW OPERATORS AND MANAGERS TO DISREGARD OR FAIL TO COMPLETE REQUIRED OPERATING PROCEDURES. TAKE CORRECTIVE ACTIONS AS NECESSARY.

SUBJECT FRONT STANDARD TEST PROCEDURE FOR PROCEDURE UPGRADE BEFORE NEXT EXECUTION

ANALYSIS PROCEDURE AND TEST METHOD RELATIVE TO HUMAN FACTOR CONSIDERATIONS

REVIEW POLICY AND INSTRUCTIONS RELATIVE TO SENIOR SHIFT SUPERVISOR ACTIVELY PARTICIPATING IN TESTS.

REVIEW PROCEDURES RELATIVE TO FIRE MITIGATION AS REGARDS CONTROL OF MATERIALS (OIL) THAT MAY CONTRIBUTE TO FIRE IN PROGRESS

ASSESS PROGRAM FOR OPERATING EVENTS OCCURRENCES AND THE METHOD AND PRIORITY USED TO INCORPORATE THOSE EXPERIENCES INTO PLANT OPERATIONS

K|3

NRC

REVIEW AGENCY FOCUS ON SAFETY RELATED SYSTEMS, STRUCTURES, AND COMPONENTS AND HOW IT DIRECTS THE ACTIVITIES AND ATTENTION OF LICENSEE PROGRAMS VS. BALANCE OF PLANT ACTIVITIES THAT MAY DIRECTLY OR INDIRECTLY AFFECT REACTOR PLANT CONTROL AND SYSTEMS. (TURBINE TRIP CAUSING REACTOR TRIP)

ESTABLISH BETTER UNDERSTANDING AND EXPERTISE IN TURBINE GENERATOR SYSTEMS

REVIEW STANDARD REVIEW PLAN FOR TURBINE MISSILE GENERATION FOR CONSIDERATION OF PROBABILISTIC DETERMINATION VS. DETERMINISTIC APPROACH.

REVIEW CONSTRUCTION AND INTENT OF TS 3/4.3.4. REVISE ACCORDINGLY.

CONSIDER ESTABLISHING REPORTABILITY CRITERIA AND INCREASED NRC REGULATORY ATTENTION (LICENSING AND INSPECTION ACTIVITIES) TO NON-SAFETY RELATED EVENTS AND CAUSES THAT HAVE THE POTENTIAL TO AFFECT NUCLEAR SAFETY.

DEVELOP INFORMATION NOTICE ON THIS OCCURRENCE

OTHER ACTIONS

CONSIDER ENFORCMENT ACTIONS RELATIVE TO OPERATOR AND MANAGERS FAILING TO ADHERE TO TURBINE START-UP PROCEDURE 10/21/91.

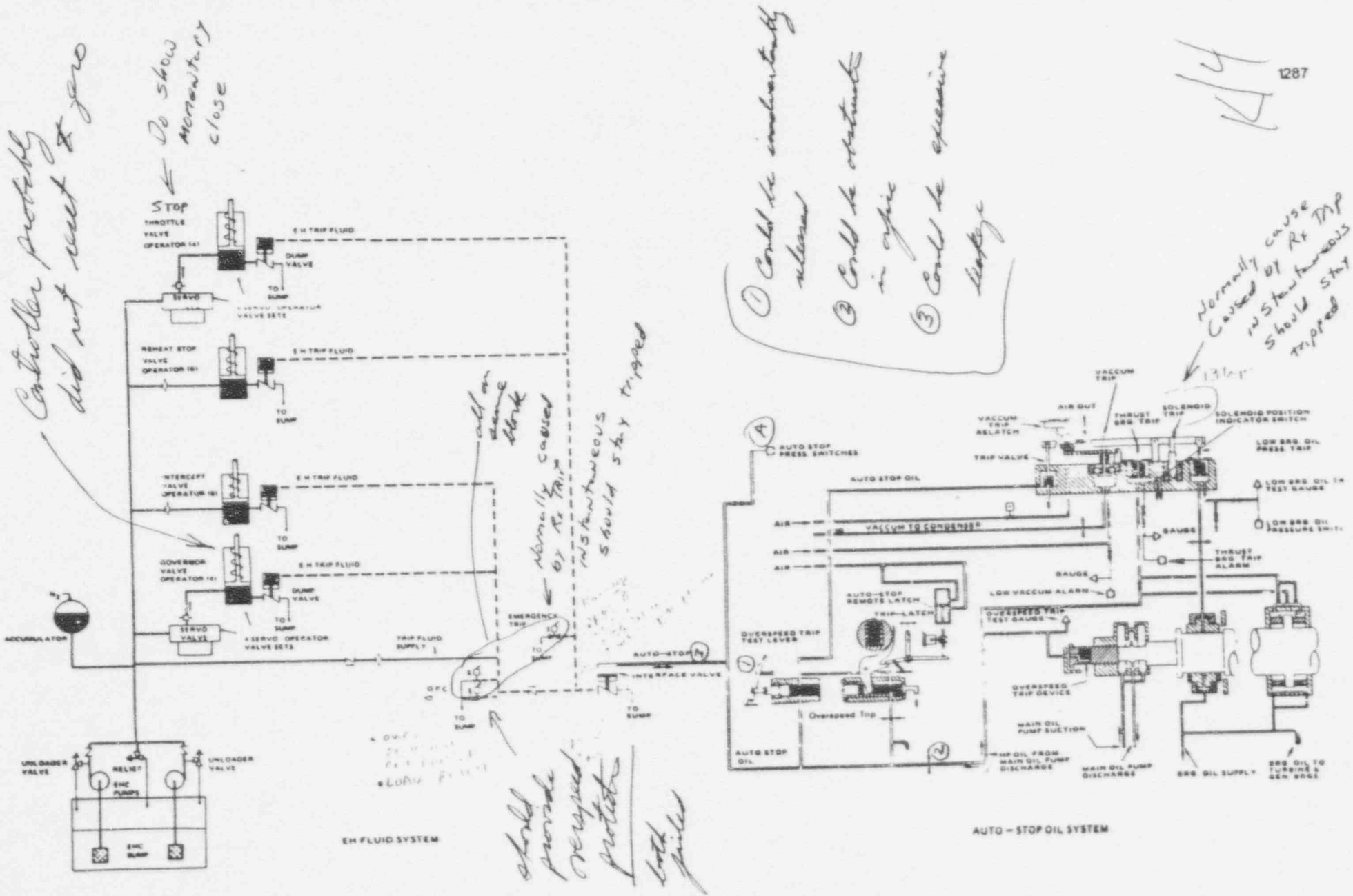
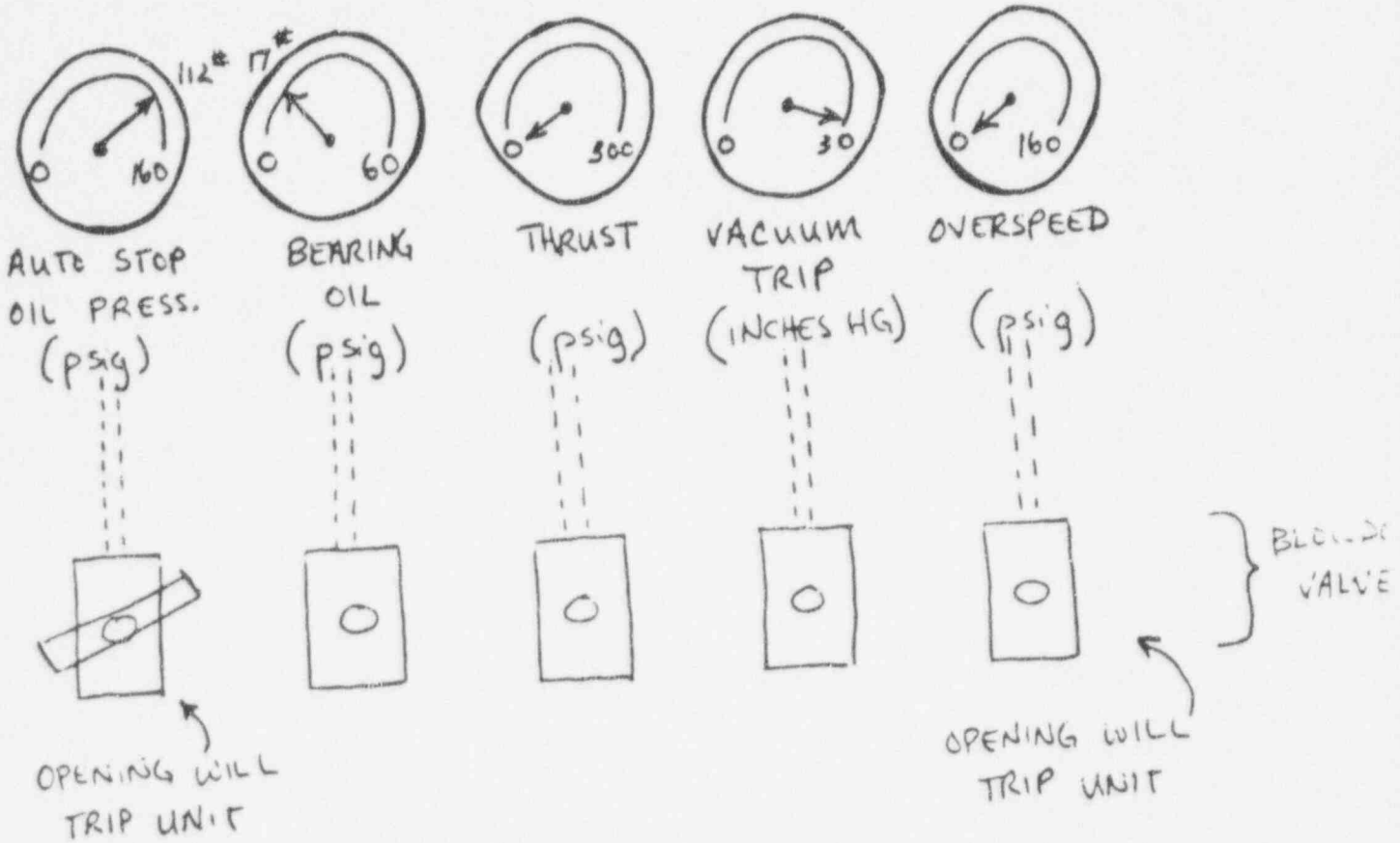
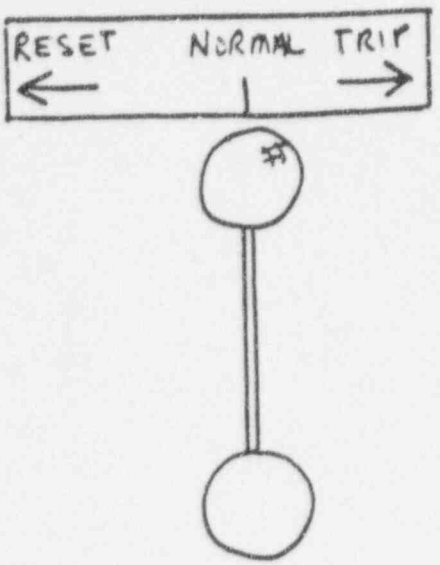


Figure 11.3-2 EH Fluid and Auto-Stop Oil Systems

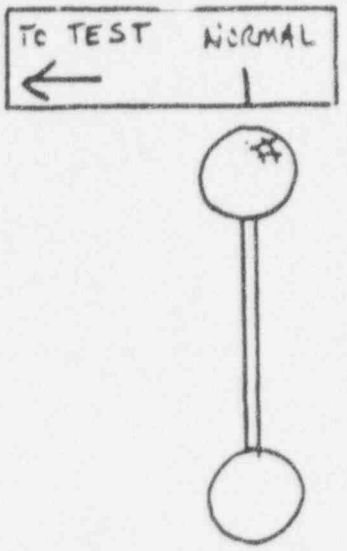
INSIDE WEST SIDE DOOR # 2 H.P. SHELL



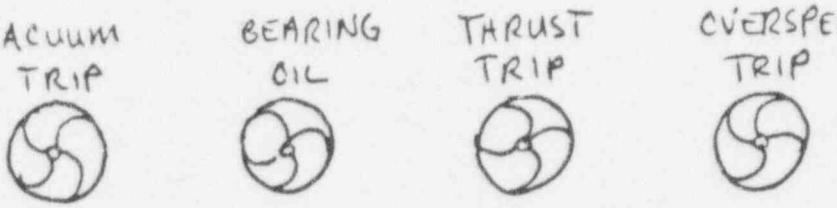
FRONT STANDARD



MANUAL TRIP/RESET LEVER
OR
TRIP-LATCH LEVER

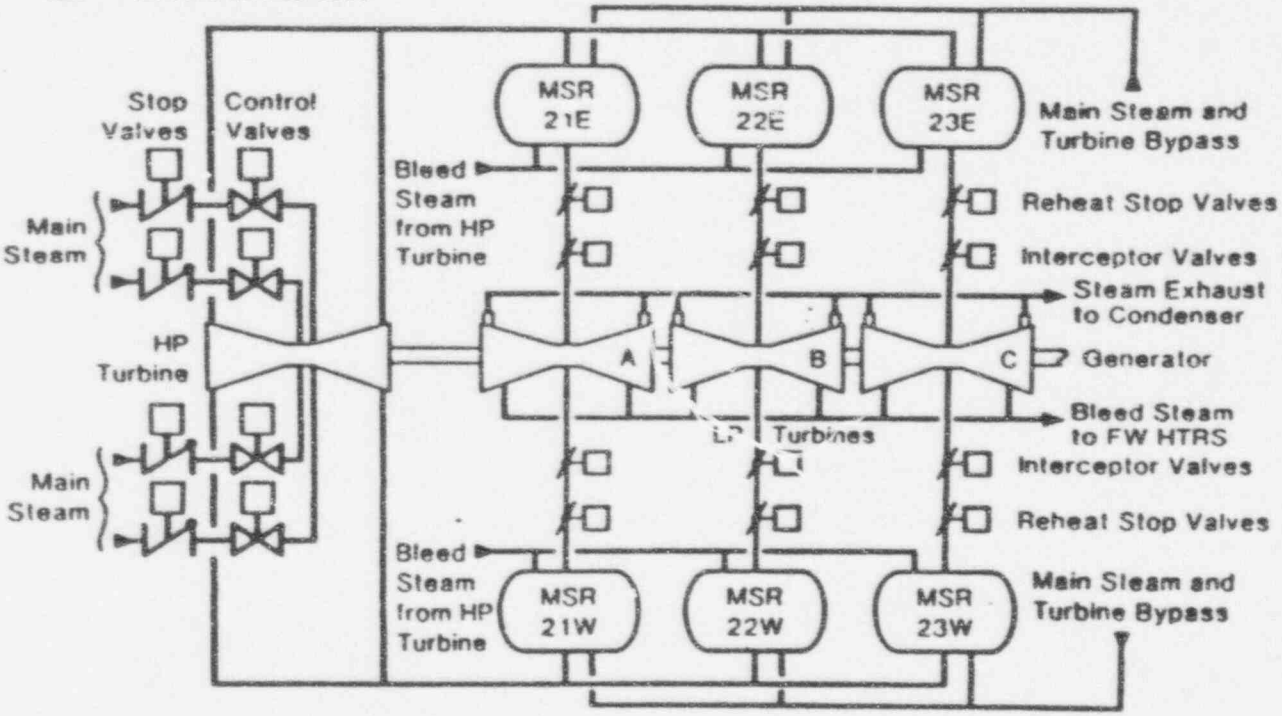


MANUAL TEST LEVER
OR
OVERSPEED TRIP TEST LEVER

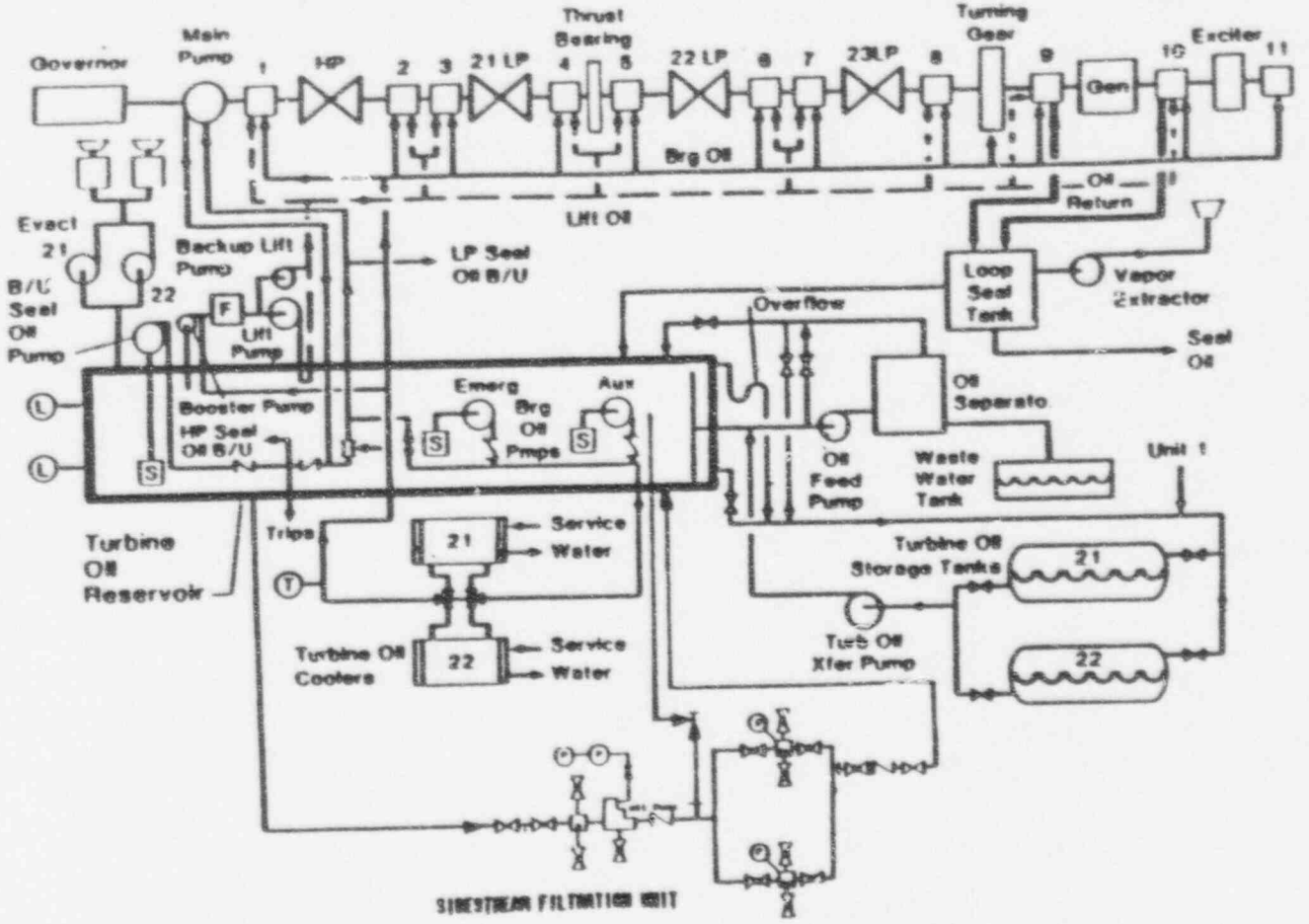


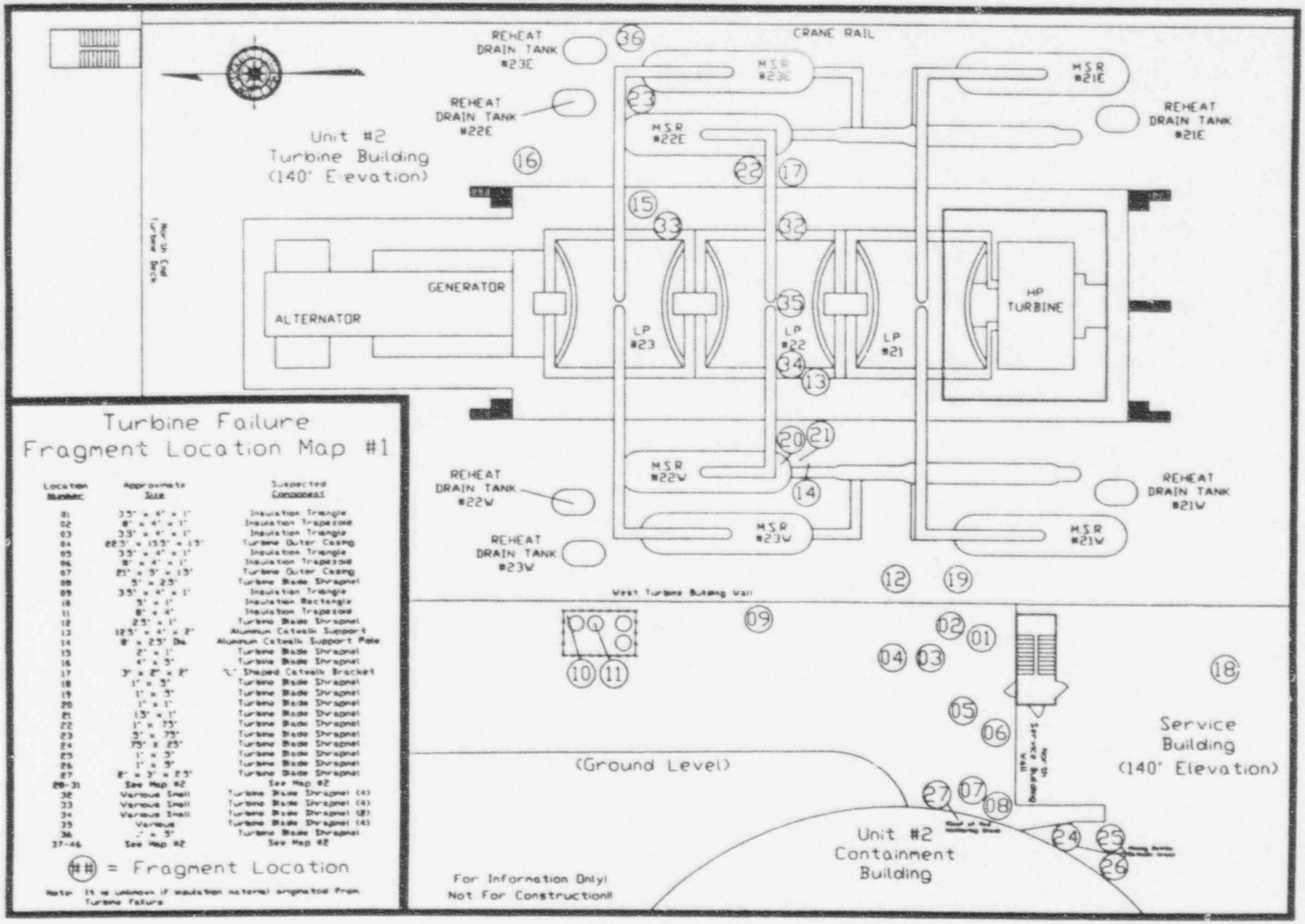
TURN LEFT TO TEST

SIMPLIFIED TURBINE STEAM FLOW DIAGRAM



LUBRICATING OIL SYSTEM



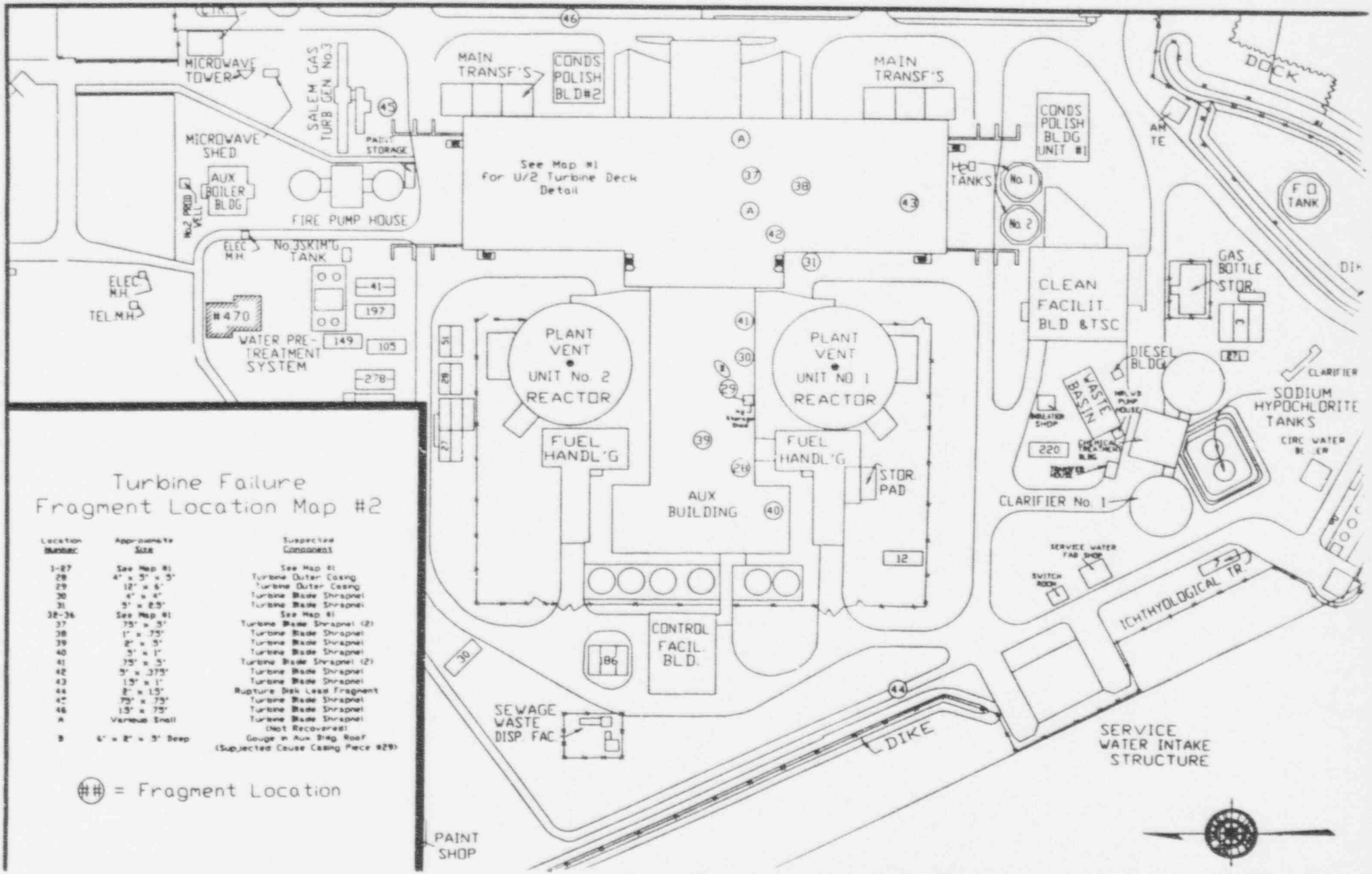


Turbine Failure Fragment Location Map #1

Location Number	Approximate Size	Suspected Component
01	3.5" x 4" x 1"	Insulation Triangle
02	8" x 4" x 1"	Insulation Trapezoid
03	3.5" x 4" x 1"	Insulation Triangle
04	88.5" x 15.5" x 1.5"	Turbine Outer Casing
05	3.5" x 4" x 1"	Insulation Triangle
06	8" x 4" x 1"	Insulation Trapezoid
07	21" x 5" x 1.5"	Turbine Outer Casing
08	5" x 2.5"	Turbine Blade Shrapnel
09	3.5" x 4" x 1"	Insulation Triangle
10	5" x 1"	Insulation Rectangle
11	8" x 4"	Insulation Trapezoid
12	2.5" x 1"	Turbine Blade Shrapnel
13	125" x 4" x 2"	Aluminum Catwalk Support
14	8" x 2.5" Dia.	Aluminum Catwalk Support Pole
15	2" x 1"	Turbine Blade Shrapnel
16	4" x 5"	Turbine Blade Shrapnel
17	3" x 2" x 2"	"L" Shaped Catwalk Bracket
18	1" x 5"	Turbine Blade Shrapnel
19	1" x 5"	Turbine Blade Shrapnel
20	1" x 1"	Turbine Blade Shrapnel
21	1.5" x 1"	Turbine Blade Shrapnel
22	1" x 7.5"	Turbine Blade Shrapnel
23	5" x 7.5"	Turbine Blade Shrapnel
24	7.5" x 2.5"	Turbine Blade Shrapnel
25	1" x 5"	Turbine Blade Shrapnel
26	1" x 5"	Turbine Blade Shrapnel
27	8" x 3" x 2.5"	Turbine Blade Shrapnel
28-31	See Map #2	See Map #2
32	Various Small	Turbine Blade Shrapnel (4)
33	Various Small	Turbine Blade Shrapnel (4)
34	Various Small	Turbine Blade Shrapnel (2)
35	Various	Turbine Blade Shrapnel (4)
36	2" x 5"	Turbine Blade Shrapnel
37-46	See Map #2	See Map #2

(##) = Fragment Location

Note: It is unknown if insulation material originated from Turbine failure



Turbine Failure
Fragment Location Map #2

Location Number	Approximate Size	Suspected Component
1-27	See Map #1	See Map #1
28	4' x 5' x 5'	Turbine Outer Casing
29	12' x 6'	Turbine Outer Casing
30	4' x 4'	Turbine Blade Shrapnel
31	5' x 2.5'	Turbine Blade Shrapnel
32-36	See Map #1	See Map #1
37	.75' x .5'	Turbine Blade Shrapnel (2)
38	1' x .75'	Turbine Blade Shrapnel
39	2' x .5'	Turbine Blade Shrapnel
40	.5' x 1'	Turbine Blade Shrapnel
41	.75' x .5'	Turbine Blade Shrapnel (2)
42	5' x .375'	Turbine Blade Shrapnel
43	1.5' x 1'	Turbine Blade Shrapnel
44	2' x 1.5'	Rupture Disk Lead Fragment
45	.75' x .75'	Turbine Blade Shrapnel
46	1.5' x .75'	Turbine Blade Shrapnel
A	Various Small	(Not Recovered)
B	6' x 2' x 5' Deep	Gouge in Aux Bldg. Roof (Suspected Cause Casing Piece #29)

(##) = Fragment Location

1300 TJCSDTM

Follow up Diana info documentation
Computer scan Fina distortion
Plugged orifice
Solenoid failure mode

EXIT MEETING

PUBLIC SERVICE ELECTRIC AND GAS COMPANY

AND

NRC AUGMENTED INSPECTION TEAM

NRC INSPECTION NO. 50-311/91-81

SALEM NUCLEAR GENERATING STATION, UNIT 2

TURBINE GENERATOR FAILURE EVENT NOVEMBER 9, 1991

K15

SLIDE 2

1. NRC INCIDENT/ACCIDENT INVESTIGATION EFFORTS

   1. INCIDENT INVESTIGATION TEAM - IIT

      SIGNIFICANT EVENTS (operations, radiological releases, major deficiencies, unique)

      TEAM LEADER - SENIOR EXECUTIVE SERVICE

      STAFF IS UNASSOCIATED WITH THE FACILITY

   2. AUGMENTED INSPECTION TEAM - AIT

      EVENTS HAVING LESS SAFETY CONCERN THAN IIT (generic implications, unknown or complicate probable cause, difficult to understand)

      TEAM LEADER - BRANCH OR SECTION CHIEF

      STAFF MAY BE ASSOCIATED WITH THE FACILITY

SLIDE 3

2. AUGMENTED INSPECTION TEAM - PURPOSE AND SCOPE

1. CHARTER

1. DETERMINE: CIRCUMSTANCES, SEQUENCE OF EVENTS

REVIEW: TEST PROCEDURE, FUNCTION AND OPERATION OF T-G PROTECTION SYSTEMS

DETERMINE (if possible):
ROOT CAUSE(S), GENERIC IMPLICATIONS

2. EVALUATE:PSE&G ACTIONS RELATIVE TO EMERGENCY PLAN, OPERATOR/STAFF RESPONSE, FIRE PROTECTION, MANAGEMENT RESPONSE, NOTIFICATION AND REPORTABILITY

SLIDE 4

3. EVALUATE: PLANT SYSTEM AVAILABILITY, SAFETY SYSTEM IMPACT, PLANT STABILITY AND SHUTDOWN, ANALYSIS OF EVENT, CORRECTIVE ACTIONS, DAMAGE ASSESSMENT, REPAIR SCHEDULE.

4. REVIEW: MISSILE HAZARD WITHIN DESIGN BASIS ENVELOPE

5. DETERMINE OTHER GENERIC ISSUES (if any)

2. AIT STAFF

THOMAS JOHNSON - SENIOR RESIDENT INSPECTOR
(SALEM/HOPE CREEK), DRP, RI

STEVE BARR - RESIDENT INSPECTOR (SALEM)
DRP, RI

DAVID SILK - SENIOR OPERATIONS ENGINEER
DRS, RI

ROY MATHEWS - SENIOR ENGINEERING SPECIALIST
DRS, RI

JOHN TSAO - SENIOR MATERIALS ENGINEER,
NRR

STEVE JONES - REACTOR SYSTEMS ENGINEER,
NRR

TECHNICAL/ADMINISTRATIVE SUPPORT:
ROBERT SCHAAF - REACTOR ENGINEER INTERN, DRP, RI

TEAM LEADER:
JOHN WHITE - CHIEF, REACTOR PROJECTS SECTION 2A

SLIDE 6

Unit 1 Forced Outage Oct 21 Procedure not followed - Testing

3. EVENT DESCRIPTION

1. SUMMARY

NOVEMBER 9, 1991 - SALEM 2 AT 100% POWER;

11:21 A.M., EXPLOSION AND FIRE SUSTAINED AT GENERATOR;

PROJECTILES EJECTED FROM LP TURBINE UNIT;

11:21 A.M., REACTOR TRIPPED PER DESIGN;

FIRE CONTROLLED AND EXTINGUISHED RAPIDLY;

SLIDE 7

NO DAMAGE TO REACTOR SAFETY SYSTEMS OR CONTAINMENT BUILDING;

NO PERSONNEL INJURIES;

11:40 A.M.	UNUSUAL EVENT DECLARED - FIRE
12:40 P.M.	ALERT DECLARED - POTENTIAL SAFETY SYSTEM DAMAGE DUE TO PROJECTILES (de-escalated)
2:40 P.M.	UNUSUAL EVENT TERMINATED

OFF-SITE NOTIFICATIONS MADE

1:00 - 2:00 P.M.	NRC RESIDENT STAFF RESPONDED TO SITE 11/9/91 FOR PRELIMINARY ASSESSMENT AND SAFETY REVIEW

SEVERE DAMAGE INCLUDED: LP 22 TURBINE, GENERATOR UNIT, 22 CONDENSER, AND ASSOCIATED SUPPORT STRUCTURES, SYSTEMS, AND COMPONENTS;

LESSER DAMAGE TO ADJACENT COMPONENTS, STRUCTURES, SYSTEMS, AND AREAS IN THE TURBINE BUILDING

(HP TURBINE, LP 21, LP23, 21 AND 23 CONDENSER, HOTWELLS, EXCITER, INTERPHASE BUSES, GENERATOR CONTROL/MONITORING EQUIPMENT, AUXILIARY AND SUPPORT EQUIPMENT FOR TURBINE AND GENERATOR)

REACTOR STABILIZED 11/9, HOT SHUTDOWN 11/10, COLD SHUT DOWN 11/11, ESTABLISHED NORMALLY

SLIDE 9

2. PRIMARY SEQUENCE OF EVENTS (SUMMARY)

TIME	PRIMARY EVENT	OTHER EVENTS/COMMENTS
0630	RETURN FROM 80%	PREVIOUS SOLAR MAGNETIC DISTURBANCE
1100	3 OPERATORS INITIATE TURBINE TESTING	AUTO-STOP TRIP MECHANISM BYPASSED (13 trip functions)
1121	3 LOW AUTO-STOP OIL PRESSURE	INTERFACE OPENS TO RELEASE TRIP FLUID
1121/0 SEC	REACTOR TRIP	AST-20, RTB A (bypassed); ET-20, RTB B; OUTPUT BKR EXPECTED TO OPEN IN 30 SEC.

SLIDE 10

TIME	PRIMARY EVENT	OTHER EVENTS/COMMENTS
1121/0 SEC	TURBINE STOP VALVES CLOSE	CONFIRMED BY LOAD DISPATCHER EVENT LOG (within 1 sec); TURBINE ISOLATED FROM STEAM; ONE OPERATOR HEARD NOISE; PRESUME STEAM DUMPS OPEN TO LOWER Tave TO 547
1121/1.5 SEC	AUTO-STOP OIL PRESSURE RESETS (test in progess)	INTERFACE CLOSES, TRIP FLUID REPRESSURIZES TO INITIATE OPENING OF STOP VALVES, CONTROL VALVES, REHEAT STOP VALVES, AND INTERCEPT VALVES DUE TO APPARENT FAILURE OF ET-20 (AST-20 remains bypassed due to test in progress)

SLIDE 11

TIME	PRIMARY EVENT	OTHER EVENTS/COMMENTS
1122		STEAM DUMPS CLOSE DUE TO LOW Tave
1122/27 SEC	GENERATOR OUTPUT BKRS OPEN	TURBINE UNLOADED
1122/39 SEC	TURBINE STOP VALVES BEGINNING TO INDICATE AS OPEN	STEAM RE-ADMITTED TO TURBINE; CVs MAY BE SLOW CLOSING IN RESPONSE TO EHC DUE TO LOSS OF LOAD
	TURBINE BEGINS TO OVERSPEED BEYOND 103%	BOTH REDUNDANT OPC VALVES (OPC-1, OPC-2) APPARENTLY FAIL TO FUNCTION TO CLOSE CVs AND IVs TO PREVENT OVERSPEED CONDITION

SLIDE 12

TIME	PRIMARY EVENT	OTHER EVENTS/COMMENTS
1122	TURBINE STOP VALVES CONTINUE TO FLUTTER OPEN	OPERATORS HEAR INCREASING NOISE FROM TURBINE, EXPERIENCE VIBRATION, SEE FIRE FROM GENERATOR, SEE PROJECTILES FROM TURBINE; ALARMS IN CR: H/W HI-LEVEL, ROTOR THRUST AND VIBRATION, GENERATOR PROTECTIVE RELAYS ACTIVATE (probably due to damage)
1123/73 SEC	THE OPERATOR RETURNS TEST LEVER TO NORMAL; MOVES TURBINE TRIP LEVER TO TRIP; EVACUATES	3 AUTO-STOP LOW OIL PRESSURE SIGNALS, INTERFACE VALVE OPENS; TRIP FLUID DUMPED; STOP VALVES CLOSE; TURBINE ISOLATED FROM STEAM

3. OPERATOR ACTIONS

REACTOR CONTROL WAS MAINTAINED IN ACCORDANCE WITH EMERGENCY OPERATING PROCEDURES FOR TRIPS

AUTOMATIC POWER TRANSFER TO THE AUXILIARY BUS OCCURRED NORMALLY

OPERATORS INITIATED MAIN STEAM LINE ISOLATION

COOLDOWN ESTABLISHED BY AUXILIARY FEEDWATER PUMPS AND ATMOSPHERIC STEAM DUMP

CONDENSATE SYSTEM ISOLATED TO PREVENT INCREASED CHLORIDE INTRUSION

THE OPERATIONS PERSONNEL WERE EFFECTIVE IN IMPLEMENTING PROCEDURES FOR STABILIZING THE REACTOR AFTER THE TRIP, AND BRINGING THE UNIT TO A SAFE SHUTDOWN WITHOUT INCIDENT. ALL SAFETY RELATED SYSTEMS FUNCTIONED OR WERE AVAILABLE

ALL SAFETY SYSTEMS FUNCTIONED AS DESIGNED; RPS, CONTROL RODS, NIs, NO SAFETY INJECTION, AFW, MS-10s

EVENT CLASSIFICATION WAS APPROPRIATE; NOTIFICATIONS AND REPORTABILITY WAS APPROPRIATE

4. FIRE PROTECTION ACTIONS

ALL AUTOMATIC FIRE SUPPRESSION SYSTEMS FUNCTIONED AS DESIGNED AND WERE INSTRUMENTAL IN INITIATING FIRE CONTROL

THE ON-SITE FIRE BRIGADE RESPONDED RAPIDLY, EFFECTIVELY ESTABLISHED CONTROL OF THE SCENE, VERIFIED THAT PERSONNEL WERE NOT INJURED, CONTROLLED REFLASHES, MITIGATED DAMAGE BY SECURING OIL PUMPS, VERIFIED THAT THE HYDROGEN SYSTEM WAS EFFECTIVELY ISOLATED

THE ACTIONS OF THE SITE FIRE BRIGADE DEMONSTRATED EFFECTIVE ORGANIZATION, TRAINING, AND LEADERSHIP

5. MANAGEMENT RESPONSE

SENIOR SITE AND CORPORATE MANAGEMENT PERSONNEL RESPONDED RAPIDLY TO ASCERTAIN SAFETY IMPACT, DAMAGE, AND OVERSEE AMELIORATION AND ACCIDENT MITIGATION EFFORTS

PROVIDED FOR DIRECT CONTACT WITH THE NRC REGIONAL OFFICE TO ASSURE NRC WAS FULLY INFORMED OF THE EVENT AND LICENSEE FOLLOW-UP ACTIONS

INITIATED ACTIONS TO COMPREHENSIVELY REVIEW AND EVALUATE THE EVENT BY THE TIMELY ESTABLISHMENT OF A SITE EVENT REVIEW TEAM (SERT)

INITIATED ACTIONS TO CONTROL THE SCENE AND PROTECT EVIDENCE AND CONFIGURATION FOR SUBSEQUENT REVIEW AND EVALUATION

PROVIDED FOR SUFFICIENT RESOURCES AND PERSONNEL TO PLAN, ORGANIZE, CONTROL, AND DIRECT RECOVERY OPERATIONS

ASSURED THAT PERSONNEL, RESOURCES AND INFORMATION WERE MADE AVAILABLE TO ASSIST THE NRC AIT, AND THAT THE AIT WAS KEPT INFORMED OF ALL LICENSEE ACTIONS AND ACTIVITIES RELATIVE TO THE EVENT

6. TURBINE MISSILE GENERATION

REGULATORY GUIDE 1.115 (REV 1) RECOMMENDS THAT THE PROBABILITY OF SAFETY SYSTEMS DAMAGE FROM TURBINE PROJECTILES BE MAINTAINED TO LESS THAT 1/1000 PER TURBINE YEAR (CURRENTLY REVISED TO 1/10000 PER TURBINE YEAR) FOR UNFAVORABLY ORIENTED TURBINES)

SALEM-2 SER (NUREG 0995) INDICATES THAT THE PROBABILITY FOR TURBINE PROJECTILES AFFECTING SAFETY RELATED SYSTEMS IS 1.1/10000 PER TURBINE YEAR. FACTORS INCLUDE INCREASED INSPECTION, MAINTENANCE, AND TESTING TO REDUCE PROBABILITY OF TURBINE FAILURE, DEGRADED VALVE PERFORMANCE, AND OTHER MATERIAL DEFECTS. REQUIREMENTS CONVEYED IN TECHNICAL SPECIFICATIONS.

WESTINGHOUSE ANALYSIS FOR UNIT 2 BASED ON DETERMINISTIC APPROACH, NOT PROBABILISTIC. (PROBABILISTIC APPROACH WAS NOT REQUIRED BY NRC). THE ANALYSIS FOCUSED ON FAILURE OF DISCS, NOT BLADES, AS THE PRIMARY PROJECTILE. PURPOSE WAS TO ESTABLISH INSPECTION INTERVALS AND POTENTIAL WEAKNESSES IN TURBINE ROTATING COMPONENTS.

RELIABLE OVERSPEED PROTECTION WAS CONSIDERED AN IMPORTANT FACTOR IN THE ANALYSIS FOR ESTABLISHING RISK FOR TURBINE GENERATED MISSILES AND INSPECTION FREQUENCY.

SLIDE 18

LP 22 WAS REFURBISHED IN 1985, COMPREHENSIVLELY INSPECTED IN 1988, AND RESCHEDULE FOR INSPECTION IN 1992. IN 1988 CRACKS WERE REPAIRED, FLOW GUIDE BOLTS REPLACED, AND EXTENSIVE NDE PERFORMED.

RECOMMENDED INSPECTION FREQUENCY WAS 5 YEARS. ACTUAL INSPECTIONS HAVE BEEN OCCURING WITHIN 3 YEARS.

LP CASING IS CONSTRUCTED FROM LOW ALLOY CARBON STEEL PLATE (1.25 INCHES), NOT PRIMARILY DESIGNED TO CONTAIN TUBINE GENERATED MISSILES

WITH THE EXCEPTION OF APPARENT FAILURE TO MAINTAIN THE RELIABILITY OF THE OVERSPEED PROTECTIVE DEVICES, THE OPERATION, MAINTENANCE, AND INSPECTION OF THE THE TURBINE APPEAR TO BE WITHIN THE DESIGN BASES OF THE CURRENT SAFETY ANALYSIS REPORT.

7. SITE EVENT REVIEW TEAM EFFORTS

SYSTEMATIC APPROACH TO ACCIDENT AND EVENT REVIEW DEFINED BY PROCEDURE:
- CHANGE ANALYSIS,
- ENERGY/BARRIER/TARGET ANALYSIS,
- EVENT AND CAUSAL FACTOR CHARTING

PERSONNEL TRAINED IN ROOT CAUSE ANALYSIS

DIRECTED AND CONTROLLED BY SENIOR AND EXPERIENCED MANAGER

FULL UTILIZATION OF SYSTEMS ENGINEERS AS TECHNICAL CONSULTANTS OR MEMBERS OF THE SERT

ESTABLISHMENT OF WELL PLANNED AND DEVELOPED STRATEGY TO RE-CREATE THE EVENT (TROUBLE-SHOOT)IN ORDER TO TEST SYSTEMS AND CONFIRM FAILURE MODES

KEPT THE NRC AIT INFORMED OF FINDINGS AND EVALUATIONS

4. PRECURSOR EVENTS

1. PREVIOUS SIMILAR OCCURRENCES

4/6/85
GINNA (NY), PWR, WESTINGHOUSE T-G
TURBINE FAILED TO TRIP AUTOMATICALLY FOLLOWING REACTOR TRIP DUE TO MECHANICAL BINDING OF THE SOLENOID TRIP VALVE

2/28/88
CRYSTAL RIVER 3 (FL), PWR, WESTINGHOUSE T-G
TURBINE FAILED TO TRIP AUTOMATICALLY FOLLOWING REACTOR TRIP DUE TO FAULTY SOLENOID TRIP VALVE

8/31/88
SALEM 1 (NJ), PWR, WESTINGHOUSE T-G
DURING TURBINE MECHANICAL TRIP TESTING, REACTOR AND TURBINE TRIP OCCURRED DUE TO LOW AUTO-STOP OIL PRESSURE CAUSED BY A CLOGGED ORIFICE

Included for information. Low auto-stop oil pressure also occured 11/9/91 at Salem-2.

SLIDE 21

9/10/90
SALEM 1
REACTOR TRIP DUE TO FEEDW.' TER TRANSIENT CAUSED BY UNARRESTED TURBINE OVERSPEED. OPC SOLENOID VALVES WOULD NOT FUNCTION DUE TO MECHANICAL BINDING.

9/26/90
GINNA
REACTOR TRIP DUE TO PERSONNEL ERROR, BUT TURBINE EMERGENCY TRIP SOLENOID FAILED TO FUNCTION DUE TO MECHANICAL BINDING.

SLIDE 22

10/21/91
SALEM 2 (NJ), PWR, WESTINGHOUSE T-G
DURING TURBINE GENERATOR START-UP THE OPC FUNCTION WAS REQUIRED TO BE TESTED BY OPERATING PROCEDURE DESIGNED TO VERIFY PROPER OPC OPERATION BY EFFECTING CLOSURE OF THE INTERCEPT VALVES WHEN THE OPC TEST SWITCH WAS ACTIVATED. THE INTERCEPT VALVES DID NOT CLOSE, INDICATING A POSSIBLE MALFUNCTION OF THE OPC SOLENOIDS. THE TEST RESULT WAS DISREGARDED DUE TO MISCONCEPTION BY LICENSED OPERATING PERSONNEL AND MANAGEMENT. CONSEQUENTLY, THE UNIT WAS ALLOWED TO START WITHOUT THE OPC PROBLEM PROPERLY DIAGNOSED AND RESOLVED.

SLIDE 23

2. POSSIBLE PRECURSORS CONSIDERED
(No pertinence established)

SOLAR MAGNETIC DISTURBANCES

INCREASED HYDROGEN CONSUMPTION FOR THE UNIT 2 GENERATOR DUE TO SEAL LEAKAGE

5. NRC FINDINGS AND CONCLUSIONS

1. PROXIMATE CAUSE OF OVERSPEED (CONFIRMED BY LICENSEE)

EMERGENCY TRIP SOLENOID VALVE (ET-20) FAILED TO FUNCTION (FAILURE MECHANISM TO BE DETERMINED ON EXAMINATION)

BOTH REDUNDANT OVERSPEED PROTECTION CONTROL SOLENOID VALVES (OPC-1, OPC-2) FAILED TO FUNCTION (FAILURE MECHANISM TO BE DETERMINED ON EXAMINATION)

2. PROXIMATE CAUSE OF FIRE IN GENERATOR

WHILE NOT CONCLUSIVE, SEQUENCE OF EVENTS AND OTHER EVIDENCE INDICATES THAT THE FIRE WAS LIKELY THE RESULT OF SEVERE VIBRATION CAUSED BY THE OVERSPEED OF THE TURBINE. THE VIBRATION RESULTED IN DAMAGE TO THE HYDROGEN SEALS AND SEAL OIL SYSTEMS, ALLOWING THE RELEASE OF FLAMABLE CONCENTRATIONS OF HYDROGEN AND OIL. A SPARK OR OTHER HEAT SOURCE LIKELY CAUSED IGNITION (THERE WAS INDICATION OF ARC OR FRICTION WELDING ON GENERATOR BEARINGS AND END BELLS). ONCE IGNITED, THE SEAL OIL PROVIDED FUEL TO THE FIRE UNTIL EXTINGUISHED OR ISOLATED.

2. CONTRIBUTING CAUSAL FACTORS

NO RECURRING PREVENTATIVE MAINTENANCE PROGRAM SPECIFICALLY IMPLEMENTED OR RECOMMMEDED FOR SOLENOID VALVES EFFECTING TURBINE TRIP OR OVERSPEED CONTROL.

SURVEILLANCE AND OPERATIONAL TESTING OF TRIP PERFORMANCE AND OVERSPEED DOES NOT SPECIFICALLY VERIFY THE PROPER HYDRAULIC FUNCTIONING OF EACH SOLENOID VALVE, INDEPENDENTLY.

THE PERIODIC TESTING OF THE MECHANICAL TRIP FUNCTION EFFECTIVELY REMOVES 13 POSSIBLE TRIP SIGNALS OR EVENTS WHILE THE TEST IS BEING PERFORMED, WITHOUT ANY WAY TO VERIFY THAT THE BALANCE OF THE TRIP AND CONTROL DEVICES (INCLUDING OVERSPEED) ARE FUNCTIONAL.

INFORMATION CONCERNING PREVIOUS COMPONENT FAILURES HAS NOT BEEN GENERALLY REGARDED BY THE INDUSTRY AS SIGNIFICANT OR OF A PRIORITY NATURE, AND CONSEQUENTLY NOT WELL CHARACTERIZED OR DISSEMINATED.

T-G COMPONENTS AND SYSTEMS ARE NOT REGARDED AS NUCLEAR SAFETY RELATED, BUT RATHER BALANCE OF PLANT. CONSEQUENTLY, LITTLE NRC REGULATORY ATTENTION OR PRIORITY HAS BEEN DIRECTED TO THIS AREA. NO INFORMATION NOTICES OR GENERIC COMMUNICATIONS HAVE BEEN DEVELOPED.

SLIDE 28

THE EXISTING TECHNICAL SPECIFICATION (TS 3/4.3.4) IS POORLY CONSTRUCTED SUCH THAT INTENT IS UNCLEAR:

- ONLY SPECIFIES ONE OVERSPEED SYSTEM TO BE OPERABLE (ALLOWING THE INTERPRETATION THAT MECHANICAL OVERSPEED IS SUFFICIENT SUCH THAT OPC AND ET SOLENOID OPERABILITY COULD BE IGNORED);

- THE ACTION AND SURVEILLANCE STATEMENTS FOCUS ON THE OPERABILITY OF THE STEAM VALVES AS THE INDICATOR OF OVERSPEED FUNCTION, AND ON THE OPERABILITY OF ONLY A SINGLE OVERSPEED SYSTEM.

THE STANDARD REVIEW PLAN GENERALLY ASSUMES THE AVAILABLITY OF THREE DIVERSE AND REDUNDANT OVERSPEED PROTECTION DEVICES (OPC, MECHANICAL, AND EMERGENCY TRIP). SALEM-2 IS DESIGNED WITH ONLY TWO. EMERGENCY TRIP IS NOT INDEPENDENTLY ACTUATED FOR OVERSPEED CONDITIONS.

SLIDE 29

LICENSEE FAILURE TO REACT IN A TIMELY MANNER TO SALEM-1 SOLENOID FAILURES BY EFFECTIVELY VERIFING THE OPERABILITY OF, OR REPLACING DEVICES IN SALEM-2 IN ACCORDANCE WITH LER COMMITMENT. (5/91 OUTAGE)

FAILURE OF OPERATORS AND MANAGERS TO RECOGNIZE AND FOLLOW PROCEDURES; AND EFFECT CORRECTIVE ACTIONS WHEN IT WAS APPARENT THAT THE OPC WAS NOT FUNCTIONING AS DESIGNED BASED ON START-UP TESTING IN 10/91.

SAP COMMENTS FOR 12/11 MEETING

OVERALL: Plan is comprehensive, with good chance at effecting performance improvement. Plan does not contain specific hardware issues, rather these are contained in the System Readiness Review items.

Plan does not have many performance indicators for culture change.

Not clear how they are to verify plant is operated within design and licensing basis.

Corrective actions for EP deficiencies missing.

Not clear what Appendix E of plan, "Other Restart Considerations," means.

I. HUMAN PERFORMANCE, SELF-ASSESSMENT & CORRECTIVE ACTION

Procedure adherence improvement in plan as standards, but not highlighted.

Corrective action process has historically been oriented toward operator actions, procedure changes and training vice permanent fixes. Not clear how this attitude will be changed.

Plan not specific on extent of industry experience review (OEF).

Plan implies mgmnt & peer observer program to be 1 time program?

Extent of root cause training to be conducted before restart not clear.

II. OPERATIONS

Not real strong performance indicators, more quantity oriented than quality.

Need more specifics on tagging upgrade. Have they conducted root cause for why previous attempts to correct tagging failed?

Unclear the extent of control room upgrades prior to restart.

Need assurance that overhead annunciator problems resolved.

III. EQUIPMENT RELIABILITY

Comprehensive, no real issues.

IV. MAINTENANCE/WORK CONTROL

Plan objectives has no clear, obvious connection between improving work control and improving safety.

V. ENGINEERING

Comprehensive, no issues at this time.

VI. TRAINING

Comprehensive relative to operations, NRC review pending.

K/6

ATTACHMENT 1

Salem Generating Station

Review of Current Safety Performance in Selected Areas of Concern

The general objective of this SIT is to:

- assess the licensee's effectiveness at problem identification, prioritizing and conducting work on plant equipment

- assess the licensee's management oversight programs and performance indicators used by management to assess current performance

for the purpose of improving the reliability of equipment and the material condition of the plant so as to decrease challenges to safe plant operation.

The specific objectives of this SIT are to assess the following activities from a safety perspective:

- The current effectiveness of licensee programs for problem identification and root cause determinations. This will include plant tours, reviews of equipment history records and interviews with working level personnel.

- The licensee's day-to-day programs in the areas of work prioritization, planning, scheduling and controls. This will cover the day-to-day mechanism for determining what plant deficiencies from various reporting processes are to be addressed and how work is integrated into plant operations from a safety perspective.

- The adequacy of operability determinations, including an assessment of performing such determinations when needed and the extent of engineering involvement.

- Steps being taken to reduce operational work-arounds.

- The effectiveness of preventive and corrective maintenance.

- The effectiveness of management oversight programs and performance indicators used by management to assess current performance.

This inspection will be conducted over approximately a four week period and the number of team members involved in inspection activities at any one time will typically be three or less, so as to minimize the impact on the licensee of this inspection.

K17

SALEM SIT FINDINGS (4/26 - 5/12) Rev 1

SUMMARY OF NEGATIVES

OPERABILITY

OD weaknesses

125 v batt chgr / battery seal not in FSAR, so OK
22RHR rm cooler fan non qual motor, OK, redundant train/
erratic stm flo chan/tried to fix/use other channel
faulty bkr RCS samp valves/valves fail in safe closed pos???

BOP ODs gave as justification, pri plt trips, BOP challeng ?

SROs no formal training on operability / Procedure in flux

Large number of ODs due to equipment concerns

OD focus of "justifying" continued operation contributes to large backlog of plant work

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CONFIGURATION CONTROL

Over 50 IRs from the past month on plt dwgs, component labeling and the computerized tagging system

IR negative trend info on P&IDs goes back months but no initiative has been taken to have engineers scope the extent of the problem on a selected system or two.

Configuration control identified as priority last summer

SAFETY TAGGING

New tagging office implemented - but, tagging errors continue

Use of safety tags for admin purposes was recognized 4/27 as a mgmt error which sets people up for failure - slow to resolve

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COMMUNICATIONS

Priorities not presented clearly or consistently at the beginning and end of mtgs

Priorities not consistent between 6:30AM, 8:00AM, 8:30 AM and 1:00 PM mtgs

accountability w/o follow-thru
ineffective communications of expectations

Individual job info sometimes poorly communicated eg 28v batt

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WORK PLANNING AND SCHEDULING

-PMs/STs tasks not always sched to be perf before due date

-Sponsored work policy not clearly defined/understood

-Changes to Safety Tag Ctr/ Work Ctrl Ctr not clearly def

-Can non-tagged work bypass on-shift SS?

-Work pkgs / improving thru feedback, but need better planning to avoid problems like late ident of need for tags, and improper use of troubleshooting procedures

-Better sched needed to avoid recent running too many EDGs

MAINTENANCE — have frozen work around list.

-Recategorizing some work-arounds as plant betterment items detracts from attempts to be an Ops led station

-Salem appears to be just starting to use equipment failure rates to focus on how to improve the corrective maintenance performance through analysis of failure rate data to identify needed changes in maintenance practices / engineering fixes

Maint rule ?

-BOMs problems corrected on a piece meal basis, broader effort would reduce equip down time

have a lot on their plate with high arrival rate

PROBLEM IDENT AND ROOT CAUSE DETERMINATIONS

-Recent root causes reviewed were adequate, wide variation in quality.

-A few root cause levels assigned recently were too low

-There's roughly one person-yrs worth of root cause work associated with the IRs generated in the past month by our calculations and they don't appear to be staying ahead of the backlog ★

routine extending the due date

MANAGEMENT SAFETY PERSPECTIVE AND PIS NEED STRENGTHENING

Station mgmt morning meeting needs more safety focus ✓
-8AM mtg, mgrs didn't know LCO times, parts status, etc

30% of their effort going to process Δ

-8AM mtg, chgs to 28 v batt chg config w/WO, but no DCP
-8AM quality of OD for 28 v batt chg, lost opportunity
-8AM 100ft air lock door operability questioned by one mgr who was overridden
-Towards the end of inspection, 8AM mtgs improved

SORC, not a strong group effort, Ops mgr lone lead. Catatonic

Response to QA finding of Hagan module "uncontrolled standard" was not communicated up and the response was incomplete

Mgmt focus on PIs has been more production than safety focused. Production: tracking of numbers of new items to act on, numbers acted on, numbers overdue. They are shifting their focus.

PI's not addressed: procedure adherence, P&IDs

Need for shift in mgmt focus from Tomorrow Plans to Now Actions and Measurements

A few important PIs for station mgmt ought to be: 1) Making sure the daily safety safety significant items are discussed at the 8AM station mgmt meeting, 2) Reducing, through corrective actions, the # of safety significant issues that need addressing at the 8AM mtg and 3) Reducing the # of times the SRI has to be the one to ask safety significant questions at the 8AM meeting on questions and / or items they've missed

Nuclear Review Board: intrusive, focused on measurements
Benjamin B. Il Conway, Jay Deering, Jim Keppler, Hagan, Labruna
Footnote: Several on the station mgmt team are relatively new to their positions

Focus on ~~prod~~ production
vs
performance

Measuring wrong things

+ NRB, + Shift turnover + housekeeping, + FWP maint planning
+ MMG, O/S GROUP, + QA, + staff willingness to Δ,
+ Not isolated, + Lack of in fighting

Salem Assessment Plan

K/8

Salem

DRAFT

SALEM ASSESSMENT PLAN

Objectives:

1. To perform an integrated review and assessment of the Salem NPS safety performance history.

2. To develop a site assessment plan and perform a site assessment to validate the performance insights that were developed during the review.

3. To develop a customized inspection plan to be implemented during the upcoming SALP period.

Detailed Assessment Plan:

(Reference: Guide to the Customized Inspection Program)

1. Proposed Team Composition:

   a. Team Leader:
      - Special Inspection Branch or Region I (to be determined) SES NON RI

   b. Team Members:
      - NRR section chief (IRCB)
      - NRR Salem Project Manager
      - 2-3 managers and inspectors from Region I NON RI
      - NRR IRCB operations engineer

2. Review: (4 weeks)

   a. The following documents will be compiled and reviewed:
      - 1992, 1993, 1994 NRC Inspection Reports
      - Plant Performance Review results
      - SALP reports and history
      - Enforcement history and trends
      - SMM information
      - LERs from 1991, 1992, 1993, 1994
      - Performance indicators
      - Human Factors Information System
      - IPE and PRA information
      - Allegations
      - NPRDS data
      - MIPS printouts

   b. A contractor (ORNL) will analyze LERs for 1991, 1992, and 1993 to identify events of high safety significance or events that indicate negative performance, e.g., repetitive failures.

c. The following documents will be requested from the licensee and reviewed upon receipt:
   - Licensee self assessments and results for 1992, 1993, 1994
   - Licensee performance indicators for 1992, 1993, 1994
   - Condition report one-liners for 1992, 1993, 1994
   - Formal root cause evaluations for 1992, 1993, 1994
   - Maintenance work request (MWR) one-liners for 1992, 1993, 1994
   - MWR distribution by system
   - Engineering work request (EWR) one-liners for 1992, 1993, 1994
   - Annual results and data reports; 50.59s procedure changes for 1992, 1993
   - Licensee procedures for the condition reporting process, MWR process, and EWR process
   - Selected ASME Section XI pump and valve testing data printouts
   - Other documents as necessary from review

d. The following documents will be reviewed on site:
   - INPO plant evaluation reports (last two)

e. NRR (SPSB) will analyze the licensee's IPE to identify the most risk significant systems and components.

f. The assessment team will use IPE information in preparing a risk data matrix. The risk data matrix displays significant licensee issues and their associated root causes by plant system and safety significance. The assessment team will forward certain items from the risk data matrix to SPSB to perform a PRA analysis (ASP).

g. At the completion of items a through f, the assessment team will develop a Preliminary Performance Assessment/Inspection Planning Tree. The team will record the results of its review for each element, indicating specific areas for onsite review, in a document that will be provided to the licensee 1-2 weeks before the site assessment.

2. Site Assessment: (2 weeks)

a. The assessment team will perform the site assessment visit in accordance with the guide.

b. The assessment team will conduct a preliminary exit meeting with the licensee.

3. Customized Inspection Plan: (2-4 weeks)

a. The assessment team will develop an assessment report and a Final Performance Assessment/Inspection Planning Tree that will be issued to the licensee.

b. The assessment team will translate the findings from items 1 and 2 into specific inspection goals and requirements in accordance with the guide.

c. The region will incorporate the assessment team's inspection recommendations into a customized inspection plan for the upcoming SALP cycle.

Must determine whether licensee's Nuclear Department Tactical Plan appears to appropriately address areas needing improvement.

Salem Assessment Schedule
(Summer 1994)

Item No.	Activity	Responsible Organization	Approximate Duration
1.	**Comprehensive Review**		4 weeks Proposed dates: (later)
1.a	Compile/review NRC documentation	Team Leader	
1.b	Contract for LER analysis - ORNL	NRR/IRCB	
1.c	Compile/review licensee documentation	Team Leader	
1.d	Review INPO Plant Evaluation Report	Team Leader	
1.e	Analyze licensee IPE	NRR/SPSB	
1.f	Prepare risk data matrix	Team Leader NRR/SPSB	
1.g	Develop Preliminary Performance Assessment/Inspection Planning Tree and summary. Provide summary to licensee 1-2 weeks before site assessment	Team Leader	
2.	**Site Assessment**		2 weeks Proposed dates: (later)
2.a	Perform site assessment visit	Team Leader	
2.b	Conduct preliminary exit meeting	Team Leader	
3.	**Customized Inspection Plan**		3 weeks Proposed dates: (later)
3.a	Develop final Performance Assessment/Inspection Planning Tree and report	Team Leader	
3.b	Translate the findings into inspection requirements	Team Leader	
3.c	Develop customized inspection plan	Region	

JULY ?