



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

November 17, 1995

MEMORANDUM TO: William T. Russell, Director
Office of Nuclear Reactor Regulation

FROM: Thomas T. Martin
Regional Administrator
Region I

SUBJECT: SUSPENSION OF SALEM SALP

In accordance with MC 0350, Region I recommends that the SALP process be suspended for the Salem facility until one year after the restart of the units. An assessment of licensee performance between the June 1995 shutdowns and the restart will be developed to provide a basis for closure of the Confirmatory Action Letter and NRC agreement that the facility is ready to restart. Interim assessments will be developed in the form of Senior Management Meeting full discussion papers. During this time period, oversight of the inspection planning and scheduling for the site will be done by the Salem Assessment Panel which currently meets monthly.

FAX TRANSMITTAL - ONE PAGE ONLY

TO: D. Holody/D. Jost FROM: D. Rosano (301) 415-2741

OE UNDERSTANDING AND EA REQUEST FORM

Pre Conference: ☒
Post Conference: ☐

EATS Data Entry Information

Date of Request: 2/23/96 Region: 1 CaseType: Rx Reg. Contact: D Holody
Licensee: PSE & G Facility (Unit)/Location: Salem 142
Docket No.: SO-272/311 Last Day of Insp.: 2/20/96* Date of OI Ref.:
OI Rpt No.: OI Rpt Date: Conference Open ? :

Summary of Facts: Mgr. of site protection wanted to test someone who was in random program. He asked Medical Officer if this was okay, was told it wasn't, and dropped it. Lic. investigation said mgr. thought the guy would test positive.

*dt of panel

EA Number: 96-064 ES: DR

1. SL Supp
Details: RI/OI will interview manager to find out why he referred individual for testing. OE requested copy of Lic. investigation and will review. Repanel on 2/27.

L Supp

ails:

SL Supp

Details:

2. Prior Escalated Action? ☐ No ☐ Yes - EA: Date:
3. Identification? ☐ Lic. Credit ☐ No Credit ☐ Inad. Info ☐ NA Comments:
4. Corrective Action? ☐ Lic. Credit ☐ No Credit ☐ Inad. Info Comments:
5. Enforcement Conference Needed? ☐ No ☐ Yes Comments:
6. Discretion or Order Needed? ☐ No ☐ Yes Comments:
7. Action? ☐ Submit to OE ☐ Regional Action ☐ Choice Letter ☐ DEDO Review ☐ Commission ☐ Disagreement
☐ Other: See details above
8. CP? ☐ No CP ☐ Base CP ☐ Double Base CP ☐ Other:
9. Willfulness involved? ☐ No ☐ Yes
☐ OI Coordinated ☒ Needs OI Coordination
- Program Office Represented? ☐ No ☐ Yes 11. OGC Represented? ☐ No ☒ Yes

Comments: 13. Approved: Date: 2/23/96

Doc # 001 (EA REQ M)

**** NOT FOR PUBLIC DISCLOSURE WITHOUT APPROVAL OF THE DIRECTOR, OE ****

March 1983

Hagan Modules

May 1983
FW Dig

SEC
NRC
Hagan
Modules

Attachment 1

Salem Equipment Deficiency List

(Since January 1994)

Circulating Water

Sea grass buildup on traveling screens resulting in loss of circulators and plant trips, transients. Recurring

D

Atmospheric relief valves (MS-10s) control circuits

Relief Valve
Dis

Configuration control problems associated with Hagan control modules. Inadequate root cause and configuration control.

IRK

Feedwater regulating valve controls

Numerous trips/transients caused by controller problems, especially at low power levels. Inadequate root cause from previous problems.

IRK

Main steam trip pilot valve failed (2/2/94)

Trip pilot valve for main steam stop valve mechanically bound and did not stroke completely.

F

Loss of both 15 VDC power supplies for EHC system (2/10/94)

Main turbine EHC system lost both 15 VDC power supplies (crow bars sensed overvoltage) resulting in main turbine trip and reactor trip. Inadequate root cause/corrective action.

IRK

Unit 2 bypass of feedwater flow nozzles. (7/93 to 1/19/94)

SL
From
Web
Exhibit

Result of saltwater intrusion into feedwater system. Caused Unit 2 to operate in excess of 3411 megawatts. Inadequate root cause and analysis of state point data.

IRK
NO
LOOSE

TDAFW pump governor oscillations (1/20/94)

Wrong model governor installed during outage.

IRK

Shunt trip relays in reactor trip breakers (1/18/94)

Licensee suspected Potter Brumfield MDR relays of sticking.

IRK
P-250
Computer

Steam flow transmitter damping circuit

Spurious high steam flow signals generated following reactor/turbine trips. Numerous occurrences - no root cause investigation. (uncovered during April 7 f/u)

IRK

PORV internals

Wear found on internals following April 7 event. NRC influences needed to have internals examined.

IRK

See 3
Shut Loop Seal Drain Valve (SV Loop)
From to shut down the PORV and
Now SA Per Test on Head Vent

D117

PORV internals (operating cycle beginning after 2R7 until April 7th)

MS-10 "reset windup" (electronic saturation preventing response to increased steam pressure; existed for about 10 years).

Failed potential transformer

Service water butterfly valves

RCP seal flange leak (7/2/94)

TDAFW pump trip valve latch mechanisms

Unit 1 condensate suction header damage (8/29/94)

Condenser waterbox upper manway failure (8/30/94)

Rod control process circuitry

Internals made from 17 PH stainless installed vice 420 stainless (intended)

Identified following April 7 event. Result in lifting of S/G safety valves and primary plant cooldown. No previous root cause performed.

Failed potential transformer caused generator output breaker to open; turbine trip; reactor trip.

Turbulent flow causes vibration that degrades operation. (Recurring)

During a repair attempt (Mode 3) leak quickly increased to 14 gpm. Licensee shut down to Mode 5 to repair flange.

Two occurrences of TDAFW pump tripping during surveillance due to inadequate mechanical latch. Inadequate corrective actions/design problem.

As operators removed condensate pump from service, condensate flow back from common discharge header through discharge bypass valve and discharge check valve. Resulted in rapid shutdown from 75% power and damaged pipe supports and expansion joints in condensate header.

Upon starting a circulator water pump, a weld designed to hold a tie-down bolt in place failed allowing the manway cover to open. Between 30,000 and 50,000 gallons spilled into Unit 2 turbine building.

(Common to both units) Occasional rod stepping (± 1 step) without demand. Licensee believes due to process noise and increased circuit gain required by low leakage core. (Recurring)

24

TRC

F

D

IM

ICA

(=

F

D

Diesel generator starting air system deficiencies

Multiple air receiver drain valve leaks. Recurring deficiencies with air start check valves. Inadequate air receiver low pressure alarm. Inadequate root cause and corrective action. (Recurring)

☆

Control oil power unit (COPU) filter problems

Recurring need to reduce power to 50% to replace filters due to high d/p.

D

Control air system degradation

Low control air header pressures have caused repeated need to close PORV valves and start emergency control air compressors. Long term corrective action and root cause inadequate.

IPC

Unit 2 RCP motor oil leakage

Lube oil found coating RCP platforms in containment.

F

Vacuum pump inlet valve failed to close

Repeat occurrence resulting in decreasing condenser vacuum and power reduction. Inadequate corrective actions from previous occurrences.

FCA

Centrifugal charging pump high vibration

Due to failure of charging pump speed increaser. Resulted in TS required shutdown.

F

Diesel generator fuel oil supply header bolt problems

Header bolt holes not sufficiently tapped by vendor. (On three previous occasions licensee found header bolts broken.) Inadequate bolt torque found.

D

Safety injection system relief valve leakage

Leak (.2 gpm) from the SI accumulator through the SI pump relief valves to the pressurizer relief tank (PRT). Less than timely corrective action.

FCA

Breakdown of insulation on 4kv cables (11/21/94)

Arcing associated with a 4kv supply cable from station power transformer to the Unit 1 vital buses. (tracking problem)

☆

Safeguard equipment cabinet (SEC) recurring problems

Stuck test push buttons in December 1994. Frequent automatic test insertion (ATI) test faults. Forced two TS required shutdowns (100% - 28%). Inadequate root cause and corrective action.

IPC

Switchyard disturbances

November 18, 1994, disconnect 4T60 on 500 kv side of no. 4 station power transformer (SPT) opened for no apparent reason. Loss of one source of offsite power to both units. Unit 2 in outage at time, resulted in blackout loading on 2 available diesels. November 28, 1994, loss of offsite power due to actuation of differential protection relay on no. 2 SPT. Resulted in power reduction on Unit 1 (100% - 26%) due to loss of circulators. November 28, 1994, no. 5 substation on the 13 kv ring bus lost power causing loss of power to Technical Support Center.

Failure of air solenoid valve for no. 23 RCP seal water return valve

Degraded pressure diaphragm found in solenoid valve. Failure attributed to extensive time in service (20 years). No known PM program! Resulted in replacement of seal (Westinghouse recommendation).

Pressurizer code safety valve leakage

Seat leakage from code safety valves (2.0 gpm) found during Unit 2 startup. Engineering concluded that stress on the valve discharge flanges, caused primarily by thermal loading, had caused the seat leakage. Inadequate previous root cause determination.

Solid State Protection System (SSPS) 15 volt power supply failures

During implementation of DCP to correct a problem with the power feeds to the main turbine from SSPS Train "A", a redundant power supply was lost (tripped). Power supply shorted to casing.

RCP seal replacement

Licensee shut down to Mode 5 to replace no. 1 seal on no. 21 RCP due to low seal water return flow (< 1.0 gpm). Small amount of debris found in seal.

Pressurizer code safety valve loop seal drain valve closed (5/93 to 10/94)

Loop drain installed in April/May 93 not properly controlled. Plant operated an entire cycle in an unanalyzed condition.

2 to year, state purpose & get individuals to ID self
Offer - meet year for put obs but not put
will be asked for Q&A afterwards

Cannys Point 12/18th Meeting - Described Restart Process, Ask for
Needed additions - EP - exit IO'd issues

challenge to tell us what to be added

- ? adequacy of Training 2B provided
we need to have better understanding
of scope

- scope of design basis review

- scope of O&E correspondence

- RCA Training scope before & after S/V

- continuing nature of supv obs program

- what are perf indicators (T+V or Q?)

- tagging & process overhaul & bandaid

planning to do after restart

if continue prob, we can not support 9

- plans for O/H communications

We believe our HW issues are enveloped by
their restart list

* possible exception is EDC loading

we need to see how resolved

reportedly, they permit whip away

* fire protection another

① cable separation - have not ^{bought our} ~~the~~ position on

lot of white of antitrip cables in same area

② Discontinuity of cold 50 power supplies enter

HW vs jumpers

App O&E, each item has less than MRC review?

Assuming TB Announcements implemented on timely basis

Thank you for review org & process details for S/V

2115

expect us
to target
near time
these issues
to come on
back

We don't
know when
will restart
not our
concern

Meeting / Purpose / Open / NRC Remain / Public Meet / Restart Process
Caring Point
Mon 12/18 7 PM
Reserve Recommendation / Comments / Q & A

Remaining Issues

EP additurs planned

Training 2B provided, scope?

Design Basis Review Scope

OER scope

RC Analysis Tray Scope

Supp ~~to~~ ~~the~~ ~~Observations~~ Program ~~for~~ ~~the~~

Prof Indicators, what (Q vs TSV)

Pegging Process rev

W/C Process rev

1/4 Announcements resolved

EOG Lending

Fire Protection re Cable Segments

Cold 3/D isot of controls

01/19

MEMORANDUM OF UNDERSTANDING BETWEEN PUBLIC
SERVICE ELECTRIC AND GAS COMPANY AND THE
TOWNSHIP OF LOWER ALLOWAYS CREEK REGARDING
NOTIFICATION OF CERTAIN EVENTS AND CONDITIONS
AND RESPONSIBILITIES OF BOTH PARTIES IN
THE EVENT OF A LABOR CONTINGENCY

I. PURPOSE

It is recognized that for both the safety and reassurance of the public of the Township of Lower Alloways Creek (LAC), a mechanism must be established for communication between Public Service Electric and Gas Company (PSE&G) and responsible officials of LAC regarding conditions or events at, or related, to the PSE&G facilities on Artificial Island. It is also recognized that in the event of labor contingencies, ie. labor disputes, involving a potential threat to the public peace and good order, a plan must be in effect. The purpose of this Memorandum of Understanding (M.O.U.) is to set forth those conditions, plans or events under which PSE&G will notify LAC, and the mechanics by which such notification will be carried out. The responsibilities of LAC are also determined in this M.O.U.

II. AGREEMENT

The following terms have been agreed upon by PSE&G and LAC:

1. PSE&G will notify LAC by telephone with regard to each and every condition or event listed in Enclosure (1) and in regard to any drill concerned in the time frame indicated. Notification will be by means of a dedicated telephone line to the Township Municipal Building for Type 1 Events of Enclosure (1).
2. LAC will maintain equipment and/or personnel in the Municipal Building at all times to record and transmit to responsible LAC Officials the message described in Paragraph (1).
3. LAC will not make public announcements or initiate contacts with the media on the sole basis of the messages described in Paragraph (1) except to prevent panic, injury to persons or damage to property.
4. PSE&G will keep available, on a 24-hour basis, an employee or a designated substitute who will be able to notify and/or respond to inquiries from the LAC Officials listed in Enclosure (2) regarding conditions or events at or related to the PSE&G facilities on Artificial Island. In the event that said employee is unable to respond immediately to the inquiry, he or she will seek out the necessary information and respond to the inquiring official as soon as possible. PSE&G will provide the names and telephone numbers of the foresaid employees in Enclosure (3) to each of the LAC Officials listed in Enclosure (2) or to their successors in office whose names shall be transmitted to PSE&G from time to time.
5. This section 5 of the M.O.U. sets forth guidelines for both parties in the event of a labor contingency involving a potential threat to the public peace and good order. This Section shall become effective when it becomes necessary for either party to take any action contained herein regarding a potential labor contingency as aforesaid. This section of the M.O.U. shall remain in effect until such time as both parties agree that conditions are such that it need not be in force.

Information in this record was deleted
in accordance with the Freedom of Information
Act, exemptions 6
FOIA: 96-351

11

MEMORANDUM OF UNDERSTANDING
TOWNSHIP AND PSE&G

A. NOTIFICATION

PSE&G agrees to notify LAC of any potential labor contingency which affects the normal operations at Artificial Island as soon as PSE&G becomes aware of the problem. LAC agrees to notify PSE&G of any potential labor contingency which will affect the normal operations at Artificial Island as soon as LAC becomes aware of the problem.

B. INJUNCTION HEARINGS

PSE&G agrees to notify LAC of injunction meetings or hearings as soon as they are scheduled as a result of a labor contingency at Artificial Island. LAC agrees that it will endeavor to have those officials who are responsible for the policing of the labor contingency present at all injunction meetings or hearings. In the event that it is necessary, LAC agrees to furnish testimony at any injunction hearing as to conditions at the strike line and the conduct of the pickets. Both parties agree that close coordination during the meetings or hearings be maintained to minimize the problems of enforcing the terms of any injunction throughout the duration of the dispute.

C. LIAISON

Whenever this section of the M.O.U. becomes effective the communication between PSE&G and LAC will be accomplished by the Government Relations Manager for PSE&G and the Chief of Police for LAC or their designees. Additional lines of communication may be arranged upon the concurrence of the Vice President - Nuclear and the Mayor of LAC.

MEETINGS

PSE&G and LAC agree to schedule meetings to address problems during the term of the contingency. The frequency of the meetings may increase or decrease as conditions warrant.

E. PAYMENT OF EXPENSES

Whenever it is deemed necessary by the Chief of Police to enlist mutual aid assistance from other municipal police departments or forces to protect the public peace and good order during a labor contingency, the PSE&G Government Relations Manager shall be so advised. PSE&G shall assume the responsibility for reimbursement to LAC for payment of all such reasonable and necessary mutual aid assistance provided during the term of the contingency. Reimbursement shall be in an amount equal to 100% of the expenditures for wages and food. Wages paid to mutual aid personnel will be one and one-half times each officer's basic hourly rate. In the event of a disagreement between the parties to this M.O.U. over the necessity for mutual aid, the question shall be referred for resolution to the Salem County Prosecutor, whose response shall be determinative. LAC agrees to provide the Government Relations Manager with a daily report which shall set forth the number of mutual aid personnel committed to the dispute. LAC further agrees to furnish a weekly report which shall set forth the names of all mutual aid personnel and the hours worked during that period. Upon termination of the contingency, LAC will submit an invoice to the Government Relations Manager for payment of said expenses within 60 days of receipt. If the need for mutual aid exceeds 30 days in duration, invoices will be submitted every 30 days.

7. Either party to this M.O.U. may terminate upon sixty (60) days advance written notice to the other party.

8. This M.O.U. is intended to supersede and be in substitution of the prior Memorandum of Understanding between the parties hereto, dated November 27, 1985 which prior agreement is hereby revoked.

MORANDUM OF UNDERSTANDING
TOWNSHIP AND PSE&G

III. WITNESS

In witness whereof the parties have hereunto executed this Memorandum of Understanding.

Dated: _____ TOWNSHIP OF LOWER ALLOWAYS CREEK

ATTEST:

_____ BY: _____

MARY O. HENDERSON, CLERK

ROBERT TRAAE, MAYOR

DATED: _____ PUBLIC SERVICE ELECTRIC AND GAS COMPANY

ATTEST:

_____ BY: _____

SECRETARY

STEVEN E. MILTENBERGER
VICE PRESIDENT - NUCLEAR