

Public Service Electric and Gas Company P.O. Box 236 Hancocks Bridge, New Jersey 08038-0236

Nuclear Business Unit

AUG 2 5 1995

U. S. Nuclear Regulatory Commission Document Control Desk Washington, DC 20555

Attn: Document Control Desk

SALEM GENERATING STATION LICENSE NO. DPR-70 DOCKET NO. 50-272 UNIT NO. 1

LICENSEE EVENT REPORT NO. 95-019-00

This Licensee Event Report entitled "Operability Functional Test Not Performed Prior to Mode Entry" is being submitted pursuant to the requirements of the Code of Federal Regulation 10CFR50.73(a) (2)(i)(B). Attachment A contains those commitments which are currently outstanding or on-going related to this issue.

Sincerely,

Clay C. Warren General Manager Salem Operations

Attachment A Attachment LER SORC Mtg. 95-096 RJB

The power is in your hands.

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Distributuion LER File 3.7

Sand Children

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95-2168 BEV, 6/94

PSE&G Commitments for LER 272/95-019

The following items represent PSE&G commitments made to the Nuclear Regulatory Commission related to LER 272/95-015-00. The commitments are as follows:

On Going

- Control Room Operator/Supervisor Logs have been revised to formalize the requirement for entering tracking LCO's against equipment that is unavailable or inoperable for future modes. In particular, specific direction as to the requirements for entering a tracking AS has been provided to ensure consistency in the systems/equipment tracked.
- 2. The procedure , "Removing and Returning to Service of Safety Related Equipment" is being revised to incorporate the process for tracking action statements. Specifically, this revision includes the requirement to specify equipment that is removed from service for normal scheduled maintenance and equipment that becomes inoperable for other reasons (i.e. degraded conditions, ODs , failed surveillances, etc). This revision includes modifications to the TSAS tracking form. In particular, the form includes entries for applicable TS and Modes; associated action requests and status, work orders, condition reports, design changes, and other documents/actions to be performed while the equipment is inoperable. Included also are those actions required prior to operability restoration. The above revision is expected to be implemented by 9/1/95.
- 3. MMIS has been revised to include an "Affects Mode change? Y/N" entry in the OD section of the Action Request. This information will be determined by an SRO during the review of the request.
- 4. The requirement to perform the surveillance for the containment purge system will be incorporated into the IOP prior to entry into Mode 6.
- 5. The planning/scheduling process will be revised to clearly address action requests that are conditionally tied to specific plant evolutions and incorporated into the scheduling process. The process is expected to be implemented by 9/30/95, with full implementation by 12/31/95.
- 6. A Unit Coordinator (UC) position will be established in the revised work control process. The UC will review action requests with an SRO and specify conditional limitations (i.e.

Attachment A

Mode restrictions, system operability, etc.), and schedule the work request accordingly.

- 7. The OD process will be revised to include a mechanism to track additional/contingency actions and identification of responsibility for those actions. This is expected to be completed by 9/30/95.
- 8. IOPs will be revised to include the requirement to review outstanding items that may impact an associated Mode change (i.e., OD log and Action Requests). This will be implemented prior to the next mode change.

One Time Actions

- A Problem Report was generated to determine the cause and corrective actions for the valve(s) failing to obtain satisfactory LLRTs. This determination will be performed prior to core reload. A Supplemental LER will be provided to address the cause, generic implications, and corrective actions for the containment purge valves.
- 2. Required reading of the LER by all Licensed and Non-Licensed Operators and maintenance planners and schedulers will conducted after issuance of the LER.

NRC FORM 3(66			U.S. NUCLEA	R REG	ULATORY	COMM	ISSIO			APPR		B NO.	3150 /98	-0104					
	LIC	EN See	SEE rever	EVENT RE	POR	T (LER) per of	·		ESTI INFO LEAR BACI ESTI (T-6 2055 0104	TIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MAI ORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED ARNED ARE INCORPORATED INTO THE LICENSING PROCESS CK TO INDUSTRY. FORWARD COMMENTS REGARDING TIMATE TO THE INFORMATION AND RECORDS MANAGEMENT 6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHING 555-0001, AND TO THE PAPERWORK REDUCTION PROJEC 04), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, D										
FACILITY NAME (1)		J107011					····	DOC	KET I	NUMBER (2)			PAGE	(3)				
	SALEM - Unit 1									050	00272		1 OF 6							
TITLE (4) Operabili1	y Fu	nci	tiona	al Test No	t Pei	rformed	d Prio	r to	Mo	de	Entry	· · ·		L _a						
EVENT DAT	E (5)		LE	ER NUMBER (6	5)	REPO	RT DAT	E (7)	A		ΟΤΙ	IER FACILITI	ES INV	OLVE	D (8)					
MONTH DAY	YEAR	۲	EAR	SEQUENTIAL NUMBER	REVISIO	MONTH	DAY	YEAR	FACI	UTYA	AME		DOCKE	a 00						
07 26	95	9	95 -	- 019	00	08	25	95	FACI	UTYN	ÎÂME	· · · · · ·		DOCKET NUMBER 05000						
OPERATING	Ī	TH	IS REF	PORT IS SUBN	AITTED	PURSUA	NT TO	THE REQUIREMENTS OF 10 CFR \$: (Check one or more) (11)												
MODE (9)	6		20.22	201(b)		20.220	3(a)(2)(v)		X	50.73(a)(2)(i)(B)		5	50.73(a)(2)(viii)					
POWER			20.22	203(a)(1)		20.220	3(a)(3)(i)				50.73(a)(2)(ii)		5	50.73(a)(2)(x)					
LEVEL (10)	000		20.22	203(a)(2)(i)		20.220	3(a)(3)(ii) 			50.73(8)(2)(m)		73.71						
		%	20.22	203(a)(2)(ii) 203(a)(2)(iii)		20.220	3(a)(4)	<u> </u>	-	50.73(a)(2)(iv)					UINER Specify in Abstract below					
			20.22	203(a)(2)(iii)	<u> </u>	50.36(-)(2)			50.73(a)(2)(vii)				or in NRC Form 366A						
		<u>81</u>			LICE	NSEE CON	TACT F	OR TH	IIS L	ER (12)									
NAME Mike Heal	У									TELE	PHONE NU	MBER (Include Area (609) 4	+29 -	520	00					
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CAUSE	SYSTEM	Co	OMPONE	INT MANUFACTU	JRER I	REPORTABLE TO NPRDS		CAL	JSE .	8	BYSTEM	COMPONENT	MANU	FACTUR	ER R	EPORTABLE				
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	S	UPP	LEMEN	NTAL REPORT	EXPE	CTED (14)	1 100				EXP	ECTED	MONT	ГН	DAY	YEAF				
YES X (If yes, con	YES (If yes, complete EXPECTED SUBMISSION DATE).		ATE).	NO				SUBMISSION DATE (15)					27	95						
ABSTRACT (On June an "in s valves w was issu	Limit to 20, erie ere ed o	140 199 s" LRT n 6	0 spac 05, w Leak //d `` 5/21/	while in N Rate Tes in series 95 which	fode st (LF s" sa stat	15 singles 5, con (T). 1 atisfacted "th	tainm VC2 w toril e val	ves	ten lin pur hen An are		(16) valv ycled erabi onsid	es, 1VC1 open and lity Dete ered to h	and d clo ermin be in	1VC osed nati nope	2, fa and on ((rable	ailed the DD)				

inspections are to take place to investigate the valve seals. The operability of these valves will be re-evaluated at that time". On 7/25/95, Unit 1 entered Mode 6 with containment purge in service and the valves inoperable. This is contrary to the OD and Technical Specification 3.9.9. This event is reportable per 10CFR 50.73(a) (2) (i) (B). This condition was discovered on 7/26/95 and the purge valves were stroke checked (same day) to verify closure. The failure to close or re-evaluate the operability of these valves prior to entry into Mode 6 is attributed to an inadequate Integrated Operating Procedure (IOP), inadequate tracking of system operability status, and inadequate tracking and follow through of corrective maintenance activities. TS Action tracking logs, OD procedures, and the IOP are being revised.

integrity". On July 5, the OD was amended to document the operability of containment purge while in Mode 5 but cautioned "prior to Mode 6, further testing and/or

NRC FORM 366 (4-95)

NRC FORM 366A		U.S.	NUC	CLEAR	REG	ULATO	RY CO	MMISS	SION	
LICENSEE EV TEXT C	ENT REPORT (LE	R)								
FACILITY NAME (1)	DOCKET NUMBER (2)		LER	NUMB	ER (6)	P	AGE (3	(3)	
		YEAR	•	EQUENTIA NUMBER	AL.	REVISION NUMBER		-		
SALEM - Unit 1	05000272	95		019	-,-	00	2	OF	6	
TEXT (If more space is required, use additional copies of NRC Form 3	366A) (17)	-				• . 				
PLANT AND SYSTEM IDENTIFICATION			•							
Westinghouse - Pressurized Water Re Containment Purge and Pressure Reli Manufacturer Name - Masoneilan Inte	actor ef System - EI rnational Inc	IS - M	Ide 120	enti:)	Eie	r {B]	F }		·	
IDENTIFICATION OF OCCURRENCE										
Operability Functional Test Not Per Event Date: July 25, 1995 Discovery Date: July 26, 1995	formed Prior T	'o M	ode	e Ent	ry	-	-			
CONDITIONS PRIOR TO OCCURRENCE										
Operational Mode: 6 Reactor at 0% of Rated Power	n na sana sana sana sana sana sana sana	• • ••7	· · ·	5 - 5 y Ge						
DESCRIPTION OF OCCURRENCE		-					·			
On June 20, 1995, containment purge is tested in series to comply with Techni (AS) 3.8.2.2 which requires "containment hours with less than 2 AC buses operate unavailable). The containment penetra failed its Local Leak Rate Test(LLRT). assist in seating the valve, and the J satisfactorily.	solation valves cal Specificat: ent integrity" ble (e.g., Unit ation associated Valve 1VC2 wa leak rate test v	1VC ion to b 1 d d wi as c was	(TS e lies th yc re-	2 wer 5) Ac estat sel c valv led c -perf	re i olia gene yes open form	leak on St shed erato 1VC1 n and med	rate atem with rs and clo	e nent nin 8 d 1VC osed	2 to	
Based on this failure, the operability was identified nor corrective maintena failed its initial leak rate test. Bot were both cycled to obtain a satisfact occurrence. An Operability Determinat valves were considered inoperable for for the failed leak rate test was dete stated "the valves are considered to b penetration(due to the satisfactory integrity" (i.e., valves remain in a c	y of 1VC2 was the ince performed th 1VC1 and 1VC2 cory LLRT two we tion (OD) was is containment put ermined and/or of be inoperable, a LLRT) is operation	hen to d 2 we eeks ssue rge corr alth ole).	que lete re d pui rect loug	estic ermin addu rior on 6, rpose ted. gh th con	ne res: to /21, es t Ho ne itai	d as why i sed s this /95. until oweve	no c t ha ince The the r, t	cause ad e the e e cau the C	ey ise DD	
On July 5, the OD was amended to docum while in Mode 5 but cautioned "prior to inspections are to take place to invest of these valves will be re-evaluated at initiated to check the stroke of the to demanded. These work requests indicate Mode 6.	ment the operable to Mode 6, furth stigate the value at that time". values to verify ted that the che	ilit her ve s Wor y va eck	tes seal k lve be	of co sting ls. reque e clo perf	onta The sta su form	ainme nd/or e ope s wer re wh med p	nt p rabi e en rior	ourge lity to	7	

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NRC FORM 366A (4-95)

NRC FORM 366A		U.S.	NUC	LEAR	REG	ULATO	RY CO	MMIS	SION		
	ENT REPORT (LE	R)									
TEXT C		•••									
FACILITY NAME (1)	DOCKET NUMBER (2)		LER	NUMB	ER (6)	P	AGE (3)		
		YEAR SEQUENTIAL REVISION NUMBER NUMBER 95 019 00						YEAR SEQUENTIAL REV NUMBER NU			
SALEM - Unit 1	05000272	95		019		00	3	OF	6		
TEXT (If more space is required, use additional copies of NRC Form 3	66A) (17)										
DESCRIPTION OF OCCURRENCE (Cont'd)	· · ·					. ·					
On July 24, 1995, while in Mode 5, Con 1435 on July 25, 1995 Unit 1 entered M Reactor vessel head stud. The contain the transition from Mode 5 to Mode 6. above and TSAS 3.9.9 which states, "Wi inoperable, close each of the Purgep the containment atmosphere to the outs On July 26, 1995, at 1716 hrs., it was in service but inoperable, contrary to were subsequently stroke tested to ver	tainment purge ode 6 upon dete ment purge syst This is contra th the Contain enetrations pro- ide atmosphere realized that the TS and OD ify closure with	was ension tem wary f ment ovidi ." the requ th no	pl oni was to Pu ing co uir o a	aced ng c in the rge. dir ntai emen bnor	nma	n ser the f rvice requ ystem acco ent p . Th litie	vice irst dur iren ess urge e va s	from was			
On July 27, 1995, the OD was amended a operable for Modes 5 and 6 since they safety function for "containment closu functional requirements of TS 3/4.9.4 should "containment integrity" be need two operable vital buses per TS 3/4.8. tightness will be verified by performa 3/4.6.1.2."	nd recommended are capable of re" as identif and 3/4.9.9. led in Mode 6 (2.2, 3/4.8.2.4 nce of another	that per: ied : It fu e.g. or : LLR	t t for urt , d 3/4 F i	he w ming the her ue t .8.2 n ac	ral TS Spe .0 .6 .CO	ves b heir base ecifi less), le rdanc	e de spec s ar ed t thar ak e wi	eclan ific nd th that the th	ce ed ie ie		
CONDITION ANALYSIS The containment purge system is normally are administratively locked closed and months. One supply air penetration (1V (1VC3 and 1VC4) are provided for purging mode is designed to refresh the contain operating personnel and minimize the ac	y isolated. The tested in Modes C1 and 1VC2) and g the containme ment atmosphere cumulation of a	e con 1-4 d one nt at to a ny lo	nta at e e tmo acc	inme lea xhau sphe epta live	nt st st re. ble	purge once penet This leve	e va eve trat is p els	lves ry 6 ion urgin for opes	ng i		

the containment. In Mode 6, these penetrations are required to be operable which may include manually closing the valve. The operability and closure restrictions are sufficient to restrict radioactive material release from a fuel element rupture based upon the lack of containment pressurization potential. However, in modes 5 and 6, certain TS Action Statements such as inoperability of all AC Busses or Emergency Diesel Generators require that containment integrity be established. In these cases, a LLRT is required.

IE Circular 77-11, dated 9/6/77, addressed numerous reports on unsatisfactory performance of the resilient seats for the isolation valves in containment purge and vent lines. Generic Issue B-20, "Containment Leakage Due to Seal Deterioration" was established to evaluate and establish appropriate testing frequencies for these valves. Excessive seat leakage in these valves is typically caused by severe environmental conditions and/or wear due to frequent use. As a

NRC FORM 366A (4-95)		U.S.	NU	CLEAR	REGI	JLATO	RY CO	MMISS	SION				
LICENSEE EVENT REPORT (LER) TEXT CONTINUATION													
FACILITY NAME (1)	DOCKET NUMBER (2)		LER	NUMB	ER (6	5)	P	PAGE (3)					
		YEAR	•	Equentia Number									
SALEM - Unit 1	05000272	95		019		00	4	OF	6				
TEXT (If more space is required, use additional copies of NRC Form 3	366A) (17)												
Condition Analysis (Cont'd) result of Generic Issue B-20 and the long term resolution of Generic Issue B-24 "Containment Purging During Normal Plant Operations," it was determined that passive purge lines shall be administratively controlled during Modes 1 through 4 and tested at least once every six months to demonstrate their integrity.													
A review of LLRT data from 1984 to 1995 indicates that this penetration (1VC1, and 2) failed LLRTs on at least 5 occasions prior to this event. On 7/11/95, all three Unit 1 Emergency Diesel Generators were declared inoperable (refer to 272/95-015) and containment integrity was established. These valves failed the initial LRT but passed on a subsequent LLRT.													
Cause of the Condition													
The Cause Code classification "D", "Defective Procedure", (per NUREG 1022) is attributed to this event. The root cause of the event was an inadequate mode entry procedure (from Mode 5 to Mode 6). While the Integrated Operating Procedure (IOP) does comply with the TS LCO by assuring purge system operability prior to core alteration, the IOP for entry into Mode 6 does not require testing or verification of the containment purge and pressure/vacuum relief system prior to entry into Mode 6.													
valve to meet the LLRT acceptance crit actions (e.g., ODs) to ensure valve of Action Statements.	ceria. This leave berability for 5	d to IS "	se Clo	evera	.1 a ." a	idmin and "	istr Inte	ativ egrit	re :y″				
Other contributing causal factors i	ncluded:							,					
• inadequate procedures governing entr was not updated to reflect the statu Consequently, the NSS and NCO were n tracking action statements are curre Status" report by the Shift Supervis requirement to record tracking actio	ies into the TSP s of the degrade ot aware of thes ntly logged in t or; however, the n statements for	AS t ed c se r the ere r a	rac ont est "Cc is fut	king ainma rict ntro no p ure n	lo ent ion: l R roc mod	g. I purg s. I oom U edura e.	This Je sy The Init	log ystem	1.				
 lack of procedural interface betw As a result there is inconsistend is employed by each individual/sh 	veen the ODs an cy in the manne nift.	nd t er i	he n	TSA whic	s t h t	rack he i	ing nte	log rfac	• e				
 the planning/scheduling process fair restricting maintenance activity. perform stroke checks on 1VC1 and 1 obtained prior to entry into Mode 6 any planning/scheduling restriction 1VC1 and 2 were initiated and plann list" identified the need to perfor 	led to control Action requests VC2 to ensure t . Mode 6 was e s or requiremented, yet no outa m the work price	or weithe interints. age	ide re rec rec sch	entif writ uire l on The w nedul Mode	y a ten d c Jul ork e o 6.	Mode on losu: y 25 ord or "p:	e- July re w wit ers rior	6 t as hout for ity	0				

NRC FORM 366A (4-95) LICENS	EE EVENT REPORT (LE	ັບ.ຣີ. R)	NUCLEAR RE	GULATOF	RY CO	MMISS	ION
FACILITY NAME (1)	DOCKET NUMBER (2)		LER NUMBER	(6)	P	AGE (3	4
SALEM - Unit 1	05000272	year 95	SEQUENTIAL NUMBER	REVISION NUMBER	5	OF	6
 TEXT (If more space is required, use additional copies of NF Other contributing causal factors the absence of a mode change reviews (e.g., Tech Space, upa) 	CForm 366A) (17) ors include: (Cont' requirement to perfor vailable equipment	d) ma	dditional	actio	ons	or	

PRIOR SIMILAR OCCURRENCES

A review of previous LER's identified two instances of Mode changes with required safety systems inoperable due to administrative process deficiencies. The processes consisted of the "control of EQ surveillances" and "TS amendment implementation." Neither event had root causes similar to this event. For further information, refer to LER 272/88-004 and 311/90-013. Also, it is assumed (no validation review performed) that the IOP inadequacy may have caused previous similar occurrences.

(tagged) report) other than those specified in the Table for the Mode change.

SAFETY SIGNIFICANCE

The reactor head was on the vessel at the time the containment purge system was in service and was terminated prior to core alterations. The containment purge valves were secured at approximately 1716 hrs on 7/26/95. The reactor head was lifted on 7/28/95 at approximately 0525 hrs. There were no industrial safety or radiological impacts associated with this event.

CORRECTIVE ACTIONS

- Control Room Operator/Supervisor Logs have been revised to formalize the requirement for entering tracking LCO's against equipment that is unavailable or inoperable for future modes. In particular, specific direction as to the requirements for entering a tracking AS has been provided to ensure consistency in the systems/equipment tracked.
- 2. A tracking AS has been entered for the 1VC1,2 for Mode 6 to ensure that the open and inspect work orders are completed in determining the cause for the leak rate failures. A review of open ODs has been performed to assure degraded conditions imposing mode restrictions are incorporated into the tracking log.
- 3. The procedure , "Removing and Returning to Service of Safety Related Equipment" is being revised to incorporate the process for tracking action statements. Specifically, this revision includes the requirement to specify equipment that is removed from service for normal scheduled maintenance and equipment that becomes inoperable for other reasons (i.e. degraded conditions, ODs , failed surveillances, etc). This

NRC FORM 366A		U.S.	NUC	LEAR F	EGL	JLATO	RY CO	MMISS	SION	
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FACILITY NAME (1)	DOCKET NUMBER (2)		AGE (3	3)						
		YEAR	•							
SALEM - Unit 1	05000272	95	••	019	J 	00	6	OF	6	
TEXT (If more space is required, use additional copies of NRC Form :	366A) (17)							<u></u>		
Corrective Actions (Cont'd) revision includes modifications to particular, the form includes ent associated action requests and st design changes, and other document equipment is inoperable. Include to operability restoration. The implemented by 9/1/95.	to the TSAS tra tries for appli tatus, work ord ts/actions to h ed also are tho above revision	acki icab lers be p bse h is	ng le eri act	form TS a condi forme tions kpect	i. ind ti d ; r :ed	In Mod on r whil equi to	es; epoi e tl red be	rts, ne pri	or	
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7. The planning/scheduling process waction requests that are condition and incorporated into the schedul to be implemented by 9/30/95, with	will be revised onally tied to ling process. th full impleme	d to spe The enta	ci ci pi tic	learl fic p roces on by	.y >la ;s 7 1	addr nt e is e 2/31	ess volu xpec /95	utio cted	ns	
8. A Unit Coordinator (UC) position will be established in the revised work control process. The UC will review action requests with an SRO and specify conditional limitations (i.e. Mode restrictions, system operability, etc.), and schedule the work request accordingly.										
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10.IOPs will be revised to include to items that may impact an associat Requests). This will be implement	the requirement ted Mode change nted prior to t	t to e (i che	nez	eview ., OI kt mo	v o) 1)de	outst og a cha	and nd <i>I</i> nge	ing Acti •	on	
11.Required reading of the LER by all maintenance planners and schedulers	Licensed and No will conducted	on-L l aft	ice ter	nsed issu	Op 1an	erat ce oi	ors E th	and e LE	R.	