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February 10, 2005

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

Subject: Oconee Nuclear Station Docket Nos. 50-287 Licensee Event Report 287/2004-02, Revision 0 Problem Investigation Process No.: 0-04-8658

Gentlemen:

Pursuant to 10 CFR 50.73 Sections (a)(1) and (d), attached is Licensee Event Report 287/2004-02, Revision 0, regarding operation with an open path out of containment while refueling activities were in progress.

This report is being submitted in accordance with 50.73 (a)(2)(i)(B) as operation in a condition prohibited by Technical Specifications. This event is considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

Bruce Hamilton / For

R. A. Jones

Attachment



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cc: Mr. William D. Travers Administrator, Region II U.S. Nuclear Regulatory Commission 61 Forsyth Street, S. W., Suite 23T85 Atlanta, GA 30303

> Mr. L. N. Olshan Project Manager U.S. Nuclear Regulatory Commission Office of Nuclear Reactor Regulation Washington, D.C. 20555

Mr. M. C. Shannon NRC Senior Resident Inspector Oconee Nuclear Station

INPO (via E-mail)

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NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION APPROVED BY ONB: NO. 3150-0104 EXPIRES: 06/30/2007 (6-2004) Estimated burden per response to comply with this mandatory collection request: 50 hours. LICENSEE EVENT REPORT (LER) Reported kessons karned are incorporated into the licensing process and Fed back to industry. Ser comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52) U.S. Nuckear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection des not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.									06/30/2007 50 hours. to industry. Send Branch (T-5 F52), net e-mail to tory Affairs, C 20503. If a d OMB control to respond to,		
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Oconee Nuclea	r Static	n, Unit	3		5000-		0287			1 OF	
4. TITLE											
Open Containm	ent Penetr	ation dur:	ing Re	efuel.	ing Act	iviti	.es	OTHER			
	0. 2211		 			FACILI				IUMBER	
MO DAY YEAR		UENTIAL REV IMBER NO	мо	DAY	YEAR	None	TYNAME			05000)
12 13 2004	2004 - (04 – 0	02	10	2005	None				05000	
6 10. power level N/A	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $						that apply) 2)(vii) 2)(viii)(A) 2)(viii)(B) 2)(viii)(B) 2)(ix)(A) 2)(x) 4) 5) Abstract below Form 366A				
		12.	LICENSI	EE CON	TACT FOR	THIS L	ER				
FACILITY NAME B.G. Davendo	ort. Regula	atory Comp	lianc	e Mar	nager	TELE	PHONENUI	MBER (Incl (864)	ude Area (885	-3044	
13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT											
CAUSE SYSTEM	COMPONENT	MANU- FACTURER	REPORTA	BLE	CAUSE		SYSTEM	COMPON	IENT	MANU- FA CTURER	REPORTABLE TO EPIX
14.	SUPPLEMENT	L REPORT EX	PECTER) <u>] :: ::</u>	· · · · · · · · · · · · · · · · · · ·		15. EXPE	CTED	MONTH	DAY	YEAR
YES (If yes, compl	ete EXPECTED	SUBMISSION D	ATE)	X	NO		DAT	E			
11.25 (myes, complete EAPECIED Schwidshold (ATE) [A [NO]] Date [11.6] ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) On 12-13-04, at 1245 with Unit 3 in Mode 6 after core reload was complete, Operations personnel (OPS) discovered a deviation from Technical Specification 3.9.6 on containment closure (CC) during fuel movement. The NRC was notified at 1701 on 12/13/2004 (ENS 41256). CC was verified prior to fuel movement. On 12/7/04, during fuel movement, OPS ran a valve checklist which opened five steam drain valves in the turbine building. The valves are part of the outside containment boundary for a Main Steam penetration and were required to be closed for CC. At 2145 hours on 12/12/04, a CC surveillance found the open valves and closed them. Fuel handling was completed at 0358 on 12/13/2004. OPS checked the actual status of the inside boundary, which was uncontrolled this outage. OPS determined at 1245 on 12/13/04 that at least one valve on this penetration had been open inside containment during this event, making a reportable open flow path. The event root cause was that standards and expectations for the use of the "Containment Isolation Component" tags were not clearly defined or understood. There was no actual release due to the event. This event is considered to have no significance with respect to the health and safety of the public.											

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U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6	. LER NUMBER			E	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Oconee Nuclear Station, Unit 3	05000287	2004		0	2	OF	7
17. NARRATIVE (If more space is required, use additional copies	s of NRC Form 3	66A)			_		
EVALUATION:							
BACKGROUND							
This event is reportable pe a condition prohibited by T	er 50.73(Pechnical	a)(2)(i Specif)(B) as c ications	operat: (TS).	ion i	n	
During Refueling Operations penetrations that provide d atmosphere to the outside a isolation valve or equivale requirement are ventilation an automatic closure signal core alterations and moveme must be suspended immediate progress, Surveillance Requ status of each penetration	a, TS 3.9 lirect ac tmospher ent. The system . If th ent of ir ly. Whi lirement be verif	.3 requ cess fr e must only e penetra is cond radiate le fuel 3.9.3.1 ied eve	ires that om the co be closed xceptions tions whi ition is d fuel as movement requires ry 7 days	tontain by and to the ich red not me ssemble t is in that 5.	nent l lis ceive et, les l the		
A change was made approxima establishing Refueling Cont time, "white tags" were use Refueling Containment Closu tags used for configuration repositioned or operated, of configuration control of pl The "white tags" specified component. Specific approv (SRO) in charge of that uni the status of a white tagge procedure specified the new replace the "white tag" pro containment isolation compo Isolation Component" tags/1 follows: "CAUTION - CONTAIN reposition, disassemble or permission of Work Control	tely 199 ainment d to ide re. By control could res ant equi the requi the requi ral of th t was re d compon status. cess for perform SRO"	9 to th Closure ntify v directi of equ ult in pment o ired st e Senic quired ent, ev A dec identi th perm The new LATION any wor	e process Prior alves use ve, "whit inadequat r equipme atus of t r Reactor in order en if an ision was fication anent "Co labels n COMPONENT k unless	s of to that ed for te tags nich, s te ent dar the tag to chat approves made of ontainn read as F -DO F	at s" ar if nage. gged ator ange ved to nent s NOT	e	

Prior to this event Unit 3 was in day 59 of a refueling outage that included replacement of both steam generators.

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17. NARRATIVE (If more space is required, use additional copie	s of NRC Form 3	166A)					
EVENT DESCRIPTION							
On 12/4/04, Unit 3 was defu established containment clo refueling.	leled and Sure con	l in "NC ditions	MODE." (to perfo	Operati orm	ions		
Due to steam generator repl not credit or control the m containment. Instead, they containment building for th penetrations. As part of t 161, 3SD-162, 3SD-163, and located outside containment verified CLOSED.	lacement nain stea / credite ne associ this proc 3SSH-18, t in the	activit m bound d valve ated ma ess, va contai steam d	ies, Open lary inside s outside in steam lves 3SD- nment clo lrain syst	rations de e the -160, 3 osure v tem, we	3 did 3SD- valve ere	s	
On 12/6/04 at 1301 hours, C 6 and began fuel movement a)peration activitie	s decla s at 14	red entry 25 hours	y into	Mode	!	
On 12/7/04, non-licensed Nu prepared for establishing v unit. One checklist complet 0700 to 1900 hours) opened above. When the NEOs encou "Containment Isolation Comp that task, they interpreted given them the assignment to further communications were questioned operation of the pre-job briefing had not in task could impact containme	aclear Eq vacuum on eted duri the five intered v conent" 1 d that th to perfor e require ose valve hcluded a ent closu	uipment the se ng that steam alves w abels i w Work m the c d. Non es or th ny reco ure.	Operator condary s dayshift drain val vith perma n place a Control s checklist e of the le fact the ognition f	rs (NEC side of t (betw lves list anent as part SRO hac and th NEOs hat the that th)s) E the veen isted t of d nat n eir	.0	
The containment closure pro evolution to occur, but on existed on the inside bound outside boundary was not re the inside boundary status	ocedure w ly after lary. Be ecognized was not	ould ha verific cause t /questi checked	ve permit ation that he impact oned at t	tted th at a ba t on th this t:	nis arrie ne ime,	r	
On 12/12/04 at approximate a TS required seven day sur 160, 3SD-161, 3SD-162, 3SD- OPEN position. Upon discov subsequently began reviewir	ly 2145 h rveillanc -163, and very, OPS ng status	ours, d e, the 3SSH-1 closed of the	luring per five valv .8) were f l the valv seconda:	rforman ves (39 found : ves and ry syst	nce o SD- in th 1 tem	f	

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17. NARRATIVE (If more space is required, use additional copies boundary inside containment	s of NRC Form 3	closure of that :	bounda	ary		
would have satisfied the TS Fuel handling operations we	} require ere compl	ement. .eted at 0358 on	12/13,	/2004	•	
Operations investigation co one 3/4 inch steam generato inside the Containment buil 12-7-04. This indicated th a period of time (estimated the outside barrier was ope progress. At that point Op reportable event had occurr of the status of the barrie possible that other opening period of time. Therefore existed from the time the c 04 until the time they were	onfirmed or drain ding front at the i l to be l ened and perations red. Due er inside s may ha it is as putside v e discove	at 1245 on 12/13 valve (3FDW-420) om 10-13-04 to 21 inside barrier wa ess than 18 hour while fuel movem a concluded that to lack of document to lack of document containment, it is existed for a sumed that an op valves were opene ered and closed of	/04 th was of 39 hou s oper s) aft ent wa a mentat is longe ening d on 12-1	hat open urs on ter as in tion er 12-7- 12-04	n	
NRC 8 hour notification num 12/13/2004.	ıber 4125	6 was made at 17	01 on			
CAUSAL FACTORS						
An investigation determined that standards and expectat Isolation Component" tags w A contributing factor was t initially communicated were	l that th ions for vere not that any a not inc	e root cause of the use of the clearly defined expectations whi corporated into p	this e "Conta or und ch wei olicy	event ainme derst re docu	was nt ood. ments	

such as directives or procedures, which would have been included in

CORRECTIVE ACTIONS

initial and continuing training programs.

Immediate:

1. Fuel movements were completed prior to discovery that a reportable event had occurred; therefore no immediate actions were necessary to terminate the event.

NRC FORM 366A 1-2001) LICENSE	EE EVENT	REPORT	u.s. (LER)	NUCLEAR	REGULA	TORY CO	MMISSION
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17. NARRATIVE (If more space is required, use additional copies	s of NRC Form 3	66A)				<u></u>	
Subsequent:							
 Operations issued an "Operations issued an "Operation management's expectation additional/instructional performance of a task, un addressed them. 	erations to notif valve la nless the	Focus : fy the s abels/ta e pre-jo	Item" add SRO when ags are d ob brief	ressin iscove previc	ng ered i ously	in the	2
2. The system alignment pro- equivalent procedures for pending procedure enhance	cedures i r all Oco ements.	involve onee Un	d in this its, were	event place	, and ed on	1 the hold	
Planned:							
1. Operations will perform a identify other application tags/labels may be in use clearly defined or unders Removal tags hung for mid	an "Exter ons where e and to stood. d loop oj	nt of Co e specia evalua (Examplo peration	ondition" al inform te if the e: Loss ns.)	asses ation ir usa or Res	sment ige is idual	to 5 1 Heat	
2. Operations will develop Procedure (OMP) to define expectations relative to tags and other special in in use.	or revise e and cor "Contain nformatic	e an Openmunica nment Is on tags	erations te standa solation /labels w	Manage rds an Compon hich m	ement id ient" nay be	9	
3. Operations will incorporations for use of special inform continuing training programming ongoing proficiency and the second s	ate the s mation ta rams as a understar	standaro ags/labo appropr: ading.	ds and ex els into iate to e	pectat initia nhance	ions 1 and 9	£	
These corrective actions ar items. There are no NRC Co LER.	e not co mmitment	nsidere items	ed NRC Cor contained	nmitmen 1 in tl	nt his		
SAFETY ANALYSIS							
Section 15.11.2.2 of the Oc Handling Accident inside Co (prior to incorporating Alt the worst case release is a	onee UFS ntainmen ernate S ppropria	AR addr t. The ource I tely wi	esses a I UFSAR ar Perms) cor thin 10 (Fuel halysi: hclude CFR 10	s s tha 0	t	

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limits. That calculation assumes the accident occurs as soon as fuel movement is allowed by the TS. This event began on day 59 of the refueling outage. Substituting the source term for that additional decay time into the existing dose model resulted in calculated 2 hour EAB doses of 0.3 rem Thyroid and 0.0003 rem Whole Body.

The UFSAR analysis does not take any credit for containment or for any filtration by the RB purge ventilation system. In an actual event, the RB purge system HEPA and carbon filters would have limited and monitored the release. If the effluent contained sufficient radioactivity, the radiation monitors would trip the purge, close the purge valves, and terminate the monitored release, at which time there would be no motive force to cause outleakage through the open penetration. Actual initial pressure during the event was a negative 0.07 psig or about 2 inches of water) so that any flow through the open penetration would be into containment from the outside until pressure equalized.

Also, the size of the open valves outside Containment in the Turbine Building (four open 2 inch valves and one open 3 inch valve), and the distance between the opening inside Containment and the openings outside containment would restrict the potential flow rate.

Therefore, the reasonable expectation is that little or no radioactive materials would actually be released through the open penetration, even if we postulate a fuel damage event. Therefore, this event is not considered to be a loss of safety function.

Additionally, a TS amendment incorporating Alternate Source Terms has been approved, but is currently awaiting implementation. The revised TS would only require refueling containment closure during movement of recently irradiated fuel (i.e. fuel moved within 72 hours of criticality). Thus, if this TS revision had been implemented, the condition being reported would have been allowed by TS and would not have been reported.

Therefore, there was no actual impact on the health and safety of the public due to this event.

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ADDITIONAL INFORMATION										
A review for similar prior events with similar root caused occurring within the prior two years indicates this is not a recurring event or problem.										
There were no releases of radioactive materials, radiation exposures or personnel injuries associated with this event.										
This event is not considered reportable under the Equipment Performance and Information Exchange (EPIX) program.										