NRC F0 (04-201	DRM 366 18)	;			U.S	. NUCLE	AR REG	ULATOF		Estimated burg	den per res	Sponse to comp	3150-0104 bly with this mand	EXPI latory col	lection requ	uest: 80 hours.	
ITED STATES N.	SCLEAR REGU	LA TOPA COMMISSION	L) (See F See NUREG <u>http://www</u>	ICENSEE Page 2 for require -1022, R.3 for i /.nrc.gov/readir	EVEN ed number of nstruction ng-rm/doc-	T REF of digits/ch and guid collection	PORT naracters dance for ns/nure	for each for comp gs/staff/	R) block) leting this form / <u>sr1022/r3/)</u>	n Reported less industry. Sen (T-2 F43), U.S to Infocollects Regulatory A Washington, I display a curre person is not r	sons learne ad commen 5. Nuclear F s.Resource ffairs, NE DC 20503. ently valid (required to	ed are incorpo its regarding by Regulatory Com @nrc.gov, and OB-10202, (31 If a means u OMB control nu respond to, the	rated into the lid urden estimate to mission, Washin I to the Desk (150-0104), Office sed to impose a imber, the NRC r information colle	censing p the Info gton, DC Officer, O e of Ma in informa nay not c ction.	rrocess and rmation Se 20555-000 iffice of In anagement ation collect conduct or s	d fed back to ervices Branch 11, or by e-mail formation and and Budget, ction does not sponsor, and a	
1. Faci	lity Nar	ne							2. Docket N	umber		3. Page					
Wolf (Creek	Genera	ting Statio	n					05000	482		1	OF		4		
4. Title	,																
Plant	Shutd	own Du	e to Inope	rable Contai	nment F	Purge Is	solatio	n Valv	/es								
5. Event Date		Date	6	. LER Number		7. Report Date				8.	8. Other Facilities Involved						
Month	Day	Year	Year	Sequential Number	Rev No.	Month	Day	Year	Facility Nam	le			Docket Num 05000	nber			
02	01	2020	2020 -	001 -	00	04	01	2020) Facility Nam	Facility Name Docket Number 05000							
9. Op	perating	y Mode		11. This	Report is	Submit	ted Pur	suant t	o the Require	ements of 10	CFR §	: (Check	all that a	oply)			
		_	20.2201	l (b)	2	0.2203(a)	(3)(i)		50	.73(a)(2)(ii)(A)			50.73(a)	(2)(viii)(A)		
	1		20.2201	2	20.2203(a)(3)(ii)			50.	50.73(a)(2)(ii)(B)			50.73(a)(2)(viii)(B)					
	-		20.2203	2	20.2203(a)(4)			50	50.73(a)(2)(iii)			50.73(a)(2)(ix)(A)					
			20.2203	5	50.36(c)(1)(i)(A)			50	50.73(a)(2)(iv)(A)			50.73(a)(2)(x)					
10. Power Level 20.2203(a)(2)(ii)				5	50.36(c)(1)(ii)(A)				50.73(a)(2)(v)(A) 73.71(a)(4				(4)	.)			
			20.2203	3(a)(2)(iii)	5	0.36(c)(2))		50	.73(a)(2)(v)(B)			73.71(a)	(5)			
			20.2203	3(a)(2)(iv)	5	50.46(a)(3)(ii)			50	50.73(a)(2)(v)(C)			73.77(a)(1)				
	100		20.2203	3(a)(2)(v)	5	50.73(a)(2)(i)(A)			50.73(a)(2)(v)(D)				73.77(a)(2)(i)				
			20.2203(a)(2)(vi)			50.73(a)(2)(i)(B)			50	.73(a)(2)(vii)			73.77(a)	(2)(ii)			
<u> </u>				50.73(a)(2)(i)(C)			Other (Specify in Abstract below or in NRC Form 366A))					
						12. Lice	ensee C	Contact	for this LER			T . II					
Ron E	ee Con 3enha	m, Mana	ager Nucle	ar and Reg	ulatory A	ffairs						reiepnoi	ne Numbe (620) 3	r (inci 364-4	ude Ar 1204	ea Code)	
				13. Comple	te One Liı	ne for ea	ach Coi	nponer	nt Failure Des	scribed in this	s Repo	ort					
Cau	.ISe	Systen JM	n Comp	SV Fishe	ufacturer Əl	Reporta	ible to ICE Y	S	Cause	System	Cor	mponent	Manufactu	urer	Reporta	able to ICES	
14. Sup			Supplemen	Supplemental Report Expected					15 Expec	ted Submissi	Submission Dat		Month	D	Day	Year	
Yes (If yes, complete 15. Expected Submission Date)			<u> </u>	No				06 01 20					2020				
On 2/ conta penet detern the pl Gene within within At 21: There inope fulfilln accid	1/202(inmen ration mined ant be rating 1 hou 6 hou 54 Ce fore, t rable, nent o ent. E), while t shutdo was gre to be in in Mode Station ur. This v urs. ntral Sta this is be this is a f a safet Both valv	in Mode 1 wen purge eater than operable. e 3 within (WCGS) e was not po undard Tim eing report Iso being n y function	at 100% po supply pipin that allowed This led to o 6 hours. Duentered TS L ossible, so T he (CST) on ed in accord reported in a needed to c	wer, sur g was b by Tech entry into ie to the .CO 3.6. S LCO 3 2/1/2020 lance wi accordan control th ervice the	veilland eing connical S o TS Li high le 1 Conc 3.6.1 C 0, WCC th 10 C ace with le relea e follow	ce tes onduct Specifi imiting eakage dition / onditio GS con CFR 50 h 10 C ase of wing d	mplete D.73(a FR 50 radioa ay, an	containme was discov s (TS). Tw lition for Op containme h requires as entered ed a shutdo)(2)(i)(A). I 0.73(a)(2)(v active mate d WCGS s	ent isolation vered that the vo containmed peration (LC int was also restoration l which also which also	valve he lea nent is O) 3. o decla o requ d by T beca lition t as to y retu	es assoc akage ra solation .6.3 Cor ared incontainme ires the rechnica use con that cou mitigate rned to	ciated wi ate throug valves in ndition E operable ent to ope plant to al Specifi tainment Id have p the con Mode 1	th the gh the series so Werable be in ication t was prevent sequent on 2	e ies we ch req /olf C e stat n Mod ons. s decl ented uence /3/20;	ere juires reek us le 3 ared es of an 20.	

NRC FORM 366A U.S. NUCLEAR REGUL	ATORY COMI	MISSION	APPROVED BY OMB: NO	. 3150-010)4	EXPIRES	5: 0	3/31/2020			
(G42016) LICENSEE EVENT RE CONTINUATION (See NUREG-1022, R.3 for instruction and guidance f	PORT (LE SHEET	ER)	Estimated burden per response to com lessons learned are incorporated into t regarding burden estimate to the Info Commission, Washington, DC 20555 the Desk Officer, Office of Information Management and Budget, Washingto collection does not display a current	nply with this m he licensing pi rmation Servic -0001, or by and Regulate on, DC 20503 ly valid OMB	nanda roces ces Bi e-mai ory At . If contr	tory collection request: s and fed back to indus ranch (T-2 F43), U. S. I to Infocollects.Resour ffairs, NEOB-10202, (3 a means used to imp ol number, the NRC to	80 ho try. Se Nucle ce@n 150-0 pose a may r	urs. Reported end comments ear Regulatory rrc.gov, and to 104), Office of an information not conduct or			
nttp://www.nrc.gov/reading-rm/doc-collections/nure	egs/stan/sr1022	<u>2/[3/]</u>	sponsor, and a person is not required t	o respond to, the information collection.							
1. FACILITY NAME	_	2. DOCK	(ET NUMBER			3. LER NUMBER		DEV			
Wolf Creek Generating Station	05000-		482	2020	-	NUMBER 001	001 -				
NARRATIVE	·										
NARRATIVE DESCRIPTION OF STRUCTURE(S), SYST In general, the containment isolation valves boundary and provide a means for fluid pen provided with two isolation barriers that are passive or active (automatic). Manual valve check valves with flow through the valve set Check valves or other automatic valves that considered active devices. A minimum of two barriers in series are prov malfunction of an active component can res analyses. The containment isolation valves Condition for Operation (LCO) 3.6.3, "Conta to minimizing the loss of reactor coolant inve accident (DBA). In the event leakage throug centimeters per min (sccm), containment is is entered. The containment shutdown purge system op into the containment for ventilation and cool mode (Mode 5), to reduce the concentration The containment shutdown purge system su containment. GTHZ0006 is the outside con valve. Due to the size of these isolation valve from their open position under accident con- maintained sealed closed. The containment minipurge system may be gases within the containment prior to and du containment minipurge system lines are bra isolation valves. Therefore, the minipurge s shutdown purge supply line, but has its own the outside containment minipurge isolation These are 18" valves and are qualified for a PLANT CONDITIONS PRIOR TO EVENT	EIIS Systemetration flow closed on a es, de-activa cured), blind are designed vided for eace ult in a loss are subject inment Isola entory and e gh a contain declared inco perates durin ing or heatir of noble ga upply line ha intainment iso ves (36"), it ditions. The used during uring person nch lines off upply line si containmer valve and C utomatic close	D COMP m: JM, C v paths n containr ted auto l flanges ed to close ch penet of isolati to the re- ation Val establishi ment pe operable ng reactor ng and m ases with as autom olation v was dete erefore, c u reactor in el acce f the shu hares the contractor of isolation v was dete erefore, c u reactor in el acce f the shu hares the contractor in el acce f the shu hares the contractor f the shu hares the f the shu hares the f the shu hares the f the shu hares the f the shu hares	PONENT(S) Component: ISV] form particle serving accident con- ment isolation signal. The matic valves secured in , and closed systems are se without operator action ration flow path so that is ion or leakage that exceler equirements of Technication is greater than and entry into TS LCO or outages (Mode 6 and hay also be used, when hin the containment prior patic containment isolation alve and GTHZ0007 is the ermined that they were re during Modes 1, 2, 3, and power operations to recease or to equalize interna- tion purge system be e same containment per power operations to recease or to equal to the prover operations to recease or to equal to the per per per per per per per per per per	art of the sequence hese iso their clo e conside a Specifi rived fro indary de a Specifi rived fro a 250,000 3.6.1, "C Defuele the reac r to and c bon valves the insid not quali d 4 they duce the al and ex tween the netration reside con	e co e li latio le regione co le regione co con dur so con con con con con con con con con co	ontainment pre miting system on devices and d position (inc ed passive de g an accident a edible failure issumed in the ison (TS) Limit he assumption g a design bat tandard cubic tainment," Co to supply outs is in the cold ing personnel oth inside and ontainment is a for automatic e required to b incentration of mal pressures shutdown purgoing as the co nment. GTHZ rge isolation v	essi e ei sto e ei sto ei sto ei sto ei sto e ei sto ei sto ei sto ei sto ei sto e ei sto e ei sto ei ei sto ei ei sto ei ei ei ei ei ei ei ei ei ei ei ei ei	00 ure b be ther ing es. afety related tion A e air itdown cess. tside cosure ble he system inment 04 is e.			
Prior to the event on February 1, 2020, Wolf Creek Generating Station (WCGS) was in Mode 1 operating at 100 percent power. Outside containment isolation valve GTHZ0006 had been inoperable since November 2, 2019, due to excessive leakage. Inside containment isolation valve GTHZ0007, as well as the minipurge supply inside containment isolation valve GTHZ0007, as well as the minipurge supply inside containment isolation valve GTHZ0007, as well as the minipurge supply inside containment isolation valve GTHZ0007, as well as the minipurge supply inside containment isolation valve GTHZ0005 were both closed and de-energized in accordance with TS LCO 3.6.3 Condition D. No other structures, systems, or components were inoperable which contributed to the event.											

NRC FORM 366A U.S. NUCLEAR REGULA	TORY COM	VISSION	APPROVED BY OMB: NO	3150-010)4	EXPIRES	5: O	3/31/2020	
(J4-2016) LICENSEE EVENT REP CONTINUATION S (See NUREG-1022, R.3 for instruction and guidance for http://www.nrc.gov/reading-rm/doc-collections/nureg	PORT (LE SHEET r completing tl is/staff/sr1022	ER) his form 2/r3/)	Estimated burden per response to com lessons learned are incorporated into th regarding burden estimate to the Infor Commission, Washington, DC 20555 the Desk Officer, Office of Information Management and Budget, Washingto collection does not display a currentl sponsor, and a person is not required to	ply with this management plicensing pro- mation Service 0001, or by e and Regulate n, DC 20503 y valid OMB prespond to, t	nanda roces e-mai ory Af . If contr he inf	tory collection request: s and fed back to indus ranch (T-2 F43), U. S. t to Infocollects.Resour fairs, NEOB-10202, (3 a means used to imp ol number, the NRC n formation collection.	80 ho try. Se Nucle ce@n 150-0 oose a may r	urs. Reported end comments ear Regulatory irc.gov, and to 104), Office of an information not conduct of	
		2 0004				3. LER NUMBER			
				YEAR	Γ	SEQUENTIAL		REV	
Wolf Creek Generating Station	05000-		482			001	- [- 00	
NARRATIVE									
NARRATIVE EVENT DESCRIPTION WCGS Refueling Outage 23 (RF23) began or and GTHZ0007. The administrative leakage acceptance criteria for the penetration (which previous tests had shown both valves had muleakage following maintenance discovered du performed on GTHZ0007, and prior to enterim Time (CST) on 11/2/19), measured leakage to summation of leakage through GTHZ0004, GTHZ0006 which eliminated this leak path. T decision was made to postpone maintenance could be performed online. In the case of one containment purge isolation LCO 3.6.3 Required Action D.1 requires that closed and de-activated automatic valve or cl Mode 4 (the first mode of applicability), GTHZ the blind flange associated with GTHZ0006 w (GTHZ0004, GTHZ0005, and GTHZ0007). Required Action D.3 requires that leak rate the seals that are closed to comply with Required Purge Valve Leakage Test" was performed to performance was greater than 21,000 sccm. not be met. This required Action A.1 is to resto cannot be completed, then Condition B required and 3.6.3. It was determined that GTHZ0007 was leakin were first completed on GTHZ0007 and at 10 allowed isolation of the containment penetrat LCO 3.6.1 and 3.6.3 met, WCGS subsequeneed to the containment penetrat LCO 3.6.1 and 3.6.3 met, WCGS subsequeneed to the containment penetrat LCO 3.6.1 and 3.6.3 met, WCGS subsequeneed to the containment penetrat LCO 3.6.1 and 3.6.3 met, WCGS subsequeneed to the containment penetrat LCO 3.6.1 and 3.6.3 met, WCGS subsequeneed to the containment penetrat LCO 3.6.1 and 3.6.3 met, WCGS subsequeneed to the containment penetrat LCO 3.6.1 and 3.6.3 met, WCGS subsequeneed to the total subsequence total sub	n 9/21/201 rate limit is a includes th easured lea uring RF23 ng Mode 4 hrough this GTHZ0005, his leakage work on G on valve not the affecte losed manu 20007 and vas installe esting be per d Action D. o meet Req As a resul .3 Condition lso greater able at this re containn res the plar 20 within th ng, in additi 0 3.6.3 Co ared opera ntly began	9. Durin 5 12,000 he mini-j ak rates for both coming of s penetra and GTH e was be GTHZ000 t within le d penetra al valve GTHZ000 d to ena erformed 1. On 2/ juired Act t at 184 n E which than 25 time so nent to C in to be in the Requi- on to the prepara	ng RF23, leak rate testin sccm for each of these purge valve leakage) is 3 which were within their a out of RF23 (which occu ation was 10,500 sccm. HZV0007 because the b elow the administrative li 26 as it is the outside co eakage limits, TS LCO 3 ration flow path be isolate a. To meet TS LCO 3.6. 205 were both verified cl ble leakage measureme d every 92 days on those (1/2020, surveillance pro- ction D.3. The as-found 5 CST on 2/1/2020, LCO ch directs the plant to be 60,000 sccm which is the TS LCO 3.6.1 Condition DPERABLE status within in Mode 3 within 6 hours ired Completion Time fo e previously known leak 20, GTHZ0007 was decl inment was declared op E were exited. GTHZ00 this time TS LCO 3.6.3 (tions to return to power of	g was provents. 21,000 s administ 5 limit. I intred at 0 This me ind flang mit for t ntainme 3.6.3 Con ed by th 3 Condit osed an ent of pe leakage 0 3.6.3 F in Mode TS limi A was of a 1 hour. and Mode through area ope condition operatio	erfo Thiscratai 085 gets his in difficult of the one of	prmed on GTH e TS surveilla m. Prior to RI ve limits. The intenance wor 0 Central Sta urement was was installed penetration. solation valve tion D is enter se of at least D prior to en leactivated. In ration V-161 ves that have S PE-015 "Co te at the time quired Action within 6 hours r containment ered for an in Required Action within 6 hours r containment ered for an in Required Action frequired Action frequired Action within 36 h able Conditio	HZ0 nce =23 as nda the on terin n ac on terin n ac on terin n ac on terin n ac on terin n ac on terin n ac on terin the the the the the the the the the the	1006 , , , 	

NRC FORM 366A U.S. NUCLEAR REGUL	ATORY COMN	ISSION	APPROVED BY OMB: NO	. 3150-01	04	EXPIRES	6: 03/31/202	
(See NUREG-1022, R.3 for instruction and guidance for http://www.nrc.gov/reading-rm/doc-collections/nuree	PORT (LE SHEET or completing th gs/staff/sr1022	R) his form	Estimated burden per response to com lessons learned are incorporated into t regarding burden estimate to the Info Commission, Washington, DC 20555 the Desk Officer, Office of Information Management and Budget, Washingto collection does not display a current sponsor, and a person is not required to	pply with this m he licensing p rmation Servic -0001, or by a and Regulat n, DC 20503 y valid OMB o respond to, t	nandat rocess ces Bra e-mail ory Aff contro he info	ory collection request: and fed back to indus anch (T-2 F43), U. S. to Infocollects.Resou- iairs, NEOB-10202, (3 a means used to imp of number, the NRC prmation collection.	80 hours. Repor stry. Send comme Nuclear Regulat cce@nrc.gov, and 150-0104), Office bose an informat may not conduct	
1. FACILITY NAME	T	2. DOCK				3. LER NUMBER	2	
	1	2. 200		YEAR		SEQUENTIAL	REV	
Wolf Creek Generating Station	05000-	482		2020	- [001	- 00	
NARRATIVE				• 				
REPORTABILITY This event is being reported in accordance w required by the plant's TS. WCGS entered was made in accordance with 10 CFR 50.72 by TS at 2206 CST on 2/1/2020. This event is also being reported in accordan	vith 10 CFR Mode 3 (Ho (B)(2)(i) as a nce with 10 y	50.73(a t Standl a four-h CFR 50	a)(2)(i)(A) for the comple by) at 2154 CST on 2/1/ our notification for initiat .73(a)(2)(v) as an event	tion of a 2020. E ion of a or cond	i nuc iven plar itior	clear plant sh it notification it shutdown i in that could h	outdown 54508 required ave	
prevented fulfillment of the safety function(s) radioactive material, and (D) mitigate the cor shutdown purge penetration on 2/1/2020 wa containment integrity was not maintained an	of structure nsequences s greater tha d as such, c	of an a of an a an the a containm	stems that are needed to ccident. The leakage ra llowed TS leak rate for o nent was declared inope	c (C) cor ate meas containn erable at	ntrol sure nent 184	the release d from the co Therefore, 5 on 2/1/202	of ontainment	
CAUSE								
The root cause investigation for this event is	still ongoing	g. The d	cause will be documente	ed in the	sup	oplement to t	his LER.	
CORRECTIVE ACTIONS								
Initial corrective actions included repairing be Additionally, the surveillance procedure was performed early in March of 2020 to validate are planned to be performed in April 2020 ar corrective actions will be documented in the	oth GTHZ00 revised to a acceptable nd again in N supplement	006 and account leakage May 202 to this	GTHZ0007 to restore the for installed blind flange e limits were being main to further monitor the LER.	nem to o s and a tained. conditio	pera volu Adc n of	able status. untary surveil litional surve the valves.	lance was illances Further	
SAFETY SIGNIFICANCE								
The actual safety significance was low. Duri with this valve had been installed. While this completing Required Action D.1 of TS LCO 3 associated with this containment penetration seismic event, the blind flange would likely s design basis accidents (DBAs) which would within acceptable limits.	ng the time blind flange 3.6.3, it is bo The only o till have mai have impact	that GT e is not bunded credible intained ted the s	HZ0006 was out of serv safety-related, and as s by the seismic analysis failure mechanism is a actual containment inte ability of the blind flange	vice, the uch, can performo seismic grity. In to limit	blin ed fe eve ade con	d flange asso be credited f or the piping nt; therefore, dition, there a tainment leal	ociated for , in a are no kage to	
OPERATING EXPERIENCE/PREVIOUS EV	'ENT							
None								