

G I A E I H 1 0 0 0 0 0 0 0 0 0 0 0 4 1 1 1 1 1

LICENSE TYPE 11 LICENSE NUMBER 12-16 LICENSE TYPE 30 OFF CAT 30

R P O R T S O U R C E X G 0 5 0 0 0 3 2 1 7 0 9 1 1 0 7 9 B 0 1 9 2 0 7 9

REPORT SOURCE 50 LINKED NUMBER 60 EXIST DATE 70 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (19)

513 With Unit 1 in run and Unit 2 in shutdown, a potential failure mode for several prim-
514 ary containment purge and inerting valves was discovered by the architect-engineer
515 and valve vendor. It was postulated that, if a LOCA occurred while the valves were
516 open, the steam pressure could cause these valves to overtravel and lose seating cap-
517 ability. This would allow leakage of contamination to the reactor building. This
518 failure mode applies to both Units 1 and 2: it is a non-repetitive occurrence.

SYSTEM CODE [S][E] (1)		CAUSE CODE [B] (2)		CAUSE SUBCODE [A] (3)		COMPONENT CODE [V][I][A][I][V][I][E][X] (4)						COMP. SUBCODE [B] (5)		VALVE SUBCODE [A] (6)	
7 8		9 10		11 12		13 14		15 16		17 18		19 20		21 22	
SERIES REPORT NUMBER [7][9] (7)		CURRENT YEAR [7][9] (8)		SEQUENTIAL REPORT NO. [0][8][1] (9)		OCCURRENCE CODE [0][1] (10)		REPORT TYPE [T] (11)		REVISION NO. [0] (12)					
23 24		25 26		27 28		29 30		31 32		33 34		35 36		37 38	
ACTION TAKEN [H] (13)		FUTURE ACTION [F] (14)		EFFECT ON PLANT [Z] (15)		SHUTDOWN METHOD [Z] (16)		HOURS [0][0][0][0] (17)		ATTACHMENT SUBMITTED [N] (18)		NPRD-4 FORMULAS [N] (19)		PRIME COMP. SUPPLIER [A] (20)	
39 40		41 42		43 44		45 46		47 48		49 50		51 52		53 54	
55 56		57 58		59 60		61 62		63 64		65 66		67 68		69 70	

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

0001 This situation is a result of design deficiencies. A design change to prevent the
0002 valves from opening more than 30 degrees is being investigated. Note that facility
0003 status applies to Unit 1 only. Unit 2 was shutdown at the time.

POOR ORIGINAL

FACILITY STATUS		POWER		OTHER STATUS		METHOD OF DISCOVERY		DISCOVERY DESCRIPTION	
1	2	3	4	5	6	7	8	9	10
7	8	9	10	11	12	13	14	15	16
ACTIVITY		CONTENT		AMOUNT OF ACTIVITY		LOCATION OF RELEASE			
1	2	3	4	5	6	7	8	9	10
7	8	9	10	11	12	13	14	15	16
PERSONNEL EXPOSED		NUMBER		TYPE		DESCRIPTION			
1	2	3	4	5	6	7	8	9	10
7	8	9	10	11	12	13	14	15	16
PERSONNEL INJURED		NUMBER		TYPE		DESCRIPTION			
1	2	3	4	5	6	7	8	9	10
7	8	9	10	11	12	13	14	15	16
LOSS OF OR DAMAGE TO FACILITY		NUMBER		TYPE		DESCRIPTION			
1	2	3	4	5	6	7	8	9	10
7	8	9	10	11	12	13	14	15	16
PUBLISHER		NUMBER		TYPE		DESCRIPTION			
1	2	3	4	5	6	7	8	9	10
7	8	9	10	11	12	13	14	15	16

C. L. Coggin, Supt. Plt. Eng. Serv. 912-367-7781

PHONE 912-367-7781

POOR
ORIGINAL

NARRATIVE REPORT
LER 1-79-81

With Unit 1 in the run mode and Unit 2 in the shutdown mode, a potential failure mode for several primary containment purge and inerting valves was discovered by the architect-engineer and valve vendor. These valves are T48-F307, F308, F309, F318, F319, F320, F324, and F326. It was noted that if a LOCA occurred while these valves were open and if they were subjected to peak post-LOCA differential pressures, the LOCA steam pressure could cause these valves to close rapidly. This rapid closure could cause the valves to lose their seating capability which could result in steam and noncondensable gas leakage to the reactor building. Originally it was thought that valves T48-F310 and F311, on the reactor building to torus vacuum breaker lines, were subject to this failure mode, but it was later decided that they need not be considered since these valves would only be open under a torus vacuum condition to equalize the differential pressure between the reactor building and the torus and since the vacuum breakers would act as check valves preventing flow from the torus to the reactor building. A standing order was issued to keep all ten of these valves closed. However, the order was rescinded, with NRC approval. This was done because a 1.5 psig drywell to torus differential pressure could not be maintained with valves T48-F318, F319, F320, and F326 closed. A new standing order was issued which required maintained closure of valves T48-F307, F308, F309, F310, F311, F324, F312, and F313 except while performing drywell vacuum breaker surveillance testing or during drywell inerting or deinerting. Closure of valves T48-F312 and F313 provides isolation which was previously provided by closure of valves T48-F318, F319, F320, and F326. Valves T48-F312 and F313 were tagged closed and may only be opened as deemed necessary by the shift foreman in an emergency condition. Valves T48-F310 and F311 were included in the second standing order because, at the time, they were still considered to be susceptible to this failure mode.

A proposed design change is in progress which will prevent these valves from opening more than 30 degrees. This will preclude the possibility of valve damage due to rapid closure.

This is a postulated event. Therefore, no damage to equipment or personnel occurred. Nor was there any release of radioactivity.