

NRC FORM 366
(11-2015)

U.S. NUCLEAR REGULATORY COMMISSION

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EXPIRES: 10/31/2018

**LICENSEE EVENT REPORT (LER)**

(See Page 2 for required number of digits/characters for each block)

(See NUREG-1022, R 3 for instruction and guidance for completing this form
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1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
Cooper Nuclear Station	05000- 298	YEAR	SEQUENTIAL NUMBER	REV NO.
		2016	- 010	- 00

NARRATIVE**PLANT STATUS**

Cooper Nuclear Station was in Mode 1, Power Operations, at 100 percent power, at the time of the event.

BACKGROUND

The Emergency Core Cooling System (ECCS) is designed, in conjunction with the primary and secondary containment, to limit the release of radioactive materials to the environment following a loss of coolant accident (LOCA). The ECCS uses two independent methods (flooding and spraying) to cool the core during a LOCA. The ECCS network consists of the High Pressure Cooling Injection (HPCI) System [EIS:BJ], the Core Spray (CS) System [EIS:BM], the Low Pressure Coolant Injection (LPCI) mode of the Residual Heat Removal (RHR) System [EIS:BO], and the Automatic Depressurization System (ADS). The suppression pool provides the required source of water for the ECCS. The emergency condensate storage tanks (ECSTs) are capable of providing a source of water for the HPCI system.

ECCS components located in the four Reactor Building [EIS:NG] quads are subject to flooding from line breaks such as the steam tunnel feedwater line break. The Technical Specifications (TS) related equipment contained in these quads are: Division 1 CS and Reactor Core Isolation Cooling [EIS:BN] in the Northeast quad; Division 1 RHR in the Northwest quad; Division 2 CS in the Southeast quad, and Division 2 RHR and HPCI in the Southwest quad. Division 2 CS is assumed and evaluated as lost during the 18-inch feedwater flooding event.

The Reactor Building floor drain and Torus drain valves [EIS:V] are designed to close on respective sump hi-hi level conditions to divert water to the Torus area. The Reactor Building floor drain and the Torus drain valve closure are barriers credited in the internal flooding analysis.

FP-TD-19-2 causes the following valves to fail closed:

RW-AOV-AO767, Torus Drain to Sump A
 RW-AOV-AO770, Reactor Building Drains to Sump A
 RW-AOV-AO768, Torus Drain to Sump B
 RW-AOV-AO771, Reactor Building Drains to Sump B
 RW-AOV-AO773, Reactor Building Drains to Sump C
 RW-AOV-AO772, Reactor Building Drains to Sump D

EVENT DESCRIPTION

On July 11, 2016, at 1430 hours, while performing fire detection systems examination per surveillance procedure, it was identified that detector FP-TD-19-2 would not reset, thus initiating alarm FP-1/C-4, Reactor Building Southeast Quad Zone 19. Per the alarm card, if no fire is detected, and the detectors cannot be reset, the Operator is to place the floor drain valve control switches to OPEN and periodically