

RS-17-173

10 CFR 50.90

December 20, 2017

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Dresden Nuclear Power Station, Units 2 and 3
Renewed Facility Operating License Nos. DPR-19 and DPR-25
NRC Docket Nos. 50-237 and 50-249

Subject: Supplement to Dresden Nuclear Power Station, Units 2 and 3 Application to
Revise Technical Specifications to Adopt TSTF-542, "Reactor Pressure Vessel
Water Inventory Control"

- References:
- (1) Letter from P. R. Simpson (Exelon Generation Company, LLC (EGC)) to NRC, "Application to Revise Technical Specifications to Adopt TSTF-542, 'Reactor Pressure Vessel Water Inventory Control,'" dated February 10, 2017
 - (2) Letter from R. S. Haskell (NRC) to B. C. Hanson (EGC), "Dresden Nuclear Power Station, Units 2 and 3 - Request for Additional Information Related to License Amendment Request to Revise Technical Specifications to Adopt Technical Specification Task Force Traveler-542, Revision 2, 'Reactor Pressure Vessel Water Inventory Control' (CAC Nos. MF9295 and MF9296)," dated July 11, 2017
 - (3) Letter from P. R. Simpson (EGC) to NRC, "Supplement to Dresden Nuclear Power Station, Units 2 and 3 Application to Revise Technical Specifications to Adopt TSTF-542, 'Reactor Pressure Vessel Water Inventory Control,'" dated July 13, 2017

In Reference 1, Exelon Generation Company, LLC (EGC) submitted a request for amendments to the Technical Specifications (TS) for Dresden Nuclear Power Station (DNPS), Units 2 and 3. Specifically, EGC requested that the NRC complete its review and approval of a request to adopt TSTF-542.

In Reference 2, the NRC determined that additional information was required to complete the evaluation of the Reference 1 request. The response to Reference 2 was provided in Reference 3.

EGC recently identified that an issue related to TSTF-542 applies to its request to adopt the TSTF for DNPS, Units 2 and 3. Specifically, in accordance with TSTF-542, TS Table 3.3.5.2-1, Function 1.a (Core Spray System Reactor Steam Dome Pressure – Low (Injection Permissive), and Function 2.a (Low Pressure Coolant Injection (LPCI) Reactor Steam Dome Pressure – Low (Injection Permissive) are required in Modes 4 and 5. Prior to TSTF-542, the analogous Functions 1.c and 2.c in TS Table 3.3.5.1-1 had a Mode 4 and 5 applicability modified by a footnote specifying that these functions were only required when the associated emergency core cooling system (ECCS) subsystem(s) were required to be operable per limiting condition for operation (LCO) 3.5.2, "ECCS Shutdown." The footnote was inadvertently omitted from Table 3.3.5.2-1 Functions 1.a and 2.a in TSTF-542. Without the footnote, the Reactor Steam Dome Pressure – Low functions would be required to be operable for all low pressure ECCS subsystems, regardless of whether they are credited for meeting LCO 3.5.2. Requiring the functions for all ECCS subsystems is unnecessary. In Modes 4 and 5 with the reactor steam dome at atmospheric pressure, these functions only serve to satisfy permissives for opening low pressure ECCS injection valves for manual actuation. Accordingly, a variation is proposed to affix Footnote (a) (i.e., "Associated with an ECCS subsystem required to be OPERABLE by LCO 3.5.2, 'Reactor Pressure Vessel Water Inventory Control'") to the "Required Channels Per Function" column of Functions 1.a and 2.a of TS Table 3.3.5.2-1. The TS markup reflecting this variation and the corresponding revised TS page are included in Attachments 1 and 2, respectively.

Additionally, an issue was identified regarding the markups for TS Pages 3.5.2-1 and 3.5.2-3 pertaining to the use of the word subsystems versus subsystem in LCO 3.5.2 (i.e., TS Page 3.5.2-1), and system versus subsystem for the standby gas treatment system in LCO 3.5.2, Required Action D.4 (i.e., TS Page 3.5.2-3). The corrected markups and associated revised TS pages have been included in Attachments 1 and 2, respectively.

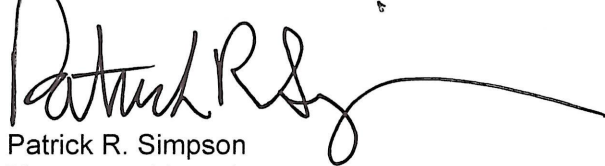
EGC has reviewed the information supporting a finding of no significant hazards consideration, and the environmental consideration, that were previously provided to the NRC in Reference 1. The additional information provided in this submittal does not affect the bases for concluding that the proposed license amendment does not involve a significant hazards consideration. In addition, the information provided in this submittal does not affect the bases for concluding that neither an environmental impact statement nor an environmental assessment needs to be prepared in connection with the proposed amendment.

EGC is notifying the State of Illinois of this supplement to a previous application for a change to the TS by sending a copy of this letter and its attachment to the designated State Official in accordance with 10 CFR 50.91, "Notice for public comment; State consultation," paragraph (b).

There are no regulatory commitments contained within this letter. Should you have any questions concerning this letter, please contact Mr. Mitchel A. Mathews at (630) 657-2819.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 20th day of December 2017.

Respectfully,

A handwritten signature in black ink, appearing to read "Patrick R. Simpson", with a long horizontal flourish extending to the right.

Patrick R. Simpson
Manager – Licensing
Exelon Generation Company, LLC

Attachments: 1. Proposed Technical Specifications Changes (Mark-Up)
 2. Revised Technical Specifications Pages

cc: NRC Regional Administrator, Region III
 NRC Senior Resident Inspector – Dresden Nuclear Power Station
 Illinois Emergency Management Agency – Division of Nuclear Safety

Dresden Nuclear Power Station, Units 2 and 3

**Supplement to Dresden Nuclear Power Station, Units 2 and 3 Application to Revise
Technical Specifications to Adopt TSTF-542,
"Reactor Pressure Vessel Water Inventory Control"**

ATTACHMENT 1 - PROPOSED TECHNICAL SPECIFICATIONS CHANGES (MARK-UP)

3.3.5.2-3

3.5.2-1

3.5.2-3

RPV Water Inventory Control Instrumentation
3.3.5.2

Table 3.3.5.2-1 (Page 1 of 1)
RPV Water Inventory Control Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Core Spray System					
a. Reactor Steam Dome Pressure—Low (Permissive)	4(a), 5(a)	2 (a)	C	SR 3.3.5.2.2	≤ 341.7 psig
b. Core Spray Pump Discharge Flow—Low (Bypass)	4(a), 5(a)	1 per pump (a)	D	SR 3.3.5.2.2	≥ 802 gpm and ≤ 992 gpm
2. Low Pressure Coolant Injection (LPCI) System					
a. Reactor Steam Dome Pressure—Low (Permissive)	4(a), 5(a)	2 (a)	C	SR 3.3.5.2.2	≤ 341.7 psig
b. Low Pressure Coolant Injection Pump Discharge Flow—Low (Bypass)	4(a), 5(a)	1 per loop (a)	D	SR 3.3.5.2.2	≥ 1107 gpm
3. Shutdown Cooling System (SDC) Isolation					
a. Reactor Vessel Water Level—Low	(b)	1 per trip system	B	SR 3.3.5.2.1 SR 3.3.5.2.2	≥ 2.65 inches
4. Reactor Water Cleanup System Isolation					
a. Reactor Vessel Water Level—Low	(b)	1 per trip system	B	SR 3.3.5.2.1 SR 3.3.5.2.2	≥ 2.65 inches

(a) Associated with an ECCS subsystem required to be OPERABLE by LCO 3.5.2, "RPV Water Inventory Control."

(b) When automatic isolation of the associated penetration flow path(s) is credited in calculating DRAIN TIME.

3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS), ~~REACTOR PRESSURE VESSEL (RPV) WATER INVENTORY CONTROL~~, AND ISOLATION CONDENSER (IC) SYSTEM

3.5.2 ~~ECCS-Shutdown~~RPV Water Inventory Control

LC0 3.5.2 *DRAIN TIME of RPV water inventory to the top of active fuel (TAF) shall be ≥ 36 hours.*

AND

~~Two~~*One* low pressure ECCS injection/spray subsystems shall be OPERABLE.

APPLICABILITY: MODES 4 *and 5.*
~~MODE 5, except with the spent fuel storage pool gates removed and water level ≥ 23 ft over the top of the reactor pressure vessel flange.~~

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One <i>r</i> Required ECCS injection/spray subsystem inoperable.	A.1 Restore required ECCS injection/spray subsystem to OPERABLE status.	4 hours
B. Required Action and associated Completion Time of Condition A not met.	B.1 Initiate action to <i>establish a method of water injection capable of operating without offsite electrical power. suspend operations with a potential for draining the reactor vessel (OPDRVs).</i>	Immediately

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. <i>DRAIN TIME < 8 hours. Required Action C.2 and associated Completion Time not met.</i>	<i>D.1 ----- NOTE ----- Required ECCS injection/spray subsystem or additional method of water injection shall be capable of operating without offsite electrical power. -----</i>	
	<i>D.1 Initiate action to establish an additional method of water injection with water sources capable of maintaining RPV water level > TAF for ≥ 36 hours. restore secondary containment to OPERABLE status.</i>	Immediately
	<u>AND</u>	
	<i>D.2 Initiate action to establish secondary containment boundary restore one standby gas treatment subsystem to OPERABLE status.</i>	Immediately
	<u>AND</u>	Immediately
	<i>D.3 Initiate action to restore isolation isolate each capability in each required secondary containment penetration flow path not or verify it can be manually isolated from the control room.</i>	Immediately
	<u>AND</u>	
	<i>D.4 Initiate action to verify one standby gas treatment subsystem is capable of being placed in operation.</i>	

(continued)

Dresden Nuclear Power Station, Units 2 and 3

**Supplement to Dresden Nuclear Power Station, Units 2 and 3 Application to Revise
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"Reactor Pressure Vessel Water Inventory Control"**

ATTACHMENT 2 - REVISED TECHNICAL SPECIFICATIONS PAGES

3.3.5.2-3

3.5.2-1

3.5.2-3

RPV Water Inventory Control Instrumentation
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Table 3.3.5.2-1 (Page 1 of 1)
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b. Core Spray Pump Discharge Flow—Low (Bypass)	4(a), 5(a)	1 per pump (a)	D	SR 3.3.5.2.2	≥ 802 gpm and ≤ 992 gpm
2. Low Pressure Coolant Injection (LPCI) System					
a. Reactor Steam Dome Pressure—Low (Permissive)	4(a), 5(a)	2 (a)	C	SR 3.3.5.2.2	≤ 341.7 psig
b. Low Pressure Coolant Injection Pump Discharge Flow—Low (Bypass)	4(a), 5(a)	1 per loop (a)	D	SR 3.3.5.2.2	≥ 1107 gpm
3. Shutdown Cooling System (SDC) Isolation					
a. Reactor Vessel Water Level—Low	(b)	1 per trip system	B	SR 3.3.5.2.1 SR 3.3.5.2.2	≥ 2.65 inches
4. Reactor Water Cleanup System Isolation					
a. Reactor Vessel Water Level—Low	(b)	1 per trip system	B	SR 3.3.5.2.1 SR 3.3.5.2.2	≥ 2.65 inches

(a) Associated with an ECCS subsystem required to be OPERABLE by LCO 3.5.2, "RPV Water Inventory Control."

(b) When automatic isolation of the associated penetration flow path(s) is credited in calculating DRAIN TIME.

3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS), REACTOR PRESSURE VESSEL (RPV)
WATER INVENTORY CONTROL, AND ISOLATION CONDENSER (IC) SYSTEM

3.5.2 RPV Water Inventory Control

LC0 3.5.2 DRAIN TIME of RPV water inventory to the top of active
fuel (TAF) shall be \geq 36 hours.

AND

One low pressure ECCS injection/spray subsystem shall be
OPERABLE.

APPLICABILITY: MODES 4 and 5.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Required ECCS injection/spray subsystem inoperable.	A.1 Restore required ECCS injection/spray subsystem to OPERABLE status.	4 hours
B. Required Action and associated Completion Time of Condition A not met.	B.1 Initiate action to establish a method of water injection capable of operating without offsite electrical power.	Immediately

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. DRAIN TIME < 8 hours.	D.1 ----- NOTE ----- Required ECCS injection/spray subsystem or additional method of water injection shall be capable of operating without offsite electrical power. ----- Initiate action to establish an additional method of water injection with water sources capable of maintaining RPV water level > TAF for ≥ 36 hours.	Immediately
	AND D.2 Initiate action to establish secondary containment boundary.	Immediately
	AND D.3 Initiate action to isolate each secondary containment penetration flow path or verify it can be manually isolated from the control room.	Immediately
	AND D.4 Initiate action to verify one standby gas treatment subsystem is capable of being placed in operation.	Immediately

(continued)