



Exelon Generation®

Dresden Nuclear Power Station
6500 North Dresden Road
Morris, IL 60450

SVPLTR # 18-0014

10 CFR 50.73

April 13, 2018

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

Dresden Nuclear Power Station, Unit 2 and 3
Renewed Facility Operating License Nos. DPR-19
NRC Docket No. 50-237 and 50-249


Subject: Licensee Event Report 237/2018-001-00, Non-conformances to Design for
Tornado Missile Protection

Enclosed is Licensee Event Report 237/2018-001-00, "Non-conformances to Design for Tornado Missile Protection." This report describes events which are being reported in accordance with 10 CFR 50.73(a)(2)(i)(B), "Any operation or condition which was prohibited by the plant's Technical Specifications," in accordance with 10 CFR 50.73(a)(2)(ii)(B), "Any event or condition that resulted in the nuclear power plant being in an unanalyzed condition that significantly degraded plant safety," in accordance with 10 CFR 50.73(a)(2)(v)(D), "Any event or condition that could have prevented the fulfillment of the safety function of ... systems that are needed to mitigate the consequences of an accident," and in accordance with 10 CFR 50.73(a)(2)(vii)(D), "Any event where a single cause or condition caused at least ... two independent trains ... to become inoperable in a single system designed to mitigate the consequences of an accident."

There are no regulatory commitments contained in this submittal.

Should you have any questions concerning this letter, please contact Mr. Bruce Franzen at (815) 416-2800.

Respectfully,


J. Washko for
P. Karaba

Peter J Karaba
Site Vice President
Dresden Nuclear Power Station

Enclosure Licensee Event Report 237/2017-002-01

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Dresden Nuclear Power Station

IEZZ
NRR



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
<http://www.nrc.gov/reading-rm/doc-collections/nureqs/staff/sr1022/r3/>)

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Information Services Branch (T-2 F43), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NE0B-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does 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.

1. Facility Name Dresden Nuclear Power Station, Unit 2	2. Docket Number 05000237	3. Page 1 OF 3
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4. Title
Non-conformances to Design for Tornado Missile Protection

5. Event Date			6. LER Number			7. Report Date			8. Other Facilities Involved	
Month	Day	Year	Year	Sequential Number	Rev No.	Month	Day	Year	Facility Name	Docket Number
02	12	2018	2018	001	00	04	13	2018	Dresden Unit 3	05000249
									Facility Name	Docket Number
									N/A	N/A

9. Operating Mode **11. This Report is Submitted Pursuant to the Requirements of 10 CFR §: (Check all that apply)**

1	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input checked="" type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)

10. Power Level

100	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> 73.77(a)(1)
	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(D)	<input type="checkbox"/> 73.77(a)(2)(ii)
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	<input checked="" type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 73.77(a)(2)(iii)

50.73(a)(2)(i)(C) Other (Specify in Abstract below or in NRC Form 366A)

12. Licensee Contact for this LER

Licensee Contact Bruce Franzen, Regulatory Assurance Manager	Telephone Number (Include Area Code) 815-416-2800
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13. Complete One Line for each Component Failure Described in this Report

Cause	System	Component	Manufacturer	Reportable to ICES	Cause	System	Component	Manufacturer	Reportable to ICES
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

14. Supplemental Report Expected	15. Expected Submission Date	Month	Day	Year
<input type="checkbox"/> Yes (If yes, complete 15. Expected Submission Date) <input checked="" type="checkbox"/> No		N/A	N/A	N/A

Abstract (Limit to 1400 spaces, i.e., approximately 14 single-spaced typewritten lines)

On February 12, 2018, Dresden Nuclear Power Station identified a non-conforming condition with the three Emergency Diesel Generator Main Fuel Oil Storage Tank Vents with respect to tornado missile protection. All three Emergency Diesel Generators were declared inoperable. Compensatory measures were implemented and verified in accordance with the NRC Enforcement Guidance Memorandum (EGM) 15-002. All three Emergency Diesel Generators were returned to an operable but non-conforming status, and an eight-hour Event Notification was made to the NRC. This condition has been in existence since original plant design. It is not known if it was overlooked or considered acceptable at the time of the original licensing process. This event is reportable under 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by Technical Specifications, under 10 CFR 50.73(a)(2)(ii)(B) as an event that resulted in the plant being in an unanalyzed condition that significantly degraded plant safety, 10 CFR 50.73(a)(2)(v)(D) as an event or condition that could have prevented the fulfillment of a safety function of a system that is needed to mitigate the consequences of an accident; and 10 CFR 50.73(a)(2)(vii)(D) as an event where a single condition caused at least two independent trains to become inoperable in a single system designed to mitigate the consequences of an accident.



**LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET**

(See NUREG-1022, R.3 for instruction and guidance for completing this form
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/>)

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Information Services Branch (T-2 F43), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to Infocollects.Resource@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 does 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.

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
Dresden Nuclear Power Station, Unit 2	05000237	2018	- 001	- 00

NARRATIVE

Dresden Nuclear Power Station (DNPS), Unit 2, is a General Electric Company Boiling Water Reactor with a licensed maximum power level of 2957 megawatts thermal. The Energy Industry Identification System codes used in the text are identified as [XX].

A. Plant Conditions Prior to Event:

Unit: 02	Event Date: 02/12/2018	Event Time: 1200 CST
Reactor Mode: 1	Mode Name: Power Operation	Power Level: 100 percent

B. Event Description:

On February 12, 2018, DNPS identified a non-conforming condition exists regarding the three Emergency Diesel Generator (EDG) [EK-DG] Main Fuel Oil Storage [DE] Tank [TK] Vents [VTV] with respect to tornado missile protection. Since the vents are an integral component of the EDGs and are not protected against tornado missiles, the design does not meet the licensing basis and a non-conforming condition exists.

DNPS entered this condition into the corrective action program and notified the NRC via Event Notification 53204 on February 12, 2018.

An extent of condition review identified no other items that are non-conforming to the design for tornado missile protection.

This event is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by Technical Specifications; 10 CFR 50.73(a)(2)(ii)(B) as an event that resulted in the plant being in an unanalyzed condition that significantly degraded plant safety; 10 CFR 50.73(a)(2)(v)(D) as an event or condition that could have prevented the fulfillment of a safety function of a system that is needed to mitigate the consequences of an accident; and 10 CFR 50.73(a)(2)(vii)(D) as an event where a single condition caused at least two independent trains to become inoperable in a single system designed to mitigate the consequences of an accident.

C. Cause of Event:

These conditions were part of the original plant design and have existed since the construction and licensing of the plant. Following the review of the Systematic Evaluation Program, DNPS, Unit 2, received its operating license on February 20, 1991. DNPS, Unit 3, received its operating license on January 12, 1971.



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CONTINUATION SHEET**

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Dresden Nuclear Power Station, Unit 2	05000237	2018	- 001	- 00

NARRATIVE

D. Safety Analysis:

No actual consequences resulted from the identified non-conforming condition. There were no actual safety consequences impacting plant safety since DNPS has not experienced an onsite tornado missile event in at least the past three years.

DNPS licensing bases for tornados and tornado generated missiles are summarized in original plant licensing documents. Design basis tornado wind hazard and tornado generated missile hazard design requirements are:

- The combined tangential and translational wind velocity of 300 miles per hour
- A pressure drop of 6.3 pounds per square inch
- Missile equivalent to a telephone pole 35-feet long having a velocity of 150 miles per hour, with a diameter of 13-inches and unit weight of 50 pounds per cubic feet
- Missile equivalent to a one-ton mass having a velocity of 100 miles per hour with a contact area of 25 square feet

NRC Enforcement Guidance Memorandum (EGM) 15-002, Revision 1, provides for application of NRC enforcement discretion which allows the identified non-conforming conditions to be returned to an operable status based on the application of compensatory measures which are intended to reduce the likelihood that the tornado event would result in a failure of any of the identified non-conforming conditions. DNPS applied the guidance in EGM 15-002, Revision 1, and NRC DSS-ISG-2016-01 Appendix A, Revision 1, to determine the acceptable initial and comprehensive compensatory measures necessary to ensure that the identified non-conforming conditions could be treated by the NRC with enforcement discretion.

E. Corrective Actions:

Compensatory measures were implemented in accordance with NRC guidance contained in EGM 15-002, Revision 1, and DSS-ISG-2016-01, Revision 1. Enforcement discretion provided by EGM 15-002 remains in effect until June 10, 2018. DNPS letter dated March 13, 2018 to the NRC requested to extend this enforcement discretion to June 10, 2020, at which time modifications, license amendments, or other actions must be implemented to fully resolve the issue.

F. Previous Occurrences:

No previous similar events have occurred at the site.