



10 CFR 50.73

Cary D. Harbor
Senior Vice President
Site Operations

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Nuclear Generating Station**
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102-08821-CDH/CWD
June 25, 2024

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

Subject: **Palo Verde Nuclear Generating Station Unit 3
Docket No. STN 50-530 /Renewed License No. NPF-74
Licensee Event Report 2024-002-00**

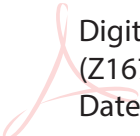
Enclosed, please find the Licensee Event Report (LER) 50-530/2024-002-00 that has been prepared and submitted pursuant to 10 CFR 50.73. This LER reports an event in which Unit 3 had a automatic actuation of the Unit 3 Train B Emergency Diesel Generator (EDG) and the Unit 3 Train B Essential Spray Pond Pump (SP).

In accordance with 10 CFR 50.4, copies of this LER are being forwarded to the Nuclear Regulatory Commission (NRC) Regional Office, NRC Region IV, and the Senior Resident Inspector.

No new commitments are being made to the NRC by this letter. Should you need further information regarding this submittal, please contact Matthew S. Cox, Department Leader, Nuclear Regulatory Affairs, at (623) 393-5753.

Sincerely,

Harbor, Cary
(Z16762)

 Digitally signed by Harbor, Cary
(Z16762)
Date: 2024.06.25 10:18:51 -07'00'

CDH/CWD/cr

Enclosure: Unit 3 Licensee Event Report 2024-002-00

cc: J. Monninger NRC Region IV Regional Administrator
W. T. Orders NRC NRR Project Manager for PVNGS
L. N. Merker NRC Senior Resident Inspector for PVNGS

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Callaway • Diablo Canyon • Palo Verde • Wolf Creek

ENCLOSURE

**Unit 3 Licensee Event Report
2024-002-00**



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/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 FOIA, Library, and Information Collections Branch (T-6 A10M), U. S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by email to Infocollections.Resource@nrc.gov, and the OMB reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0104), Attn: Desk Officer for the Nuclear Regulatory Commission, 725 17th Street NW, Washington, DC 20503. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

1. Facility Name Palo Verde Nuclear Generating Station (PVNGS) Unit 3	<input checked="" type="checkbox"/> 050	2. Docket Number 00530	3. Page 1 OF 3
	<input type="checkbox"/> 052		

4. Title
INVALID SPECIFIED SYSTEM ACTUATION OF UNIT 3 TRAIN B EMERGENCY DIESEL GENERATOR

5. Event Date			6. LER Number			7. Report Date			8. Other Facilities Involved	
Month	Day	Year	Year	Sequential Number	Revision No.	Month	Day	Year	Facility Name	Docket Number
4	27	24	24	- 002 -	00	06	25	24	Facility Name	<input type="checkbox"/> 050
									Facility Name	<input type="checkbox"/> 052

9. Operating Mode 6	10. Power Level 0%
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11. This Report is Submitted Pursuant to the Requirements of 10 CFR §: (Check all that apply)

<input type="checkbox"/> 10 CFR Part 20	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 10 CFR Part 50	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	<input type="checkbox"/> 73.1200(a)
<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	<input type="checkbox"/> 73.1200(b)
<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)	<input type="checkbox"/> 73.1200(c)
<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.36(c)(2)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)	<input type="checkbox"/> 73.1200(d)
<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 10 CFR Part 21	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 10 CFR Part 73	<input type="checkbox"/> 73.1200(e)
<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 21.2(c)	<input type="checkbox"/> 50.69(g)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.77(a)(1)	<input type="checkbox"/> 73.1200(f)
<input type="checkbox"/> 20.2203(a)(2)(iii)		<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> 73.77(a)(2)(i)	<input type="checkbox"/> 73.1200(g)
<input type="checkbox"/> 20.2203(a)(2)(iv)		<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	<input type="checkbox"/> 73.77(a)(2)(ii)	<input type="checkbox"/> 73.1200(h)
<input type="checkbox"/> 20.2203(a)(2)(v)		<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)		

OTHER (Specify here, in abstract, or NRC 366A).

12. Licensee Contact for this LER

Licensee Contact Matthew S. Cox, Department Leader, Nuclear Regulatory Affairs	Phone Number (Include area code) (623)393-5753
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13. Complete One Line for each Component Failure Described in this Report

Cause	System	Component	Manufacturer	Reportable to IRIS	Cause	System	Component	Manufacturer	Reportable to IRIS

14. Supplemental Report Expected

<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes (If yes, complete 15. Expected Submission Date)	15. Expected Submission Date	Month	Day	Year
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16. Abstract (Limit to 1326 spaces, i.e., approximately 13 single-spaced typewritten lines)
 On 27 April 2024, at 10:18 Mountain Standard Time (MST), during clearance restoration for the Unit 3 Train B Spray Pond (SP) system, an invalid actuation of the the Unit 3 Train B Emergency Diesel Generator (EDG) occurred. The EDG inadvertently started when the EDG hand switch was taken to REMOTE as part of the restoration activities. The start of the Unit 3 Train B EDG resulted in an automatic actuation of the Unit 3 Train B SP pump, as designed. The automatic start of the EDG was caused by a Loss of Power (LOP) signal that had not been reset as part of previous clearance work. There was no loss of voltage on any required bus. No Technical Specifications (TS) were entered due to Unit 3 being in Mode 6 with the Train B equipment not being necessary to meet TS or safe shutdown requirements. Corrective actions include restoring the system lineups and implementing procedure changes to minimize recurrence. The NRC residents were notified at the time of the event.

No similar events have occurred at PVNGS in the last three years.



**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/>)

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1. FACILITY NAME Palo Verde Nuclear Generating Station (PVNGS) Unit 3	<input checked="" type="checkbox"/> 050	2. DOCKET NUMBER 00530	3. LER NUMBER		
	<input type="checkbox"/> 052		YEAR 2024	SEQUENTIAL NUMBER 002	REV NO. 00

NARRATIVE

All times are Mountain Standard Time and approximate unless otherwise indicated.

1. REPORTING REQUIREMENT(S):

This Licensee Event Report (LER) is being submitted pursuant to 10 CFR 50.73 (a)(2)(iv)(A) to report an an automatic actuation of the Emergency Diesel Generator (EDG) (EIS:EK) and the subsequent automatic actuation of the associated Essential Spray Pond Pump (EIS:BS) for Unit 3 during clearance restoration activities on 27 April 2024. The NRC residents were notified at the time of the event.

2. DESCRIPTION OF STRUCTURE(S), SYSTEM(S), AND COMPONENT(S):

The safety related equipment for Unit 3 is powered by one of two load groups (Train A and Train B). Either of the associated trains can provide power for safe plant shutdown. Each alternating current (AC) train includes one Class 1E 4.16 kilovolt (kV) bus (EIS: EB). The preferred and alternate power sources for each load group is offsite 525 kV AC power (EIS: EK) and is supplied via the 13.8 kV secondary windings from two of the three startup transformers (EIS: EA) to six 13.8 kV intermediate buses. Unit 3 receives 13.8 kV power from two of the intermediate buses. Class 1E 4.16 kV safety load group power is provided from the associated intermediate bus engineered safety feature (ESF) transformers. The standby power supply for each safety load group consists of one EDG (EIS: EK), including its auxiliary and fuel systems. The standby power supply functions as a source of AC power for safe plant shutdown in the event of loss of preferred power and for post-accident operation of ESF loads. Actuation of the associated SP pump is a designed response to the EDG start to provide required cooling for the EDG.

3. INITIAL PLANT CONDITIONS:

Unit 3 was in MODE 6, 0% power, during refueling outage 3R24 at the time of the event. Reactor coolant system (RCS) temperature was 85 degrees F and the reactor pressure was 0 psig (open to atmosphere). There were no inoperable structures, systems, or components at the time that contributed to this event.

Unit 1 and Unit 2 were not affected by the event.

4. EVENT DESCRIPTION:

During clearance activities for the Unit 3 Train B SP system, the Unit 3 Train B Balance of Plant – Engineered Safety Features Actuation System (BOP-ESFAS) was de-energized as part of planned work. This resulted in a Loss of Power (LOP) signal sent to the Unit 3 Train B EDG control cabinet. During restoration activities for the Unit 3 Train B BOP-ESFAS, this circuitry was not reset. There were no alarms or indications to indicate this signal was present. On 27 April 2024 at 10:18, when the Unit 3 Train B EDG was taken to the REMOTE position, the EDG control cabinet initiated an emergency start of the Train B EDG. There was no loss of voltage on any required bus. The Unit 3 Train B EDG emergency start resulted in a start of the Unit 3 Train B SP pump, as designed. The Control Room took action to secure and reset the Train B EDG. No TS entries were required due to Unit 3 being in Mode 6 with the Train B equipment not required to meet TS or safe shutdown requirements.

(04-02-2024)



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

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NARRATIVE

5. ASSESSMENT OF SAFETY CONSEQUENCES:

There were no inoperable structures, systems, or components that contributed to this event. The Unit 3 Train B EDG responded as designed to the invalid LOP signal. The Unit 3 B Train SP pump actuated to support the running EDG.

This event did not result in any challenges to the fission product barriers or result in the release of radioactive materials. This event did not prevent the fulfillment of a safety function, as described by 10 CFR 50.73(a)(2)(v).

6. CAUSE OF THE EVENT:

The direct cause of the invalid emergency start of the Unit 3 Train B EDG was the presence of an invalid LOP signal that had not been reset after de-energization of Train B BOP-ESFAS.

The apparent cause of the invalid emergency start of the Unit 3 Train B EDG was that the relevant procedure did not appropriately identify the need to reset the Unit 3 Train B EDG circuitry prior to placing the EDG Mode Control Switch in REMOTE.

7. CORRECTIVE ACTION(S):

Immediate corrective actions were the securing of the EDG followed by the reset and restoration of the BOP-ESFAS signal, the Unit 3 Train B EDG, and the Unit 3 Train B SP pump.

Planned corrective actions include updates to the associated procedure to incorporate cautions for EDG start signals, instructions to utilize equipment status tags, and modification to steps to ensure proper reset of the system prior to return to service. This will identify the need to reset the EDG circuitry using the appropriate procedure section to prevent an automatic emergency start when the EDG is restored.

8. PREVIOUS SIMILAR EVENTS:

No similar events have occurred in the prior three years.