Indian Point 3 Nuclear Power Plant

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Memorandum

October 4, 1993 IPN-93-117

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Mail Stop PI-137 Washington, D.C. 20555

SUBJECT: Indian Point 3 Nuclear Power Plant Docket No. 50-286 License Event Report # 93-033-00 "Failure to Amend Technical Specifications Due to Personnel Error Resulted in Plant's Emergency Diesel Generator Fuel Oil Levels Being Potentially Less Than the Minimum Required"

Dear Sir:

The attached Licensee Event Report (LER) 93-033-00 is hereby submitted in accordance with the requirements of 10CFR50.73. This event is of the type defined in the requirements pursuant to 10CFR50.73(a)(2)(ii)(B). Also attached are the commitments made by the Authority in this LER.

Very truly yours,

John H. Garrity Resident Manager Indian Point 3 Nuclear Power Plant

JHG/DOB/vjm

cc: See Next Page





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Mr. Thomas T. Martin Regional Administrator Region 1 U.S. Nuclear Regulatory Commission 475 Allendale Road King of Prussia, Pennsylvania 19406

INPO Records Center 700 Galleria Parkway Atlanta, Georgia 30339-5957

U.S. NRC Resident Inspector's Office Indian Point 3

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Attachment List of Commitments

Number	Commitment	Due Date
IPN-93- 117-01	Weekly surveillance test 3PT-W1, "Emergency Support Systems Inspection," Alarm Response Procedure 11 ARP-11, "Panel SHF - Electrical," and System Operating Procedure EL-9 (SOP-EL- 9), "Filling Diesel Fuel Oil Storage Tanks" will be revised to reflect the minimum required fuel level as calculated in IP3-CALC- EG-00217 plus an allowance for the uncertainty of the level indication method used to determine actual level in the tanks.	Prior to plant startup
IPN-93-117-02	A request for an amendment to IP3's Technical Specification sections 3.7.A.5 and 3.7.F.4 will be submitted to reflect the minimum required fuel level as calculated in calculation IP3-CALC-EG-00217.	Prior to plant startup
IPN-93-117-03	A sample of modification packages where setpoints were changed and the 10CFR50.59 review indicated that a change to Technical Specifications was not required will be reviewed to determine the extent of this condition.	Prior to plant startup
IPN-93-117-04	MMP 90-3-116 EDG will be revised to indicate that a Technical Specification change is required.	Prior to plant startup
IPN-93-117-05	The lessons learned from the event will be discussed with the engineering staff to reenforce the necessity for attention to detail.	Prior to plant startup
IPN-93-117-06	Modification Control Manual procedure MCM-8, "Setpoint Control," has been drafted to establish a method for controlling, revising, adding, analyzing and documenting setpoint changes made to equipment at IP3 and FitzPatrick.	December 3, 1993.

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IPN-93-117-07	The EDG fuel oil storage tank level indicator calibration procedures will be revised to ensure the proper underground fuel oil storage tank penetration (see mark 11 on WEDCO corporation drawing FP 9321-05-2990-0) is used for sounding the tanks.	Prior to plant startup
IPN-93- 117-08	Operations and I&C personnel will be trained to use the proper sounding penetration when sounding the tanks.	Prior to plant startup

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NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION (5-92)				APPROVED BY ONB NO. 3150-0104 EXPIRES 5/31/95											
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DESCRIPTION OF EVENT

On September 3, 1993, with the plant in the cold shutdown condition, an initial engineering evaluation concluded that Technical Specification section 3.7.A.5, which requires a minimum onsite supply of 5676 gallons of fuel in each of the three emergency diesel generator (EDG) fuel oil storage tanks (DE), was inadequate for ensuring that the design basis minimum usable volume of 5238 gallons in each tank required by the Final Safety Analysis Report (FSAR) will not be violated. The evaluation was documented in a Significant Occurrence Report (SOR) 93-486 written on September 3, 1993. The engineering evaluation was prompted by questions raised during a followup Nuclear Regulatory Commission (NRC) inspection being conducted to address unresolved open items associated with an electrical distribution system functional inspection (EDSFI) (NRC Inspection Report No. 50-286/91-80) which had been conducted in March and April 1991.

The Indian Point 3 (IP3) Technical Specification section 3.7.A.5 requires "three diesel generators operable with a minimum onsite supply of 5676 gallons of fuel available in each of the three individual underground storage tanks" when the reactor is above the cold shutdown condition. The Final Safety Analysis Report (FSAR) section 8.2.3 states that, "Assuming only two of the underground storage tanks are available and 5238 gallons usable per tank, this is sufficient fuel for at least 48 hours of minimum safeguards equipment."

The minimum required volume of 5676 gallons per tank (TK) assumes an unusable volume of 438 gallons in each tank, since the low level pump cutoff switches (LC) will cut off the fuel oil transfer pumps to protect them from the damaging effects of vortexing (5238 usable gallons + 438 unusable gallons = 5676 total gallons).

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Calculation 1P3-CALC-EG-00217 Storage Tank Level Setpoints" the setpoints for the EDG fue modified setpoints for the tr an unusable volume of 927 gal minimum required volume becam unusable gallons = 6165 total MMP 90-03-116 EDG revision 0, operable July 11, 1992) chang level cutoff and central cont level alarm setpoints to the Pre-implementation NRC approv Specification amendment to ch to account for the additional tank.	, revision 0 (approved 0 l oil storag ansfer pump lons in each e 6165 gallo gallons). (approved i ed the EDG f rol room (CC values speci al was not o ange the min 489 gallons), "Emergency Diesel Generat October 15, 1991) redefined Je tanks' level switches. T low level cutoffs resulted a tank. Therefore, the new Ons (5238 usable gallons + 9 Minor modification package In April 23, 1992 and declar Suel oil transfer pump low CR) fuel oil storage tank lo fied in IP3-CALC-EG-0217. Obtained for a Technical himum required fuel oil volu s of unusable fuel in each						
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Based on this information and implementing the modification December 4, 1992 to December oil storage tank levels indic volume of 5238 gallons was no	a review of , the plant a 24, 1992, the ate that the t maintained	plant operating logs since staff determined that from the <u>recorded</u> values of EDG fu- minimum required usable fu- t.						
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•	The lessons learned from engineering staff to rei detail.	the event w nforce the n	ill be discussed wit ecessity for attenti	h the on to			
	Modification Control Man has been drafted to estal adding, analyzing and do equipment at IP3 and Fit effective on December 3,	ual procedur blish a meth cumenting se zPatrick. T 1993.	e MCM-8, "Setpoint C od for controlling, tpoint changes made his procedure will b	ontrol," revising, to e made			
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ANALYSIS OF EVENT

This event is reportable under 10CFR50.73(a)(2)(ii)(B) wherein any event or condition that resulted in the nuclear power plant being outside design basis shall be reported. The design basis requires a minimum of 5238 gallons of usable fuel in each EDG fuel oil storage tank when the plant is above cold shutdown. From December 4, 1992 to December 24, 1992, the plant's operating logs indicate that this design basis had been potentially violated. Although there was no evidence that the CCR's "Diesel Gen. Oil Storage Tank Low Level" alarm had alarmed during that period, the failure to amend the Technical Specifications' minimum required fuel volume placed the plant in a position where the minimum usable volume of 5238 gallons would not have been maintained. There have been no similar LERs submitted.

SAFETY SIGNIFICANCE

This event had no significant effect on the health and safety of the public. This event affected the minimum fuel volume values for all three EDGs that are required to meet the design basis in the FSAR. During the period of this event, the lowest recorded total fuel volume in all three EDG fuel oil storage tanks was 18800 gallons. Subtracting the effect of the inaccuracy in the tank level indicators and the unusable fuel for each tank based on calculation IP3-CALC-8G-00217 yields a total usable fuel volume of 14864 gallons. The FSAR assumes that if 10700 gallons of fuel are usable, two EDGs could supply the minimum safeguard loads for at least 48 hours. Therefore. the design basis requirement for Technical Specification section 3.7.A.5 was not violated. Although there were short periods when one EDG was out of service during this event and because the EDG fuel oil storage tanks can be cross connected to transfer fuel, there was no time when an adequate fuel volume was unavailable. Since all three EDG fuel oil transfer systems were operable, this usable volume of 14864 gallons would be available to supply fuel to the two minimum required operable EDGs.