Entergy

Entergy Nuclear Northeast
Indian Point Energy Center
295 Broadway, Suite 1
P.O. Box 249
Buchanan, NY 10511-0249
Tel 914 734 5340
Fax 914 734 5718

Fred Dacimo
Vice President, Operations

June 25, 2003
NL-03-105

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station O-P1-17
Washington, D.C. 20555-0001

SUBJECT: Indian Point Nuclear Power Plant Unit 3
Docket No. 50-286
License No. DPR-64
Licensee Event Report # 2003-002-00
Manual Reactor Trip for Fire in Main Turbine
Insulation due to Bearing Oil Leak

Dear Sir:

The attached Licensee Event Report (LER) 2003-002-00 is hereby submitted in accordance with the requirements of 10 CFR 50.73. This event is of the type defined in 10 CFR 50.73(a)(2)(iv)(A) for an event recorded in Entergy's corrective action process as Condition Report CR-IP3-2003-02795.

Entergy is making no new commitments in this LER. Should you have any questions regarding this submittal, please contact Mr. John McCann, Manager of Licensing, Indian Point Energy Center at (914) 734-5074.

Very truly yours,

Fred R. Dacimo
Vice President, Operations
Indian Point Energy Center

Attachment.

cc: See next page

IE22

cc: Mr. Hubert Miller
Regional Administrator
Region 1
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406-1415

Mr. Patrick D. Milano, Senior Project Manager
Project Directorate I
Division of Project Management
U. S. Nuclear Regulatory Commission
Mail Stop O-8-C2
Washington, DC 20555

INPO Record Center
700 Galleria Parkway
Atlanta, Georgia 303339-5957

U.S. Nuclear Regulatory Commission
Resident Inspector's Office
Indian Point 3 Nuclear Power Plant
P. O. Box 337
Buchanan, NY 10511

NRC FORM 366 (7-2001) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 7-31-2004

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB 0202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose 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.

LICENSEE EVENT REPORT (LER)

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

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Indian Point Unit 3	05000- 286	1 OF 4

4. TITLE

Manual Reactor Trip for Fire in Main Turbine Insulation due to Bearing Oil Leak

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER 05000-
04	29	2003	2003	- 02 -	00	06	25	2003	FACILITY NAME	DOCKET NUMBER 05000

9. OPERATING MODE	1
10. POWER LEVEL	59

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)

20.2201(b)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)
20.2201(d)	20.2203(a)(4)	50.73(a)(2)(iii)	50.73(a)(2)(x)
20.2203(a)(1)	50.36(c)(1)(i)(A)	X 50.73(a)(2)(iv)(A)	73.71(a)(4)
20.2203(a)(2)(i)	50.36(c)(1)(ii)(A)	50.73(a)(2)(v)(A)	73.71(a)(5)
20.2203(a)(2)(ii)	50.36(c)(2)	50.73(a)(2)(v)(B)	OTHER
20.2203(a)(2)(iii)	50.46(a)(3)(ii)	50.73(a)(2)(v)(C)	Specify in Abstract below or in NRC Form 366A
20.2203(a)(2)(iv)	50.73(a)(2)(i)(A)	50.73(a)(2)(v)(D)	
20.2203(a)(2)(v)	50.73(a)(2)(i)(B)	50.73(a)(2)(vii)	
20.2203(a)(2)(vi)	50.73(a)(2)(i)(C)	50.73(a)(2)(viii)(A)	
20.2203(a)(3)(i)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(B)	

12. LICENSEE CONTACT FOR THIS LER

NAME	TELEPHONE NUMBER (Include Area Code)
Edson White, Senior Engineer, Programs and Component Engineering	(914) 734-5537

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED			15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO				

16. ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On April 29, 2003, during power ascension from refueling outage 3R12, the reactor was manually tripped due to a fire at the south end of the high-pressure turbine located at 53 ft. elevation of the Turbine Building. The fire was caused by the heat of the turbine casing igniting turbine lubricating oil that had leaked and soaked several of the high-pressure turbine insulating pads. The oil leak was from an improperly installed oil deflector for turbine bearing no. 2 during refueling outage 3R12. A Notice of Unusual Event (NUE) was declared at 0313 hours due to the fire exceeding 15 minutes. The fire was extinguished in approximately 15 minutes and declared out approximately 30 minutes later following verification of no reflash. The NUE was terminated at 0521 hours. Fire fighting foam and the CO2 system were used to put the fire out. No damage to any equipment or personal injury occurred and no Engineered Safety Feature actuation was required as a result of the manual reactor trip. As immediate corrective actions, the oil deflector was repaired and the oil soaked insulation pads were replaced with new pads. The event had no effect on public health and safety. This event was entered into the Entergy Corrective Action Program under CR-IP3-2003-2795.

FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Indian Point Unit 3	05000-286	2003	- 02 -	00	2 OF 4

NARRATIVE *(If more space is required, use additional copies of NRC Form 366A)* (17)

DESCRIPTION OF EVENT

Note: The Energy Industry Identification System Codes are identified within brackets {}.

On April 29, 2003, at 0303 hours, during power escalation from refueling outage 3R12, with reactor {RCT} power at 59%, a nuclear plant operator discovered a fire at the south end of the high-pressure turbine {TRB} located at 53 ft. elevation of the Turbine Building {NM}. Control Room was notified and Operations manually tripped the reactor. Firefighting foam and permanently installed CO2 system were used to put the fire out. A Notice of Unusual Event (NUE) was declared at 0313 hours due to the fire exceeding 15 minutes. The fire was extinguished in approximately 15 minutes and declared out approximately 30 minutes later following verification of no reflash. The NUE was terminated at 0521 hours. A one-hour notification for the fire (Event # 39807) and a four-hour notification (Event # 39808) for the reactor trip were made to the NRC and a post trip evaluation report 03-03 was completed. No damage to any equipment or personal injury occurred and no Engineered Safety Feature (ESF) actuation was required as a result of the manual reactor trip. During the shutdown, letdown flow automatically isolated due to pressurizer low level. The cause of the isolation was a reduction in the reactor coolant temperature due to auxiliary feedwater flow coupled with a low amount of decay heat, since the unit had just finished a refueling outage. The in-service charging pump was placed in manual, auxiliary feedwater flow was adjusted and pressurizer level and letdown were restored.

The fire was caused by the heat of the turbine casing igniting lubricating oil that had leaked and soaked several of the high-pressure turbine insulating pads. The oil leak was from an improperly installed oil deflector for turbine bearing no. 2. The oil deflector leaked because it was assembled with a gasket on the bottom half and no gasket on the top half. Oil had leaked out of the west side of the deflector at the upper half vertical joint. In April 2003, during refueling outage 3R12, the 31 low-pressure turbine was overhauled. The upper half of the deflector was removed for cleaning and to verify closure of the bearing standard horizontal joint. When the upper half was reinstalled on the lower half, no gasket was installed and Permatex sealant was used on the joint. The thickness of the gasket on the bottom half along with the tightness of the dowels, caused a segment of the oil deflector on the west side of the upper half to be away from the bearing standard and a leak path was created. As part of the immediate corrective actions, the deflector was repaired, a complete inspection of the turbine insulation was performed and all insulation pads that contained oil were replaced with new pads. As an extent of condition review, the entire main turbine and the boiler feed pump turbines were inspected for possible oil leaks and assembly problems.

Upon completion of immediate corrective actions and the extent of condition review, the unit was placed on line at 0736 hours on April 30, 2003. This event was entered into the Entergy Corrective Action Program under CR-IP3-2003-2795.

FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Indian Point Unit 3	05000-286	2003	- 02 -	00	3 OF 4

NARRATIVE *(If more space is required, use additional copies of NRC Form 366A)* (17)

CAUSE OF EVENT

The cause of the manual reactor trip was operator response to a fire at the south end of the high-pressure turbine. The fire was caused by oil soaked insulation in close contact with a hot turbine casing. The insulation became oil soaked due to a leak on the no. 2 bearing oil deflector. The oil deflector was improperly assembled with a gasket on the bottom half and no gasket on the top half. The cause of the event was human error. Oversight and monitoring by supervision was inadequate and quality standards were not sufficiently enforced which resulted in improper installation of the oil deflector. A contributing cause for this event was poor job planning.

CORRECTIVE ACTIONS

The following corrective actions have been or will be performed under the Corrective Action Plan (CAP) to address the causes of this event and prevent recurrence.

The immediate corrective action was to repair the leaking oil deflector and inspect the entire main turbine and the boiler feed pump turbines for oil leaks or any insulation containing oil. A long-term corrective action plan has been developed to prevent recurrence of this event. All corrective actions arising from this plan have been entered in the Corrective Action Program with scheduled due dates for completion. The plan will address: early planning of turbine projects including milestone schedules, contractor's work scope and procedural requirements, and Quality Assurance Organization involvement. Additionally, procedures for turbine work will be revised to be more specific concerning the closure of gasketed or sealant-applied joints.

FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Indian Point Unit 3	05000-286	2003	- 02	-00	4 OF 4

NARRATIVE *(If more space is required, use additional copies of NRC Form 366A)* **(17)**

EVENT REPORTING

This event is reportable under 10 CFR 50.73 (a) (2) (iv) (A). The licensee shall report any event or condition that resulted in manual or automatic actuation of any of the systems listed in 10 CFR 50.73 (a) (2) (iv) (B). Systems to which the requirements of 10 CFR 50.73 (a) (2) (iv) (A) apply includes the Reactor Protection System (RPS) including reactor scram or reactor trip. This event meets the reporting criteria because the reactor was manually tripped. An emergency one-hour notification per 10 CFR 50.72 (a)(1)(i) was made to the NRC on April 29, 2003 (Event # 39807) for Declaration of Unusual Event due to turbine fire exceeding 15 minutes and a four-hour notification was made to the NRC (Event # 39808) for the reactor trip.

PAST SIMILAR EVENTS

A review of previous Licensee Event Reports (LER) in the past three years did not indicate any similar reportable event. However an event similar to this one, though not reportable, occurred at Indian Point 3 on December 7, 2002 on the 32 main boiler feed pump. During this event, the vapor extractor for the boiler feed pump turbine was out of service and there was oil leakage out of the turbine bearing that allowed oil to soak into the insulation that caught fire. The fire was put out within minutes of discovery and did not jeopardize the operability of the main boiler feed pump. This event was recorded under CR-IP3-2002-04836.

EVENT SAFETY SIGNIFICANCE

This event had no significant effect on the health and safety of the public. There were no actual safety consequences for the event because the event was an uncomplicated reactor trip. There was no Engineered Safety Feature actuation as a result of the manual reactor trip. All the safety systems were in normal status and there were no LCOs, maintenance, testing or surveillances in effect. The RCS pressure remained above the setpoint for automatic SI actuation and the RCS pressure remained below the setpoint for pressurizer PORV or Code safety valve actuation. During the shutdown, letdown flow automatically isolated due to pressurizer low level. The cause of the isolation was a reduction in the reactor coolant temperature due to auxiliary feedwater flow coupled with a low amount of decay heat, since the unit had just finished a refueling outage. The in-service charging pump was placed in manual, auxiliary feedwater flow was adjusted and pressurizer level and letdown were restored. The fire was well within the capabilities of the plant fire suppression systems and the plant fire brigade. The foam hose line and the CO2 system were used to put the fire out. A Notice of Unusual Event (NUE) was declared at 0313 hours due to the fire exceeding 15 minutes. The fire was extinguished in approximately 15 minutes and declared out approximately 30 minutes later following verification of no reflash. The NUE was terminated at 0521 hours.