

LICENSEE EVENT REPORT (LER)

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

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Indian Point 3		DOCKET NUMBER (2) 05000286	PAGE (3) 1 OF 4
TITLE (4) Operation of 2 High Head Safety Injection Pumps, a Condition Prohibited by Technical Specification, Due to Personnel Error			

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
07	21	97	97	-- 013 --	00	08	20	97	FACILITY NAME	DOCKET NUMBER 05000
									FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)			
	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)	20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
	20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER
	20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	(Specify in Abstract below and in Text, NRC Form 366A)
	20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
	20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)	
NAME Stephen Prussman, Senior Licensing Engineer	TELEPHONE NUMBER (Include Area Code) (914) 736-8856

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)									
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

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

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

On July 21, 1997, at approximately 1742 hours, while the plant was in the refueling mode, Operations concluded that the Indian Point 3 Technical Specification (TS) had been violated on or about June 1, 1992 when a test operated two high head safety injection pumps. TS 3.3.A.8 requires no more than one safety injection pump to be energized and aligned to feed the Reactor Coolant System (RCS) when the RCS cold leg temperature is at or below 332 degrees F. The probable cause was personnel error, a failure to identify the non compliance with the TS in the preparation and review of the test, with a misleading Technical Specification Interpretation (TSI) as a contributing factor. The corrective action included past efforts to upgrade procedural preparation guidelines, upgrades to the engineering process, revisions to the test to allow one pump operating, withdrawal of the misleading TSI, a review and scheduled withdrawal of other TSIs, an upgrade to the TSI guidelines, and a proposed TS change to allow the testing currently prohibited. There was no safety significance since the test required the reactor head to be off, a condition where the RCS could not be overpressurized.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Indian Point 3	05000286	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		97	-- 013 --	00	

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

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

DESCRIPTION OF EVENT

On July 21, 1997, at approximately 1742 hours, while the plant was in the refueling mode, Operations concluded that the Indian Point 3 Technical Specification had been violated on or about June 1, 1992 when a test (ENG-349, Revision 0) operated two high head safety injection (HHSI) {BJ} pumps. Technical Specification 3.3.A.8 requires no more than one safety injection pump to be energized and aligned to feed the Reactor Coolant System (RCS) {AB} when the RCS cold leg temperature is at or below 332 degrees F. No immediate corrective action was required. DER 97-1788 documents this event.

Licensing evaluated this event and determined that the performance of ENG-349 on or about June 1, 1992, was the only performance of this test. In 1995, ENG-349 was rewritten as three separate tests, one for each HHSI pump. The development of the ENG-349 test was assessed to identify the cause of the event. Several potential causes were considered.

- The procedural requirements for preparation of procedures (i.e., AP-3, "Procedure Preparation, Review and Approval," Revision 20) did not provide good guidance to assure a rigorous assessment against the technical specification requirements or require a thorough interdisciplinary review. Nevertheless, the author of the procedure identified a broad scope interdisciplinary review with meetings to discuss the approach and content of the procedure. This indicates the procedural requirements were not the cause. Due to past events the procedural requirements for preparing and revising procedures have been substantially upgraded so there is no related corrective action required.
- At the time ENG-349 was prepared there was a Technical Specification Interpretation (TSI) IP3-TSI-004 which concluded that it was acceptable to align a second HHSI pump to meet the requirements of Generic Letter 88-17 (i.e., provide sufficient makeup to mitigate loss of Residual Heat Removal (RHR) {BP} or RCS inventory) if the RCS was adequately vented. There is no evidence indicating whether the reviewers depended upon this TSI

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Indian Point 3	05000286	97	-- 013 --	00	3 OF 4

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

while reviewing the ENG. The author stated that he was not aware of the TSI and did not identify the TS requirement when preparing the procedure. This indicates the TSI was not the cause although it cannot be ruled out as a contributing cause. IP3-TSI-004 was withdrawn March 22, 1995. A review of other TSI was completed to identify those that may not comply with current NRC guidance and TSI were scheduled for withdrawal where required.

- Personnel error, the failure to identify the TS restriction on the operation of two HHSI pumps, was considered to be the likely cause for the event. The author did not depend on the TSI and did not recognize the TS limitation. The late addition of this testing to the ENG may have contributed to this. The author relied on a multidiscipline review to identify any limitations in the preparation process and this review did not identify any.

CAUSE OF EVENT

The event was most likely the result of personnel error, a failure to identify the non compliance with TS in the preparation and review of ENG-349, with the conflicting guidance of IP3-TSI-004 as a contributing cause.

CORRECTIVE ACTIONS

The following corrective actions have been taken:

- AP-3, "Procedure Preparation, Review and Approval," has been upgraded to require that a nuclear safety screen or safety evaluation be performed for a new or revised procedure. Also, the design modification process and the design control process have been upgraded as described in our response (IPN-94-069, dated June 8, 1994) to the notice of violation in Inspection Report 93-22, 93 -27, 93-29 and 93-81.
- IP3-TSI-004 has been withdrawn.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Indian Point 3	05000286	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	4 OF 4
		97	-- 013 --	00	

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

- IP3 TSIs have been reviewed and TSIs that do not comply have been scheduled for withdrawal. This is scheduled for completion six months after the end of the current refueling outage.
- The IP3 TSIs scheduled for withdrawal will be annotated until withdrawn. This is rescheduled for completion by September 17, 1997.
- ENG-349, High Head Safety Injection Flow Balance Test, has been revised to eliminate multiple HHSI pump testing at the same time.
- A proposed revision to Technical Specification 3.3.A.8 will be submitted to allow two HHSI pumps to be operated where required. This is scheduled for submittal nine months after the end of the current refueling outage.
- AP 18.7 will be revised to provide criteria for TSIs. This is scheduled for completion six months after the end of the current refueling outage.

ANALYSIS OF EVENT

This event is being submitted in accordance with 10 CFR 50.73(a)(2)(i)(B) for operation in a condition prohibited by the Technical Specification. The prohibited condition is the operation of two HHSI pumps which is prohibited by Technical Specification 3.3.A.8 when the plant is below 332 degrees F.

A review of LERs submitted in the last two years identified LERs 95-013, 96-012 97-011 which involved a violation of Technical Specification due to procedural deficiency.

SAFETY SIGNIFICANCE

This event did not have an effect on the public health and safety. The Technical Specification requirement was intended to prevent overpressurization of the RCS. Overpressurization cannot occur with the reactor vessel head off, one of the precautions and limitations in ENG-349.