

**LICENSEE EVENT REPORT (LER)**

<b>FACILITY NAME (1)</b> Indian Point Unit 3	<b>DOCKET NUMBER (2)</b> 05000286	<b>PAGE (3)</b> 1 OF 4
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**TITLE (4)**  
Missing Hemyc Blanket (Radiant Shield) As A Result of 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
05	05	93	93	-- 018 --	00	06	04	93	FACILITY NAME	DOCKET NUMBER 05000
									FACILITY NAME	DOCKET NUMBER 05000

<b>OPERATING MODE (9)</b>	N	<b>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)</b>								
<b>POWER LEVEL (10)</b>	000	20.402(b)			20.405(c)			50.73(a)(2)(iv)		73.71(b)
		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)			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)			<input checked="" type="checkbox"/>			50.73(a)(2)(ii)		
20.405(a)(1)(v)			50.73(a)(2)(iii)			50.73(a)(2)(x)				

**LICENSEE CONTACT FOR THIS LER (12)**

<b>NAME</b> John Murgida, Maintenance Engineer	<b>TELEPHONE NUMBER (Include Area Code)</b> (914) 736-8656
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**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
				N					

**SUPPLEMENTAL REPORT EXPECTED (14)**

<b>YES</b> (If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/>	<b>NO</b>	<b>EXPECTED SUBMISSION DATE (15)</b>	<b>MONTH</b>	<b>DAY</b>	<b>YEAR</b>
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**ABSTRACT**

On April 30, 1993, at approximately 1030 hours, with the plant at cold shutdown, an NRC inspector noted an unsecured hemyc blanket (radiant energy shield). Maintenance personnel determined that the blanket was one of three blankets installed on penetration H-19. Further investigation revealed that penetration H-19 was missing all three of its required hemyc blankets. Hemyc blankets are necessary in these areas to meet 10 CFR 50 Appendix R requirements. The Authority determined that the blankets were probably missing while the plant was operating above cold shutdown. Therefore, the plant had operated in a condition outside its design basis. The cause of this event is personnel error; failure to follow procedures. The missing blankets will be replaced and an inspection will be performed to detect any other missing blankets. Maintenance and operations personnel will be counselled on the importance of following procedures and controlling the plant's configuration.

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DESCRIPTION OF THE EVENT

On April 30, 1993, at approximately 1030 hours, with the plant at cold shutdown, the reactor coolant temperature at 116°F and reactor coolant pressure vented to atmosphere, an NRC inspector who was performing an inspection of the containment building noted an unsecured hemyc blanket, with the identification number PMT-013-033-0001A, lying in an active cable tray between penetrations H-33 and H-34. The identification number belonged to one of the three blankets installed on penetration H-19. Further investigation revealed that all three blankets were missing from penetration H-19. Hemyc blankets provide a non combustible radiant energy shield to protect cables from the effect of nearby fires.

On April 30, 1993 a Significant Occurrence Report, SOR 93-203, was written identifying and documenting the deficiency and a Problem Identification, PID 53163, was submitted to reinstall the missing hemyc blankets on penetration H-19. On May 1, 1993 Maintenance performed a preliminary inspection of the penetrations from inside and outside containment to inspect for any other deficiencies; none were found.

On May 5, 1993, as a result of a review of work history, the Authority determined that this condition probably existed while the plant was above cold shutdown and therefore concluded that this event is reportable.

Specifically, this review and a review of the surveillance history revealed that the blankets were in place on July 17, 1992 when performance test 3PT-R102, "Fire Barrier/Radiant Energy Shield Inspection," was completed confirming the presence and integrity of the hemyc blanket on penetration H-19. No work records indicate that the blankets would have been removed after the plant was shutdown for the current outage. Also, the blankets were not found in the vicinity of the penetration where they would likely be, if work involving these blankets was performed during this outage.

On May 27, 1993, a maintenance engineer and an NRC inspector, performing a walkdown, found a hemyc blanket on instrument rack 21 was removed and one on instrument rack 19 had a broken tie wire. After investigation, maintenance personnel concluded that these two conditions did not exist when the plant was above cold shutdown and were not reportable. This conclusion was reached because Performance and Reliability personnel visually verified the presence and integrity of these blankets during a walkdown they performed after we discovered the missing blankets from penetration H-19. Also, the blankets at rack 21 were found in close proximity to the rack they belong to, indicating that work had been recently performed. Had these blankets been removed during the last outage, the containment closeout inspections performed when coming out of the refueling outage (SOP-CB-2 "Containment Entry and Egress,") would have readily detected and removed them.

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The investigation did determine that these two conditions were also the result of work done outside the scope of work control procedures. Consequently the corrective action in the form of counselling will be expanded to include all the operating departments that may be involved in activities that could disturb fire shields.

CAUSE OF THE EVENT

Investigation of this event did not reveal the specific occasion when the blankets were removed. Through inference, Maintenance department personnel concluded that the cause was personnel error; violation of the work control system procedures.

CORRECTIVE ACTION

Maintenance and Operations personnel will be counselled on the importance of following plant procedures and maintaining control of the plant's design configuration. This will be completed by June 9, 1993.

On April 30, 1993 a PID 53163 was generated to replace the hemyc blanket. The blanket will be replaced prior to the plant going above cold shutdown, as required per 10 CFR 50 Appendix R.

Prior to going above cold shutdown Performance and Reliability personnel will perform 3PT-R102 to verify the presence and integrity of the fire protection barriers at all penetrations. Prior to being used, the test will be reviewed and if necessary revised to ensure it is adequate and complete to perform this task.

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ANALYSIS OF THE EVENT

Radiant shields are necessary to meet the requirements of 10 CFR 50 Appendix R. The Authority determined that the plant was operated above cold shutdown without radiant shields in penetration H-19. Therefore, this event is reportable pursuant to 10 CFR 50.73 (a)(2)(ii)(B).

No similar previous events have been reported in Licensee Event Reports.

SAFETY SIGNIFICANCE

This event had no effect on the health and safety of the general public. The only Appendix R cables entering containment through penetration H-19 are instrument cables for TE-413A, wide range hot leg temperature element, loop 1 and 413B, wide range cold leg temperature element, loop 1. With the radiant energy shield removed these cables would be subject to fire damage in the event of a fire in the vicinity of penetration H-19. TE-413A and TE-413B are used to verify decay heat removal capability and to monitor reactor coolant system temperature and cooldown rate. This function is also provided by TE-443A, wide range hot leg temperature element, loop 4, and 443B, wide range cold leg temperature element, loop 4.

A fire in the vicinity of penetration H-19 that could result in the loss of 413A and 413B would not result in the loss of 443A and 443B because the radiant energy shields protecting those cables were in place. If the fire was in the cable tray containing 443A and 443B, and resulted in the loss of these instruments, it would not propagate to the tray containing 413A and B due to the presence of radiant energy shields between this tray and the one containing 413A and 413B. Additionally, a fire in this tray would not effect the unprotected H-19 penetration because the distance is adequate to prevent radiant heat damage to 413A and 413B. Therefore the ability to verify decay heat removal and to monitor reactor coolant system temperature and cooldown rate would not be lost.

In order to monitor decay heat removal capability, in addition to temperature indication, steam generator level indication is necessary. LT-447D, that provides this indication for 34 steam generator, is routed in a similar fashion to TE-443A and TE-443B. Therefore, this indication would be available to provide the necessary monitoring.

The extent of this condition will be determined and corrected as a result of performing 3PT-R102.