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John G. Cook  
Vice President

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2C.220  
JGC-209-95  
May 17, 1995  
10CFR50.73

Docket No. 50-461


Document Control Desk  
Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Clinton Power Station - Unit 1  
Licensee Event Report No. 95-003-00

Dear Sir:

Enclosed is Licensee Event Report No. 95-003-00: Lack of Appropriate Post Maintenance Testing Due to Personnel Error Results in Inoperable Secondary Containment Bypass Leakage Path Isolation Valve During Reactor Core Alterations. This report is being submitted in accordance with the requirements of 10CFR50.73.

Sincerely yours,



J. G. Cook  
Vice President

RSF/csm

Enclosure

cc: NRC Clinton Licensing Project Manager  
NRC Resident Office, V-690  
Regional Administrator, Region III, USNRC  
Illinois Department of Nuclear Safety  
INPO Records Center

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## 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.

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TITLE (4) Lack of Appropriate Post Maintenance Testing Due to Personnel Error Results in Inoperable Secondary Containment Bypass Leakage Path Isolation Valve During Reactor Core Alterations

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
03	23	95	95	003	00	05	17	95	None	
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
5			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)	
000			20.405(a)(1)(ii)			50.36(c)(2)			50.73(a)(2)(vii) OTHER	
			20.405(a)(1)(iii)			X 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

G. D. Setser, Operations Shift Supervisor

TELEPHONE NUMBER (Include Area Code)

(217) 935-8881, Extension 3323

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD

SUPPLEMENTAL REPORT EXPECTED (14)

YES

(If yes, complete EXPECTED SUBMISSION DATE).

X NO

EXPECTED SUBMISSION DATE (15)

MONTH

06

DAY

06

YEAR

95

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

During the fifth refueling outage, preventive maintenance (PM) work on an automatic containment isolation valve had the potential to affect OPERABILITY of the motor operated valve (MOV) and therefore, appropriate post maintenance testing (PMT) was required prior to declaring the MOV OPERABLE. The MOV is a secondary containment bypass leakage path isolation valve and is required by the Technical Specifications to be OPERABLE during reactor CORE ALTERATIONS. However, following completion of the PM work, the MOV was restored to service without PMT. At the time of restoration, reactor CORE ALTERATIONS were in progress; therefore, the MOV was not verified to be OPERABLE when required to be OPERABLE by the Technical Specifications. The cause of this event is inattention to detail by the assistant shift supervisor who did not recognize that the PM work could make the MOV inoperable. Corrective action for this event included performing the appropriate PMT, discussing the event with the assistant shift supervisor, and making information about this event available to Operations personnel for their review. The PMT performed later demonstrated that the MOV was in fact OPERABLE at the time it was restored to service.

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REDUCTION PROJECT (3150-0104), OFFICE OF  
MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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

**DESCRIPTION OF EVENT**

On March 24, 1995, during the fifth refueling outage (RF-5), Operations personnel were performing a review of the outage schedule to identify any impacts on secondary containment integrity and identified that appropriate post maintenance testing (PMT) to demonstrate OPERABILITY had not been performed following maintenance on motor [MO] operated valve [V] (MOV) 1HG004. The MOV is a containment combustible gas control system [BB] automatic containment isolation valve [ISV] for containment penetration [PEN] IMC-072 and performs a secondary containment bypass leakage path isolation function. Following the maintenance, the MOV was restored to service while reactor [RCT] CORE ALTERATIONS were in progress. Penetration IMC-072 is designed with a single automatic isolation valve as the penetration is associated with a closed loop outside containment (CLOC).

Condition report (CR) 1-95-03-111 was initiated to track an evaluation of the cause and determination of corrective action for the issue. Illinois Power (IP) reviewed the issue and initially concluded the event did not meet the reporting requirements of 10CFR50.73 on the basis that PMT of the MOV after identification of the issue demonstrated that it was in fact OPERABLE during the reactor CORE ALTERATIONS. A subsequent reevaluation of this issue on May 2, 1995, concluded that appropriate PMT must be performed prior to considering the MOV OPERABLE following maintenance and the failure to complete appropriate PMT prior to declaring a component OPERABLE is reportable regardless of the PMT result obtained after declaring the component OPERABLE or entering the applicable operational conditions. Therefore, the MOV was technically inoperable and this condition meets the reporting criteria of 10CFR50.73.

On March 22, 1995, the plant was in Mode 5 (REFUELING) and RF-5 was in progress. Preparations were in progress to begin reactor CORE ALTERATIONS. At about 0045 hours, the Operations staff assistant shift supervisor (SASS) approved safety tagout 95-9055 to support cleaning and inspecting the MOV in accordance with PM task PEMHGA082. The safety tagout included closing manual valve 1HG013, containment return header isolation valve, to maintain the secondary containment bypass leakage path isolation requirements of Technical Specification 3.6.1.3 during manual stroking of MOV 1HG004.

At about 1610 hours reactor CORE ALTERATIONS began and secondary containment integrity was required.

On March 23, 1995, reactor coolant temperature was about 90 degrees Fahrenheit, pressure was atmospheric, and reactor CORE ALTERATIONS were continuing.

At 0209 hours, safety tagout 95-9055 was issued to Maintenance personnel to begin work on MOV 1HG004 in accordance with the PM task. Manual valve 1HG013 was closed to maintain secondary containment integrity. During the work, MOV 1HG004 was manually stroked, left in the closed position, and its power and control contacts were lifted. Since manually seating the valve disc and lifting power and control contacts could affect

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the OPERABILITY of the MOV, in accordance with Operations procedure CPS 1401.01, "Conduct of Operations," prior to considering the MOV OPERABLE, it should be electrically stroked twice and shall be demonstrated capable of being remotely operated. However, these actions were not performed.

When the work on MOV 1HG004 was completed, Maintenance personnel released the safety tagout. At about 2100 hours, the SASS authorized removal of the safety tagout and manual valve 1HG013 was opened sometime thereafter.

Technical Specification (TS) 3.6.1.3 requires secondary containment bypass leakage path isolation valves to be OPERABLE during reactor CORE ALTERATIONS. Further, TS Surveillance Requirement (SR) 3.0.1 requires surveillance requirements to be met during the MODES or other conditions specified in the Applicability for the Limiting Conditions for Operation (LCOs). The Bases for SR 3.0.1 state that "upon completion of maintenance, appropriate post maintenance testing is required to declare equipment OPERABLE. This includes ensuring applicable surveillances are not failed . . . ." Since OPERABILITY of MOV 1HG004 was potentially affected by the maintenance that had been performed, the valve could not be declared OPERABLE without performing the required PMT. With MOV 1HG004 inoperable, the Required Action per TS 3.6.1.3 is to isolate the penetration flow path by use of at least one closed and de-activated automatic valve or one closed manual valve. Since manual valve 1HG013 was open with automatic valve 1HG004 closed, but not de-activated, TS 3.6.1.3 was not met during reactor CORE ALTERATIONS.

On March 24, 1995 at about 1130 hours, the Operations shift supervisor was notified that MOV 1HG004 was inoperable and he immediately directed that MOV 1HG004 be closed and de-activated to meet TS 3.6.1.3. Operators de-activated the MOV in the closed position at 1132 hours.

No automatic or manually initiated safety system responses were necessary to place the plant in a safe and stable condition. No other equipment or components were inoperable at the start of this event to the extent that their inoperable condition contributed to this event.

**CAUSE OF EVENT**

The cause of this event is attributed to inattention to detail by the staff assistant shift supervisor, a licensed senior reactor operator. The SASS did not recognize that the work performed on the MOV made it technically inoperable, requiring it to be electrically stroked and remotely operated to demonstrate its OPERABILITY following the work performed.



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**CORRECTIVE ACTION**

Upon discovery that MOV 1HG004 was technically inoperable, operators immediately de-activated the already closed MOV in the closed position as required by action A.1 of Technical Specification 3.6.1.3.

At 1330 hours on March 24, 1995, surveillance CPS 9061.03C006, "Week 6 - Breathing Air, Reactor Water Cleanup, Div 1 Containment Combustible Gas Control, Containment/Drywell Floor and Equipment Drain System Isolation Valve Operability Checklist," was completed with satisfactory results, demonstrating that MOV 1HG004 was and had been OPERABLE and capable of performing its safety function of isolating the containment penetration.

This event was discussed with the SASS and he demonstrated a thorough understanding of the need to electrically stroke MOV 1HG004 and the actions that he should have initiated at completion of the work on MOV 1HG004.

Information about this event will be made available to Operations personnel for their review.

**ANALYSIS OF EVENT**

This event is reportable under the provisions of 10CFR50.73(a)(2)(i)(B) as a condition prohibited by Technical Specification 3.6.1.3 which requires secondary containment bypass leakage path isolation valves to be OPERABLE during reactor CORE ALTERATIONS.

Analysis of the safety consequences and implications of this event identified that this event was not nuclear safety significant. Although MOV 1HG004 was technically inoperable and not de-activated during reactor CORE ALTERATIONS, it was in the closed position and therefore provided the required isolation of the secondary containment bypass leakage path. Additionally, a test of the stroke time for the MOV at 1330 hours on March 24, 1995, demonstrated that MOV was and had been capable of performing its safety function.

MOV 1HG004 was inoperable from about 0209 hours on March 23, 1995, when safety tagout 95-9055 was issued for maintenance work in accordance with PM task PEMHGA082 until restoration to an OPERABLE status following completion of surveillance CPS 9061.03C006 with satisfactory results at 1330 hours on March 24, 1995. The MOV was discovered to be technically inoperable at 1130 hours on March 24, 1995, and it was de-activated in the closed position at 1132 hours on March 24, 1995.

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## ADDITIONAL INFORMATION

No equipment or components failed during this event.

Clinton Power Station has not reported similar failures to identify and complete appropriate PMT in recent history.

For further information regarding this event, contact G. D. Setser, Operations Shift Supervisor, at (217) 935-8881, extension 3323.