

PIF SUMMARY REPORT

02/16/06  
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PIF #: A2000-04281

ORIGINATOR

Title : Failed Circ Water Blowdown Vacuum Breaker Caused Unplanned Flooding Outside of the Power Block  
Event Date : 11/06/2000 Event Time : 02:30 PM  
Discovery Date : 11/06/2000 Discovery Time : 03:00 PM  
Unit : 00 Unit Mode : 1 % Power : System : CW  
EPN : 0CW135,0CW136 Location : OTHER

OCCURED/DISCOVERED WHILE PERFORMING :

AR # : WR # : WR TASK # :  
SURV # : RWP # : QRI/RIN # :  
OOS # : PCE # : OTHER # Followup inspection

OTHER DESCRIPTION

Circ Water blowdown corridor-east of plant

PROBLEM DESCRIPTION

I RECEIVED A CALL FROM THE ILLINOIS ENVIRONMENATAL PROTECTION AGENCY (BILL PAPADAKIS) ABOUT A REPORT OF WATER STANDING IN THE DITCH AT SMILEY ROAD. HE SAID THIS HAS BEEN THERE FOR A WHILE AND WE HAVEN'T HAD ANY RAIN UNTIL TODAY. HE ASKED IF I HAD ANY IDEA WHERE IT MIGHT BE COMING FROM. I SAID I DIDN'T KNOW BUT WOULD LOOK INTO IT AND GET BACK TO HIM. I NOTIFIED CAL WALRATH (2202) OF THE CALL AND SAID I WAS GOING OUT TO LOOK, AND THAT I SUSPECTED IT MAY BE A VACUUM BREAKER PROBLEM ON THE BLOWDOWN LINE. WHEN I APPROACHED THE VACUUM BREAKER (CONTAINING VALVES 0CW135 & 0CW136), I NOTICED WATER POURING OUT FROM THE MANHOLE COVER. THE ENTIRE AREA WAS SATURATED. UPON ARRIVAL BACK AT THE PLANT, I UPDATED THE OCC WITH THE RESULTS. ARRANGEMENT BEGAN TO PUT TOGETHER THE APPROPRIATE WORK PACKAGES AND OPERATING BEGAN LOOKING INTO ISOLATION OF THE BLOWDOWN FLOW.

KNOWLEDGEABLE PERSONS : Louis Rhoden, Carl Dunn, Mark Trusheim, Bill Vandermyde

IMMEDIATE ACTION TAKEN

I NOTIFIED BILL POPADAKIS (IEPA) OF WHAT I HAD FOUND. I EXPLAINED THE SOURCE OF THE WATER AND A DESCRIPTION OF THE AREA. HE STATED THAT HE WOULD NOT NEED ANY WRITTEN FOLLOW UP AT THIS TIME AND SINCE THE WATER WAS CONTAINED IN THE DITCH, WE DID NOT NEED TO SAMPLE. THERE WERE NO NPDES PROBLEMS. I TOLD HIM I WOULD UPDATE HIM WEDNESDAY MORNING. OPERATING FOLLOWED UP BY SHUTTING DOWN BLOWDOWN FLOW.

AR # : WR # : WR TASK# :  
TIF/TRR # : PROCEDURE # ER # :  
HOLD TAG # : REJECT TAG # :

ORIGINATOR : Joseph Tidmore EXT : 2299 DEPT : CH ORIGINATED DATE: 11/07/00

D-35

**SUPERVISOR**

**HOW IT HAPPENED**

0CW136 CW BLOWDOWN VALVE WAS FOUND LEAKING PAST ITS MAIN SEAT. THE VALVE HAD BEEN IN THIS CONDITION FOR AN UNKNOWN PERIOD OF TIME, MOST LIKELY SEVERAL DAYS. THE GROUND IN THE NEARBY AREA IS SANDY AND DRAINS QUICKLY. THE GROUND WAS SATURATED WITH WATER. UPON THE DISCOVERY OF THE LEAK OPERATIONS ISOLATED CW BLOWDOWN ON THE AFTERNOON OF 11/6/2000. DRAINING OF THE PIPING TO EFFECT THE REPAIRS WAS STARTED ON THE MORNING OF 11/7/2000. THE 0CW135 (MANUAL ISOLATION TO 0CW136) AND THE 0CW136 CW BLOWDOWN VACUUM BREAKER VALVE WERE REPLACED WITH NEW VALVES BY 1600 HRS 11/7/2000.

EXTENT OF CONDITION; THE SAME/SIMILAR VALVE IS USED IN SEVERAL PLACES ON THE CW MAKE UP AND BLOWDOWN PIPING. BYRON HAS A CW MAKEUP AND BLOWDOWN PIPE, HOWEVER IT IS NOT KNOWN IF BYRON HAS VACUUM BREAKERS AND IF SO WHAT TYPE OF VACUUM BREAKERS. A MESSAGE WAS LEFT FOR BYRON CW SYSTEM ENGINEER ABOUT THIS PROBLEM.

**WHY IT HAPPENED**

AN INTERNAL FLOAT WHICH CLOSES THE VALVE WHEN THE VALVE FILLS WITH WATER FAILED. A SMALL WELD HOLDING THE TWO PIECES OF THE FLOAT TOGETHER BROKE. THE VALVE FAILED OPEN.

**PROPOSED SOLUTION**

ONCE A YEAR A VISUAL INSPECTION OF THE BLOWDOWN AND MAKE UP LINES IS PERFORMED, INCLUDING THE VACUUM BREAKERS. THE FLOAT IN QUESTION IS AN INTERNAL PART AND CAN NOT BE INSPECTED WITHOUT DIASSEMBLY OF THE VALVE. A DEGRADED CONDITION COULD BE FOUND BY NOTING SOME LEAKAGE PAST THE VALVE SEATS.

THIS IS THE FIRST FAILURE OF THIS TYPE.

A SCHEDULE OF REPLACEMENTS WILL BE PROPOSED TO THE PHC BY THE SYSTEM ENGINEER TO PREVENT REOCCURRANCE.

SUPERVISOR : David A Johnson

DATE : 11/07/2000

**SHIFT ENGINEER / SRO DESIGNEE REVIEW**

Reportable :	NO	Quarantine :	NO	Operability Assessment :	NO
Equipment Operability :	N/A	Attachments :	NO	FFD Concern ?	NO
Prompt Investigation :	NO	LOCAR # Entered :			

**COMMENTS**

REPAIRS HAVE BEEN MADE AND THE CW BLOWDOWN SYSTEM FILL IS IN PROGRESS AT THIS TIME.

SHIFT ENGINEER / DESIGNEE Rahrig, Randall L

DATE : 11/07/2000