ACTION REQUEST 00099710

Type : NCR Orig Date: 07/23/03 11:03 Discovery Date: 07/23/03 11:00
Subject [redacted]

Description

DURING THE VALIDATION OF THE HNP SSD ANALYSIS BY THE AE, IT WAS DISCOVERED THAT A POSTULATED FIRE INDUCED SPURIOUS OPENING OF EITHER [redacted] COULD RESULT IN THE CONTENTS OF THE [redacted] REFER TO DRAWING [redacted] THESE TWO VALVES ARE NOT CURRENTLY INCLUDED IN THE HNP SSD ANALYSIS AS REQUIRED EQUIPMENT AND APPEARS TO BE A HISTORICAL OMMISSION. A REVIEW OF THE CWD'S FOR THESE VALVES, [redacted] DETERMINED THAT THE CABLES OF CONCERN, THOSE CABLES FOR WHICH A FIRE INDUCED HOT SHORT COULD CAUSE SPURIOUS ACTUATION, ARE [redacted] G, AND H-SA FOR 1CT [redacted] THE LISTED CABLE ROUTES WERE TRACED ON PLANT TRAY AND CONDUIT DRAWINGS. THE RESULTANT ROUTE SHOWED THAT CABLES [redacted] ARE ROUTED VIA THE [redacted] THESE AREAS ARE SIGNIFICANT AS THE CABLES FOR [redacted] ARE ALSO ROUTED IN THESE FIRE AREAS. IF THE POSTULATED FIRE AFFECTED OPERATION OF [redacted] THEN [redacted] HOWEVER, IF THE [redacted] VIA [redacted] DUE TO THE SPURIOUS OPENING OF EITHER OF THESE VALVES, THEN THE REQUIRED INVENTORY MAY NOT BE AVAILABLE FROM THE RWST. THIS CONDITION IS SIMILAR TO THE PREVIOUSLY REPORTED CONDITION (REFER TO LER2002-004-01) FOR THE POTENTIAL FOR [redacted] VIA SI SYSTEM VALVES. REFER TO [redacted] HOWEVER, WHERE THAT POSTULATED FIRE REQUIRED MULTIPLE SPUROIUS OPERATION OF VALVES IN THE FLOW PATH BETWEEN THE [redacted] THIS CONDITION ONLY REQUIRES A SINGLE SPURIOUS OPERATION OF A VALVE IN THE FLOWPATH BETWEEN [redacted] IT IS NOTED THAT COMPENSATORY MEASURES, I.E. [redacted] HAD ALREADY BEEN IN PLACE FOR OTHER SSD RELATED ISSUES IN EACH OF THE AREAS OF CONCERN [redacted] AND REMAIN IN PLACE.

Priority	: 1	Report To	:	Status: APPROVED 07/25/03	
Due Date	: 02/10/05	Event	:		
Originator	: KUNZMJ	Originator Group:			
Facility	: HNP	Department	: JJ8	Organization:	
Owed To	:	Owed To Group	: ESSUEVAL		
Owed To Fac	: HNP	Department	:	Discipline	:

ACTION REQUEST 00099710

Request Attribute	Value	Reqd	Date
1A POT'L OPER/REPORT	Y	Y	07/23/03
Name : JOHN	KUNZMANN		

Request Attribute	Value	Reqd	Date
2 SUPERVISOR REVIEW	Y	N	07/23/03
Name : JAMES	MANESS		

Request Attribute	Value	Reqd	Date
2A CR VALID?	Y	Y	07/23/03
Name : JAMES	MANESS		

CT VALVES ARE NOT IN CURRENT SSA.

Request Attribute	Value	Reqd	Date
2B FURTHER INVN REQD	Y	Y	07/23/03
Name : JAMES	MANESS		

EJ4

PNSC REVIEW AND CONCURRENCE IS REQUIRED FOR LERS. JPY 7/24/03

Request Attribute	Value	Reqd	Date
2C RECOMMENDED OWNER	KUNZMANN	N	07/23/03
Name : JAMES	MANESS		

Request Attribute	Value	Reqd	Date
2D OPER/REPORT ISSUE	Y	Y	07/23/03
Name : JAMES	MANESS		

SPURIOUS OPENING OF [redacted] VALVES COULD CAUSE [redacted] DEFENSE I
N DEPTH MEASURES IN PLACE FOR FIRE IN THE AREA OF CONCERN TO MIDIGATE SIGNI
FICANT DEGRADATION : [redacted]

Request Attribute	Value	Reqd	Date
2E MAINT RULE APPLIC	Y	N	07/23/03
Name : DAVID	CORLETT		

Request Attribute	Value	Reqd	Date
2F SYSTEM	2070	Y	07/23/03
Name : DAVID	CORLETT		

Request Attribute	Value	Reqd	Date
3 OPERATIONS REVIEW		N	
Name :			

Request Attribute	Value	Reqd	Date
3A IMMED REPT ISSUE	N	N	07/23/03
Name : DAVID	CORLETT		

THIS CONDITION IS NOT IMMEDIATELY REPORTABLE DUE TO THE HOURSLY ROVING FIRE
WATCH THAT WAS IN EFFECT AT THE TIME OF DISCOVERY.

Request Attribute	Value	Reqd	Date
3B OCR		N	
Name :			

ACTION REQUEST 00099710

Request Attribute	Value	Reqd	Date
3B1 OPER ISSUE	N	N	07/23/03
Name : DAVID	CORLETT		

Request Attribute	Value	Reqd	Date
3B2 REPORT ISSUE	Y	N	07/23/03
Name : DAVID	CORLETT		

THIS CONDITION IS REPORTABLE

Request Attribute	Value	Reqd	Date
3B3 REW		N	
Name :			

Request Attribute	Value	Reqd	Date
3C TRACKING NUMBER		N	
Name :			

Request Attribute	Value	Reqd	Date
4 REG AFF REVIEW		N	
Name :			

Request Attribute	Value	Reqd	Date
4A OPER/REPORT ISSUE	Y	Y	07/24/03
Name : JOHN	YADUSKY		

SEE SUPERVISORS COMMENTS IN ATTRIBUTE 2D AND OPERATIONS COMMENTS IN ATTRIBU TES 3A AND 3B2. NOT IMMEDIATE REPORTABLE PER 10 CFR 50.72, BUT 60-DAY WRIT TEN REPORT TO NRC REQUIRED PER 10 CFR 50.73. JPY 7/24/03

Request Attribute	Value	Reqd	Date
4A1 OPER ISSUE	N	Y	07/24/03
Name : JOHN	YADUSKY		

Request Attribute	Value	Reqd	Date
4A2 REPORT ISSUE	Y	Y	07/24/03
Name : JOHN	YADUSKY		

SEE COMMENTS IN ATTRIBUTE 4A ABOVE. JPY 7/24/03

Request Attribute	Value	Reqd	Date
4B FOLLOWUP ASG REQD	Y	Y	07/24/03
Name : JOHN	YADUSKY		

NOT IMMEDIATE REPORTABLE PER 10 CFR 50.72, BUT 60-DAY WRITTEN REPORT TO NRC REQUIRED PER 10 CFR 50.73. PLEASE ASSIGN AN ACTION ITEM TO JOHN YADUSKY T O SUBMIT A REVISION TO LER 2002-004 TO REPORT TO THE NRC THE ADDITIONAL CON DITION OF THIS AR. DUE DATE 9/22/03 (60-DAYS FROM EVENT DISCOVERY). JPY 7 /24/03 ********** UPDATE ON 9/11/03: ADDED "GL91-18" KEYWORD. PER WCM-00 1, PARAGRAPH 5.3.2 FOR DEFECTIVE EQUIPMENT ISSUES REQUIRING PROMPT CORRECTI VE ACTION, "AN ACTION ITEM WILL BE GENERATED FROM THE ASSOCIATED AR TO OUTA GE AND SCHEDULING REQUIRING CORRECTIVE ACTIONS PROMPTLY (NOT TO EXCEED THE NEXT REFUELING OUTAGE UNLESS JUSTIFIED)." PLEASE ASSIGN AN ACTION ITEM TO O&S (JOHN COOK) TO ENSURE PROMPT CORRECTIVE ACTIONS AT THE FIRST AVAILABLE OPPORTUNITY (DUE DATE 11/10/04 - RFO-12). JPY 9/11/03

Request Attribute	Value	Reqd	Date
4C T. SPEC VIOLATION	N	Y	07/24/03
Name : JOHN	YADUSKY		

ACTION REQUEST 00099710

Request Attribute	Value	Reqd	Date
4D ADD'L REPORT REQD	Y	Y	07/24/03
Name : JOHN	YADUSKY		

SEE FOLLOW-UP ASSIGNMENT REQUIRED IN ATTRIBUTE 4B ABOVE. LER 2002-004-02 (REVISION "02" OF LER 2002-004) MUST BE SUBMITTED TO THE NRC NO LATER THAN 9 /22/03 (60 DAYS FROM EVENT DISCOVERY). JPY 7/24/03

Request Attribute	Value	Reqd	Date
4E PNSC/CIRP REQD	Y	Y	07/24/03
Name : JOHN	YADUSKY		

PNSC REVIEW AND CONCURRENCE IS REQUIRED FOR LERS. JPY 7/24/03

Request Attribute	Value	Reqd	Date
5 CLASSIFN/ASSIGNMNT	6.A	N	07/25/03
Name : VERONICA	HAMILTON		

Request Attribute	Value	Reqd	Date
5A CR VALID?	Y	Y	07/25/03
Name : VERONICA	HAMILTON		

Request Attribute	Value	Reqd	Date
5B FURTHER INVN REQD	Y	Y	07/25/03
Name : VERONICA	HAMILTON		

Request Attribute	Value	Reqd	Date
6 MISCELLANEOUS		N	
Name :			

Request Attribute	Value	Reqd	Date
6A COMMENTS		N	
Name :			

Request Attribute	Value	Reqd	Date
6B COMMENTS		N	
Name :			

Request Attribute	Value	Reqd	Date
6C COMMENTS		N	
Name :			

Request Attribute	Value	Reqd	Date
6D COMMENTS		N	
Name :			

Request Attribute	Value	Reqd	Date
6E COMMENTS		N	
Name :			

Request Attribute	Value	Reqd	Date
6F SCHD ISS CLOS DT		N	
Name :			

ACTION REQUEST 00099710

Route List: 001 Route List Initiator: KUNZMJ

PASSPORT	Fac	Alert Group/Type		Last Name	Send Date	Send Time	Action Taken	Action Date/Time
MANESJ	HNP	ESSDSUPV	A	MANESS	07/23/03	11:41	APPROVED	07/23/03 14:43
CORLED	HNP	CONTROOM	A	CORLETT	07/23/03	14:43	APPROVED	07/23/03 15:08
YADUSJ	HNP	REGREV	A	YADUSKY	07/23/03	15:08	APPROVED	07/24/03 08:48
HAMILV	HNP	UNITEVAL	A	HAMILTON	07/24/03	08:48	APPROVED	07/25/03 10:08
GERALJ	NCP	CREGREV	I	GERALD	07/23/03	11:41		07/23/03 12:52
	BNP	REGREV	I		07/23/03	11:41		
BRIGHR01	CR3	REGREV	I	BRIGHT	07/23/03	11:41		07/23/03 12:57

TREND-CAUSE

Facility: HNP Trend 1: EC Trend 2: CM Trend 3: CM1 Date:
Process: N/A Org: N/A Rank: Assign:
Description: REG OR DESIGN REQT NOT SATISFIED IN THE PHYS/FUNC

Facility: HNP Trend 1: EC Trend 2: ES Trend 3: ES2 Date:
Process: N/A Org: N/A Rank: Assign:
Description: DOCUMENT PREPARATION/UPDATE

Facility: HNP Trend 1: RC Trend 2: M Trend 3: M2 Date: 08/20/03
Process: N/A Org: ESSD Rank: H Assign:
Description: INADEQUATE OR FAULTY ANALYSIS WITH EQUIPMENT OR ST

AR EQUIPMENT REFERENCES

Facility: HNP Unit: 1 Op System: System: 2070
Area: Class: Division:
Equipment Type: MOA Equipment: CT-V7SB
Component Type: Component:

Facility: HNP Unit: 1 Op System: System: 2070
Area: Class: Division:
Equipment Type: ISV Equipment: CT-V7SB
Component Type: Component:

Facility: HNP Unit: 1 Op System: System: 2070
Area: Class: Division:
Equipment Type: ISV Equipment: CT-V7SB
Component Type: Component:

Facility: HNP Unit: 1 Op System: System: 2070
Area: Class: Division:
Equipment Type: ISV Equipment: CT-V7SB
Component Type: Component:

Facility: HNP Unit: 1 Op System: System: 2070
Area: Class: Division:
Equipment Type: MOA Equipment: CT-V6SA
Component Type: Component:

Facility: HNP Unit: 1 Op System: System: 2070
Area: Class: Division:
Equipment Type: ISV Equipment: CT-V6SA
Component Type: Component:

Facility: HNP Unit: 1 Op System: System: 2070
Area: Class: Division:
Equipment Type: ISV Equipment: CT-V6SA
Component Type: Component:

Facility: HNP Unit: 1 Op System: System: 2070
Area: Class: Division:
Equipment Type: ISV Equipment: CT-V6SA
Component Type: Component:

ACTION REQUEST 00099710

AR EQUIPMENT REFERENCES

Facility: HNP	Unit: 1	Op System:	System: 2070
Area:	Class:	Division:	
Equipment Type: TNK		Equipment: 1X-SAB-DFW	
Component Type:		Component:	

ACTION REQUEST 00099710

ASSIGNMENT NUMBER 01 SUB

Type	: INVN	Due Date	: 09/23/03		
Status	: COMPLETE	Reschedule	: 3	Pri Resp Group:	ESSSUPT
Assigned To	: J KUNZMANN			Sec Resp Group:	
Subject	: SIGNIFICANT ADVERSE CONDITION INVESTIGATION				
Aff Facility:	HNP	Unit	:	System	:
UCR	:	Schedule Ref	:		
Organization:		Department	: JJ8	Discipline	:
Est Manhrs	:	Est Comp Date	:		

Assignment Attribute	Value	Reqd	Date
BENEFIT REALIZED		N	
Name :			

Assignment Attribute	Value	Reqd	Date
1 EVALUATOR/ASSIGNEE		N	
Name :			

Assignment Attribute	Value	Reqd	Date
1A COMMITTED		N	
Name :			

Assignment Attribute	Value	Reqd	Date
1B CHANGE BASIS		N	
Name :			

DAILY NCR REVIEW MEETING COVER SHEETS SHOWS DUE DATES AS FOLLOWS: 8/13 RCRT , 8/18 SECTION MGR APPROVAL, 8/20 PNSC, 8/22 INVESTIGATION COMPLETE. REVISE DUE DATE TO 8/22/03 . JAM 8/11/03

Assignment Attribute	Value	Reqd	Date
2 MISCELLANEOUS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2A COMMENTS	EXTENSION REQUEST	N	08/12/03
Name : VERONICA	HAMILTON		

REVISE DUE DATE TO 8/18/03. APPROVED BY PAUL FULFORD 8/12/03 (ACTING SECTIO N MANAGER).

Assignment Attribute	Value	Reqd	Date
2B COMMENTS	RETURNED	N	09/08/03
Name : DAVID	SHOCKLEY		

EXTEND TO 9/8/03 DUE TO PNSC BEING SCHEDULE FOR 9/3/03. ENRG APPROVALS ARE COMPLETE. JAM 8/15/03 THIS AR WAS REOPENED DUE TO AN INADVERTENT APPROVAL OF THE AAA BY PNSC (CONCURRENCE RECEIVED FROM B. DUNCAN). PNSC IS SCHEDUL ED FOR 9/3/03. DL SHOCKLEY

Assignment Attribute	Value	Reqd	Date
2C COMMENTS	EXTENSION REQUEST	N	09/08/03
Name : DAVID	SHOCKLEY		

PNSC RESCHEDULED TO 9/17/03. REVISE DUE DATE OF THIS AR TO 9/23/03. JAM, AP PROVED BY DIYA, THE PNSC HAS SINCE BEEN RESCHEDULED TO 9/10/03, INVESTIGATI ON SHOULD BE COMPLETED EARLIER THAN EXPECTED.

ACTION REQUEST 00099710

Assignment Attribute	Value	Reqd	Date
2D COMMENTS	BASIS FOR RETURN	N	09/15/03
Name : DAVID	SHOCKLEY		

REASSIGNED TO KUNZMANN TO INCORPORATE PNSC COMMENTS IN MANESS' ABSENCE. RE
TURNED TO KUNZMANN TO INCORPORATE ADDITIONAL COMMENTS FROM OPS.

Assignment Attribute	Value	Reqd	Date
2E COMMENTS	BASIS FO RETURN	N	09/17/03
Name : DAVID	SHOCKLEY		

BASIS FOR RETURN: INCORPORATE PNSC COMMENTS.

COMPLETION NOTES

CAUSE/ACTION

ASSIGNMENT COMPLETION APPROVAL

Route List: 001 — Route List Initiator: MANESJ

PASSPORT	Fac	Alert Group/Type		Last Name	Send Date	Send Time	Action Taken	Action Date/Time
FULFOJ	HNP	ESSSUPT	A	FULFORD	08/14/03	14:32	APPROVED	08/15/03 10:09
FULFOJ	HNP	ESSMGR	A	FULFORD	08/15/03	10:09	APPROVED	08/15/03 10:09
THERID01	HNP	OECOORDS	I	THERIT	08/14/03	14:32		08/15/03 07:32
	HNP	PNSC	A	THERIT	08/15/03	10:09	BYPASSED	08/15/03 14:26
SHOCKD	HNP	ESSUEVAL	A	SHOCKLEY	08/15/03	14:26	RETURNED	08/15/03 14:27
FULFOJ	HNP	ESSSUPT	A	FULFORD	08/15/03	14:28	APPROVED	08/15/03 14:34
FULFOJ	HNP	ESSMGR	A	FULFORD	08/15/03	14:34	APPROVED	08/15/03 14:35
THERID01	HNP	OECOORDS	I	THERIT	08/15/03	14:28		08/18/03 14:27
DUNCAR	HNP	PNSC	A	DUNCAN II	08/15/03	14:35	APPROVED	08/20/03 13:33
SHOCKD	HNP	ESSUEVAL	A	SHOCKLEY	08/20/03	13:33	APPROVED	08/20/03 14:23

Route List: 002 — Route List Initiator: KUNZMJ

PASSPORT	Fac	Alert Group/Type		Last Name	Send Date	Send Time	Action Taken	Action Date/Time
OCONNS01	HNP	ESSSUPT	A	O'CONNOR	08/21/03	10:10	APPROVED	08/21/03 10:17
OCONNS01	HNP	ESSMGR	A	O'CONNOR	08/21/03	10:17	APPROVED	08/28/03 08:33
	HNP	PNSC	A	O'CONNOR	08/28/03	08:33	BYPASSED	09/02/03 08:10
THERID01	HNP	OECOORDS	I	THERIT	08/21/03	10:10		08/26/03 07:19
	HNP	ESSMGR	A	THERIT	09/02/03	08:10	BYPASSED	09/04/03 07:21
	HNP	PNSC	A	THERIT	09/04/03	07:21	BYPASSED	09/04/03 07:21
SHOCKD	HNP	ESSUEVAL	A	SHOCKLEY	09/04/03	07:21	RETURNED	09/04/03 07:22
OCONNS01	HNP	ESSSUPT	A	O'CONNOR	09/08/03	15:23	APPROVED	09/08/03 16:53
DIYAFA	HNP	ESSMGR	A	DIYA	09/08/03	16:53	APPROVED	09/10/03 14:41
	HNP	PNSC	A	DIYA	09/10/03	14:41	BYPASSED	09/11/03 07:32
THERID01	HNP	OECOORDS	I	THERIT	09/08/03	15:23		09/09/03 16:34
SHOCKD	HNP	ESSUEVAL	A	SHOCKLEY	09/11/03	07:32	RETURNED	09/11/03 07:33
OCONNS01	HNP	ESSSUPT	A	O'CONNOR	09/11/03	09:01	APPROVED	09/11/03 15:52
	HNP	ESSMGR	A	O'CONNOR	09/11/03	15:52	BYPASSED	09/15/03 11:15
	HNP	PNSC	A	O'CONNOR	09/15/03	11:15	BYPASSED	09/15/03 11:16
THERID01	HNP	OECOORDS	I	THERIT	09/11/03	09:01		09/11/03 11:47
SHOCKD	HNP	ESSUEVAL	A	SHOCKLEY	09/15/03	11:16	RETURNED	09/15/03 11:17
DIYAFA	HNP	ESSSUPT	A	DIYA	09/15/03	12:14	APPROVED	09/17/03 14:37
DIYAFA	HNP	ESSMGR	A	DIYA	09/17/03	14:37	APPROVED	09/17/03 14:37
	HNP	PNSC	A	DIYA	09/17/03	14:37	BYPASSED	09/17/03 15:44
THERID01	HNP	OECOORDS	I	THERIT	09/15/03	12:14		09/18/03 10:22
SHOCKD	HNP	ESSUEVAL	A	SHOCKLEY	09/17/03	15:44	RETURNED	09/17/03 15:45
	HNP	ESSSUPT	A	SHOCKLEY	09/17/03	15:57	BYPASSED	09/18/03 07:07
DIYAFA	HNP	ESSMGR	A	DIYA	09/18/03	07:07	APPROVED	09/18/03 07:35
BURNSP	HNP	PNSC	A	BURNS	09/18/03	07:35	APPROVED	09/18/03 07:40
THERID01	HNP	OECOORDS	I	THERIT	09/17/03	15:57		09/18/03 10:22
SHOCKD	HNP	ESSUEVAL	A	SHOCKLEY	09/18/03	07:40	APPROVED	09/18/03 07:55

ACTION REQUEST 00099710

ASSIGNMENT NUMBER 04 SUB

Type	: CAPR	Due Date	: 11/11/04		
Status	: CANCELED	Reschedule	:	Pri Resp Group:	
Assigned To	: J KUNZMANN			Sec Resp Group:	
Subject	: IMPLEMENT EC-54065				
Aff Facility:	HNP	Unit	:	System	:
JCR	:	Schedule Ref	: H1R12D		
Organization:		Department	: JJ8	Discipline	:
Est Manhrs	:	Est Comp Date	:		

Assignment Attribute	Value	Reqd	Date
BENEFIT REALIZED		N	
Name :			

Assignment Attribute	Value	Reqd	Date
1 UNIT/SECT EVALUATR		N	
Name :			

Assignment Attribute	Value	Reqd	Date
1A COMMITTED	Y	N	09/19/03
Name : DAVID	BARKER		

ACTION COMMITTED TO NRC IN LER 2002-004-02.

Assignment Attribute	Value	Reqd	Date
1B CHANGE BASIS	DUPLICATE - CANCEL	N	09/22/03
Name : VERONICA	HAMILTON		

SEE ASSIGNMENT #12

Assignment Attribute	Value	Reqd	Date
2 MISCELLANEOUS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2A COMMENTS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2B COMMENTS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2C COMMENTS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2D COMMENTS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2E COMMENTS		N	
Name :			

ACTION REQUEST 00099710

.ssignment Attribute	Value	Reqd	Date
A LTCA APPROVAL		N	
lame :			

.ssignment Attribute	Value	Reqd	Date
.B LTCA CONCURRENCE		N	
lame :			

:OMPLETION NOTES

:AUSE/ACTION

.SSIGNMENT COMPLETION APPROVAL

loute List: 001 — Route List Initiator:

?ASSPORT	Fac	Alert Group/Type	Last Name	Send Date	Send Time	Action Taken	Action Date/Time
	HNP	ESSDSUPV A					
	HNP	ESSSUPT A					
HAMILV	HNP	ESSUEVAL A	HAMILTON			CANCELED	09/22/03 07:53

ACTION REQUEST 00099710

SSIGNMENT NUMBER 05 SUB

ype	: CORR	Due Date	: 11/11/04		
tatus	: ACC/ASG	Reschedule	:	Pri Resp Group:	
ssigned To	: M FLETCHER			Sec Resp Group:	
ubject	: ESTABLISH/MAINTAIN COMPENSATORY FIRE WATCH				
ff Facility	: HNP	Unit	:	System	:
CR	:	Schedule Ref	:		
rganization	:	Department	: DC8	Discipline	:
st Manhrs	:	Est Comp Date	:		

ssignment Attribute	Value	Reqd	Date
ENEFIT REALIZED		N	
ame :			

ssignment Attribute	Value	Reqd	Date
UNIT/SECT EVALUATR		N	
lame :			

ssignment Attribute	Value	Reqd	Date
A COMMITTED	Y	N	09/19/03
lame : DAVID	BARKER		

OMMITTED ACTION TO NRC PER LER 2002-004-02.

ssignment Attribute	Value	Reqd	Date
B CHANGE BASIS		N	
lame :			

ssignment Attribute	Value	Reqd	Date
MISCELLANEOUS		N	
lame :			

ssignment Attribute	Value	Reqd	Date
A COMMENTS		N	
lame :			

ssignment Attribute	Value	Reqd	Date
B COMMENTS		N	
lame :			

ssignment Attribute	Value	Reqd	Date
C COMMENTS		N	
lame :			

ssignment Attribute	Value	Reqd	Date
D COMMENTS		N	
lame :			

ssignment Attribute	Value	Reqd	Date
E COMMENTS		N	
lame :			

ACTION REQUEST 00099710

Assignment Attribute	Value	Reqd	Date
3A LTCA APPROVAL		N	
Name :			

Assignment Attribute	Value	Reqd	Date
3B LTCA CONCURRENCE		N	
Name :			

COMPLETION NOTES

CAUSE/ACTION

ASSIGNMENT COMPLETION APPROVAL

Route List: 001 Route List Initiator:

PASSPORT	Fac	Alert Group/Type	Last Name	Send Date	Send Time	Action Taken	Action Date/Time
	HNP	ESSFP	A				
	HNP	ESSUEVAL	A				

ACTION-REQUEST 00099710

.SSIGNMENT NUMBER 06 SUB

ype	: EREV	Due Date	: 02/10/05		
tatus	: ACC/ASG	Reschedule	:	Pri Resp Group:	ESSSUPT
.ssigned To	: J MANESS			Sec Resp Group:	
ubject	: EFFECTIVENESS REVIEW				
.ff Facility	: HNP	Unit	:	System	:
CR	:	Schedule Ref	:		
rganization	:	Department	: JJ8	Discipline	:
st Manhrs	:	Est Comp Date	:		

.ssignment Attribute	Value	Reqd	Date
ENEFIT REALIZED		N	
lame :			

.ssignment Attribute	Value	Reqd	Date
. UNIT/SECT EVALUATR		N	
lame :			

.ssignment Attribute	Value	Reqd	Date
.A COMMITTED		N	
lame :			

.ssignment Attribute	Value	Reqd	Date
.B CHANGE BASIS		N	
lame :			

.ssignment Attribute	Value	Reqd	Date
MISCELLANEOUS		N	
lame :			

.ssignment Attribute	Value	Reqd	Date
A COMMENTS		N	
lame :			

.ssignment Attribute	Value	Reqd	Date
B COMMENTS		N	
lame :			

.ssignment Attribute	Value	Reqd	Date
C COMMENTS		N	
ame :			

.ssignment Attribute	Value	Reqd	Date
D COMMENTS		N	
ame :			

.ssignment Attribute	Value	Reqd	Date
E COMMENTS		N	
ame :			

ACTION REQUEST 00099710

Assignment Attribute	Value	Reqd	Date
3 ASSGN INIT DATE		N	

Name :

COMPLETION NOTES

CAUSE/ACTION

ASSIGNMENT COMPLETION APPROVAL

Route List: 001 Route List Initiator:

PASSPORT	Fac	Alert Group/Type		Last Name	Send Date	Send Time	Action Taken	Action Date/Time
	HNP	ESSSUPT	A					
	HNP	ESSMGR	A					
	HNP	ESSUEVAL	A					

ACTION REQUEST 00099710

ASSIGNMENT NUMBER 10 SUB

Type	: GNRL	Due Date	: 09/22/03		
Status	: COMPLETE	Reschedule	:	Pri Resp Group:	LICENSUPV
Assigned To	: J YADUSKY			Sec Resp Group:	
Subject	: SUBMIT A REVISION TO LER 2002-004				
Aff Facility:	HNP	Unit	:	System	:
JCR	:	Schedule Ref	:		
Organization:		Department	: IAF	Discipline	:
Est Manhrs	:	Est Comp Date	:		

Assignment Attribute	Value	Reqd	Date
BENEFIT REALIZED		N	
Name :			

Assignment Attribute	Value	Reqd	Date
1A COMMITTED		N	
Name :			

Assignment Attribute	Value	Reqd	Date
1B CHANGE BASIS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2A COMMENTS		N	
Name :			

COMPLETION NOTES
SEE NOTES IN TAB 1 (ASSIGNMENT INFO). JPY 9/19/03

CAUSE/ACTION

ASSIGNMENT COMPLETION APPROVAL

Route List: 001 Route List Initiator: YADUSJ

PASSPORT	Fac	Alert Group/Type		Last Name	Send Date	Send Time	Action Taken	Action Date/Time
CAVESJ	HNP	LICENSUPV	A	CAVES	09/19/03	16:15	APPROVED	09/19/03 16:20
HAMILV	HNP	ESSUEVAL	A	HAMILTON	09/19/03	16:20	APPROVED	09/22/03 07:41

ACTION REQUEST 00099710

ASSIGNMENT NUMBER 12 SUB

Type	: CAPR	Due Date	: 11/11/04		
Status	: NTFY/ASG	Reschedule	:	Pri Resp Group:	ESSFP
Assigned To	: J KUNZMANN			Sec Resp Group:	
Subject	: IMPLEMENT EC 54065				
Aff Facility:	HNP	Unit	:	System	:
UCR	:	Schedule Ref	: H1R12D		
Organization:		Department	: JJ8	Discipline	:
Est Manhrs	:	Est Comp Date	:		

Assignment Attribute	Value	Reqd	Date
BENEFIT REALIZED		N	
Name :			

Assignment Attribute	Value	Reqd	Date
1 UNIT/SECT EVALUATR		N	
Name :			

Assignment Attribute	Value	Reqd	Date
1A COMMITTED	Y	N	09/22/03
Name : VERONICA	HAMILTON		

ACTION COMMITTED TO NRC IN LER 2002-004-02.

Assignment Attribute	Value	Reqd	Date
1B CHANGE BASIS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2 MISCELLANEOUS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2A COMMENTS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2B COMMENTS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2C COMMENTS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2D COMMENTS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2E COMMENTS		N	
Name :			

ACTION REQUEST 00099710

Assignment Attribute	Value	Reqd	Date
3A LTCA APPROVAL		N	
Name :			

Assignment Attribute	Value	Reqd	Date
3B LTCA CONCURRENCE		N	
Name :			

COMPLETION NOTES

CAUSE/ACTION

ASSIGNMENT COMPLETION APPROVAL

Route List: 001 Route List Initiator:

PASSPORT	Fac	Alert Group/Type	Last Name	Send Date	Send Time	Action Taken	Action Date/Time
	HNP	ESSFP A					
	HNP	ESSSUPT A					
	HNP	ESSUEVAL A					

ACTION REQUEST 00099710

ASSIGNMENT NUMBER 13 SUB

Type	: CORR	Due Date	: 09/26/03		
Status	: COMPLETE	Reschedule	:	Pri Resp Group:	OPSSSUPV
Assigned To	: W SCOTT			Sec Resp Group:	
Subject	: REVISE AOP-036				
Aff Facility:	HNP	Unit	:	System	:
WCR	:	Schedule Ref	:		
Organization:		Department	: H45	Discipline	:
Est Manhrs	:	Est Comp Date	:		

Assignment Attribute	Value	Reqd	Date
BENEFIT REALIZED		N	
Name :			

Assignment Attribute	Value	Reqd	Date
. UNIT/SECT EVALUATR		N	
Name :			

Assignment Attribute	Value	Reqd	Date
1A COMMITTED		N	
Name :			

Assignment Attribute	Value	Reqd	Date
1B CHANGE BASIS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2 MISCELLANEOUS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2A COMMENTS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2B COMMENTS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2C COMMENTS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2D COMMENTS		N	
Name :			

Assignment Attribute	Value	Reqd	Date
2E COMMENTS		N	
Name :			

ACTION REQUEST 00099710

ssignment Attribute	Value	Reqd	Date
1 LTCA APPROVAL		N	
ume :			

ssignment Attribute	Value	Reqd	Date
3 LTCA CONCURRENCE		N	
ume :			

OMPLETION NOTES
HIS ACTIVITY WAS INCLUDED IN [redacted] ISSU
) 9/17/03. BILL SCOTT 9/22/03

E44

NCORPORATED CHANGES

EMPORARY CHANGES

AC	DOC TYP	SUB TYP	DOCUMENT	REV	MIN OR	TITLE
NP	POM	EMG	AOP-036			SAFE SHUTDOWN FOLLOWING A FIR

AUSE/ACTION

SSIGNMENT COMPLETION APPROVAL

oute List: 001 Route List Initiator: SCOTTW01

ASSPORT	Fac	Alert Group/Type		Last Name	Send Date	Send Time	Action Taken	Action Date/Time
EBERM	HNP	OPSSSUPV	A	WEBER	09/22/03	09:10	APPROVED	09/22/03 11:58
HOCKD	HNP	ESSUEVAL	A	SHOCKLEY	09/22/03	11:58	APPROVED	09/22/03 14:55

Motor-operated valves [redacted] are not credited in the SSA. The cables for these motor operated valves [redacted] are not protected from maloperation in postulated fire scenarios.

E4 4

Significant Adverse Condition Investigation Form

Action Request Number:	99710	**Event Time:** 1100
Facility:	HNP	**Event Date:** 7/23/03
Unit:	1	**Investigator:** T. Maness

Management Sponsor – Paul Fulford/Sean O'Connor (Superintendent - Design Engineering)
Team Leader – Tony Maness (Fire Protection Supervisor – Design Engineering)
Team Members - John Kunzmann – Engineering (Safe Shutdown Program Manager)

1. Event Description/Problem Statement

An NRC inspection of the fire protection and safe shutdown program completed on 12/20/02 identified 9 issues that had not been identified prior to the NRC inspection. Issues included postulated fires in several areas where control wiring damage could result in equipment mal-operation which were not identified in the safe shutdown analysis (SSA), and problems associated with the feasibility of manual actions prescribed in the SSA and implementing procedures. Refer to [redacted] for the root cause investigation regarding these findings.

One of the corrective actions resulting from the root cause investigation was to perform a validation of the HNP SSA.

8 of 4

During performance of Task 4, "Validate Safe Shutdown Equipment List and Logics", of the validation of the HNP SSA, it was discovered that a postulated fire induced spurious opening of either [redacted] could result in the contents of the [redacted] Refer to drawing [redacted] These two valves are not currently included in the HNP SSA as required equipment and the omission appears to be a historical. A review of the CWD's for these valves, [redacted] determined that the cables of concern, those cables for which a fire induced hot short could cause spurious actuation, are [redacted] The listed cable routes were traced on plant tray and conduit drawings. The resultant route showed that cables [redacted], These areas are significant as the cables for [redacted] are also routed in these fire areas. If the postulated fire affected operation of [redacted] then normal charging from [redacted] However, if the [redacted] via either [redacted] due to the spurious opening of either of these valves, then the required inventory may not be available from the [redacted] This condition is similar to the previously reported condition (refer to LER 2002-004-01) for the potential for [redacted] via SI system valves. Refer to [redacted] However, where that postulated fire required multiple spurious operations of valves in the flow path between the RWST and the containment sump, [redacted]

Problem Statement

What Should Be?

- NUREG 0800 Attachment 1 (BTP CMEB 9.5-1) section C.5.b (hereafter referred to as NUREG 0800) requires fire protection features be provided for structures, systems and components important to safe shutdown (SSD). These features should be capable of limiting fire damage so that,
  (a) One train of systems necessary to achieve and maintain hot shutdown conditions from either the control room or emergency control station(s) is free of fire damage; and
  (b) Systems necessary to achieve and maintain cold shutdown from either the control room or emergency control station(s) can be repaired within 72 hours.

What Is?

- The HNP SSD Analysis does not include the following components as part of the analysis. The components should be included as they are boundary valves to ensure that the inventory in a SSD credited component is available such that cold shutdown can be achieved and maintained.

[redacted]

- Control Cables for the following components do not meet NUREG 0800 C.5.b criteria for protection:

[redacted]

What Is Wrong?

- All required equipment to achieve and maintain SSD has not been included in the station SSD Analysis.
- Control Cables for proposed SSD equipment do not meet NUREG 0800 criteria for protection.

Real or Potential Consequences:

- For postulated fires in three areas [redacted], adequate design measures do not exist to ensure a protected component remains available which constitutes an unanalyzed condition. Specifically, the affected valves listed above are required to remain shut to prevent [redacted]. A spurious opening of these valves from a fire in any of the three fire areas could result in inadvertently [redacted]. If this transfer of inventory were to occur, the water used for [redacted]

2. Data Collection/Extent of Condition

Data Sources

Program Documents and Procedures

- NUREG-0800, BTP CMEB 9.5-1, dated July, 1981
- HNP FSAR, Section 9.5.1
- NUREG-1038, HNP SER

[redacted]

Other Reference Information

- LER 02-004-01

[redacted]

Investigation Approach/Techniques

The scope of this investigation is focused on the issue described above. However, it is noted that this issue parallels the issues identified in [redacted] which addressed deficiencies associated with the SSD Analysis program. Generic issues as they pertain to this investigation will be included.

The issue was investigated utilizing gap analysis and barrier analysis as applicable. Document reviews were performed, interviews with personnel knowledgeable of the history of the Fire Protection and Safe Shutdown programs were conducted, and circuit analyses were performed to validate specific findings to support the conclusions of the safety significance analysis and to support corrective action development.

Pertinent Facts/Sequence of Events/Analysis

The nature of this issue is not driven by a specific sequence of events.

The Safe Shutdown Analysis refers to some terms that are used in this report.

A. Associated Circuits – Circuits and cables not required to operate for passive safe shutdown components (safety-related, non-safety-related, Class 1E, and Non-class 1E) that have a physical separation less than that required by NUREG-0800, 9.5-1 and have one of the following:
Type 1: A common power source with the shutdown equipment (redundant or alternate) which is not electrically protected from the circuit of concern by coordinated breakers, fuses, or similar devices;

Type 2: A connection to circuits of equipment whose spurious operation would adversely affect the shutdown capability;

Type 3: A common enclosure with the shutdown cables (redundant and alternative) which are either not electrically protected by circuit breakers, fuses, or similar devices, or will allow propagation of the fire across a fire barrier into the common enclosure.

B. Nonessential – Equipment and cables not required to perform a safe shutdown function or whose maloperation could have no effect on safe shutdown.

C. Required Cable – Cables for which continuity is required to perform a safe shutdown function.

D. Required Equipment – Equipment required to perform a safe shutdown function or whose maloperation could affect a safe shutdown system's capability.

E. Spurious Signal – A signal resulting from a fire-induced electrical hot short, open circuit, or short to ground.

F. Spurious Operation – Maloperation of equipment due to an occurrence of a spurious signal which could affect safe shutdown.

Also, an understanding of the SSD program history and differences between the designations for *fire areas* vs. *safe shutdown areas* is warranted.

Fire Protection Program

The HNP fire protection program consists of design features, personnel, equipment, and procedures to provide defense-in-depth protection of public health and safety. The purpose of the fire protection program is to prevent significant fires, ensure the capability to safely shut down the reactor, maintain it in a safe shutdown condition in the event of a fire. The program is implemented through plant system and facility design, fire prevention, fire detection, annunciation, confinement, extinguishment, administrative controls, fire brigade organization, inspection and maintenance, training, quality assurance, and testing.

The Fire Protection Program is described in the [redacted] and the plant [redacted]. [redacted] provides a general description of the fire protection design requirements and administrative controls. [redacted] contains the Fire Hazards Analysis (FHA). The FHA is a physical description of the separate fire areas that have been established in the plant for the purposes of separation of equipment required to shut down the plant in the event of a fire. The FHA describes the locations of physical fire protection features such as rated fire barrier floors and walls, installed fire suppression and detection systems, and manual fire fighting equipment such as hose stations and fire extinguishers. The FHA also includes a description of the in-situ fire hazards in each fire area, the combustible loads and the equipment required for safe shutdown (SSD). The Safe Shutdown Analysis (SSA) is a subset to the FHA which looks specifically at the electrical equipment and circuits in the plant required for SSD.

Safe Shut Down Analysis

The SSA is incorporated by reference into the FSAR The original SSA was developed by EBASCO in June 1983 and submitted to the NRC along with the FHA as part of the fire protection program submittals. The SSA consists of a series of site calculations, operating procedures, and drawings which combined demonstrate that for a fire in any plant area, the plant can be safely shut down. The SSA consists of the following documents:

[redacted]

This calculation identifies the major assumptions and methodology for the SSA. It identifies the systems and functions required for SSD. It also includes a SSD results summary by fire analysis areas for each of the plant areas.

[redacted]

Attachment A of this calculation identifies the specific components required for SSD and their associated cables and routing. Attachment B of the calc identifies the SSD required circuit location by fire analysis area and it identifies the resolution code for each circuit.

[redacted]

This calculation documents the breaker fuse coordination required for common power supplies with SSD required equipment

[redacted]

This calculation identifies worst case short circuit conditions for use in the breaker fuse coordination [redacted]

[redacted]

These drawings provide a plan view of the SSD circuit raceway routing in the plant by analysis area. They also show raceway fire barriers wrap locations.

[redacted]

These drawings show the credited systems and their SSD flow paths. These drawings are used to a great extent to identify the components required for SSD.

SSA Methodology

To achieve SSD, a set of basic required system functions was established which was based primarily on NRC requirements. Using the required system functions, a set of SSD flow diagram drawings were established to identify the necessary system flow paths. Using these drawings, the equipment required for SSD was identified and the equipment's required SSD function (i.e. to open, to isolate) was identified. Support equipment for the required functions were also identified such as area HVAC cooling. Next, using NRC guidance on circuit analysis, the electrical cables for each piece of equipment was categorized as essential, associated or non-essential. Drawings which identify the specific routing in the plant of the cables were developed and finally an evaluation was performed for each fire area to determine if one train of equipment was maintained free of fire damage. For each fire area the required cables were provided with a resolution code to identify the results of the analysis. The resolution codes detail how the circuit meets the NUREG 0800 requirements. Examples include resolution code 1, the cable is protected with a 1 or 3 hour fire barrier or resolution code 5, post fire manual operator actions include the manual repositioning of this component to the position required for SSD. Post fire operator manual actions were detailed in the Operations procedure [redacted]. 4 of 4

During the original NRC submittal, a primary focus was a severe fire in the control room that would require evacuation and shut down from [redacted]. The original approved submittal addressed specific operator actions allowed in the control room, at [redacted] and in the plant which were contained in [redacted]. Specific drawings showing the access path ways for each manual action and the location of 8-hour battery backed lighting were developed along with a time line to show the plant could be shut down using the actions described in [redacted] also contained any identified operator actions for the other plant fire analysis areas.

In 1990 a major upgrade to the SSA format was conducted resulting in the format that is used today. At that time the operator actions for areas other than the control room were split out of [redacted].

Extent of Condition

The identified deficiency documented in this investigation came from a review of SSD program constituents (analyses, procedures, drawings, etc.). The fundamental nature of the deficiency parallels the findings identified in [redacted] and further indicates that the condition extends throughout the program constituents and could impact any of the other un-reviewed fire areas. A corrective action is included under [redacted] to perform a validation of the existing SSD program analysis to determine all areas of noncompliance with existing regulatory standards and guidance.

3. Investigation Results

[ ] if either of the following were to occur:
[ ] or the A-train, the following would need to occur:

- [ ] a normally closed, non-SSA credited MOV, would need to spuriously open.

In order for [ ] the following would need to occur:

- Valve [ ] a normally closed, non-SSA credited MOV, would need to spuriously open.

A review of the CWD's for these valves [ ] determined that the cables of concern, those cables for which a fire induced hot short could cause spurious actuation, are:

[ ]

The listed cable routes were traced on plant tray and conduit drawings. The resultant route showed:

[ ]

E/4

These areas are significant as the cables for [ ] are also routed in these fire areas. If the postulated fire affected operation of [ ] then [ ] would be lost and [ ] g inventory [ ] However, if the [ ] via either [ ] due to the spurious opening of either of these valves, then the required inventory may not be available from [ ].

This condition is similar to the previously reported condition (refer to LER 2002-004-01) for the potential for draining the RWST to the containment sump via SI system valves. Refer to AR #'s [ ] However, where that postulated fire required multiple spurious operations of valves in the flow path between the [ ] this condition only requires a single spurious operation of a valve in the flowpath between the [ ].

A review of the SSA Cable Analysis calculations [ ] found that the analysis does not currently credit [ ] However, Calculation [ ] states that "All components whose maloperation could possibly affect essential systems are analyzed to consider the effects of spurious signals". Contrary to this, the affects of the maloperation of either [ ] were not considered for the effects on the [ ].

Inappropriate Act

1. Motor-operated valves [ ] are not credited in the SSA. The cables for these motor operated valves [ ] are not protected from maloperation in postulated fire scenarios.

Causal Factors

1. Historical error in the original HNP SSD analysis calculations [ ]

4. Inappropriate Acts / Equipment Malfunctions

	Inappropriate Act/Equipment Failure or Malfunction	Cause			C/A#
		Type	Description	Code	C/A
1	Motor-operated valves [redacted] are not credited in the SSA. The cables for these motor operated valves [redacted] are not protected from maloperation in postulated fire scenarios.	Root	Historical error in SSD analysis calculations [redacted]	M2	1, 2, 3, 4

EA4

5. Does this event involve a loss of a Maintenance Rule function? ☐ Yes ☒ No

6. Previous Operating Experience (Internal and External)

In a typical root cause investigation this section provides lists of internal and external operating experience and an evaluation of how each may provide insights on previously unrecognized failure mechanisms, how SOER recommendations are considered, and an analysis of the effectiveness of previous corrective actions to ensure proposed corrective actions will be effective.

[redacted] performed a detailed review of how OE review (internal and external) relative to the SSD program. This review and associated findings are applicable to this investigation and will not be repeated within the scope of this investigation. This root cause investigation referred to HNP LER 97-020-00 but did not discuss why the previous corrective actions did not prevent recurrence. For completeness, this discussion is contained in this root cause. The previous corrective action did not identify or prevent the deficiencies identified by this LER because the valve identified in this fire area [redacted] was not included in the SSA. The root cause for the previous event performed a review in the additional fire area only of associated cables credited in the SSA.

Two additional OE events were discovered that are pertinent to this issue.

LER 91-004-00, RWST Water Inadvertently Drained to Containment, dated April 23, 1991 (Joseph M. Farley Nuclear Plant)

The LER describes a maintenance activity that resulted in the RWST inventory being transferred to the containment sump. While this LER was not associated with the plant's safe shutdown program, it did establish the potential pathway from the RWST to the containment sump via containment spray system pump suction valves.

LER 03-02-00, Appendix R Safe Shutdown Analysis Issues, dated March 26, 2003 (Prairie Island Nuclear Generating Plant)

The LER describes a deficiency in the plant safe shutdown analysis where a spurious opening of the containment spray pump suction valves could result in the RWST inventory being transferred to the containment sump and that specific actions to prevent this diversion were not credited in the plants safe shutdown analysis.

7. Generic Implications

[redacted] addresses the generic implications as they apply to the SSD program and deficiencies related to errors in the analysis. As a result of the review of the generic implications under [redacted] a validation of the HNP SSD program was warranted and is being currently being performed. This deficiency was identified during the validation of the SSD program. The deficiency identified in the scope of this AR investigation is one example of the type of generic deficiencies that are expected to be identified during the validation of the SSD program.

No further review for generic implications is required.

8. Safety Significance

Basis for AR Classification as Significant

This AR was classified as significant under the following criteria from CAP-NGGC-0200, Attachment 1:

> 4.c) – Reportable condition per 10CFR50.72 and 10CFR50.73. One example provided in NUREG-1022, Rev. 2, Section 3.2.4 provided clarity in evaluating this condition:
> "Beyond the examples given in 1983, an example of an event reportable as an unanalyzed condition that significantly degraded plant safety would be the discovery that a system required to meet the single failure criterion does not do so. In another example, if fire barriers are found to be missing, such that the required degree of separation for redundant safe shutdown trains is lacking, the event would be reportable as an unanalyzed condition that significantly degraded plant safety."

Actual Safety Consequences:

All of the findings are based on scenarios that have not actually occurred. Therefore there are no actual adverse safety consequences.

Potential Safety Consequences:

This discussion provides an evaluation of the specific safety significance associated with the identified deficiency and deemed reportable to the NRC as unanalyzed condition that significantly degrades plant safety.

1. The spurious operation of an MOV which could result in transferring of the [redacted]
2. Potential for equipment damage/unavailability due spurious actuation of components.

The [redacted] would be initially used as the suction source for [redacted] until such time that this suction path is no longer available. At that time, the [redacted] would be relied upon to provide suction to the charging pumps. If the [redacted] as a result of the spurious opening of either [redacted] then Operations would need to use [redacted] until such time that system line-ups could be established to transfer [redacted] Note that the use of [redacted] has been accepted by the NRC as a viable inventory source to enable the plant to achieve safe shutdown until [redacted] Refer to Safety Evaluation Report Supplement 3. [redacted]. Thus, it could be postulated that in addition to the spurious operation (closure) of one of [redacted] and the spurious operation (opening) of one of [redacted] However, based on the potential fire ignition source and the routing for the BAT level transmitter cables, it has been evaluated that one of the level transmitters will be unaffected by the postulated fire as adequate separation from the postulated fire location and the cable exists. Thus, one means of [redacted] will be available.

Further, based on the NRC guidance on Risk-Informed Inspection Guidance for Post-Fire Safe-Shutdown Inspections, contained in the Federal Register Vol. 68, No. 159, dated August 18, 2003, the inspectors need only assume a maximum of two concurrent spurious operations for scenario evaluated. Thus, the licensee need only evaluate and take the necessary response to a maximum of two concurrent spurious operations for each scenario evaluated. For fire area [redacted] the two spurious operations which would have the greatest impact on SSD in case of a fire would be the [redacted]

[redacted]

The consequences of the above actions are also minimized by the effective implementation of the HNP fire protection program. The HNP fire protection program consists of design features, personnel, equipment, and procedures provided to protect the health and safety of the public. The purpose of the fire protection program is to prevent significant fires, ensure the capability to safely shut down the reactor, maintain it in a safe shutdown condition, and to limit the radioactive release to the environment in the event of a fire. The program is implemented through plant system and facility design, fire prevention, fire detection, annunciation, confinement, extinguishment, administrative controls, fire brigade organization, inspection and maintenance, training, quality assurance, and testing.

The defense-in-depth concept is used to achieve the desired degree of fire safety. This concept is applied to the fire protection program to achieve an appropriate balance in:

a) Prevention of fire initiation through the administrative controls governing separation and guarding of ignition sources;
b) Prompt detection of fires or incipient fire conditions via installed automatic detection systems in areas containing safety related equipment or in areas of high combustible loading which may expose safety related equipment;
c) Effective suppression of fires to limit consequences and to reduce exposure of safety related equipment using installed automatic fire suppression systems backed up by a trained qualified 5-member fire brigade;
d) Confinement of fires to their areas of initiation through use of fire barriers, spatial separation and segregation of combustibles; and
e) Separation of redundant safety related equipment to maintain operational capability under postulated fire conditions.

Maintenance Rule Impact

This issue does not involve the loss of any Maintenance Rule function.

9. Corrective Actions

C/A #	Cause #	Planned/Completed Corrective Action	Assmt. Type	Assignee	Due-Date
1	1	Implement [redacted] to ensure the required analysis is completed for the affected components and cables and to provide any changes required to SSD cable analysis calculation [redacted] SSD analysis calculation [redacted] SSD Implementing procedure [redacted] and any required field work to protect the cables in accordance with the requirements of NUREG-0800.	CAPR	ENG (Kunzmann)	11/11/04 (Note 1)
2	1	Establish and maintain a fire watch in [redacted] as a compensatory measure until such time that compliance with NUREG-0800 is established. (Note: The fire watch was existing in these areas for a previously identified issue.)	CORR	ENG (Fletcher)	11/11/04 (Note 1)
3	1	Issue a Night Order to Operations describing the identified condition and clarifying the operations response to the event described herein.	CORR	Ops (Warner)	Completed on 09/10/03
4	1	Revise [redacted] to include interim procedural actions to be taken in the event of the loss of [redacted] The interim guidance will remain until the SSA validation is complete and full compliance with NUREG-0800 is achieved.	CORR	Ops (Scott)	9/26/03
5	N/A	Perform an effectiveness review of the completed corrective actions	EREV	ENG (Maness)	2-10-05

EM

Note 1- Corrective action due-dates for the implementation of [redacted] will exceed the initial due date guidance of CAP-NGGC-0200. Per CAP-NGGC-0200, Attachment 2, Note 3, the following justification is provided. [redacted] has been prioritized based on apparent significance, and completion time estimates were generated based on the expected time for ECR design, maintenance implementation, and ECR closeout.

10. PNSC/CIRP Review required? Yes ☒ No ☐

11. Do you recommend this event be disseminated as an Operating Experience (OE) Program entry? (Refer to CAP-NGGC-0202 Attachment 6 for guidance. If yes, contact appropriate OE Program Coordinator)?

Yes ☒ No ☐

Action: Implement [redacted] to ensure the required analysis is completed for the affected components and cables and to provide any changes required to SSD cable analysis calculation [redacted] SSD analysis calculation [redacted] SSD implementing procedure [redacted] and any required field work to protect the cables in accordance with the requirements of NUREG-0800.

Response:

Action: Establish and maintain a fire watch in [redacted] as a compensatory measure until such time that compliance with NUREG-0800 is established. (Note: The fire watch was existing in these areas for a previously identified issue.)

Response:

ATTACHMENT 4
Sheet 1 of 1

EFFECTIVENESS REVIEW (EREV) FORM

Form CAP-NGGC-0200-4-8

EREV Evaluator:_____ EREV Date:_____

AR Number/Title:_____

Event Summary:_____

_____

_____

1. Is the current set of Corrective Actions to Prevent Recurrence the same as in the original approved Corrective Action Plan? ☐ Yes ☐ No
   [Indicate changes, additions, deletions, and reason (e.g., training needs analysis required adding training to LOCT, etc.)]
   Comments/References:
2. Have the Corrective Action(s) To Prevent Recurrence been completed and has there been sufficient time for the result of implementation to be assessed?
   [Indicate how long the CAPR have been in place and degree to which they have been challenged. ☐ Yes ☐ No
   Comments/References:
3. Are appropriate barriers in place to prevent recurrence of the Event?
   [Consider the effectiveness of the barrier resulting from each individual CAPR as well as the collective effectiveness of the barriers.] ☐ Yes ☐ No
   Comments/References:
4. Based on a review of Corrective Action data, has a Repeat Event been prevented?
   [If review identifies recurrence of this condition or a condition sufficiently similar to indicate the problem still exists indicate NCR# and source (e.g., NAS, PES, INPO, NRC, Self-Assessment, etc.)] ☐ Yes ☐ No
   Comments/References:
5. Based on interviews with personnel, has a Repeat Event been prevented?
   [If not provide specifics, including references to the Repeat Event documentation. List type of personnel interviewed (supervisors, craft, etc.)]
   Comments/References: ☐ Yes ☐ No
6. Overall, are the Corrective Actions to Prevent Recurrence considered effective such that no further actions are required to prevent recurrence?
   Comments/References:

☐ Yes ☐ No

-AR 00099710-10 - - - Submit a revision to LER 2002-004 to report to the NRC the additional condition of this AR. - - -

RESPONSE:
LER 2002-004-02 (HNP-03-104) was approved and submitted to the NRC on 9/19/03. JPY 9/19/03

AR 03099710-12 - - - Implement [redacted] to ensure the required analysis is completed for the affected components and cables and to provide any changes required to SSD cable analysis calculation [redacted] SSD analysis calculation [redacted] SSD implementing procedure [redacted] and any required field work to protect the cables in accordance with the requirements of NUREG-0800. - - -

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RESPONSE:

AR 03099710-13 - - - Revise [redacted] to include interim procedural actions to be taken in the event of [redacted]. The interim guidance will remain until the SSA validation is complete and full compliance with NUREG-0800 is achieved. - - -

RESPONSE: This activity was included in [redacted] issued 9/17/03. Bill Scott 9/22/03