

Effective Date 4/21/10

CATEGORY II

CRIDS / OVERHEAD ANNUNCIATORS / PPC Computer

ALARMS

- | | |
|-------------------------------|----------------|
| • BOP COMPUTER TROUBLE | C6 – B5 |
| • DGTL LOGIC ASSEMBLY TROUBLE | D1 – F2 |
| • ANLG LOGIC ASSEMBLY TROUBLE | D1 – F3 |

INDICATIONS

- Loss of computer functions including typer and CRT control.
- Loss of Illuminated Annunciator Tiles (Alarm condition exists with no alarms).
- Purple cursor on CRIDS display (Loss of CRIDS).
- Loss of PPC computer functions

TERMINATED Date/Time: _____

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IMMEDIATE OPERATOR ACTIONS

NONE

AUTOMATIC ACTIONS

NONE

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LIST OF CONDITIONS

A. Complete loss CRIDS.....	7
B. Loss of Overhead Annunciators.....	9
C. Loss/Malfunction of the PPC.....	9

CRIDS / OVERHEAD ANNUNCIATORS / PPC COMPUTER**NOTES:**

1. Loss of CRIDS affects several overhead annunciators. A temporary log should be considered to closely monitor the overhead annunciators listed below:

A2 F4 COMPUTER PT RETURN TO NORMAL
A2 F5 COMPUTER PT IN ALARM
A4 F4 COMPUTER PT RETURN TO NORMAL
A4 F5 COMPUTER PT IN ALARM
A6 E1 MAIN CONDENSER A VACUUM LO
A6 E2 MAIN CONDENSER B VACUUM LO
A6 E3 MAIN CONDENSER C VACUUM LO
B1 F5 FEEDWATER 2/3 LOGIC FAIL
C1 F4 COMPUTER PT RETURN TO NORMAL
C1 F5 COMPUTER PT IN ALARM
C3 F1 OPRM TRIP ENABLED
C3 F2 OPRM ALARM
C3 F3 OPRM TRIP BYP/INOP/TRBL
C3 F4 COMPUTER PT RETURN TO NORMAL
C3 F5 COMPUTER PT IN ALARM
C5 B1 OPRM TRIP
C6 B5 BOP COMPUTER TROUBLE
C6 F4 COMPUTER PT RETURN TO NORMAL
C6 F5 COMPUTER PT IN ALARM
E1 F4 COMPUTER PT RETURN TO NORMAL
E1 F5 COMPUTER PT IN ALARM

ADDITIONAL INFORMATION:

Procedures:

- OP-HC-103-102-1008, CRIDS SYSTEM FAILURES DESKTOP GUIDE.
- HC.OP-IO.ZZ-0004(Q), SHUTDOWN FROM RATED POWER TO COLD SHUTDOWN.

CRIDS / OVERHEAD ANNUNCIATORS / PPC COMPUTER

SUBSEQUENT OPERATOR ACTIONS

CONDITION	ACTION
<p>A. Complete loss CRIDS. [CD-491Y]</p> <p>Date/Time: _____</p>	<p style="text-align: center;">**NOTE 1**</p> <p>____ A.1 STABILIZE plant conditions.</p> <p>____ A.2 <u>IF</u> CRIDS cannot be restored <u>THEN</u> COMMENCE continuous in-plant equipment monitoring. (Except Rad Waste)</p> <p>____ A.3 <u>IF</u> power is available, PERFORM one of the following:</p> <p>____ • CRIDS Manual Fail-Over (OP-HC-103-102-1008)</p> <p>____ • Cold Boot (OP-HC-103-102-1008)</p> <p>____ A.4 NOTIFY the Computer Group of the malfunction. (x7008)</p> <p>____ A.5 <u>IF</u> the plant CANNOT be maintained in a Stable Condition, <u>THEN</u> COMMENCE shutdown IAW IO-0004 within 72 hours.</p> <p>____ A.6 <u>IF</u> plant conditions ARE stable <u>AND IF</u> at least one CRIDS computer CANNOT be restored within 7 days, <u>THEN</u> COMMENCE shutdown IAW IO-0004 within 72 hours.</p>

NOTES:

2. Upon a loss of the PPC CRIDS Page 250 for APRM's will be lost. CRIDS Page 252 should still be available.

ADDITIONAL INFORMATION:

Procedures:

- HC.OP-DD.ZZ-0020(Z), Review of Reactor Core Performance Information.

Equipment:

- 1-BJ-483, Instrument AC Power Panel, 54' Aux/Control BLDG., RM. 5102.
- PPC Computer System, Main Control Room

Indications:

- CRIDS Page 250 Reactor Power Monitors PPC
- CRIDS Page 252 Reactor Power Monitors Backup

CRIDS / OVERHEAD ANNUNCIATORS / PPC COMPUTER

SUBSEQUENT OPERATOR ACTIONS

CONDITION	ACTION
<p>B. Loss of Overhead Annunciators.</p> <p>[T/S 3.5.1e and f, ODCM 3.3.7.10-1 item 1, ODCM 3.3.7.11-1 items 2,3 and 4]</p> <p>Date/Time: _____</p>	<p>___ B.1 STABILIZE plant conditions.</p> <p>___ B.2 MONITOR CRIDS <u>AND</u> PPC displays for alarm conditions.</p> <p>___ B.3 CHECK status of Annunciator Panel 10C690E supply breaker 1BJ483-23.</p> <p>___ B.4 <u>IF</u> a Partial Loss of Annunciators has occurred:</p> <p>___ a. DETERMINE which equipment is affected.</p> <p>___ b. PERFORM local monitoring of affected equipment.</p> <p>___ B.5 <u>IF</u> a Complete Loss of Annunciators, continuously MONITOR local alarms <u>AND</u> equipment panels for Systems required for Safe Shutdown.</p>
<p>C. Loss/Malfunction of the PPC.</p> <p>Date/Time: _____</p>	<p>___ **NOTE 2**</p> <p>___ C.1 REFER to HC.OP-DD.ZZ-0020(Z).</p> <p>___ C.2 MONITOR CRIDS <u>AND</u> PPC displays for alarm conditions.</p> <p>___ C.3 <u>IF</u> any of the following are applicable:</p> <p>___ • Reactor Power is >99% <u>AND</u> Trending up</p> <p>___ • Reactor Power conditions were changing at or near rated power causing power to rise (i.e., Xenon burnout following power ascension)</p> <p>___ • Reactor Engineering predicts that Xenon conditions will cause power to rise</p> <p>___ <u>THEN</u> REDUCE Reactor Power 1%.</p> <p>___ C.4 <u>IF</u> PPC Power is lost for 1 hour, <u>WITH</u> Reactor Power >99% and stable or trending down when power was lost to the PPC <u>THEN</u> REDUCE Reactor Power 1%.</p>

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COMPLETION AND REVIEW

1.0 COMPLETION AND REVIEW

- 1.1 **EXPLAIN** the entry Condition into the abnormal in the Comments Section. _____
- 1.2 **ANNOTATE** in the comments section all systems affected by the implementation of this procedure AND restoration actions (i.e. restoration line ups) completed/required. _____
- 1.3 **ATTACH** photocopies of any Hard Cards utilized as part of this procedure implementation to Attachment 1. _____
- 1.4 **ENSURE** the Exit time for any applicable conditions and this abnormal are annotated in the comment section AND the Control Room Logs. _____
- 1.5 **FORWARD** completed Portions of this procedure AND Sections 1 and 2 of Attachment 1 to SM/CRS for approval and Record Retention. _____

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COMPLETION AND REVIEW

1.0 **COMMENTS:**

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ATTACHMENT 1
(Page 2 of 2)
COMPLETION AND REVIEW

2.0 SIGNATURES:

<u>PRINT NAME</u>	<u>SIGNATURE</u>	<u>INITIALS</u>	<u>DATE/TIME</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Completion of this attachment is annotated in the Control Room Logs:

_____	_____	_____
Printed Name	SIGNATURE	Date/Time

3.0 SM/CRS FINAL REVIEW AND APPROVAL:

This procedure and Attachment 1 have been reviewed for completeness and accuracy. Entry/Exit conditions and all deficiencies, including corrective actions, are clearly recorded in the COMMENTS Section above.

_____	_____	_____
Printed Name	SIGNATURE	Date/Time

4.0 RECORDS

4.1 **RETAIN** the following in accordance with RM-AA-101, Records Management Program:

- Procedure cover page
- Affected Conditions and Hard Cards performed
- Completion and Review section
- Attachment 1

-
- Packages and Affected Document Numbers incorporated into this revision:
CP No. _____ CP Rev. _____ AD No. _____ Rev No. _____ None ✓
 - The following OPEX were incorporated into this revision: None
 - The following OTSCs were incorporated into this revision: None
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REVISION SUMMARY

- Deletes former Condition B. Partial Loss of CRIDS and revises steps in Condition A. The partial loss of CRIDS will be addressed with the AR procedures. The remaining sections were renumbered. This was evaluated in DCP 80095687 and is editorial.
(60082603-1000)

IMPLEMENTATION REQUIREMENTS

None