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Effective Date 2-1-96 ^{Rev. 3}

Document Section
INFORMATION ONLY
C. R. Nuclear
ANNUNCIATOR RESPONSE

AR-953

FLORIDA POWER CORPORATION

CRYSTAL RIVER UNIT 3

WDC ANNUNCIATOR RESPONSE

THIS PROCEDURE ADDRESSES SAFETY RELATED COMPONENTS

APPROVED BY: Interpretation Contact

Barrett
(SIGNATURE ON FILE)

DATE: 1/30/96

INTERPRETATION CONTACT: Nuclear Operations Superintendent

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1.0 PURPOSE

- 1.1 Establish a reference document for each Annunciator Window on the WD-WQ Panel Lampbox.
- 1.2 Establish operator actions for valid Annunciator alarms on the WD-WQ Panel Lampbox.
- 1.3 Establish a reference to other procedures which address operator actions for valid Annunciator alarms on the WD-WQ Panel Lampbox.

2.0 REFERENCES

2.1 IMPLEMENTING REFERENCES

None

2.2 DEVELOPMENTAL REFERENCES

- 2.2.1 INPO 90-021, Good Practice OP-217, Alarm Response Procedures
- 2.2.2 Annunciator Window Engraving Drawing E-224-050.

3.0 PERSONNEL INDOCTRINATION

None

4.0 INSTRUCTIONS

- 4.1 Respond to alarms on the WD-WQ Panel Lampbox as indicated on Enclosure 1, Annunciator Response.

5.0 FOLLOW-UP ACTIONS

None

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WQ-1-1	C-1-1
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MISC RAD
WASTE TRANSF
PUMP 3B
TRIP

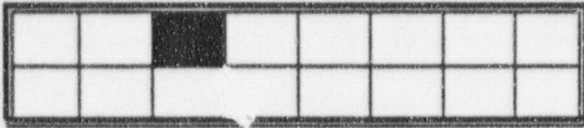
INDICATED CONDITION: - PUMP CONTROL SWITCH IN NOR-AFT-START POSITION AND WDP-6B NOT RUNNING
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - PUMP RUN INDICATING LAMPS ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - DETERMINE CAUSE OF OVERLOAD CONDITION ON PUMP MOTOR BY CHECKING VALVE LINEUP, ETC.
DISCUSSION: THIS PUMP DOES NOT AUTO SHUT DOWN ON LOW MISCELLANEOUS WASTE STORAGE TANK LEVEL. IF PROCESSING TO THE ECST'S, CARE SHOULD BE TAKEN TO PREVENT RUNNING WDP-6B WITH NO LEVEL IN THE MWST.
REFERENCES: DWG 208-060 WD-17
SENSING ELEMENT: 49

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WQ-1-2	C-1-2
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REACT COOLANT
DRAIN PUMP
TRIP

INDICATED CONDITION: - RC DRAIN PUMP TRIPPED OUT ON OVERLOAD (WDP-7)
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - PUMP RUN INDICATION ON WD PANEL - PUMP DISCHARGE PRESSURE ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - DETERMINE CAUSE OF OVERLOAD CONDITION ON PUMP MOTOR BY CHECKING VALVE LINEUP, ETC.
DISCUSSION: THIS PUMP IS OPERATED FROM THE MAIN CONTROL BOARD. NOTIFY CONTROL ROOM OPERATOR IF THIS ALARM PERSISTS.
REFERENCES: DWG 208-060 WD-18
SENSING ELEMENT: SWGR 49 CONTACTS

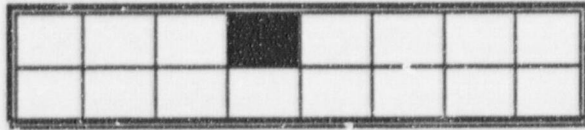
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WQ-1-3	C-1-3
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**REACT COOLANT
DRAIN TK PUMP
TRIP**

<p>INDICATED CONDITION: - PUMP (WDP-8) AUTO-STOP AT RC DRAIN TANK LEVEL <8'10"</p>
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - PUMP RUN INDICATION ON WD PANEL - RC DRAIN TANK LEVEL INDICATION ON WD PANEL - "RC DRAIN TANK LEVEL LOW" ALARM ON CONTROL ROOM ANNUNCIATOR</p>
<p>OPERATOR ACTION FOR A VALID ALARM: - NORMAL FUNCTION ALARM. ENSURE THAT THE "RC DRAIN TANK LEVEL HIGH" ALARM ON CONTROL ROOM ANNUNCIATOR HAS CLEARED.</p>
<p>DISCUSSION: THIS PUMP IS OPERATED FROM THE MAIN CONTROL BOARD. NOTIFY CONTROL ROOM OPERATOR IF THIS ALARM PERSISTS.</p>
<p>REFERENCES: DWG 208-060 WD-19</p>
<p>SENSING ELEMENT: WD-214-LS3</p>

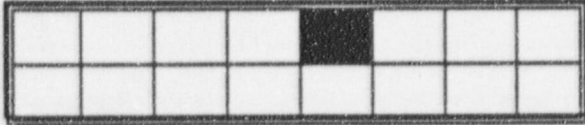
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WQ-1-4	C-1-4
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**NEUTRALIZER
PUMP 3A
TRIP**

INDICATED CONDITION: <ul style="list-style-type: none">- NEUTRALIZER PUMP 3A TRIPPED OUT ON OVERLOAD (WDP-9A)
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: <ul style="list-style-type: none">- PUMP RUN INDICATION ON WD PANEL- PUMP DISCHARGE PRESSURE ON WD PANEL- NEUTRALIZER TANK LEVEL INDICATION ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: <ul style="list-style-type: none">- DETERMINE CAUSE OF OVERLOAD CONDITION ON PUMP MOTOR BY CHECKING VALVE LINEUP, ETC.
DISCUSSION:
REFERENCES: DWG 208-060 WD-20
SENSING ELEMENT: SWGR 49 CONTACTS

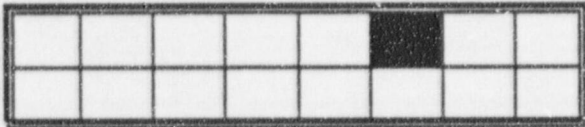
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WQ-1-5	C-1-5
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**NEUTRALIZER
PUMP 3B
TRIP**

INDICATED CONDITION: - NEUTRALIZER PUMP 3B TRIPPED OUT ON OVERLOAD (WDP-9B)
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - PUMP RUN INDICATION ON WD PANEL - PUMP DISCHARGE PRESSURE ON WD PANEL - NEUTRALIZER TANK LEVEL INDICATION ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - DETERMINE CAUSE OF OVERLOAD CONDITION ON PUMP MOTOR BY CHECKING VALVE LINEUP, ETC.
DISCUSSION:
REFERENCES: DWG 208-060 WD-21
SENSING ELEMENT: SWGR 49 CONTACTS

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WQ-1-6	C-1-6
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DECANT PUMP
TRIP

INDICATED CONDITION: - DECANT PUMP TRIPPED OUT ON OVERLOAD (WDP-10)
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - PUMP RUN INDICATION ON WD PANEL - PUMP DISCHARGE PRESSURE ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - DETERMINE CAUSE OF OVERLOAD CONDITION BY ON PUMP MOTOR BY CHECKING VALVE LINEUP, ETC.
DISCUSSION: THIS PUMP MAY HAVE BEEN RUNNING FOR AN EVOLUTION INVOLVING THE RAD WASTE DEPARTMENT. IF SO, NOTIFY THEM OF WDP-10 TRIP.
REFERENCES: DWG 208-060 WD-22
SENSING ELEMENT: SWGR 49 CONTACTS

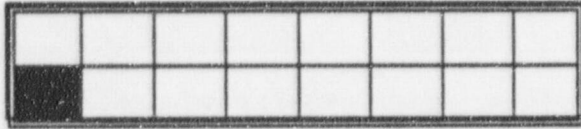
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WQ-1-7	C-1-7
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SLURRY PUMP
TRIP

INDICATED CONDITION: - PUMP TRIPPED OUT ON OVERLOAD (WDP-11) OR - PUMP STOPPED USING "STOP PUSH BUTTON" ON WASTE DRUM PANEL
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - PUMP RUN INDICATION ON WD PANEL AND WASTE DRUM PANEL - PUMP DISCHARGE PRESSURE ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - DETERMINE WHETHER PUMP TRIPPED ON OVERLOAD OR WAS MANUALLY STOPPED AT WASTE DRUM PANEL. - IF OVERLOAD TRIP, CHECK VALVE LINEUP.
DISCUSSION: THIS PUMP MAY HAVE BEEN RUNNING FOR AN EVOLUTION INVOLVING THE RAD WASTE DEPARTMENT. IF SO, NOTIFY THEM OF WDP-11 TRIP.
REFERENCES: DWG 208-060 WD-23
SENSING ELEMENT: SWGR 49 CONTACTS

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WQ-2-1	C-2-1
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CONC RAD
LIQUID WASTE
PUMP 3B
TRIP

INDICATED CONDITION: <ul style="list-style-type: none">- PUMP TRIPPED OUT ON OVERLOAD (WDP-12B) OR- PUMP STOPPED USING "STOP PUSH BUTTON" ON WASTE DRUM PANEL
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: <ul style="list-style-type: none">- PUMP RUN INDICATION ON WD PANEL AND WASTE DRUM PANEL- PUMP DISCHARGE PRESSURE ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: <ul style="list-style-type: none">- DETERMINE WHETHER PUMP TRIPPED ON OVERLOAD OR WAS MANUALLY STOPPED AT WASTE DRUM PANEL.- IF OVERLOAD TRIP, CHECK VALVE LINEUP.
DISCUSSION: THIS PUMP IS NO LONGER USED.
REFERENCES: DWG 208-060 WD-25
SENSING ELEMENT: SWGR 49 CONTACTS

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WQ-2-2	C-2-2
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**BORIC ACID
RECYCLE
PUMP 3A
TRIP**

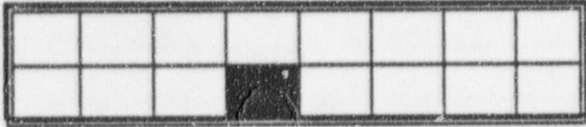
<p>INDICATED CONDITION:</p> <ul style="list-style-type: none">- PUMP TRIPPED OUT ON OVERLOAD (WDP-13A) OR- PUMP STOPPED USING "STOP PUSH BUTTON" ON WASTE DRUM PANEL
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</p> <ul style="list-style-type: none">- PUMP RUN INDICATION ON WD PANEL AND WASTE DRUM PANEL- PUMP DISCHARGE PRESSURE ON WD PANEL
<p>OPERATOR ACTION FOR A VALID ALARM:</p> <ul style="list-style-type: none">- DETERMINE WHETHER PUMP TRIPPED ON OVERLOAD OR WAS MANUALLY STOPPED AT WASTE DRUM PANEL.- IF OVERLOAD TRIP, CHECK VALVE LINEUP.
<p>DISCUSSION: THIS PUMP IS NO LONGER USED.</p>
<p>REFERENCES: DWG 208-060 WD-26</p>
<p>SENSING ELEMENT: SWGR 49 CONTACTS</p>

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WQ-2-3	C-2-3
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**BORIC ACID
RECYCLE
PUMP 3B
TRIP**

INDICATED CONDITION: - PUMP TRIPPED OUT ON OVERLOAD (WDP-13B) OR - PUMP STOPPED USING "STOP PUSH BUTTON" ON WASTE DRUM PANEL
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - PUMP RUN INDICATION ON WD PANEL AND WASTE DRUM PANEL - PUMP DISCHARGE PRESSURE ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - DETERMINE WHETHER PUMP TRIPPED ON OVERLOAD OR WAS MANUALLY STOPPED AT WASTE DRUM PANEL. - IF OVERLOAD TRIP, CHECK VALVE LINEUP.
DISCUSSION: THIS PUMP IS NO LONGER USED.
REFERENCES: DWG 208-060 WD-27
SENSING ELEMENT: SWGR 49 CONTACTS

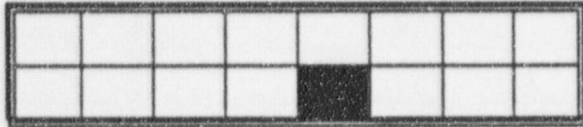
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WQ-2-4	C-2-4
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EVAPORATOR
CONDENSATE
PUMP 3A
TRIP

INDICATED CONDITION: - PUMP TRIPPED OUT ON OVERLOAD (WDP-14A)
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - PUMP RUN INDICATION ON WD PANEL - PUMP DISCHARGE PRESSURE ON WD PANEL - NEUTRALIZER TANK LEVEL INDICATOR ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - DETERMINE CAUSE OF OVERLOAD CONDITION ON PUMP MOTOR BY CHECKING VALVE LINEUP, ETC.
DISCUSSION: THIS IS AN EXPECTED ALARM DURING AN ECST RELEASE. WDP-14A WILL SHUT DOWN ON LOW LEVEL IN THE ECST.
REFERENCES: DWG 208-060 WD-28
SENSING ELEMENT: SWGR 49 CONTACTS

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WQ-2-5	C-2-5
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EVAPORATOR
CONDENSATE
PUMP 3B
TRIP

INDICATED CONDITION: - PUMP TRIPPED OUT ON OVERLOAD (WDP-14B)
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - PUMP RUN INDICATION ON WD PANEL - PUMP DISCHARGE PRESSURE ON WD PANEL - NEUTRALIZER TANK LEVEL INDICATOR ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - DETERMINE CAUSE OF OVERLOAD CONDITION ON PUMP MOTOR BY CHECKING VALVE LINEUP, ETC.
DISCUSSION: THIS IS AN EXPECTED ALARM DURING AN ECST RELEASE. WDP-14B WILL SHUT DOWN ON LOW LEVEL IN THE ECST.
REFERENCES: DWG 208-060 WD-29
SENSING ELEMENT: SWGR 49 CONTACTS

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Document Section
INFORMATION ONLY
C. R. Nuclear

ANNUNCIATOR RESPONSE

AR-951

FLORIDA POWER CORPORATION

CRYSTAL RIVER UNIT 3

WDA ANNUNCIATOR RESPONSE

THIS PROCEDURE ADDRESSES SAFETY RELATED COMPONENTS

APPROVED BY. Interpretation Contact

[Signature]

(SIGNATURE ON FILE)

DATE:

1/30/96

INTERPRETATION CONTACT: Manager, Nuclear Plant Operations

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ENCLOSURE

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1.0 PURPOSE

- 1.1 Establish a reference document for each Annunciator Window on the WD-WW Panel Lampbox.
- 1.2 Establish operator actions for valid Annunciator alarms on the WD-WW Panel Lampbox.
- 1.3 Establish a reference to other procedures which address operator actions for valid Annunciator alarms on the WD-WW Panel Lampbox.

2.0 REFERENCES

2.1 IMPLEMENTING REFERENCES

- 2.1.1 EOP, Emergency Operating Procedure

2.2 DEVELOPMENTAL REFERENCES

- 2.2.1 INPO 90-021, Good Practice OP-217, Alarm Response Procedures
- 2.2.2 Annunciator Window Engraving Drawing E-224-050.

3.0 PERSONNEL INDOCTRINATION

None

4.0 INSTRUCTIONS

- 4.1 Respond to alarms on the WD-WW Panel Lampbox as indicated on Enclosure 1, Annunciator Response.

5.0 FOLLOW-UP ACTIONS

None

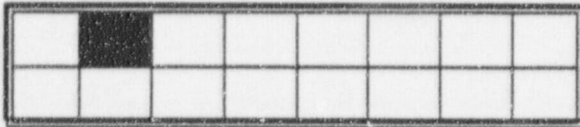
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WN-1-1	A-1-1
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**WASTE GAS
COMPRESSOR 3A
AUTO-START**

<p>INDICATED CONDITION:</p> <ul style="list-style-type: none">- WDP-1A CONTROL HANDLE IN NORMAL-AFTER-STOP WITH WASTE GAS HEADER PRESSURE >2.1 PSIG, WDV-384 OPEN, WASTE GAS DECAY TANK 3A, 3B, OR 3C <80 PSIG, AND WDP-1A SELECTED.
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</p> <ul style="list-style-type: none">- WD-4-PI ON THE WD PANEL- WD-393-PI ON 119' ELEVATION IN THE RCBT VALVE ALLEY- PUMP RUN INDICATING LAMPS ON WD PANEL
<p>OPERATOR ACTION FOR A VALID ALARM:</p> <ul style="list-style-type: none">- MONITOR THE WASTE GAS COMPRESSORS FOR PROPER OPERATION- MONITOR FOR WASTE GAS HEADER PRESSURE REDUCTION TO NORMAL PRESSURE- OBSERVE THE SELECTED DECAY TANK FOR PRESSURE INCREASE- OBSERVE FOR AUTOSTOP OF THE COMPRESSOR AT 1.4 PSIG
<p>DISCUSSION:</p> <p>THE SELECTED COMPRESSOR WILL AUTOSTART AT 2.1 PSIG, AND IF PRESSURE CONTINUES TO RISE, THEN THE NON-SELECTED COMPRESSOR WILL AUTOSTART AT 2.3 PSIG. THE AUTOSTART OF BOTH COMPRESSORS INDICATES THE INTRODUCTION OF LARGE QUANTITIES OF EITHER GAS OR LIQUID INTO THE SYSTEM, OR FAILURE OF THE SELECTED COMPRESSOR.</p>
<p>REFERENCES: DWG 208-060 WD-05, WD-134, FD-302-691</p>
<p>SENSING ELEMENT: WD-203-PS2-1, WD-204-PS1-1, WD-205-PS1-1, WD-206-PS1-1</p>

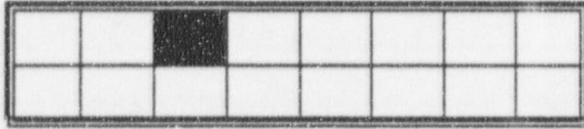
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WN-1-2	A-1-2
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**WASTE GAS
COMPRESSOR 3A
TRIP**

<p>INDICATED CONDITION:</p> <ul style="list-style-type: none">- WDP-1A CONTROL HANDLE IN NORMAL-AFTER-START AND EITHER: WASTE GAS HEADER PRESSURE <1.4 PSIG, OR WASTE GAS DECAY TANKS 3A, 3B, AND 3C >80 PSIG, OR WDV-384 SUCTION VALVE NOT OPEN.
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</p> <ul style="list-style-type: none">- WD-4-PI ON WD PANEL- WD-393-PI ON 119' ELEVATION IN THE RCBT VALVE ALLEY- PUMP RUN INDICATING LAMPS ON WD PANEL
<p>OPERATOR ACTION FOR A VALID ALARM:</p> <ul style="list-style-type: none">- VERIFY INDICATED WASTE GAS HEADER PRESSURE IS ABOUT 1.4 PSIG- FOR PREMATURE TRIP OF THE COMPRESSOR, INVESTIGATE THE SUCTION VALVE FOR PROPER OPERATION, OR OBSERVE WASTE GAS DECAY TANK PRESSURES
<p>DISCUSSION:</p> <p>THIS ALARM SHOULD ONLY OCCUR IF THE COMPRESSOR IS MANUALLY STARTED AND WASTE GAS HEADER PRESSURE IS <1.4 PSIG. INVESTIGATE ANY OTHER REASON FOR WDP-1A TRIP.</p>
<p>REFERENCES: DWG 208-060 WD-05, WD-134, FDS-302-691</p>
<p>SENSING ELEMENT: WD-203-PS1-2</p>

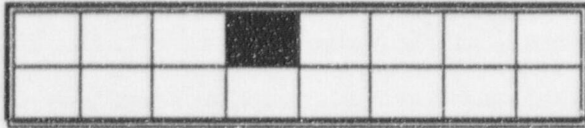
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WN-1-3	A-1-3
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**WASTE GAS
COMPRESSOR 3B
AUTO-START**

<p>INDICATED CONDITION:</p> <ul style="list-style-type: none">- WDP-1B CONTROL HANDLE IN NORMAL-AFTER-STOP WITH WASTE GAS HEADER PRESSURE >2.1 PSIG, WDV-385 OPEN, WASTE GAS DECAY TANK 3A, 3B, OR 3C < 80 PSIG, AND WDP-1B SELECTED.
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</p> <ul style="list-style-type: none">- WD-4-PI ON THE WD PANEL- WD-393-PI ON 119' ELEVATION IN THE RCBT VALVE ALLEY- PUMP RUN INDICATING LAMPS ON WD PANEL
<p>OPERATOR ACTION FOR A VALID ALARM:</p> <ul style="list-style-type: none">- MONITOR THE WASTE GAS COMPRESSORS FOR PROPER OPERATION- MONITOR FOR WASTE GAS HEADER PRESSURE REDUCTION TO NORMAL PRESSURE- OBSERVE THE SELECTED DECAY TANK FOR PRESSURE INCREASE- OBSERVE FOR AUTOSTOP OF THE COMPRESSOR AT 1.4 PSIG
<p>DISCUSSION:</p> <p>THE SELECTED COMPRESSOR WILL AUTOSTART AT 2.1 PSIG, AND IF PRESSURE CONTINUES TO RISE, THEN THE NON-SELECTED COMPRESSOR WILL AUTOSTART AT 2.3 PSIG. THE AUTOSTART OF BOTH COMPRESSORS INDICATES THE INTRODUCTION OF LARGE QUANTITIES OF EITHER GAS OR LIQUID INTO THE SYSTEM, OR FAILURE OF THE SELECTED COMPRESSOR.</p>
<p>REFERENCES: DWG 208-060 WD-06, WD-134, FD-302-691</p>
<p>SENSING ELEMENT: WD-203-PS2-1, WD-204-PS1-1, WD-205-PS1-1, WD-206-PS1-1</p>

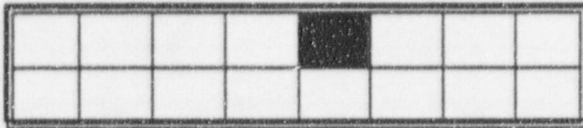
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WN-1-4	A-1-4
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**WASTE GAS
COMPRESSOR 3B
TRIP**

<p>INDICATED CONDITION:</p> <ul style="list-style-type: none">- WDP-1B CONTROL HANDLE IN NORMAL-AFTER-START AND EITHER: WASTE GAS HEADER PRESSURE <1.4 PSIG, OR WASTE GAS DECAY TANKS 3A, 3B, AND 3C >80 PSIG, OR WDV-385 SUCTION VALVE NOT OPEN.
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</p> <ul style="list-style-type: none">- WD-4-PI ON WD PANEL- WD-393-PI ON 119' ELEVATION IN THE RCBT VALVE ALLEY- PUMP RUN INDICATING LAMPS ON WD PANEL
<p>OPERATOR ACTION FOR A VALID ALARM:</p> <ul style="list-style-type: none">- VERIFY INDICATED WASTE GAS HEADER PRESSURE IS ABOUT 1.4 PSIG- FOR PREMATURE TRIP OF THE COMPRESSOR, INVESTIGATE THE SUCTION VALVE FOR PROPER OPERATION, OR OBSERVE WASTE GAS DECAY TANK PRESSURES
<p>DISCUSSION:</p> <p>THIS ALARM SHOULD ONLY OCCUR IF THE COMPRESSOR IS MANUALLY STARTED AND WASTE GAS HEADER PRESSURE <1.4 PSIG. INVESTIGATE ANY OTHER REASON FOR WDP-1B TRIP.</p>
<p>REFERENCES: DWG 208-060 WD-06, WD-134, FDS-302-691</p>
<p>SENSING ELEMENT: WD-203-PS1-2</p>

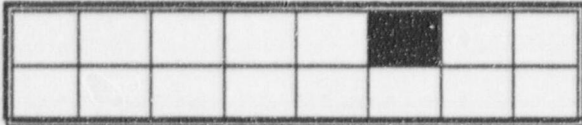
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WN-1-5	A-1-5
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**REACTOR BLDG
SUMP PUMP 3A
AUTO-START**

<p>INDICATED CONDITION:</p> <ul style="list-style-type: none">- WDP-2A CONTROL HANDLE IN NORMAL-AFTER-STOP AND REACTOR BLDG SUMP LEVEL AT 12" WITH WDV-3 AND WDV-4 OPEN, AND WDP-2A SELECTED ON THE MAIN CONTROL BOARD.
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</p> <ul style="list-style-type: none">- PUMP INDICATING LAMPS ON WD PANEL- SUMP LEVEL INDICATOR ON WD PANEL- PUMP DISCH PRESS INDICATION ON WD PANEL
<p>OPERATOR ACTION FOR A VALID ALARM:</p> <ul style="list-style-type: none">- NORMAL FUNCTION ALARM. IF FREQUENCY OF AUTO-STARTS IS EXCESSIVE, DETERMINE RC LEAK RATE AND IMPLEMENT EOP IF NECESSARY.
<p>DISCUSSION:</p> <p>IF REACTOR BLDG SUMP LEVEL CONTINUES TO RISE, THEN THE NON-SELECTED PUMP WILL ALSO AUTOSTART, WHICH WOULD INDICATE EITHER FAILURE OF WDP-2A OR ABNORMAL LEAKAGE INTO THE SUMP</p>
<p>REFERENCES: DWG 208-060 WD-07, WD-134, FD-302-681</p>
<p>SENSING ELEMENT: WD-222-LS</p>

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WN-1-6	A-1-6
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**REACTOR BLDG
SUMP PUMP 3A
TRIP**

<p>INDICATED CONDITION:</p> <ul style="list-style-type: none">- WDP-2A CONTROL HANDLE IN NORMAL-AFTER-START AND EITHER: REACTOR BLDG SUMP LEVEL HAS DECREASED TO 2" OR WDV-3 OR WDV-4 CLOSES.
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</p> <ul style="list-style-type: none">- PUMP INDICATING LAMPS ON WD PANEL- PUMP DISCHARGE PRESSURE INDICATION ON WD-27-PI
<p>OPERATOR ACTION FOR A VALID ALARM:</p> <ul style="list-style-type: none">- NORMAL FUNCTION ALARM. CHECK VALVE LINEUP IF RB SUMP LEVEL EXTRA HIGH ALARM EXISTS.
<p>DISCUSSION:</p> <p>THIS ALARM SHOULD ONLY OCCUR IF PUMP IS MANUALLY STARTED AND REACTOR BUILDING SUMP LEVEL <2" OR WDV-3 OR WDV-4 CLOSES. INVESTIGATE ANY OTHER REASON FOR WDP-2A TRIP.</p>
<p>REFERENCES: DWG 208-060 WD-07, WD-134, FD-302-681</p>
<p>SENSING ELEMENT: 3WDV-3-LS11, 33C/WDV-4, WD-222-LS</p>

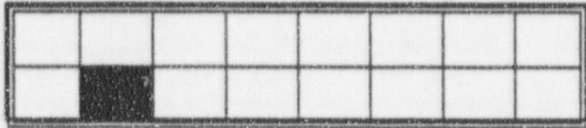
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WN-2-1	A-2-1
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REACTOR BLDG
SUMP PUMP 3B
TRIP

<p>INDICATED CONDITION:</p> <ul style="list-style-type: none">- WDP-2B CONTROL HANDLE IN NORMAL-AFTER-STOP AND EITHER: REACTOR BLDG SUMP LEVEL HAS DECREASED TO 2" OR WDV-3 OR WDV-4 CLOSSES.
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</p> <ul style="list-style-type: none">- PUMP INDICATING LAMPS ON WD PANEL- PUMP DISCHARGE PRESSURE INDICATION ON WD-28-PJ
<p>OPERATOR ACTION FOR A VALID ALARM:</p> <ul style="list-style-type: none">- NORMAL FUNCTION ALARM. CHECK VALVE LINEUP IF RB SUMP LEVEL EXTRA HIGH ALARM EXISTS.
<p>DISCUSSION:</p> <p>THIS ALARM SHOULD ONLY OCCUR IF PUMP IS MANUALLY STARTED AND REACTOR BUILDING SUMP LEVEL <2" OR WDV-3 OR WDV-4 CLOSSES. INVESTIGATE ANY OTHER REASON FOR WDP-2B TRIP.</p>
<p>REFERENCES: DWG 208-060 WD-08, WD-134, FD-302-681</p>
<p>SENSING ELEMENT: 3WDV-3-LS11, 33C/WDV-4, WD-222-1.S</p>

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WN-2-2	A-2-2
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**WD CUBICLE
VENTILATION
FAN FAILURE**

INDICATED CONDITION: - LOW CUBICLE VENTILATION FLOW OR CUBICLE AIR TEMP >105 DEG F
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - FAN RUNNING INDICATING LAMPS ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - CHECK THE SELECTED FANS FOR PROPER OPERATION - CHECK THE RAD WASTE CUBICLE FOR ELEVATED TEMPERATURE - SELECT THE ALTERNATE FAN BANK
DISCUSSION: THERE ARE THREE FANS ON EACH BANK WITH INDIVIDUAL FLOW SWITCHES. ANY FLOW SWITCH ACTUATION ON THE RUNNING FANS WILL ACTIVATE THIS ALARM. IN ADDITION, A TEMPERATURE SWITCH ACTUATES AT 105 DEG F IN THE CUBICLE AND STARTS THE NON-SELECTED FAN BANK.
REFERENCES: DWG 208-060 WD-148, WD-134
SENSING ELEMENT: FSBF-1 THROUGH 6, 3TS1-TY, FNX1-TZ, FNX2-TZ

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WN-2-3	A-2-3
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**REACTOR BLDG
SUMP LEVEL
EXTRA HIGH**

INDICATED CONDITION: - RB SUMP LEVEL >18"
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - BACK-UP RB SUMP PUMP AUTO-STARTS - RB SUMP PUMP INDICATING LAMPS ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - CHECK THAT RB SUMP PUMP 3A AND/OR 3B ARE RUNNING - CHECK RB SUMP PUMP VALVE LINEUP - CALCULATE RC LEAK RATE AND IMPLEMENT EOP IF NECESSARY
DISCUSSION: THIS ALARM SHOULD BE ACTUATED IF RB SUMP LEVEL IS INTENTIONALLY INCREASED, OR IF THE SELECTED RB SUMP PUMP IS NOT FUNCTIONING PROPERLY, OR THERE IS ABNORMALLY HIGH LEAKAGE TO THE RB SUMP.
REFERENCES: DWG 208-060 WD-07, WD-134, FD-302-681
SENSING ELEMENT: WD-222-LS

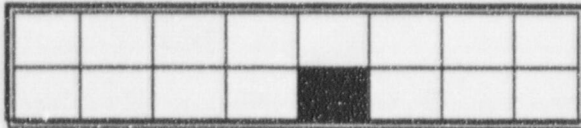
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WN-2-4	A-2-4
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DECAY HEAT
PIT SUMP
PUMP 3A
AUTO-START

INDICATED CONDITION: - WDP-3A CONTROL HANDLE IN NORMAL-AFTER-STOP AND 'A' DECAY HEAT PIT SUMP LEVEL AT 2'.
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - PUMP RUN INDICATING LAMPS ON WD PANEL - POSSIBLE DH PIT LEVEL EXTRA HIGH ALARM - PUMP PRESSURE DISCHARGE INDICATION ON WD PANEL - SUMP LEVEL INDICATION ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - NORMAL FUNCTION ALARM. IF FREQUENCY OF AUTO-STARTS IS EXCESSIVE, CHECK VALVE LINEUP OF SYSTEMS DRAINING TO SUMP AND DETERMINE SOURCE.
DISCUSSION: IF THE DECAY HEAT PIT SUMP LEVEL CONTINUES TO RISE, THEN THE DECAY HEAT PIT SUMP LEVEL EXTRA HIGH ALARM WILL ACTUATE AT 3'.
REFERENCES: DWG 208-060 WD-09, WD-134, WD-139, FD-302-681
SENSING ELEMENT: WD-133-LS1

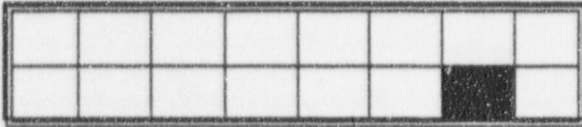
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WN-2-5	A-2-5
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DECAY HEAT
PIT SUMP
PUMP 3A
TRIP

INDICATED CONDITION: - WDP-3A CONTROL HANDLE IN NORMAL-AFTER-START AND 'A' DECAY HEAT PIT SUMP LEVEL HAS DECREASED TO 1.5'.
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - PUMP RUN INDICATING LAMPS ON WD PANEL - SUMP LEVEL INDICATOR ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - NORMAL FUNCTION ALARM. INVESTIGATE VALVE LINEUP/PUMP SWITCH POSITION IF DH PIT LEVEL EXTRA HIGH ALARM EXISTS.
DISCUSSION: THIS ALARM SHOULD ONLY OCCUR IF PUMP IS MANUALLY STARTED AND 'A' DH PIT SUMP LEVEL <1.5'. INVESTIGATE ANY OTHER REASON FOR WDP-3A TRIP.
REFERENCES: DWG 208-060 WD-09, WD-134, FD-302-681
SENSING ELEMENT: WD-133-LS1

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WN-2-7	A-2-7
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DECAY HEAT
PIT SUMP
PUMP 3B
AUTO-START

<p>INDICATED CONDITION:</p> <ul style="list-style-type: none">- WDP-3B CONTROL HANDLE IN NORMAL-AFTER-STOP AND 'B' DECAY HEAT PIT SUMP LEVEL AT 2'.
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</p> <ul style="list-style-type: none">- PUMP RUN INDICATING LAMPS ON WD PANEL- POSSIBLE DH PIT LEVEL EXTRA HIGH ALARM- PUMP PRESSURE DISCHARGE INDICATION ON WD PANEL- SUMP LEVEL INDICATION ON WD PANEL
<p>OPERATOR ACTION FOR A VALID ALARM:</p> <ul style="list-style-type: none">- NORMAL FUNCTION ALARM. IF FREQUENCY OF AUTO-STARTS IS EXCESSIVE, CHECK VALVE LINEUP OF SYSTEMS DRAINING TO SUMP AND DETERMINE SOURCE.
<p>DISCUSSION:</p> <p>IF THE DECAY HEAT PIT SUMP LEVEL CONTINUES TO RISE, THEN THE DECAY HEAT PIT SUMP LEVEL EXTRA HIGH ALARM WILL ACTUATE AT 3'.</p>
<p>REFERENCES: DWG 208-060 WD-10, WD-134, WD-139, FD-302-681</p>
<p>SENSING ELEMENT: WD-134-LS1</p>

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WN-2-8	A-2-8
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DECAY HEAT
PIT SUMP
PUMP 3B
TRIP

INDICATED CONDITION: - WDP-3B CONTROL HANDLE IN NORMAL-AFTER-START AND 'B' DECAY HEAT PIT SUMP LEVEL HAS DECREASED TO 1.5'.
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - PUMP RUN INDICATING LAMPS ON WD PANEL - SUMP LEVEL INDICATOR ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - NORMAL FUNCTION ALARM. INVESTIGATE VALVE LINEUP/PUMP SWITCH POSITION IF DH PIT LEVEL EXTRA HIGH ALARM EXISTS.
DISCUSSION: THIS ALARM SHOULD ONLY OCCUR IF PUMP IS MANUALLY STARTED AND 'B' DH PIT SUMP LEVEL <1.5'. INVESTIGATE ANY OTHER REASON FOR WDP-3B TRIP.
REFERENCES: DWG 208-060 WD-10
SENSING ELEMENT: WD-134-LS1