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Effective Date 1-29-96

Document Section  
**INFORMATION ONLY**  
ANNUNCIATOR RESPONSE

AR-952

FLORIDA POWER CORPORATION

CRYSTAL RIVER UNIT 3

WDB ANNUNCIATOR RESPONSE

**THIS PROCEDURE ADDRESSES SAFETY RELATED COMPONENTS**

APPROVED BY: Interpretation Contact

*Garrett Hill*  
(SIGNATURE ON FILE)

DATE: 1/26/96

INTERPRETATION CONTACT: Supervisor, Nuclear Operations  
Administrative Shift

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## 1.0 PURPOSE

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

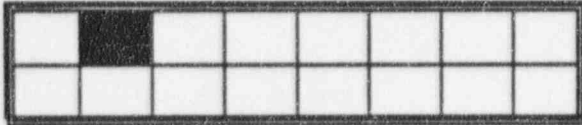
## 4.0 INSTRUCTIONS

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

## 5.0 FOLLOW-UP ACTIONS

None

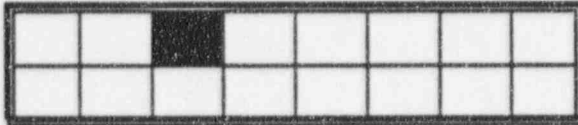
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WP-1-2	B-1-2
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**DECAY HEAT  
PIT SUMP  
LEVEL EXTRA  
HIGH**

<b>INDICATED CONDITION:</b> <ul style="list-style-type: none"><li>- LEVEL OF DH SUMP 3B &gt; 3'</li></ul>
<b>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</b> <ul style="list-style-type: none"><li>- DH PIT SUMP PUMP 3B (WDP-3B) AUTO-START ALARM</li><li>- DH PIT SUMP PUMP 3B RUN INDICATING LAMPS</li><li>- SUMP LEVEL INDICATION ON WD PANEL</li></ul>
<b>OPERATOR ACTION FOR A VALID ALARM:</b> <ul style="list-style-type: none"><li>- CHECK THAT DH SUMP PUMP 3B IS RUNNING</li><li>- CHECK DH SUMP PUMP 3B VALVE LINEUP</li><li>- INVESTIGATE DRAINS TO DH PIT SUMP FOR ABNORMAL DRAINAGE</li></ul>
<b>DISCUSSION:</b> <p>THIS ALARM IN CONJUNCTION WITH WDP-3B RUNNING COULD INDICATE A LARGE LEAK IN THE 'B' DH PIT. NOTIFY CONTROL ROOM OPERATOR IMMEDIATELY.</p>
<b>REFERENCES:</b> DWG 208-060 WD-10
<b>SENSING ELEMENT:</b> WD-134-LS

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WP-1-3	B-1-3
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AUX BLDG SUMP  
PUMP 3A  
AUTO-START

<p>INDICATED CONDITION:</p> <ul style="list-style-type: none"><li>- AUX BLDG SUMP LEVEL &gt;2.5'</li><li>- AUX BLDG SUMP PUMP 3A (WDP-4A) IS SELECTED</li></ul>
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</p> <ul style="list-style-type: none"><li>- PUMP RUN INDICATING LAMPS ON WD PANEL</li><li>- POSSIBLE AUX BLDG SUMP LEVEL EXTRA HIGH ALARM</li><li>- PUMP DISCHARGE PRESSURE ON WD PANEL</li><li>- SUMP LEVEL INDICATOR ON WD PANEL</li></ul>
<p>OPERATOR ACTION FOR A VALID ALARM:</p> <ul style="list-style-type: none"><li>- NORMAL FUNCTION ALARM. IF FREQUENCY OF AUTO-STARTS IS EXCESSIVE, CHECK VALVE LINEUP OF SYSTEMS DRAINING TO SUMP AND DETERMINE SOURCE.</li></ul>
<p>DISCUSSION:</p> <p>IF WDP-4A RUNS FOR AN EXCESSIVE PERIOD OF TIME, THIS COULD INDICATE PUMP DEGRADATION OR A LARGE LEAK IN THE AUXILIARY BUILDING. NOTIFY CONTROL ROOM OPERATOR IF RUN TIME IS EXCESSIVE.</p>
<p>REFERENCES: DWG 208-060 WD-11</p>
<p>SENSING ELEMENT: WD-132-LS</p>

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WP-1-4	B-1-4
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AUX BLDG SUMP  
PUMP 3A  
TRIP

INDICATED CONDITION: - PUMP AUTO-STOPS IF AUX BLDG SUMP LEVEL <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/SWITCH POSITION IF AUX BLDG SUMP LEVEL EXTRA HIGH ALARM EXISTS.
DISCUSSION: THIS IS AN EXPECTED ALARM IF WDP-4A IS MANUALLY STARTED AND AUXILIARY BUILDING SUMP LEVEL <1.5'. INVESTIGATE ANY OTHER REASON FOR PUMP TRIP.
REFERENCES: DWG 208-060 WD-11
SENSING ELEMENT: WD-132-LS

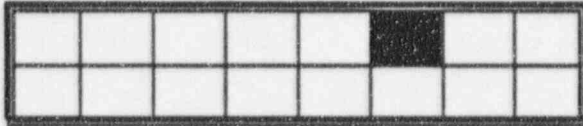
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WP-1-5	B-1-5
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WASTE GAS  
COMP SEAL  
LEAK DR TK  
LOW LEVEL

INDICATED CONDITION: - LOW LEVEL OF 8"
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - POSSIBLE RMA-2(G) OR RMA-3 ALARM
OPERATOR ACTION FOR A VALID ALARM: - BLEED AIR OFF WDV-1030 TO CLOSE
DISCUSSION: WDV-1031 SHOULD BE USED TO MANUALLY CONTROL DRAIN POT LEVEL IF WDV-1030 FAILS TO CONTROL.
REFERENCES: DWG 208-060 WD-135
SENSING ELEMENT: WD-357-LS2



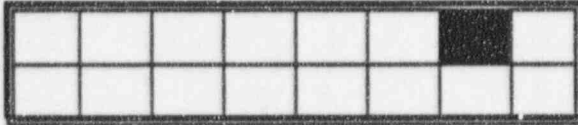
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WP-1-6	B-1-6
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AUX BLDG SUMP  
PUMP 3B  
AUTO-START

<p>INDICATED CONDITION:</p> <ul style="list-style-type: none"><li>- AUX BLDG SUMP LEVEL &gt;2.5'</li><li>- AUX BLDG SUMP PUMP 3B (WDP-4B) IS SELECTED</li></ul>
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</p> <ul style="list-style-type: none"><li>- PUMP RUN INDICATING LAMPS ON WD PANEL</li><li>- POSSIBLE AUX BLDG SUMP LEVEL EXTRA HIGH ALARM</li><li>- PUMP DISCHARGE PRESSURE ON WD PANEL</li><li>- SUMP LEVEL INDICATOR ON WD PANEL</li></ul>
<p>OPERATOR ACTION FOR A VALID ALARM:</p> <ul style="list-style-type: none"><li>- NORMAL FUNCTION ALARM. IF FREQUENCY OF AUTO-STARTS IS EXCESSIVE, CHECK VALVE LINEUP OF SYSTEMS DRAINING TO SUMP AND DETERMINE SOURCE.</li></ul>
<p>DISCUSSION:</p> <p>IF WDP-4B RUNS FOR AN EXCESSIVE PERIOD OF TIME, THIS COULD INDICATE PUMP DEGRADATION OR A LARGE LEAK IN THE AUXILIARY BUILDING. NOTIFY CONTROL ROOM IF RUN TIME IS EXCESSIVE.</p>
<p>REFERENCES: DWG 208-060 WD-12</p>
<p>SENSING ELEMENT: WD-132-LS</p>

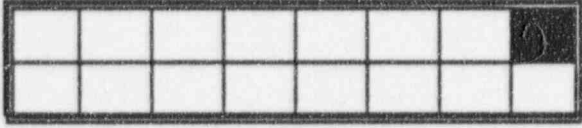
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WP-1-7	B-1-7
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AUX BLDG SUMP  
PUMP 3B  
TRIP

INDICATED CONDITION: - PUMP AUTO-STOPS IF AUX BLDG SUMP LEVEL <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/SWITCH POSITION IF AUX BLDG SUMP LEVEL EXTRA HIGH ALARM EXISTS.
DISCUSSION: THIS IS AN EXPECTED ALARM IF WDP-4B IS MANUALLY STARTED AND AUXILIARY BUILDING SUMP LEVEL <1.5'. INVESTIGATE ANY OTHER REASON FOR PUMP TRIP.
REFERENCES: DWG 208-060 WD-12
SENSING ELEMENT: WD-132-LS

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WP-1-8	B-1-8
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**WASTE GAS SAMPLING  
ANALYZER PANEL  
IN ALARM**

INDICATED CONDITION: - LOSS OF 120 VAC POWER TO GAS ANALYZER PANEL
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - POWER INDICATING LAMP ON PANEL IS OUT - GAS FLOW <1.5 SLPM
OPERATOR ACTION FOR A VALID ALARM: - CHECK PANEL POWER SUPPLY SWITCH - CHECK 480 VAC SUPPLY BREAKER ON REACTOR MCC 3B2 - CHECK PUMP OPERATION AND VALVE ALIGNMENT
DISCUSSION: THIS ALARM MAY INDICATE A NEED TO PERFORM AN ALTERNATIVE MEANS OF SAMPLING. NOTIFY CONTROL ROOM OPERATOR IMMEDIATELY.
REFERENCES: DWG 208-060 WD-131, WD-135
SENSING ELEMENT: PF RELAY WD-21-FIS

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WP-2-1	B-2-1
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AUX BLDG  
SUMP LEVEL  
EXTRA HIGH

INDICATED CONDITION: - LEVEL OF AUX BLDG SUMP >5.5'
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - AUX BLDG SUMP PUMP 3A AND/OR 3B AUTO-START ALARMS - SUMP PUMP INDICATING LAMPS ON WD PANEL - SUMP LEVEL INDICATOR ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - CHECK THAT AUX BLDG SUMP PUMPS 3A AND/OR 3B ARE RUNNING - CHECK SUMP PUMP VALVE LINEUP - DETERMINE SOURCE OF WATER INTO SUMP
DISCUSSION: THIS ALARM IN CONJUNCTION WITH AN AUXILIARY BUILDING SUMP PUMP ALREADY RUNNING MAY BE AN INDICATION OF EITHER PUMP DEGRADATION OR A LARGE LEAK IN THE AUXILIARY BUILDING. NOTIFY CONTROL ROOM OPERATOR IMMEDIATELY.
REFERENCES: DWG 208-060 WD-11
SENSING ELEMENT: WD-132-LS1

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WP-2-2	B-2-2
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**WASTE TRANSF  
PUMP 3A  
AUTO-START  
FAILURE**

<p>INDICATED CONDITION:</p> <ul style="list-style-type: none"><li>- BLEED TANK 3A SELECTED ON FEED SELECT SWITCH (AND PULLED)</li><li>- MUV-103 OPEN AND</li><li>- WASTE TRANSFER PUMP 3A (WDP-5A) NOT RUNNING</li></ul>
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</p> <ul style="list-style-type: none"><li>- PUMP RUN INDICATING LAMPS ON WD PANEL</li><li>- MUV-103 INDICATING LAMPS IN CONTROL ROOM</li></ul>
<p>OPERATOR ACTION FOR A VALID ALARM:</p> <ul style="list-style-type: none"><li>- CHECK VALVE LINEUP, SWITCH POSITIONS AND FEED PERMISSIVE CIRCUITS FOR CORRECT POSITIONS.</li></ul>
<p>DISCUSSION:</p> <p>THIS ALARM WILL OCCUR IF WDP-5A IS SHUT DOWN FOR ANY REASON WHILE ATTEMPTING TO ADD TO THE RCS USING WDT-5A. NOTIFY CONTROL ROOM OPERATOR OF LOCAL INDICATIONS CONCERNING THE REASON FOR WDP-5A SHUTDOWN.</p>
<p>REFERENCES: DWG 208-060 WD-13</p>
<p>SENSING ELEMENT: 42B RELAY F1 3MUV-103</p>

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WP-2-3	B-2-3
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WASTE TRANSF  
PUMP 3A  
TRIP

INDICATED CONDITION: - PUMP CONTROL SWITCH IN NOR-AFT-START POSITION AND PUMP NOT RUNNING
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - PUMP MOTOR OVERCURRENT - PUMP STARTED LOCALLY THEN SELECTED FOR FEED
OPERATOR ACTION FOR A VALID ALARM: - CHECK FOR PUMP MOTOR OVERLOAD TRIP CONDITION - CHECK VALVE LINEUP AND SWITCH POSITION - CALL CONTROL ROOM TO SEE IF PUMP SELECTED FOR FEED
DISCUSSION: IF WDP-5A WAS RUNNING FOR RCBT RECIRCULATION, A NEW SAMPLE REQUEST WILL HAVE TO BE GENERATED AFTER THE CAUSE OF THE PUMP TRIP IS DETERMINED AND RESOLVED.
REFERENCES: DWG 208-060 WD-13, WD-73
SENSING ELEMENT: CS/SC+CS/O 42B

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WP-2-4	B-2-4
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**WASTE TRANSF  
PUMP 3B  
AUTO-START  
FAILURE**

<p>INDICATED CONDITION:</p> <ul style="list-style-type: none"><li>- BLEED TANK 3B SELECTED ON FEED SELECT SWITCH (AND PULLED)</li><li>- MUV-103 OPEN AND</li><li>- WASTE TRANSFER PUMP 3B (WDP-5B) NOT RUNNING</li></ul>
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</p> <ul style="list-style-type: none"><li>- PUMP RUN INDICATING LAMPS ON WD PANEL</li><li>- MUV-103 INDICATING LAMPS IN CONTROL ROOM</li></ul>
<p>OPERATOR ACTION FOR A VALID ALARM:</p> <ul style="list-style-type: none"><li>- CHECK VALVE LINEUP, SWITCH POSITIONS AND FEED PERMISSIVE CIRCUITS FOR CORRECT POSITIONS.</li></ul>
<p>DISCUSSION:</p> <p>THIS ALARM WILL OCCUR IF WDP-5B IS SHUT DOWN FOR ANY REASON WHILE ATTEMPTING TO ADD TO THE RCS USING WDP-5B. NOTIFY CONTROL ROOM OPERATOR OF LOCAL INDICATIONS CONCERNING THE REASON FOR WDP-5B SHUTDOWN.</p>
<p>REFERENCES: DWG 208-060 WD-14</p>
<p>SENSING ELEMENT: 42B RELAY F2 3MUV-103</p>

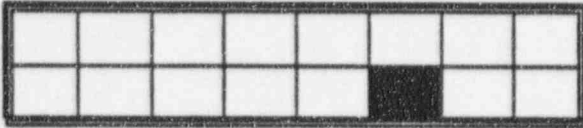
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WP-2-5	B-2-5
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WASTE TRANSF  
PUMP 3B  
TRIP

INDICATED CONDITION: - PUMP CONTROL SWITCH IN NOR-AFT-START POSITION AND PUMP NOT RUNNING
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - PUMP MOTOR OVERCURRENT - PUMP STARTED LOCALLY THEN SELECTED FOR FEED
OPERATOR ACTION FOR A VALID ALARM: - CHECK FOR PUMP MOTOR OVERLOAD TRIP CONDITION - CHECK VALVE LINEUP AND SWITCH POSITION - CALL CONTROL ROOM TO SEE IF PUMP SELECTED FOR FEED
DISCUSSION: IF WDP-5B WAS RUNNING FOR RCBT RECIRCULATION, A NEW SAMPLE REQUEST WILL HAVE TO BE GENERATED AFTER THE CAUSE OF THE PUMP TRIP IS DETERMINED AND RESOLVED.
REFERENCES: DWG 208-060 WD-14, WD-73
SENSING ELEMENT: CS/SC+CS/O 42B



RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WP-2-6	B-2-6
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**WASTE TRANSF  
PUMP 3C  
AUTO-START  
FAILURE**

<p>INDICATED CONDITION:</p> <ul style="list-style-type: none"><li>- BLEED TANK 3C SELECTED ON FEED SELECT SWITCH (AND PULLED)</li><li>- MUV-103 OPEN AND</li><li>- WASTE TRANSFER PUMP 3C (WDP-5C) NOT RUNNING</li></ul>
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</p> <ul style="list-style-type: none"><li>- PUMP RUN INDICATING LAMPS ON WD PANEL</li><li>- MUV-103 INDICATING LAMPS IN CONTROL ROOM</li></ul>
<p>OPERATOR ACTION FOR A VALID ALARM:</p> <ul style="list-style-type: none"><li>- CHECK VALVE LINEUP, SWITCH POSITIONS AND FEED PERMISSIVE CIRCUITS FOR CORRECT POSITIONS.</li></ul>
<p>DISCUSSION:</p> <p>THIS ALARM WILL OCCUR IF WDP-5C IS SHUT DOWN FOR ANY REASON WHILE ATTEMPTING TO ADD TO THE RCS USING WDP-5C. NOTIFY CONTROL ROOM OPERATOR OF LOCAL INDICATIONS CONCERNING THE REASON FOR WDT-5C SHUTDOWN.</p>
<p>REFERENCES: DWG 208-060 WD-15</p>
<p>SENSING ELEMENT: 42B RELAY F3 3MUV-103</p>

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WP-2-7	B-2-7
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WASTE TRANSF  
PUMP 3C  
TRIP

INDICATED CONDITION: - PUMP CONTROL SWITCH IN NOR-AFT-START POSITION AND PUMP NOT RUNNING
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - PUMP MOTOR OVERCURRENT - PUMP STARTED LOCALLY THEN SELECTED FOR FEED
OPERATOR ACTION FOR A VALID ALARM: - CHECK FOR PUMP MOTOR OVERLOAD TRIP CONDITION - CHECK VALVE LINEUP AND SWITCH POSITION - CALL CONTROL ROOM TO SEE IF PUMP SELECTED FOR FEED
DISCUSSION: IF WDP-5C WAS RUNNING FOR RCBT RECIRCULATION, A NEW SAMPLE REQUEST WILL HAVE TO BE GENERATED AFTER THE CAUSE OF THE PUMP TRIP IS DETERMINED AND RESOLVED.
REFERENCES: DWG 208-060 WD-15, WD-74
SENSING ELEMENT: CS/SC+CS/O 42B

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WP-2-8	B-2-8
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MISC RAD  
WASTE TRANSF  
PUMP 3A  
TRIP

<p>INDICATED CONDITION: - PUMP CONTROL SWITCH IN NOR-AFT-START POSITION AND WDP-6A NOT RUNNING</p>
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - PUMP RUN INDICATING LAMPS ON WD PANEL</p>
<p>OPERATOR ACTION FOR A VALID ALARM: - CHECK VALVE LINEUP AND DETERMINE CAUSE OF PUMP MOTOR OVERLOAD TRIP CONDITIONS</p>
<p>DISCUSSION: THIS PUMP DOES NOT AUTO SHUT DOWN ON LOW MISCELLANEOUS WASTE STORAGE TANK (MWST) LEVEL. IF PROCESSING TO THE ECST'S, CARE SHOULD BE TAKEN TO PREVENT RUNNING WDP-6A WITH NO LEVEL IN THE MWST.</p>
<p>REFERENCES: DWG 208-060 WD-16</p>
<p>SENSING ELEMENT: CS/SC+CS/O 42B</p>

Effective Date 1-29-96

Document Section  
**INFORMATION ONLY**  
C. R. Nuclear  
ANNUNCIATOR RESPONSE

AR-954

FLORIDA POWER CORPORATION

CRYSTAL RIVER UNIT 3

WDD ANNUNCIATOR RESPONSE

THIS PROCEDURE ADDRESSES SAFETY RELATED COMPONENTS

APPROVED BY: Interpretation Contact  
*Barry Webb*  
(SIGNATURE ON FILE)  
DATE: 1/26/96

INTERPRETATION CONTACT: Supervisor, Nuclear Operations  
Administrative Shift

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<u>ENCLOSURES</u>	
1 Annunciator Response. . . . .	2

## 1.0 PURPOSE

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

## 2.0 REFERENCES

### 2.1 IMPLEMENTING REFERENCES

- 2.1.1 OP-415, Waste Disposal Evaporators

### 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-WR Panel Lampbox as indicated on Enclosure 1, Annunciator Response.

## 5.0 FOLLOW-UP ACTIONS

None

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WR-1-2	D-1-2
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NEUTRALIZER  
TANK MIXER  
TRIP

INDICATED CONDITION: - MIXER (WDMX-1) TRIPPED OUT ON OVERLOAD
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - MIXER RUN INDICATING LAMPS ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - DETERMINE CAUSE OF OVERLOAD CONDITION
DISCUSSION: THE MIXER IS NO LONGER USED.
REFERENCES: DWG 208-060 WD-31
SENSING ELEMENT: SWGR 49 CONTACTS

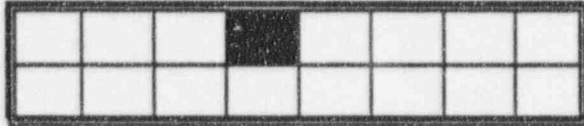
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WR-1-3	D-1-3
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WASTE GAS  
DECAY TK 3A  
PRESS HIGH

INDICATED CONDITION: - TANK PRESSURE >83 PSIG
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - TANK PRESSURE INDICATOR ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - ASSOCIATED WASTE GAS DECAY TANK IS FULL. LINEUP TO TANK WITH <80 PSIG IN IT.
DISCUSSION: CONSIDER REDUCING PRESSURE IN WASTE GAS DECAY TANK 3A BY USING RECYCLE VALVES PER OP-412A, WASTE GAS DISPOSAL SYSTEM.
REFERENCES: DWG 208-060 WD-05
SENSING ELEMENT: WD-204-PS2



RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WR-1-4	D-1-4
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**WASTE GAS  
DECAY TK 3B  
PRESS HIGH**

INDICATED CONDITION: - TANK PRESSURE >83 PSIG
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - TANK PRESSURE INDICATOR ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - ASSOCIATED WASTE GAS DECAY TANK IS FULL. LINEUP TO TANK WITH <80 PSIG IN IT.
DISCUSSION: CONSIDER REDUCING PRESSURE IN WASTE GAS DECAY TANK 3B BY USING RECYCLE VALVES PER OP-412A, WASTE GAS DISPOSAL SYSTEM. CONSIDER GOING TO THE 'C' TANK AS THE 'A' TANK IS USED FOR SAMPLING.
REFERENCES: DWG 208-060 WD-05
SENSING ELEMENT: WD-205-PS2

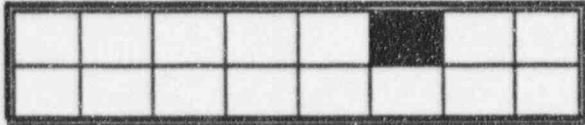
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WR-1-5	D-1-5
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**WASTE GAS  
DECAY TK 3C  
PRESS HIGH**

INDICATED CONDITION: - TANK PRESSURE >83 PSIG
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - TANK PRESSURE INDICATOR ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - ASSOCIATED WASTE GAS DECAY TANK IS FULL. LINEUP TO TANK WITH <80 PSIG IN IT.
DISCUSSION: CONSIDER REDUCING PRESSURE IN WASTE GAS DECAY TANK 3C BY USING RECYCLE VALVES PER OP-412A, WASTE GAS DISPOSAL SYSTEM. CONSIDER GOING TO THE 'B' TANK AS THE 'A' TANK IS USED FOR SAMPLING.
REFERENCES: DWG 208-060 WD-05
SENSING ELEMENT: WD-206-PS2

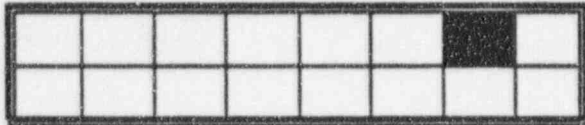
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WR-1-6	D-1-6
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**LIQUID WASTE  
DRUM FILL  
LEVEL HIGH**

INDICATED CONDITION: - DRUM LEVEL >2.5'
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - VALVE WDV-653 INDICATING LAMPS ON WASTE DRUM PANEL
OPERATOR ACTION FOR A VALID ALARM: - ENSURE VALVE WDV-653 CLOSES - CHECK FOR IMPROPER DRUM MIX - CHECK FOR POSSIBLE HIGH FLOW RATE - CHECK FOR POSSIBLE LEAKING DRUM INLET MANIFOLD
DISCUSSION: THIS EQUIPMENT IS NO LONGER USED.
REFERENCES: DWG 208-060 WD-127
SENSING ELEMENT: WD-142-LS

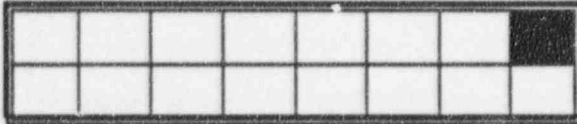
RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WR-1-7	D-1-7
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**RC EVAP  
CONCENTRATOR  
LEVEL HIGH**

INDICATED CONDITION: - CONCENTRATOR LEVEL >20"
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - RC EVAP FEED TANK PUMP WDP-16A/B INDICATING LAMPS ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - ENSURE PUMP (WDP-16A/B) TRIPS - SECURE RC EVAP COND COOLING WATER, STEAM SUPPLY, AND VACUUM PUMP
DISCUSSION: ALARM COULD BE DEFEATED PER OP-415
REFERENCES: DWG 208-060 WD-143
SENSING ELEMENT: WD-174-LS

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WR-1-8	D-1-8
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**RC EVAP  
FEED TANK  
LEVEL HIGH**

<p>INDICATED CONDITION: - TANK LEVEL &gt;92%</p>
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - TANK LEVEL INDICATION ON WD PANEL</p>
<p>OPERATOR ACTION FOR A VALID ALARM: - CHECK LINEUP FOR CAUSE OF ALARM - IF LEVEL CONTINUES TO INCREASE, OPEN DRAIN VALVE</p>
<p>DISCUSSION: ALARM COULD BE DEFEATED PER OP-415</p>
<p>REFERENCES: DWG 208-060 WD-137</p>
<p>SENSING ELEMENT: WD-161-LS2</p>

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WR-2-1	D-2-1
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RC EVAP  
FEED TANK  
DENSITY HIGH

INDICATED CONDITION: - FEED TANK SPECIFIC GRAVITY >1.2
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - TANK DENSITY INDICATOR ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - DETERMINE CAUSE OF HIGH DENSITY AND RESOLVE - TRANSFER WATER TO CONC. WASTE STORAGE TANK OR TO CONC. BORIC ACID STORAGE TANK.
DISCUSSION: ALARM COULD BE DEFEATED PER OP-415
REFERENCES: DWG 208-060 WD-137
SENSING ELEMENT: WD-162-PSA

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WR-2-2	D-2-2
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**RC EVAP  
DISTILLATE  
RESERVOIR  
LEVEL HIGH**

INDICATED CONDITION: - TANK LEVEL AT 30"
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - RESERVOIR LEVEL INDICATOR ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - SECURE STEAM SUPPLY AND COOLING WATER FLOW TO EVAPORATOR
DISCUSSION: ALARM COULD BE DEFEATED PER OP-415
REFERENCES: DWG 208-060 WD-137
SENSING ELEMENT: WD-160-LS1

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WR-2-3	D-2-3
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**RC EVAP  
DISTILLATE  
CONDUCTIVITY  
HIGH**

<b>INDICATED CONDITION:</b> <ul style="list-style-type: none"><li>- DISTILLATE CONDUCTIVITY <math>&gt;2 \mu\text{MHOS}</math></li></ul>
<b>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</b> <ul style="list-style-type: none"><li>- DISTILLATE REJECT/DISCHARGE VALVE INDICATION ON WD PANEL</li><li>- DISTILLATE CONDUCTIVITY INDICATOR ON WD PANEL</li></ul>
<b>OPERATOR ACTION FOR A VALID ALARM:</b> <ul style="list-style-type: none"><li>- ENSURE AUTO ACTION INITIATED (SEE DISCUSSION)</li><li>- DETERMINE CAUSE OF ALARM AND RESOLVE</li><li>- CHECK FEED TANK CONCENTRATION AND FOR FOAMING IN TANK</li></ul>
<b>DISCUSSION:</b> <p>THE AUTO ACTION WILL OPEN THE DISTILLATE REJECT VALVE (WDV-722)/(WDV-719) AND SHUT THE DISTILLATE DISCHARGE VALVE (WDV-721)/(WDV-720) IF RC DISTILLATE PUMP 3A (WDP-17A) OR 3B (WDP-17B) IS RUNNING. THE ALARM COULD BE DEFEATED PER OP-415.</p>
<b>REFERENCES:</b> DWG 208-060 WD-143
<b>SENSING ELEMENT:</b> WD-159-CS

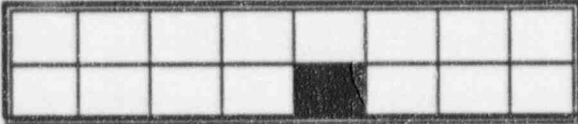


RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WR-2-4	D-2-4
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RC EVAP  
CONCENTRATOR  
VACUUM  
LOW

INDICATED CONDITION: - CONCENTRATOR VACUUM <15" HG
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - CONCENTRATOR VACUUM INDICATOR ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - CHECK SEAL WATER, VACUUM WATER SEPARATOR, AND STEAM SUPPLY, AND FOR POSSIBLE COOLING WATER FLUCTUATIONS.
DISCUSSION: ALARM COULD BE DEFEATED PER OP-415
REFERENCES: DWG 208-060 WD-143
SENSING ELEMENT: WD-164-PSA

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WR-2-5	D-2-5
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RC EVAP  
FEED TANK  
LEVEL LOW

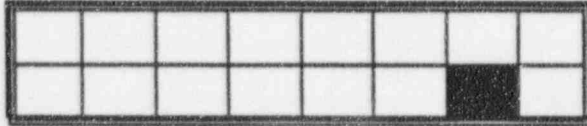
INDICATED CONDITION: - TANK LEVEL <14"
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - TANK LEVEL INDICATOR ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - DETERMINE REASON FOR LOW LEVEL BY CHECKING VALVE LINEUP AND RESTORE.
DISCUSSION: ALARM COULD BE DEFEATED PER OP-415
REFERENCES: DWG 208-060 WD-143
SENSING ELEMENT: WD-161-LS1

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WR-2-6	D-2-6
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RC EVAP  
FEED TANK  
TEMP LOW

INDICATED CONDITION: - FEED TANK TEMPERATURE <150 DEG F
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - FEED TANK HEATER INDICATING LAMPS (WDHE-2) ON WD PANEL - FEED TANK TEMPERATURE INDICATOR ON WD PANEL
OPERATOR ACTION FOR A VALID ALARM: - IF RC EVAPORATOR PACKAGE IS IN OPERATION: - ENSURE FEED TANK LEVEL >29.2% - MANUALLY CONTROL HEATERS IF DESIRED - CHECK OUT OPERATION OF HEATER CONTROL CIRCUITRY
DISCUSSION: ALARM COULD BE DEFEATED PER OP-415
REFERENCES: DWG 208-060 WD-50
SENSING ELEMENT: WD-163-TE

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WR-2-7	D-2-7
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**RC EVAP  
DISTILLATE  
RESERVOIR  
LEVEL LOW**

<b>INDICATED CONDITION:</b> - TANK LEVEL <10"
<b>REDUNDANT INDICATION WHICH WILL VERIFY ALARM:</b> - SELECTED RC EVAP DISTILLATE PUMP INDICATING LAMPS ON WD PANEL - RESERVOIR LEVEL INDICATOR ON WD PANEL
<b>OPERATOR ACTION FOR A VALID ALARM:</b> - CHECK VALVE LINEUP, STEAM SUPPLY, AND COOLING WATER - ENSURE AUTO ACTION INITIATED (SEE DISCUSSION)
<b>DISCUSSION:</b> THE AUTO ACTION TRIPS SELECTED RC EVAP DISTILLATE PUMP (WDP-17A/17B). ALARM COULD BE DEFEATED PER OP-415.
<b>REFERENCES:</b> DWG 208-060 WD-143
<b>SENSING ELEMENT:</b> WD-160-LS3

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WR-2-8	D-2-8
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**BORIC ACID  
STOR TNK  
TEMP HI/LO**

<p>INDICATED CONDITION: - BORIC ACID STORAGE TANK 3A OR 3B TEMP &gt;164 OR &lt;152 DEG F</p>
<p>REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - STORAGE TANK HEATER INDICATING LAMPS ON WD PANEL - TANK TEMPERATURE INDICATOR ON WD PANEL</p>
<p>OPERATOR ACTION FOR A VALID ALARM: - INVESTIGATE HEATER CONTROL CIRCUITRY FOR MALFUNCTION.</p>
<p>DISCUSSION: ALARM COULD BE DEFEATED PER OP-415</p>
<p>REFERENCES: DWG 208-060 WD-52, WD-53</p>
<p>SENSING ELEMENT: WD-80-TS, WD-83-TS</p>

Effective Date 1-29-96

Document Section  
**INFORMATION ONLY**  
C. R. Nuclear  
~~ANNUNCIATOR RESPONSE~~

AR-959

FLORIDA POWER CORPORATION

CRYSTAL RIVER UNIT 3

WDI ANNUNCIATOR RESPONSE

THIS PROCEDURE ADDRESSES SAFETY RELATED COMPONENTS

APPROVED BY: Interpretation Contact

*Barrett Webb*  
(SIGNATURE ON FILE)

DATE: 1/26/96

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-WW Lampbox.
- 1.2      Establish operator actions for valid Annunciator alarms on the WD-WW Lampbox.
- 1.3      Establish a reference to other procedures which address operator actions for valid Annunciator alarms on the WD-WW 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-WW Lampbox as indicated on Enclosure 1, Annunciator Response.

5.0      FOLLOW-UP ACTIONS

None



RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WW-1-1	I-1-1
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LAUNDRY & SHOWER  
MONITORING TANK  
WDT-11A  
LEVEL LOW

INDICATED CONDITION: - LOW LEVEL IN LAUNDRY TANK
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - WD-271-LR
OPERATOR ACTION FOR A VALID ALARM: - CHECK LAUNDRY & SHOWER TANK MONITOR PUMP A, WDP-23A
DISCUSSION: THIS IS AN EXPECTED ALARM FOR A LAUNDRY AND SHOWER MONITORING TANK RELEASE, AT WHICH TIME WDP-23A/B WILL TRIP ON LOW LEVEL IN WDT-11A/B.
REFERENCES: DWG 208-060 WD-185
SENSING ELEMENT: WD-271-LS

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WW-1-2	I-1-2
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LAUNDRY & SHOWER  
MONITORING TANK  
WDT-11B  
LEVEL LOW

INDICATED CONDITION: - LOW LEVEL IN LAUNDRY TANK
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - WD-271-LR
OPERATOR ACTION FOR A VALID ALARM: - CHECK LAUNDRY & SHOWER TANK MONITOR PUMP B, WCP-23B
DISCUSSION: THIS IS AN EXPECTED ALARM FOR A LAUNDRY AND SHOWER MONITORING TANK RELEASE, AT WHICH TIME WDP-23B/A WILL TRIP ON LOW LEVEL IN WDT-11B/A.
REFERENCES: DWG 208-060 WD-186
SENSING ELEMENT: WD-272-LS

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WW-1-3	i-1-3
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LAUNDRY & SHOWER  
MONITORING PUMP  
WDP-23A  
TRIP

INDICATED CONDITION: - RED TARGET WITH PUMP OFF
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - WD-275-PI
OPERATOR ACTION FOR A VALID ALARM: - CHECK WDP-23A
DISCUSSION: THIS IS AN EXPECTED ALARM FOR A LOW LEVEL IN WDT-11A/B.
REFERENCES: DWG 208-060 WD-185
SENSING ELEMENT: CS/SC CS/O 42B

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WW-1-4	I-1-4
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LAUNDRY & SHOWER  
MONITORING PUMP  
WDP-23B  
TRIP

INDICATED CONDITION: - RED TARGET WITH PUMP OFF
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - WD-276-PI
OPERATOR ACTION FOR A VALID ALARM: - CHECK WDP-23B
DISCUSSION: THIS IS AN EXPECTED ALARM FOR A LOW LEVEL IN WDT-11A/B.
REFERENCES: DWG 208-060 WD-186
SENSING ELEMENT: CS/SC CS/O 42B

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WW-2-1	I-2-1
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LAUNDRY & SHOWER  
MONITORING TANK  
WDT-11A  
LEVEL HIGH

INDICATED CONDITION: - HIGH LEVEL IN LAUNDRY TANK
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - WD-271-LI
OPERATOR ACTION FOR A VALID ALARM: - CHECK LAUNDRY TANK LEVEL
DISCUSSION: A HIGH LEVEL IN WDT-11A/B WILL TRIP THE LAUNDRY AND SHOWER SUMP PUMP WDP-22A/B.
REFERENCES: DWG 208-060 WD-187
SENSING ELEMENT: WD-271-LS3

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WW-2-2	I-2-2
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LAUNDRY & SHOWER  
MONITORING TANK  
WDT-11B  
LEVEL HIGH

INDICATED CONDITION: - HIGH LEVEL IN LAUNDRY TANK
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - WD-272-LI
OPERATOR ACTION FOR A VALID ALARM: - CHECK LAUNDRY TANK LEVEL
DISCUSSION: A HIGH LEVEL IN WDT-11B/A WILL TRIP THE LAUNDRY AND SHOWER SUMP PUMP WDP-22B/A.
REFERENCES: DWG 208-060 WD-180
SENSING ELEMENT: WD-272-LS3

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WW-2-3	I-2-3
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**LAUNDRY & SHOWER  
SUMP LEVEL  
EXTRA HIGH**

INDICATED CONDITION: - HIGH LEVEL IN LAUNDRY SHOWER SUMP
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: - WD-36-LI
OPERATOR ACTION FOR A VALID ALARM: - CHECK OPERATION OF WDP-22A/B.
DISCUSSION:
REFERENCES: DWG 208-060 WD-180
SENSING ELEMENT: WD-135-LS2

RADWASTE DISPOSAL ANNUNCIATOR RESPONSE	WD-WW-2-4	I-2-4
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ULTRA  
FILTRATION  
TRIP

INDICATED CONDITION: - TRIP OF ULTRA FILTRATION PUMP
REDUNDANT INDICATION WHICH WILL VERIFY ALARM:
OPERATOR ACTION FOR A VALID ALARM: - INVESTIGATE ULTRA FILTRATION SYSTEM
DISCUSSION: THIS EQUIPMENT IS NO LONGER USED.
REFERENCES:
SENSING ELEMENT: