Duke Energy Company
OCONEE NUCLEAR STATION

Cold Weather Protection

Procedure No.
PT/0/A/0110/017

Revision No.
017
SH 10/12/22

Continuous Use

PERFORMANCE

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Work Order/Task Number (WO#)

COMPLETION

- ☑ Yes ☐ NA Checklists and/or blanks initialed, signed, dated, or filled in NA, as appropriate?
- ☑ Yes ☐ NA Required attachments included?
- ☐ Yes ☑ NA Charts, graphs, data sheets, etc. attached, dated, identified, and marked?
- ☐ Yes ☑ NA Calibrated Test Equipment, if used, checked out/in and referenced to this procedure?
- ☑ Yes ☐ NA Procedure requirements met?

Verified By
* *Printed Name and Signature* Susan Haynes

Date 10-12-22

Procedure Completion Approved
* *Printed Name and Signature* Ryan Pl

Date 10-12-22

Remarks (*attach additional pages, if necessary*)

TL-R. TRENT LECROY
CL-Chris Jenkins
K-Jonathan Klement
SH-Susan Haynes
CS-Chris Sion
M-Josh McIntyre
AP-Andy Palmer
KK-KEVIN KOWALIK
MM-Michael Miller

IMPORTANT: Do **NOT** mark on barcodes.

Attachment Number: *FULL*

Procedure No.: *PT/0/A/0110/017*

Printed Date: *10/7/22*

Revision No.: *017*

Duke Energy Oconee Nuclear Station **Cold Weather Protection** **Continuous Use**	Procedure No. PT/**0**/A/0110/017 Revision No. 017 Electronic Reference No. OP0099EX

REVISION SUMMARY
PRR 02393899 **DESCRIPTION**
PT/0/A/0110/017 Rev 017 contains the following changes: 1) Procedure changed from 'EG' to 'FP' Category. This procedure was changed in all locations to incorporate the procedure change from AD-EG-ALL-1523 to AD-FP-ALL-1523. Changes have been made to Admin procedure SD 3.2.14 per PRR 02393884 to allow this revision to be completed. PRR 02393899. All changes in this revision are editorial per AD-DC-ALL-0201 Section 5.11.1.

Cold Weather Protection

1. Purpose

Ensure the readiness of cold weather equipment and systems for safe reliable operation of the units during cold weather months.

2. References

2.1 AD-WC-ALL-0203 (Seasonal Readiness)

2.2 AD-FP-ALL-1523 (Temporary Ignition Source Control)

2.3 NCR 01807762 - ONS Cold Weather Preps not Completed

2.4 NCR 01833188 - Freeze Protection Issue due to pipe trench to U3 Turbine Building

2.5 NCR 02167927 - Failure of Temporary skid at CNS due to freezing of drain line

2.6 NCR 02171058 - Spill containments outside the PA were not drained

3. Time Required

3.1 Enclosure 13.1 (Aligning Site Systems For Cold Weather)

3.1.1 Manpower - Two Operators

3.1.2 Time - 2 weeks

3.1.3 Frequency - Annually (October)

3.2 Enclosure 13.2 (Verification of Site Systems During Cold Weather)

3.2.1 Manpower - Two Operators

3.2.2 Time - 1 week

3.2.3 Frequency - Monthly (November, December, January, February, and March)

4. Prerequisite Tests

None

5. Test Equipment Required

5.1 **IF** performing Enclosure 13.2 (Verification of Site Systems During Cold Weather), the following items are needed:

5.1.1 Handheld remote reading pyrometer (infrared sensing with laser pointer)

5.1.2 Master Key #6000

6. Limits And Precautions

6.1 Installation of portable electric heaters to provide supplemental heat to an area should comply with AD-FP-ALL-1523 (Temporary Ignition Source Control).

7. Required Station Status

None

8. Prerequisite System Conditions

None

9. Test Method

Systems are aligned for cold weather conditions in October. Monthly, proper system operation for cold weather conditions is verified and degraded equipment is identified.

10. Data Required

None

11. Acceptance Criteria

11.1 **One** of the following are met:

11.1.1 **All** steps have been completed.

11.1.2 **IF all** steps have not been completed, **all** the following have been met:

A. Uncompleted steps have been N/A'ed with OSM approval.

B. Equipment problems associated with uncompleted steps are documented on WCC SRO Turnover Sheet under "Cold Weather Protection Equipment Issues" with applicable degraded equipment ID, associated W/R's and/or W/O numbers, and associated NCRs.

C. Equipment problems associated with uncompleted steps are documented and evaluated in NCR for acceptability by Engineering and Site Management.

12. Procedure

12.1 **IF one** of the following conditions is met:

☑ Aligning per Enclosure 13.1 (Aligning Site Systems for Cold Weather).

☐ Verifying alignment per Enclosure 13.2 (Verification of Site Systems During Cold Weather).

Then verify OP/0/B/1104/050 (Weather Related Activities) in progress or complete.

> **NOTE:** Performance of Enclosure 13.1 will be in the schedule the first week of October.

12.2 **IF** October **AND** site systems have **NOT** yet been aligned for cold weather, align site systems for cold weather per Enclosure 13.1 (Aligning Site Systems for Cold Weather).

> **NOTE:** Performance of Enclosure 13.2 will be in the schedule on the first Friday of November, December, January, February, and March.

12.3 **IF** performing monthly verification of site systems during cold weather, complete Enclosure 13.2 (Verification of Site Systems During Cold Weather).

> **NOTE:** Securing from cold weather protection should normally be scheduled in the second week of April to avoid cold weather impacts to the plant in early April. The Hot Weather Protection alignment will also be started at this same time per enclosure of PT/0/A/0110/018 (Hot Weather Protection).

12.4 **IF** April, perform Enclosure 13.6 (Securing from Cold Weather Protection).

12.5 Perform **one** of the following:

12.5.1 Verify acceptance met.

12.5.2 **IF** acceptance **NOT** met, notify the following:

- Unit 1 SRO
- Unit 2 SRO
- Unit 3 SRO
- Operations Shift Manager
- WCC SRO

M. Greg Johnson

13. Enclosures

13.1 Aligning Site Systems For Cold Weather

13.2 Verification of Site Systems During Cold Weather

13.3 ESV Cold Weather Breaker Checklist

13.4 SSF Duct Heater Cold Weather Breaker Checklist

13.5 AWC System Cold Weather Breaker Checklist

13.6 Securing from Cold Weather Protection

Enclosure 13.1
Aligning Site Systems For Cold Weather

1. Limits and Precautions

1.1 Installation of portable electric heaters to provide supplemental heat to an area should comply with AD-FP-ALL-1523 (Temporary Ignition Source Control).

2. Procedure

NOTE:	Major steps may be performed in any order.

2.1 **IF AT ANY TIME** the conditions of any of the following major steps are **NOT** met, perform the following:

- Notify WCC SRO and affected CR SRO.

NOTE:	Normally a weather related equipment issue is assigned as an E2 Priority work request, however, the OSM should make this determination.

- Issue a Priority work request to have the issue resolved.
- Issue a NCR.
- Document (discrepancies and deficiencies) equipment ID, associated WR/WOs, and associated NCRs on WCC SRO Turnover Sheet under the header "Cold Weather Protection Equipment Issues".

2.2 Notify Radwaste Control Room that Site Systems are being aligned for Cold Weather.

Wayne Evans — Person Notified
10-9-22 — Date

2.3 Notify Chemistry to begin Chemistry Cold Weather Protection Rounds per Chemistry Manual Section 4.14.

Leslie Hayes — Person Notified
10/8/22 — Date

2.4 Notify Lee Steam Station to implement Cold Weather protection.

Todd Golden — Person Notified
10/8/22 — Date

2.5 Notify Keowee Hydro Station to implement Cold Weather protection.

Wes Carter — Person Notified
10/8/22 — Date

NOTE: Special consideration should be given to raise PCB gas pressure to prevent severe cold temperatures from causing a reduction in gas pressure which could cause a vulnerability to automatic actuation or lockout.

SA 2.6 Notify Switchyard Coordinator to perform the following:

- Walk down all switchyard components.
- Ensure any proactive measures required in response for approaching cold weather are in place.

Kyle Bryson — Person Notified
10-10-22 — Date

SA 2.7 Notify Site Services to ensure any spill containments outside the Protected Area have been drained as required to for freezing temperatures. {Ref 2.6}

Lane Burgess — Person Notified
10-10-22 — Date

2.8 Place NOTE on each Unit's Turnover Sheet as follows:

DW/SK (U1 CRSRO) • Do **NOT** delete computer point O1D2298 (BWST Instrument Htr & SSF ASW Heat Trace) from ALARM.

SL/SK (U2 CRSRO) • Do **NOT** delete computer point O2D2298 (BWST Instrument Htr & SSF ASW Heat Trace) from ALARM.

LC/SK (U3 CRSRO) • Do **NOT** delete computer point O3D2298 (BWST Instrument Htr & SSF ASW Heat Trace) from ALARM.

2.9 Verify Plant Heating is in service on Unit 1 as follows:

SD 2.9.1 Verify 1PG-5 indicates > 15 psig. (T-3 Col Fb16, on gaugeboard)

2.10 Verify Plant Heating is in service on Unit 2 as follows:

Jeremy Moore — 2.10.1 Verify 2PG-5 indicates > 15 psig. (T-3 Col Fa39, on gaugeboard)

2.11 Verify Plant Heating is in service on Unit 3 as follows:

M 2.11.1 Verify 3PG-5 indicates > 15 psig. (T-3 Col F55 near Unit 3 MTOT)

DW/SK - Dan Wilson (Doer) by Jonathan Klement (Doc)
SL/SK - Jessi Link (Doer) by Jonathan Klement (Doc)
LC/SK - Luke Calvert (Doer) by Jonathan Klement (Doc)
SD - CATCL WARD

2.12 Perform the following:

NOTE: Model Work Order should be scheduled to perform the Annual Plant Heating Checklist to coordinate with cold weather activities.

2.12.1 Perform Plant Heating System Annual Valve Checklist enclosure of OP/0/A/1104/037 (Plant Heating).

2.12.2 Perform the following:

- Perform **one** of the following:
  - ☑ Verify AHU 1-9 Plant Heating regulator inlet piping temperature is greater than ambient temperature.
  - ☐ **IF** AHU 1-9 is removed from service, align AHU 1-9 per cold weather removal enclosure of OP/0/A/1104/041 (Auxiliary Building Ventilation).
- Perform **one** of the following:
  - ☑ Verify AHU 1-10 Plant Heating regulator inlet piping temperature is greater than ambient temperature.
  - ☐ **IF** AHU 1-10 is removed from service, align AHU 1-10 per cold weather removal enclosure of OP/0/A/1104/041 (Auxiliary Building Ventilation).
- Perform **one** of the following:
  - ☑ Verify AHU 1-15 Plant Heating regulator inlet piping temperature is greater than ambient temperature.
  - ☐ **IF** AHU 1-15 is removed from service, align AHU 1-15 per cold weather removal enclosure of OP/0/A/1104/041 (Auxiliary Building Ventilation).
- Perform **one** of the following:
  - ☑ Verify AHU 2-16 Plant Heating regulator inlet piping temperature is greater than ambient temperature.
  - ☐ **IF** AHU 2-16 is removed from service, align AHU 2-16 per cold weather removal enclosure of OP/0/A/1104/041 (Auxiliary Building Ventilation).

M • Perform **one** of the following:

- ☑ Verify AHU 3-7 Plant Heating regulator inlet piping temperature is greater than ambient temperature.
- ☐ **IF** AHU 3-7 is removed from service, align AHU 3-7 per cold weather removal enclosure of OP/0/A/1104/041 (Auxiliary Building Ventilation).

M • Perform **one** of the following:

- ☑ Verify AHU 3-8 Plant Heating regulator inlet piping temperature is greater than ambient temperature.
- ☐ **IF** AHU 3-8 is removed from service, align AHU 3-8 per cold weather removal enclosure of OP/0/A/1104/041 (Auxiliary Building Ventilation).

TC • Perform **one** of the following:

- ☑ Verify AHU 3-9 Plant Heating regulator inlet piping temperature is greater than ambient temperature.
- ☐ **IF** AHU 3-9 is removed from service, align AHU 3-9 per cold weather removal enclosure of OP/0/A/1104/041 (Auxiliary Building Ventilation).

TC • Perform **one** of the following:

- ☑ Verify AHU 3-10 Plant Heating regulator inlet piping temperature is greater than ambient temperature.
- ☐ **IF** AHU 3-10 is removed from service, align AHU 3-10 per cold weather removal enclosure of OP/0/A/1104/041 (Auxiliary Building Ventilation).

Enclosure 13.1
Aligning Site Systems For Cold Weather

N/A 2.13 **IF** Unit 1 Purge is operating, ensure Unit 1 Purge Inlet Steam is valved in per Unit 1 RB Purge Inlet Steam Operation enclosure of OP/0/A/1104/037 (Plant Heating).

2.14 **IF** Unit 2 Purge is operating, ensure Unit 2 Purge Inlet Steam is valved in per Unit 2 RB Purge Inlet Steam Operation enclosure of OP/0/A/1104/037 (Plant Heating).

N/A 2.15 **IF** Unit 3 Purge is operating, ensure Unit 3 Purge Inlet Steam is valved in per Unit 3 RB Purge Inlet Steam Operation enclosure of OP/0/A/1104/037 (Plant Heating).

K 2.16 Ensure Turbine Building Rollup Doors aligned for Cold Weather per OP/0/A/1106/041 (Turbine Building Ventilation).

K 2.17 Ensure Turbine Building Dampers aligned for Cold Weather per OP/0/A/1106/041 (Turbine Building Ventilation).

K 2.18 Ensure B1T/B2T Blockhouse fans aligned for cold weather per OP/0/A/1106/041 (Turbine Building Ventilation).

K 2.19 Ensure CT-4 Blockhouse fans aligned for cold weather per OP/0/A/1106/041 (Turbine Building Ventilation).

K 2.20 Ensure 3B1T/3B2T Blockhouse fans aligned for cold weather per OP/0/A/1106/041 (Turbine Building Ventilation).

K 2.21 Perform Enclosure 13.3 (ESV Cold Weather Breaker Checklist).

K 2.22 Ensure ESV Building Rollup Doors closed.

SH 2.23 Ensure ESV Building Ventilation aligned for Cold Weather per OP/1/A/1104/051 (ESV System).

Enclosure 13.1
Aligning Site Systems For Cold Weather

2.24 Perform **one** of the following:

2.24.1 Verify Unit 1 BWST Trench Covers are in place.

2.24.2 **IF** Unit 1 BWST Trench Covers are **NOT** in place, perform the following:

NOTE: Normally a weather related equipment issue is assigned as an E2 Priority work request, however, the OSM should make this determination.

A. Issue a Priority Work Request to ensure Unit 1 BWST Trench Covers are put in place.

B. **WHEN** Unit 1 BWST Trench Covers are in place, verify Unit 1 BWST Trench Covers in place.

2.25 Perform **one** of the following:

2.25.1 Verify Unit 1 BWST level impulse lines and cabinets have insulation and cabinet doors properly in place.

2.25.2 **IF** Unit 1 BWST level impulse lines and cabinets have insulation and cabinet doors **NOT** properly in place, perform the following:

NOTE: Normally a weather related equipment issue is assigned as an E2 Priority work request, however, the OSM should make this determination.

A. Issue a Priority Work Request to ensure Unit 1 BWST level impulse lines and cabinets have insulation and cabinet doors properly put in place.

B. **WHEN** Unit 1 BWST level impulse lines and cabinets have insulation and cabinet doors properly in place respectively, verify Unit 1 BWST level impulse lines and cabinets have insulation and cabinet doors properly in place.

MH - Mike Hazen

2.26 Perform **one** of the following:

MA 2.26.1 Verify Unit 2 BWST Trench Covers are in place.

K N/A 2.26.2 **IF** Unit 2 BWST Trench Covers are **NOT** in place, perform the following:

NOTE: Normally a weather related equipment issue is assigned as an E2 Priority work request, however, the OSM should make this determination.

____ A. Issue a Priority Work Request to ensure Unit 2 BWST Trench Covers are put in place.

K N/A B. **WHEN** Unit 2 BWST Trench Covers are in place, verify Unit 2 BWST Trench Covers are in place.

2.27 Perform **one** of the following:

CS 2.27.1 Verify Unit 2 BWST level impulse lines and cabinets have insulation and cabinet doors properly in place.

K N/A 2.27.2 **IF** Unit 2 BWST level impulse lines and cabinets have insulation and cabinet doors **NOT** properly in place, perform the following:

NOTE: Normally a weather related equipment issue is assigned as an E2 Priority work request, however, the OSM should make this determination.

____ A. Issue a Priority Work Request to ensure Unit 2 BWST level impulse lines and cabinets have insulation and cabinet doors properly put in place.

K N/A B. **WHEN** Unit 2 BWST level impulse lines and cabinets have insulation and cabinet doors properly in place respectively, verify Unit 2 BWST level impulse lines and cabinets have insulation and cabinet doors properly in place.

2.28 Perform **one** of the following:

2.28.1 Verify Unit 3 BWST Trench Covers are in place.

2.28.2 **IF** Unit 3 BWST Trench Covers are **NOT** in place, perform the following:

NOTE: Normally a weather related equipment issue is assigned as an E2 Priority work request, however, the OSM should make this determination.

A. Issue a Priority Work Request to ensure Unit BWST Trench Covers are put in place.

B. **WHEN** Unit 3 BWST Trench Covers are in place, verify Unit 3 BWST Trench Covers are in place.

2.29 Perform **one** of the following:

2.29.1 Verify Unit 3 BWST level impulse lines and cabinets have insulation and cabinet doors properly in place.

2.29.2 **IF** Unit 3 BWST level impulse lines and cabinets have insulation and cabinet doors **NOT** properly in place, perform the following:

NOTE: Normally a weather related equipment issue is assigned as an E2 Priority work request, however, the OSM should make this determination.

A. Issue a Priority Work Request to ensure Unit 3 BWST level impulse lines and cabinets have insulation and cabinet doors properly put in place.

B. **WHEN** Unit 3 BWST level impulse lines and cabinets have insulation and cabinet doors properly in place respectively, verify Unit 3 BWST level impulse lines and cabinets have insulation and cabinet doors properly in place.

2.30 Perform Enclosure 13.4 (SSF Duct Heater Cold Weather Breaker Checklist).

2.31 Perform Enclosure 13.5 (AWC System Cold Weather Breaker Checklist).

2.32 Ensure CT-5 Mulsifyre valve enclosure heaters have power available.

nh - mike Hazen

Enclosure 13.1
Aligning Site Systems For Cold Weather

NOTE: Master Key 6000 is needed to open EWST Base door.

2.33 At the base of the EWST, perform the following:

MH 2.33.1 Notify Security that they will receive the EWST Base door alarm due to entry.

MH 2.33.2 In EWST Panelboard, ensure Breaker #1 is ON.

MH 2.33.3 Verify digital indication on Chromalox Temperature Controller indicates > 40 °F. (OHTCIEWST 1)

2.34 At the EWST level control system building, perform the following:

2.34.1 Ensure strip heater and fan have power available as follows:

MH A. Ensure closed Panelboard MW Breaker #9 (Air Compressor Heater).

MH 2.34.2 Blow down air compressor tank per OP/0/A/1104/011 (High Pressure Service Water).

2.35 Ensure the 230 KV Switchyard Blockhouse heaters have power available as follows: (230 KV Swyd)

- Ensure closed Panelboard SPA Breaker #8 (Battery Room SY-1 Heater).
- Ensure closed Panelboard SPB Breaker #5 (Battery Room SY-2 Heater).

Dawn Zelner

2.36 Ensure the 525 KV Switchyard Blockhouse heaters have power available as follows: (525 KV Swyd)

DZ/SH • Ensure closed Panelboard SLPC Breaker #7 (Lighting 500 Watts and HTR 1000 Watts).

DZ/SH • Ensure closed Panelboard SLPC Breaker #9 (Lighting 500 Watts and HTR 1000 Watts).

DZ/SH • Ensure closed Panelboard SLPD Breaker #3 (Lighting 500 Watts and HTR 1000 Watts).

DZ/SH • Ensure closed Panelboard SLPD Breaker #5 (Lighting 500 Watts and HTR 1000 Watts).

DZ/SH - Dawn Zelner (doer) by Susan Haynes (documenter)

NOTE: SSF Ventilation and HVAC alignments are contained in appropriate enclosures of OP/0/A/1600/002 (Standby Shutdown Facility Heating, Ventilation, and Air Conditioning System Operation (HVAC)).

2.37 Verify the following for SSF Ventilating and Air Conditioning Systems:

- SSF Summer Ventilation in Auto Mode of operation.
- SSF On-Line Ventilation in Auto Mode of operation.
- SSF Engine Ventilation in Auto Mode of operation.
- SSF Air Conditioning System in operation.

NOTE: TB Exhaust Fans are seasonally aligned per the schedule by a model work order task. Completed procedure or work order task can be used to verify this step.

2.38 Verify TB Exhaust Fans are aligned per the appropriate seasonal enclosure of OP/0/A/1106/041 (Turbine Building Ventilation)

2.39 Verify Auxiliary Building Rollup Doors closed per verification enclosure of OP/0/A/1104/041 (Auxiliary Building Ventilation).

2.40 Perform a general area walkdown of the following areas to evaluate that trench covers are properly in place: {Ref 2.4}

- ☑ Machine shop, warehouse, and water treatment buildings at north end of turbine building
- ☑ Outside of Turbine Building east side
- ☑ Outside of Turbine Building south end to outside of Radwaste Building
- ☑ Outside of PSW Building and associated trenches
- ☑ Outside of ESV Building
- ☑ Outside of Auxiliary Building west side

N/A 2.41 **IF** installed, ensure any temporary equipment that supports plant operation will not be adversely affected by cold and/or freezing weather. {Ref 2.5}

2.42 Perform **one** of the following:

TL 2.42.1 Verify TBSMT status board indicates TBSMT skid not in use and hoses are drained.

N/A 2.42.2 **IF** TBSMT is in use, then add note to AO turnover sheet as follows: "TBSMT flow should not be isolated > 4 hours without draining the header and hoses to avoid freeze concerns during cold weather conditions (outside air temperature < 35 °F)".

Enclosure 13.1
Aligning Site Systems For Cold Weather

2.43 Have Radwaste perform the following cold weather activities for the Radwaste Facility {formerly CSM 4.14}:

Radwaste 2.43.1 Ensure Radwaste Facility Rollup Doors closed as follows:

- Electrical Room
- Hallway
- Truck Bay

Radwaste 2.43.2 Ensure Radwaste Facility outer doors closed.

2.43.3 Perform **one** of the following:

Radwaste A. Ensure outside steam trench covers in place

X
Radwaste B. Ensure trench opening is covered in RWF Room 106.

2.43.4 Perform the following:

Radwaste A. Check Radwaste turnover for RWF Steam Header status.

B. **IF** steam is isolated in the Radwaste Facility, perform the following:

1. Ensure OFF the following: (Rooms 105, 219, and 241)

Radwaste • HV-1
Radwaste • HV-2
Radwaste • HV-3
Radwaste • HV-4
Radwaste • HV-5

N/A
Radwaste 2. **IF** any HV units are not OFF, notify Radwaste Supervisor or Staff.

DWE-Wayne Ecans

Enclosure 13.3
ESV Cold Weather Breaker Checklist

1. Initial Conditions

1.1 Refer to OP/1, 2, 3/A/1104/051 (ESV System) Limit and Precaution regarding freeze protection for valves ESV-1 and ESV-2.

2. Procedure

2.1 Position breakers per the following checklist:

COMPONENT NUMBER	COMPONENT NAME	LOCATION	POSITION	INITIAL
1SKM-1	Heat Trace For Float Vlv 1ESV-1	ESV Bldg	Closed	
1SKN-1	Heat Trace For Float Vlv 1ESV-2	ESV Bldg	Closed	
2SKM-1	Heat Trace For Float Vlv 2ESV-1	ESV Bldg	Closed	
2SKN-1	Heat Trace For Float Vlv 2ESV-2	ESV Bldg	Closed	
3SKM-1	Heat Trace For Float Vlv 3ESV-1	ESV Bldg	Closed	
3SKN-1	Heat Trace For Float Vlv 3ESV-2	ESV Bldg	Closed	

Enclosure 13.4
SSF Duct Heater Cold Weather Breaker Checklist

PT/0/A/0110/017

1. Initial Conditions

1.1 None.

2. Procedure

2.1 Verify breakers in correct position per the following checklist:

COMPONENT NUMBER	COMPONENT NAME	LOCATION	POSITION	INITIAL
XSF-F1AL	Battery Room #SF 103 Duct Htr Bkr	SSF	Closed	
XSF-F1BL	Battery Room #SF 105 Duct Htr Bkr	SSF	Closed	
XSF-F5A	HVAC Duct Htr Bkr	SSF	Closed	
XSF-F7D	Diesel Engine Room Duct Htr Bkr	SSF	Closed	
XSF-F9AL	Response Room Duct Htr Bkr	SSF	Closed	
XSF-F9BL	Elect Equip Room Duct Htr Bkr	SSF	Closed	
XSF-F9BR	Pump Room Duct Htr Bkr	SSF	Closed	
XSF-F9DL	CAS Duct Htr Bkr	SSF	Closed	
XSF-F10CL	Control Room Duct Htr Bkr	SSF	Closed	
XSF-F10CR	Computer Room Duct Htr Bkr	SSF	Closed	

Enclosure 13.5 PT/0/A/0110/017
AWC System Cold Weather Breaker Checklist Page 1 of 1

1. Initial Conditions

K2 1.1 None.

2. Procedure

K2 2.1 Verify breakers in correct position per the following checklist:

COMPONENT NUMBER	COMPONENT NAME	LOCATION	POSITION	INITIAL
EL-SX-AWC3	Alternate Chiller #1 60A Fused Disconnect Switch AWC3	Yard South of Chiller #1	ON	K2
EL-SX-AWC4	Alternate Chiller #2 60A Fused Disconnect Switch AWC4	Yard North of Chiller #2	ON	K2
EL-SX-AWC5	Alternate Chiller #1 & 2 480v Transfer Switch AWC5	Yard West of AWC Chillers	Chiller #1	K2
EL-SX-AWC6	Alternate Chiller #1 & 2 Plant Power 480V Transfer Switch AWC6	Yard West of AWC Chillers	Normal	K2
EL-BK-AWC9	AWC Chiller #1&2 480/240 - 120v Xfmr AWC8 Fdr Bkr	Yard West of AWC Chillers	ON	K2
EL-BK-AWC10	AWC Chiller # 1&2 200A Pwr Pnlbd AWC8 Fdr Bkr	Yard West of AWC Chillers	ON	K2
AWC8-1	AWC Chiller #1 M/U Line Heat Trace	Yard West of AWC Chillers	ON	K2
AWC8-2	AWC Chiller #2 M/U Line Heat Trace	Yard West of AWC Chillers	ON	K2
AWC8-3	AWC Chiller Valve Enclosure Heater	Yard West of AWC Chillers	ON	K2
AWC8-4	AWC Chiller #1 Heated Hose	Yard West of AWC Chillers	ON	K2
AWC8-5	AWC Chiller #2 Heated Hose	Yard West of AWC Chillers	ON	K2