



## WORK ORDER PACKAGE

20499680 02

Quality Record

09/29/22 02:10 AM



\*2049968002\*

## EWP Summary

WO Task/WR Nbr : 20499680 02

Facility: BNP

Performed By(Printed Name and Signature):JOHN GORE (JAGORE )  
Date: 09/15/2022 02:39

Reviewed By(Printed Name and Signature): BARRY SELLERS (C73526 )  
Date: 09/15/2022 04:16

## Document List

1. Duke\_WorkOrderPackage\_Rpt\_B PREPARE AREAS & BLDGS FOR COLD WEATHER
2. WO INST. PAS WORK INSTRUCTIONS

Facility : BNP BRUNSWICK NUCLEAR PLANT  
Task Desc : PREPARE AREAS & BLDGS FOR COLD  
WEATHER  
Tsk Priority : 4 Tsk Planner : I56839  
UCR : AAC :  
Task Status : READY at 07/19/22 9:08 AM

UNIT

2

Work Order Package

20499680 02

PREDEFINED  
MAINTENANCE

Wo Desc : PREPARE VARIOUS LOCATIONS &  
BUILDINGS FOR COLD WEATHER



\*2049968002\*

Wo Priority : 4 WO Planner : I56839  
Frequency : 1YY Due Date : 20221003 Late Date : 20221104  
Outage :

Work Order Task Work Against

Facility : BNP Unit : 2 System : 8580  
Equipment : MIS 00001 Component :  
Equip List : Cat ID : UTC :  
Equip Name : FILE FOR MISCELLANEOUS I&C, ELECTRICAL & MECH.... MAINT NOT ASSC.  
Location : VARIOUS  
Equip Tag : 2-MSS-MIS  
EDB Loc : Bldg : Rm :  
Task Pri : 4 UCR : AAC Outage :  
Def Tag : Location :  
%: 100 OU:BN02 Resp: E245 Process: BELECPM Proj/Act: /

Critical Characteristics

\*20499680-02\*

ERAT Code : \*NO\_CODE

Task Requirements

<u>REQ(s)</u>	<u>Value(s)</u>	<u>Description</u>
ASSD	N	NO
EQ RELATED	N	NO
FIRE PROT	N	NO
FME LEVEL	H	HOUSEKEEPING
FUNC VERIF	N	NO RETEST IS REQUIRED
GL 89-10	N	
ISI CLASS	N	NOT APPLICABLE
Q-CLASS	D	NON-SAFETY, NO SPECIAL REQUIREMENTS
QC REQ	N	NO QC IS REQUIRED OR IS NOT APPLICABLE FOR NON-QA WORK

20499680 02 \*\*\*SQA Qualified Report, Commensurate with SWQL C\*\*\* 07/19/22 09:08 AM 1

<b>Facility</b>	: BNP BRUNSWICK NUCLEAR PLANT	<b>UNIT</b>  <b>2</b>
<b>Task Desc</b>	: PREPARE AREAS & BLDGS FOR COLD WEATHER	
<b>Tsk Priority</b>	: 4 <b>Tsk Planner</b> : I56839	
<b>UCR</b>	: AAC :	
<b>Task Status</b>	: READY at 07/19/22 9:08 AM	

<u>Work Order Package</u>	
20499680	02
<u>PREDEFINED MAINTENANCE</u>	

RETEST	N	NO RETEST IS REQUIRED
RRIL	N	NOT CALIBRATED INSTR
SCAFLD REQ	Y	
SECURITY	N	N/A SECURITY SYSTEM
VR	N	NOT APPLICABLE
WRKRELEASE	OPS	OPERATIONS

### Task Attributes

<u>Attribute</u>	<u>Value(s)</u>	<u>Description</u>
DOSE-EST	2	
RWP NUMBER	2016	
RWP TYPE	Y	YES-RADIATION WORK PERMIT IS REQUIRED
SEC	WR	WINTER READINESS

### Task Instructions

**Facility:**

**Standard:**

SUMMARY: PREPARE VARIOUS BUILDINGS FOR COLD WEATHER PER THE FOLLOWING WORK INSTRUCTIONS . SCHEDULE PRIOR TO COLD WEATHER AND PMRQ 3713-01.  
TEMPORARY POWER INSTALLED UNDER PMRQ 27468-12.

\*\*\* SEE ATTACHED (OLE) WORK INSTRUCTIONS \*\*\*  
( PM MODEL # 10605820-02)

HP ASSISTANCE WILL BE NEEDED TO TEST DETECTORS IN LOCKED HIGH RAD AREAS.

### Clearance Tagging instructions

<b>Facility</b>	: BNP BRUNSWICK NUCLEAR PLANT	<div>UNIT</div> <div>2</div>
<b>Task Desc</b>	: PREPARE AREAS & BLDGS FOR COLD WEATHER	
<b>Tsk Priority</b>	: 4 <b>Tsk Planner</b> : I56839	
<b>UCR</b>	: AAC :	
<b>Task Status</b>	: READY at 07/19/22 9:08 AM	

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PREDEFINED  
MAINTENANCERP Information

<u>Attribute Name</u>	<u>Code Value</u>	<u>Code Descr</u>
RWP NUMBER	2016	2016
RWP TYPE	Y	YES-RADIATION WORK PERMIT IS REQUIRED
ALARA PKG		
DOSE-EST	2	2

Task Labor Hours Estimate

<u>Res</u>	<u>Staff</u>	<u>Hours</u>	<u>Total Estimated Hours</u>
ELEC08	2	65	130.0

<u>Fac</u>	<u>Crew</u>	<u>Description</u>	<u>Sch Date/Time</u>
BNP	SM1	BNP ROTATING SHIFT A- EMPCENTER PURPOSES ONLY	/ / 7:00 PM

Nuclear Information and Cross Reference

<b>Contain Closure</b>	: N	<b>Train</b>	:	<b>A Mode</b>	:	<b>ER Classification</b>	: R
<b>Contain Integrity</b>	:	<b>PMID</b>	: 00027468	<b>PM RQ</b>	: 09	<b>Model WO</b>	: 10605820
<b>Rework Indicator</b>	: N	<b>Rework Comments</b>	:				

Cross Reference

<u>Type</u>	<u>Number</u>	<u>Sub Nbr</u>	<u>Description</u>
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Additional Task Listings

<u>Tsk</u>	<u>Craft</u>	<u>Work Order Task Listing</u>	<u>Work Against</u>	<u>Type</u>	<u>Crew</u>	<u>Hours</u>
01	MECH	(M), 2-MSS-MIS, ANNUAL COLD WEATHER PREPARATION.	BNP 2 8580 MIS 00001	PM	SM1	40
01	MECH	(M), 2-MSS-MIS, ANNUAL COLD WEATHER PREPARATION.	BNP 2 8580 MIS 00001	PM	SM2	40
02	ELEC08	PREPARE AREAS & BLDGS FOR COLD WEATHER	BNP 2 8580 MIS 00001	PM	SM1	130
03	SCAF	S: BUILD A TENT AROUND STORM DRAIN	BNP 2 8260 MIS	OA	SCAF	45
20499680	02	***SQA Qualified Report, Commensurate with SWQL C***		07/19/22	09:08 AM	3

<b>Facility</b>	: BNP BRUNSWICK NUCLEAR PLANT	<b>UNIT</b>	<b>Work Order Package</b>
<b>Task Desc</b>	: PREPARE AREAS & BLDGS FOR COLD WEATHER	<b>2</b>	<b>20499680 02</b>
<b>Tsk Priority</b>	: 4	<b>Tsk Planner</b>	: I56839
<b>UCR</b>	: AAC :		<u>PREDEFINED MAINTENANCE</u>
<b>Task Status</b>	: READY	at 07/19/22 9:08 AM	

04	SCAF	BASIN PUMPS S: BUILD A TENT AROUND CASBCH LUBE PUMPS	00001 BNP 2 8260 MIS	OA	SCAF	18
05	SCAF	S: BUILD A TENT AROUND 2-WW-LIC-4234	00001 BNP 2 6260 LC-	OA	SCAF	15
06	SCAF	S: BUILD A TENT AROUND 2-WW-LCV-4253	00001 BNP 2 6260 LCV	OA	SCAF	15
			00001			

DocumentReferenceInformationWork Order Standard

<u>Fac.</u>	<u>Number</u>	<u>Title</u>	<u>Print</u>	<u>Document Link</u>
BNP	WKREADY	WORK READINESS REVIEW	N	
BNP	WO INST.	PAS WORK INSTRUCTIONS	Y	

References/Document Information

<u>Fac</u>	<u>Type/Subtype</u>	<u>Number</u>	<u>Sheet</u>	<u>Title/Desc</u>	<u>Print</u>
BNP	DRAW	CWD	LL-90046 SHP205	VENTILATION AIR SECTION -P-	
BNP	DRAW	CWD	LL-90046 SHP206	VENTILATION AIR SECTION -P-	
BNP	DRAW	ISO	FSP-02198 SH0058	CST FLEX CONNECTION YARD PIPING COMPOSITE PLAN PIPING LINE ISOMETRIC	
BNP	DRAW	ISO	FSP-02198 SH0061	PIPING-LINE ISOMETRIC CST FLEX CONNECTION YARD PIPING COMPOSITE PLAN	
BNP	DRAW	IWD	F-36085	U.1 MISC. HEATERS OTERCONN. WIRING DIAG.	
BNP	DRAW	MMC	F-04158	COUNTY WATER STORAGE TANK COMPOSITE PIPING	
BNP	DRAW	PID	D-02040 SH0001A	CONDENSATE DEMINERALIZED WATER TRANSFER SYSTEMS PIPING DIAGRAM	
BNP	DRAW	PID	D-02040 SH0001B	CONDENSATE & DEMINERALIZED WATER TRANSFER SYSTEMS PIPING DIAGRAM	
BNP	DRAW	PID	F-04044	COUNTY WATER SUPPLY SYSTEM PIPING DIAGRAM	
NGD	APRC	MN	AD-HS-ALL-0110	ELECTRICAL SAFETY	
NGD	APRC	OP	AD-OP-ALL-0204	PLANT STATUS CONTROL	
NGD	FAD	MN	CSD-MN-ALL-	FLEET TECHNICAL FUNDAMENTALS HANDBOOK	
NGD	PROC	MN	TE-MN-ALL-0800	** SUPERSEDED ** INSTALLATION, CONTROL, AND REMOVAL OF TEMPORARY POWER	5

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Tsk Priority : 4 Tsk Planner : I56839  
UCR : AAC :  
Task Status : READY at 07/19/22 9:08 AM

UNIT



Work Order Package

20499680 02

PREDEFINED  
MAINTENANCE

SUPERSEDED BY AD-MN-ALL-0800,  
TEMPORARY POWER

EDMS Folder Document Information

EDB Documents

<u>Fac</u>	<u>Type</u>	<u>SubType</u>	<u>Number</u>	<u>Sheet</u>	<u>Reference</u>
BNP	EDAT	EDBU	EC 0000075122		
BNP	EDAT	EDBU	EC 0000076151-000		


eFolder Documents

No file found in dir

UNIT 2

<b>Facility</b>	: BNP BRUNSWICK NUCLEAR PLANT	<div style="text-align: center;"> <b>UNIT</b>  <div style="background-color: blue; color: white; width: 50px; height: 50px; margin: 0 auto; display: flex; align-items: center; justify-content: center;"> <u>2</u> </div> </div>
<b>Task Desc</b>	: PREPARE AREAS & BLDGS FOR COLD WEATHER	
<b>Tsk Priority</b>	: 4 <b>Tsk Planner</b> : I56839	
<b>UCR</b>	: AAC :	
<b>Task Status</b>	: READY at 07/19/22 9:08 AM	


<b>Work Order Package</b>	
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<u>PREDEFINED</u>	
<u>MAINTENANCE</u>	

  
W/O-Task: 20499680-02 [BNP]

PREPARE AREAS & BLDGS FOR COLD WEATHER

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<b>RWP:</b>	2016	<b>Dose Est:</b>	2
<b>Alara:</b>			

  
W/O-Task: 20499680-02 [BNP]

PREPARE AREAS & BLDGS FOR COLD WEATHER

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<b>RWP:</b>	2016	<b>Dose Est:</b>	2
<b>Alara:</b>			

  
W/O-Task: 20499680-02 [BNP]

PREPARE AREAS & BLDGS FOR COLD WEATHER

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<b>RWP:</b>	2016	<b>Dose Est:</b>	2
<b>Alara:</b>			

  
W/O-Task: 20499680-02 [BNP]

PREPARE AREAS & BLDGS FOR COLD WEATHER

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<b>RWP:</b>		<b>Dose Est:</b>	2
<b>Alara:</b>			

  
W/O-Task: 20499680-02 [BNP]

PREPARE AREAS & BLDGS FOR COLD WEATHER

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<b>RWP:</b>	2016	<b>Dose Est:</b>	2
<b>Alara:</b>			

  
W/O-Task: 20499680-02 [BNP]

PREPARE AREAS & BLDGS FOR COLD WEATHER

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<b>RWP:</b>		<b>Dose Est:</b>	2
<b>Alara:</b>			



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## 1.0 PURPOSE AND SCOPE

Prepare various buildings for cold weather per the following work instructions.

For temporary power required for this PM task see PMRQ 27468-12.

## 2.0 PRECAUTIONS AND LIMITATIONS

Reference TE-MN-ALL-0800 as needed for electrical safety and arc flash protection..... ☐

Storage of combustible material is not allowed in the separation zones. Separation zone restrictions are enforced when the applicable unit is in modes 1, 2, or 3. .... ☐

Transient combustible material is allowed in the zones when work is in progress, material is not left unattended, and the material is removed when the responsible worker exits the separation zone. Reference AD-EG-ALL-1520, as needed for info. .... ☐

Reference 0AI-119 for using drop cords – all 120VAC drop cords must be equipped with GFCI protection. .... ☐

120VAC Heaters plugged into a convenience receptacle, must be equipped with a GFCI plug unless the receptacle is GFCI protected, or a GFCI protected drop cord is used..... ☐

Do not install radiant/infrared type heaters at SLC area (Reference AR 663151 and 734334-04) ..... ☐

For **Minimum Separation Distance** Reference AD-EG-ALL-1523 (Table 1) for temporary Force air Heaters installed in the power block..... ☐

## 3.0 SPECIAL INSTRUCTIONS

LOCATION: VARIOUS BUILDINGS, SEE INSTRUCTIONS.

Work instructions may be performed in any logical sequence, as needed as long as all steps are performed. .... ☐

If needed, coordinate with system engineer and/or Operations to resolve any conflicts..... ☐

Temporary heat trace for instrument lines should be “Self-Regulating” type Raychem 8BTv1 (or equivalent) unless otherwise stated. .... ☐

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### 3.0 SPECIAL INSTRUCTIONS (continued)

Temporary heat trace for Eye wash / safety showers should be "Self-Regulating" type Raychem 3BTV1 (or equivalent) unless directed otherwise by the I&E supervisor. .... ☐ ✓

Some Heaters are stored in RMCSB. Heaters for Intake Screens are in the cold weather storage building near the Stack. Contact IE1 for assistance with locating heaters. Additional heaters will need to be obtained by M/R if needed. Contact Planner if additional heaters are needed. .... ☐ ✓

The cloud point for the No. 2 diesel fuel oil used at BNP is calculated to be 23°F. At this temperature, crystals can form which can blind the fuel filters for operating equipment. Due to their relatively small volume, the Fire Pump Fuel Oil Tank and SAMA diesel fuel oil tanks require sheltering and Supplementary heating at 25°F to maintain operability. To avoid admission of these crystals to the 4-day Diesel Generator Tanks, the fill lines are isolated at 25°F. Engineering has determined that the 7-day tank will remain operable at this temperature due to its large volume and the tendency for the crystals to re-dissolve once admitted to the 4-day tank if tank filling becomes necessary. .... ☐ ✓

Per Pete Dorosko: supplemental heaters on OTV spray coolers and TB inlet plenum. Operating experience has demonstrated that supplement heating is not needed. There is enough warm air from the turbine deck even when outside temperatures are in the low teens. .... ☐ ✓

The clearance between the heat blower and stored materials shall be maintained at all times and in accordance with the clearances shown on the approval agency label or at least 3 feet (0.9m) in all directions. .... ☐ ✓

Temp power for equipment installed by the PM is performed by PMRQ 27468-12 .... ☐ ✓

Equipment can be installed in any order as long as all equipment is installed. .... ☐ ✓

### 4.0 EXPECTED ALARMS AND IMPACTS

None

### 5.0 PREREQUISITES

**Ensure** equipment is proper tagged, barricaded for safety, and protected from foreign material while in storage. .... ☐ ✓

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## 5.0 PREREQUISITES (continued)

**Coordinate** work with, Operations, temporary power crew, scaffold crew, and mechanics as needed..... ☐

Prior to entering the RCA, check with HP desk at the single point access also, review radiological survey information and / or contact the area HP for current radiological conditions and any other necessary requirements. .... ☐

## 6.0 WORK INSTRUCTIONS

### NOTE

This PM is in support of site preparation for cold weather, equipment staged or installed should remain in place during cold weather months. It will be removed in spring by PMRQ 27468-10. .... ☐

Thermometer placement is performed by the AO, contact the WCC if thermometers are not in place in areas where temporary heaters are installed. .... ☐

For Minimum Separation Distance Reference AD-EG-ALL-1523 (Table 1) for temporary Force air Heaters installed in the power block. .... ☐

**Install** temporary heating (high capacity blowers, lamps, etc.) installed at the following locations as indicated. .... ☐

### 6.1 U1 Reactor Building

See operator rounds in eSOMS.

#### 6.1.1 SLC Pump area

### CAUTION

Do not install radiant/infrared type heaters at SLC area (Reference AR 663151 and 734334-04) ..... ☐

Minimum separation distance from SLC equipment for Force Air Heaters is 3'-0" horizontal, 4'-0" vertical (NCR 02091736) ..... ☐

**Stage** (1) Fostoria 15KW / 480VAC 3Ø @ 18A (or equivalent) forced air heaters at SLC pump area..... ☐

**Ensure** temp power equipment is in place as needed to support installations, if not, contact the TEMP PWR group. .... ☐

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### 6.1.1 SLC Pump area (continued)

**Tag** equipment: "FOR USE FOR SLC FOR COLD WEATHER BILL – DO NOT REMOVE". ☒

**Ensure** equipment is tagged with contact information. ☒

**Verify** operation of heater. ☒

### 6.1.2 U/1 80' Supply Fan Room

(Reference: Drawing D-25030 Sh 2 and D-02058 Sh 3A).

**Verify** heat trace is in place on U/1 80' supply fan room piping as follows: ☒

• 1-WW-210-2-J-4 to valve 1-WW-V214. ☒

• 1-DW-312-1-L-1 to valve 1-DW-V289. ☒

• 1-DW-311-1-L-1 to valve 1-DW-V288. ☒

• 1-FP-237-2-J-2 to valve 1-FP-V1007 and 1-FP-V350. ☒

**Install** drop cord(s) for heat trace and route to outlet or temp power route as needed. ☒

**Ensure** cords do not pose a trip or safety hazard. ☒

**Connect** Heat Trace to power source and **verify** operation. ☒

**Initiate** a W/R to replace Heat Trace if **not** working. ☒

**Record** comments and actions taken concerning above installation:

NONE

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## 6.2 U2 Reactor Building

### 6.2.1 SLC Pump area

#### CAUTION

Do not install radiant/infrared type heaters at SLC area (Reference AR 663151 and 734334-04) .....



Minimum separation distance from SLC equipment for Force Air Heaters is 3'-0" horizontal, 4'-0" vertical (NCR 02091736) .....



**Stage** (1) Fostoria 15KW / 480VAC 3Ø @ 18A (or equivalent) forced air heaters at SLC pump area.....



**Ensure** temp power equipment is in place as needed to support installations, if not, contact the TEMP PWR group. ....



**Tag** equipment: "FOR USE FOR SLC FOR COLD WEATHER BILL – DO NOT REMOVE". ....



**Ensure** equipment is tagged with contact information.....



**Verify** operation of heater.....

*[Signature]*

### 6.2.2 U/2 80' Supply Fan Room

(Reference: Drawing D-02530 Sh 2 and D-02058 Sh 3A).

**Verify** heat trace is in place on U/2 80' supply fan room piping as follows:.....



• 2-WW-210-2-J-4 to valve 2-WW-V214.....



• 2-DW-312-1-L-1 to valve 2-DW-V289 .....



• 2-DW-311-1-L-1 to valve 2-DW-V288 .....



• 2-FP-237-2-J-2 to valve 2-FP-V1007 and 2-FP-V350 .....



**Install** drop cord(s) for heat trace and route to outlet or temp power route as needed.....



**Ensure** cords do not pose a trip or safety hazard. ....



**Connect** Heat Trace to power source and **verify** operation.....

*[Signature]*

**Initiate** a W/R to replace Heat Trace if not working.....



*N/A*

**Record** comments and actions taken concerning above installation:

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## 6.2.2 U/2 80' Supply Fan Room (continued)

NONE

## 6.3 Battery Rooms

### NOTE

Usually requested by OPS in extended periods of cold weather ..... ☒

This equipment will be staged in an approved satellite location outside of the Control Building; heaters and cables should be tagged and staged in the same satellite location, and dedicated only for this purpose, coordinate storage location with temp power group. .... ☒

**Stage** (1) Fostoria 15KW / 480VAC 3Ø @ 18A (or equivalent) forced air heaters for U/1 Battery Rooms in a satellite location: TPW Shop North End. UPSTAIRS ..... ☒

**Stage** (1) Fostoria 15KW / 480VAC 3Ø @ 18A (or equivalent) forced air heater for U/2 Battery Rooms in a satellite Location TPW Shop North End. UPSTAIRS ..... ☒

**Ensure** temp power equipment is in place as needed to support installations, if not, contact the TEMP PWR group ..... ☒

**Verify** operation of heaters..... ☒

**Ensure** there is a 480V splitter available for U/1 side. .... ☒

**Ensure** there is enough cable staged to run heaters from TEMP PWR supply to the applicable battery rooms. .... ☒

**Tag** equipment: "FOR USE IN BATTERY ROOMS FOR COLD WEATHER BILL – DO NOT REMOVE" ..... ☒

**ALSO tag** equipment with a warning that says: "PRESSURE SEAL WORK PERMIT, FIRE BARRIER PERMIT, AND CONTINUOUS FIRE WATCH REQUIRED BEFORE USING EQUIPMENT IN THE BATTERY ROOMS" ..... ☒

**Ensure** staging area is barricaded and tagged with contact information. .... ☒

**Record** comments and actions taken concerning above installation:

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**6.4 70' Control Building**

- Install** one forced air heaters in 70' Control Building HVAC room, near Air Compressors. .... ☒
- Use** Fostoria, 15KW 480VAC 3Ø @ 18 amps (or equivalent) heaters, if available. .... ☒
- Ensure** temp power request is in place as needed to support installations, if not, contact the TEMP PWR group. .... ☒
- Verify** operation of heater. .... ☒
- Ensure** there is enough cable staged to run heaters from outlet 2-M12 to each side of the HVAC room. .... ☒
- Tag** equipment and cables: "FOR USE IN 70' CTRL BLDG HVAC RM FOR COLD WEATHER BILL – DO NOT REMOVE". .... ☒
- Ensure** equipment is tagged with contact information. .... ☒
- Record** comments and actions taken concerning above installation:
- NONE

**6.5 Service Water Building**

- Install** (1) forced air heater in SW Bldg; (UNIT 1) on 4'. .... ☒
- Use** Fostoria 15KW / 480VAC 3Ø @ 18A (or equivalent) heater. .... ☒
- Install** (2) forced air heaters in SW Bldg; (UNIT 2) on 20'. .... ☒
- Use** Fostoria, 18KW, 208VAC 3Ø @ 50 amps (or equivalent) heaters. (Temp Pwr rack with transformer required), if available. .... ☒

See Note

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## 6.5 Service Water Building (continued)

### NOTE

Particular attention shall be given to the hose reel station on the 4' elevation and the hose reel stations and sprinkler system on the 20' elevation of the Service Water Building. The 18KW heaters on 20' can be set for 12KW if loading needs to be reduced. .... ☐ ✓

\* See Note

**Ensure** temp power request is in place as needed to support installations, if not, contact the TEMP PWR group. .... ☐ ✓

**Verify** operation of heaters. .... ☒ JF

**Ensure** there is enough cable staged to run heaters from outlet 1-MR5(U/1 4') and 2-MR5(U/2 20') to each required area of the SW bldg. .... ☐ ✓

**Tag** equipment: "FOR USE IN SW BLDG FOR COLD WEATHER BILL – DO NOT REMOVE". .... ☐ ✓

**Ensure** equipment is tagged with contact information. .... ☐ ✓

**Record** comments and actions taken concerning above installation:

\* used 15KW 480 Volt heaters Per Engineering Mark Thrailkill

## 6.6 CWIP Intake Structure

### 6.6.1 Traveling screens, indicators, and tubing

**Verify** there are (at least 12) 15KW (minimum) working force air heaters in the cold weather storage bldg. (1 for each CW / SW traveling screen). .... ☒ JF

**Tag** heaters "FOR USE ON TRVL SCRNS FOR COLD WEATHER BILL – DO NOT REMOVE". .... ☐ ✓

**Verify** heat trace is in place on 3/4" screen wash header instrument pipe to FISH WASH Header Pressure Indicators, 1-SCW-PI-286-1 1-SCW-PI-286-1A, 2-SCW-PI-286-1A, 2-SCW-PI-286-1A .... ☐ ✓

**Verify** Heat Trace is working. .... ☒ JF



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### 6.6.1 Traveling screens, indicators, and tubing (continued)

**Initiate** a W/R to repair or replace if Heat Trace is not working. ☐ *NA*

**Ensure** cords connecting HT do not pose a trip or safety hazard. ☐ *✓*

**Tag** cords "FOR USE ON TRVL SCRNS FOR COLD WEATHER BILL – DO NOT REMOVE". ☐ *✓*

### 6.6.2 Sodium Hypochlorite transmitters and tubing

**Verify** heat trace is in place on the 1/2" instrument tubing from the discharge pipe to discharge pressure gauges and pressure transmitters on each CWIP. ☐ *✓*

**Run** drop cords for heat trace on CWIP Sodium Hypochlorite tubing. ☐ *✓*

**Ensure** cords do not pose a trip or safety hazard. ☐ *✓*

**Connect** Heat Trace to power source. ☐ *✓*

**Verify** operation. ☐ *\* Note*

**Initiate** a W/R to replace or replace if Heat Trace is not working. ☐ *NA*

**Ensure** temp power request is in place as needed to support CWIP area installations, if not, contact the TEMP PWR group. ☐ *✓*

*\* Can't verify operation of heat trace until TPW is in place.*

### 6.7 Stores Warehouse

#### NOTE

This heater will be set up at south column near rollup door when needed. It can be staged at any convenient location in store warehouse, as long as stores personnel are made aware of the staging location. ☐ *✓*

**Stage** (1) forced air heater at Stores Warehouse and an area designated by Stores supervisor (or designee). ☐ *✓*

**Use** Fostoria 15KW / 480VAC 3Ø @ 18A (or equivalent) heater ☐ *✓*

**Tag** heater "FOR USE IN STORES FOR COLD WEATHER BILL – DO NOT REMOVE". ☐ *✓*

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**Ensure** temp power request is in place as needed to support heater in Stores area installations, if not, contact the TEMP PWR group. .... ☐

**Record** comments and actions taken concerning above installations:

\_\_\_\_\_  
\_\_\_\_\_

## 68 AOG Building

**Stage** 15KW forced air heater on AOG bldg roof for CAC tank. .... ☐

**Ensure** temp power request is in place as needed to support installations, if not, contact the TEMP PWR group. .... ☐

### NOTE




The following requirements were moved from PMRQ 5849 per PMR 478739, to this PM. .... ☐

**Check** permanent heaters located in CAD room and southwest airlock as follows: .... ☐

- **Inspect and clean** the CAD room fire hose station heater (NODE "H0J"); using small brush or compressed air. .... ☐
- **Verify** the thermostat 1-AOG-BLDG-SW-CONT-THRMST is set at 36 degrees Fahrenheit in panel (REF. F-36085, LL-90046 SHT. P206). .... ☒
- **Verify** operability of the heater, place the control switch (1-VA-CS-5328) in the "AUTO" position, and adjust the thermostat (set to 36 degree F) by raising the temperature setpoint using a small flat screwdriver .... ☒
- **Verify** the control switch 1-VA-CS-5328 on the back of the heater unit is in the "HEATER" position. .... ☒
- **Verify** setpoint on 1-AOG-BLDG-SW-CONT-THRMST is returned to 36 degree and control switch is in "AUTO". .... ☒
- **Inspect and clean** the AOG BLDG. S.W. fire hose station heater using small brush or compressed air. .... ☐
- **Verify** the thermostat is set at 36 degrees Fahrenheit in panel "HOP" for the AOG BLDG. S.W. fire hose station heater. (ref. F-36085, LL-90046 sht. P205) .... ☒

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### 6.8 AOG Building (continued)

- **Verify** operability of the heater, place the control switch (1-VA-CS-5329) in the "AUTO" position, and adjust the thermostat (set to 36 degree F) using appropriate tools. .... 
- **Verify** the control switch 1-VA-CS-5329 on the back of the heater unit is in the "HEATER" position. .... 
- **Verify** setpoint of 1-AOG-BLDG-SW-CONT-THRMST is returned to 36 degree and control switch is in "AUTO" ..... 


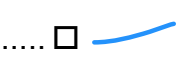




**Record** comments and actions taken concerning above installations:

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### 6.9 Make Up Water Treatment Building

- Install** forced air heater in the MWT near the Fire Pump. .... ☒ 
- Use** Fostoria, 30KW 480VAC 3Ø @ 36 amps (or equivalent) heater, if available. .... ☒ 
- Ensure** temp power is in place as needed to support installations, if not, contact the TEMP PWR group..... ☒ 
- Verify** operation of heater..... 
- Tag** equipment: "FOR USE ON FIRE PUMP FOR COLD WEATHER BILL – DO NOT REMOVE". .... ☒ 
- Ensure** equipment is tagged with contact information..... ☒ 

### 6.9.1 MWT Eye Wash/Safety Shower

#### NOTE

Only use enough heat trace to keep Eye Wash/Safety Shower above freezing.  
Excessive amounts of Heat Trace could cause water to be too hot for safe use..... ☒ 

- Verify** heat trace is in place on the Eye Wash/Safety Shower. .... ☒ 
- Run** drop cords for heat trace on Eye Wash/Safety Shower. .... ☒ 
- Ensure** cords do not pose a trip or safety hazard. .... ☒ 

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6.9.1 MWT Eye Wash/Safety Shower (continued)

**Connect** Heat Trace to power source. .... ☐ ✓

**Verify** heat trace is working..... ☒ ✓

**Initiate** a W/R to repair or replace if Heat Trace is not working..... ☐ NA

**Ensure** equipment is tagged with contact information..... ☐ ✓

**Record** comments and actions taken concerning above installations:

NONE

6.10 Diesel Fire Pump Fuel Oil Tank

**Install** forced air heater in Diesel Engine Fire Pump Fuel Oil Tank Room. .... ☐ ✓

**Use** Salamander, 30KW 480VAC 3Ø @ 36 amps (or equivalent) heater, If available. .... ☐ ✓

**Ensure** temp power is in place as needed to support installations, if not, contact the TEMP PWR group..... ☐ ✓

**Verify** operation of heater..... ☒ ✓

**Tag** equipment: "FOR USE ON FIRE PUMP FOR COLD WEATHER BILL – DO NOT REMOVE". .... ☐ ✓

**Ensure** equipment is tagged with contact information..... ☐ ✓

**Record** comments and actions taken concerning above installations:

NONE

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## 6.11 Storm Drain Basin Pump Area

### NOTE

Usually requested by OPS in periods of cold weather..... ☒

A tent will be needed for this installation..... ☒

**Install** forced air heater at the Storm Drain Basin Pump area. .... ☒

**Use** (1) Fostoria 15KW / 480VAC 3Ø @ 18A heater, if available, ..... ☒

**Ensure** temp power is in place as needed to support installations, if not, contact the TEMP PWR group..... ☒

**Verify** operation of heater..... ☒

**Tag** equipment: "FOR USE FOR STORM DRAIN PUMPS FOR COLD WEATHER BILL – DO NOT REMOVE". .... ☒

**Ensure** equipment is tagged with contact information..... ☒

**Record** comments and actions taken concerning above installations:

Heater STAGED in Sheet Metal Shop

## 6.12 Diesel Fuel Oil 4 Day Tank Fill Station

### NOTE

Engineering has determined that the 7-day tank will remain operable at this temperature due to its large volume and the tendency for the crystals to redissolve once admitted to the 4-day tank if tank filling becomes necessary..... ☒

Equipment should be staged in the Aux Boiler House if possible. If not, a satellite location can be used with concurrence of the WCC/SRO. .... ☒

Windbreak (installed by mechanics) required for this installation. .... ☒

**Obtain** a forced air heater for the DIESEL FUEL OIL 4 Day Tank Fill Station. .... ☒

**Use** Salamander, 30KW 480VAC 3Ø @ 36 amps (or equivalent) heater, if available, ..... ☒

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**Ensure** temp power is in place as needed to support installations, if not, contact the TEMP PWR group..... ☒

**Verify** operation of heater..... ☒

**Tag** equipment: "FOR USE ON DIESEL FUEL OIL FILL STATION FOR COLD WEATHER BILL – DO NOT REMOVE". ..... ☒

**Record** staging location of heater. Aux Boiler

**Ensure** equipment is tagged with contact information..... ☒

**Record** comments and actions taken concerning above installations:

Wind Break Not in Place at this time

### 613 Diesel Generator Building

#### NOTE

Equipment should be staged in the DG 50' area if possible. If not, a satellite location can be used with concurrence of the WCC/SRO. .... ☒

**Obtain** a 15KW forced air heater for use at DIESEL BLDG 50' fire hose station..... ☒

**Ensure** temp power is in place as needed to support installations, if not, contact the TEMP PWR group..... ☒

**Ensure** there is enough cable staged to run heater from hose station area to TEMP PWR supply..... ☒

**Verify** operation of heater..... ☒

**Tag** equipment: "FOR USE ON DG BLDG 50' FIRE HOSE STATION AREA FOR COLD WEATHER BILL – DO NOT REMOVE". ..... ☒

**Record** staging location of heater. South Side of Fire Station 50'

**Ensure** equipment is tagged with contact information. .... ☒

**Record** comments and actions taken concerning above installations:

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Cable staged in TPW CVAN

6.14 Warehouse "H" Deluge Valve House

- Install 500 watt quartz light. .... ☒ /
- Relamp fixture if reusing an old light. .... ☒ /
- Mount light in a safe and secure manner. .... ☒ /
- Verify operation of light. .... ☒ /
- Ensure installation does not pose a trip or safety hazard..... ☒ /
- Ensure equipment is tagged with contact information..... ☒ /

Record comments and actions taken concerning above installations:

NONE

6.15 Low Level Warehouse Deluge Valve House

- Install a 15KW forced air heater in the LOW LEVEL Warehouse Deluge Valve House. .... ☒ /
- Ensure temp power is in place as needed to support installations, if not, contact the TEMP PWR group..... ☒ /
- Verify operation of heater..... ☒ /
- Tag equipment: "FOR USE IN LLW WAREHOUSE FOR COLD WEATHER BILL – DO NOT REMOVE". .... ☒ /
- Ensure equipment is tagged with contact information..... ☒ /

Record comments and actions taken concerning above installations:

NONE

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### 6.13 Diesel Generator Building (continued)

### 6.16 Caswell Beach

#### 6.16.1 Deluge Valve House

- Install 500 watt quartz light. .... ☒
- Relamp fixture if reusing an old light. .... ☒
- Mount light in a safe and secure manner. .... ☒
- Verify operation of light. .... ☒
- Ensure installation does not pose a trip or safety hazard .... ☒
- Ensure equipment is tagged with contact information. .... ☒

#### 6.16.2 CWOD Lube Water System

##### NOTE

- Equipment should be staged in the Equipment Building if possible. If not, a satellite location can be used with concurrence of the WCC/SRO. .... ☒
- Tent or Wind blocking screens required. .... ☒

- Obtain a 15KW forced air heater for use at CWOD Lube Water pumps. .... ☒
- Ensure temp power is in place as needed to support installations, if not, contact the TEMP PWR group..... ☒
- Ensure there is enough cable staged to run heater from pump area to TEMP PWR rack. .... ☒
- Verify operation of heater..... ☒
- Tag equipment: "FOR USE ON CWOD LUBE WATER PUMP AREA FOR COLD WEATHER BILL – DO NOT REMOVE"..... ☒
- Ensure equipment is tagged with contact information..... ☒

#### 6.16.3 CWOD Lube Water Header Pressure Indicators

- Verify heat trace is in place on the CWOD LW Header Pressure Indicators Instrument Lines leading to pressure switch enclosure. (ref. D-02051 sh 1 & 2.)..... ☒
- 1-CW-PS-1131 ..... ☒



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- 1-CW-PS-1132..... ☒
- 2-CW-PS-1131..... ☒
- 2-CW-PS-1132 ..... ☒
- Run** drop cords for heat trace..... ☒
- Ensure** cord do not pose a trip or safety hazard. .... ☒
- Connect** Heat Trace to power source. .... ☒
- Verify** operation..... ☒
- Initiate** a W/R to repair or replace if Heat Trace is not working. .... ☒ *W/R*
- Ensure** equipment is tagged with contact information..... ☒

6/17 County Water Tank

6/17.1 2-WW-LIC-4234

**NOTE**

- Usually requested by OPS in periods of cold weather..... ☒
- A tent will be needed for this installation..... ☒

- Install** forced air heater at 2-WW-LIC-4234. .... ☒
- Use** (1) Fostoria 15KW / 480VAC 3Ø @ 18A heater, if available, ..... ☒
- Ensure** temp power is in place as needed to support installations, if not, contact the TEMP PWR group..... ☒
- Verify** operation of heater..... ☒ *OK*
- Tag** equipment: "FOR USE FOR 2-WW-LIC-4234 FOR COLD WEATHER BILL – DO NOT REMOVE". .... ☒
- Ensure** equipment is tagged with contact information..... ☒

**Record** comments and actions taken concerning above installations:

Tent NOT in Place at this time.

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6.16.2 CWOD Lube Water System (continued)

6.17.2 2-WW-LCV-4253

**NOTE**

Usually requested by OPS in periods of cold weather..... ☐

A tent will be needed for this installation..... ☐

**Install** forced air heater at 2-WW-LCV-4253. .... ☐

**Use** (1) Fostoria 15KW / 480VAC 3Ø @ 18A heater, if available, ..... ☐

**Ensure** temp power is in place as needed to support installations, if not,  
contact the TEMP PWR group..... ☐

**Verify** operation of heater..... ☐

**Tag** equipment: "FOR USE FOR 2-WW-LCV-4253 FOR COLD WEATHER  
BILL – DO NOT REMOVE". .... ☐

**Ensure** equipment is tagged with contact information..... ☐

**Record** comments and actions taken concerning above installations:

*Tent NOT in place at this time.*

6.18 TB MCP (Modular Chiller Plant) Chemical Storage Building

**NOTE**

Usually requested by OPS in periods of cold weather..... ☐

A tent will be needed for this installation..... ☐

**Install** heater in TB MCP Chemical Storage Building..... ☐

**Use** small space heater Cat ID 9220187159, ..... ☐

**Ensure** temp power is in place as needed to support installations, if not,  
contact the TEMP PWR group..... ☐

**Verify** operation of heater..... ☐

**Tag** equipment: "FOR USE FOR TB MCP CHEMICAL STORAGE  
BUILDING FOR COLD WEATHER BILL – DO NOT REMOVE". .... ☐

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**Ensure** equipment is tagged with contact information..... ☒

**Record** comments and actions taken concerning above installations:

\_\_\_\_\_  
\_\_\_\_\_

6.19 **CST to valve 2-CO-V5171 / 1-CO-V5172**

**Verify** heat trace is in place on line between 2-CO-V5171 and CST  
(Reference: Drawing FSP-02198 Sh 61) ..... ☒

**Verify** heat trace is in place on line between 1-CO-V5172 and CST  
(Reference: Drawing FSP-02198 SH0058)..... ☒

**Install** drop cord(s) for heat trace and route to outlet or temp power route  
as needed..... ☒

**Ensure** cords do not pose a trip or safety hazard. .... ☒

**Connect** Heat Trace to power source and **verify** operation..... ☒

**Initiate** a W/R to replace Heat Trace if not working..... ☒ N/A

**Record** comments and actions taken concerning above installation:

NONE

6.20 **Notifications and SRO verification**

**Notify** Planner if additional instructions are needed and assistance with  
parts and materials..... ☒ N/A

**Notify** WCC/SRO preparation for cold weather is complete and request  
his/her review and sign-off below: ..... ☒

• **WCC/SRO (or cognizant designee):**

◇ **Review** all areas where Supplemental Heat that was installed  
or staged by this task as documented above. .... ☒

◇ **Review** staging areas for Supplemental Heat equipment with  
I&E technician(s) and ensure areas are acceptable and  
comply with plant procedures..... ☒

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### 6.16.3 CWOD Lube Water Header Pressure Indicators (continued)

- ◇ **I&E has been notified** of any deficiencies or discrepancies that do not meet the requirements of eSOMS or other plant procedures and any deficiencies or discrepancies have been corrected.

#### NOTE

It is suggested that the WCC/SRO distribute information about temporary heaters and heater staging areas so that the appropriate Operation's personnel will be aware that heaters are in place and / or staged as needed. .... ☒

WCC/SRO: Adam Williams DATE 9/13/22

### 7.0 FOLLOW-UP ACTIONS

**Notify** supervisor of any discrepancies. .... ☒

**Initiate** a work request any repair damaged equipment. .... ☒

### 8.0 RECORDS

Individuals Initialing or Place Keeping Within Instructions, Record Name and Initials Below

Name (Printed/Signature)	Initials (Written)
<u>Adam Williams</u>	<u>AW</u>
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____
<u>John Gore</u>	<u>JG</u>

## Document Comments

Comment Type: **WO Completion**

Completed per work order instructions.

It might be a good idea to run this ticket and the temp power installation ticket concurrently to facilitate verifying the operation of the heaters and heat trace.

Tech John Gore and Danny Skipper

Sup Barry Sellers

No additional comments.

Supervisor Review Complete. Release to Records. Barry Sellers

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\*\*\*\*\* End of Quality Record \*\*\*\*\*

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