Mill Creek – Operations Cold Weather Winterization – Checklist:

Perform Winterization Procedures below as necessary:	**Initial**
Ensure all exterior doors are operational & secure	_____
Place covers over all Hotwell openings on the main floor	_____
Place covers over all stairwell openings on the main floor	_____
Open the boiler heat release doors to circulate heated air	_____
Open the boiler lower vestibule doors on each unit to introduce heated air to the mezz and basement areas	_____
Instrument/Station Air:	
Crack open low point drains & traps on Instrument & Station air piping systems (Ensure moisture is kept out of the systems)	_____
Crack open Station air supply connections at the Cooling Towers and WFGD systems	_____
Crack open air line drains on the Fly Ash Transfer system	_____
Isolate & Drain Cooling Tower water supply line for water truck	_____
Coal Feeders/Silos:	
Ensure adequate supply of air hoses and lances are in place for Units 1 & 2 Coal Feeders	_____
Ensure air vibrators associated with Units 3 & 4 Coal Silos are operational	_____
Ash Lines/Sump Piping:	
Ensure maintaining a flow of water through the Ash lines below 25°F	_____
Consider maintaining a flow of water through Sump pump discharge piping if temperatures become extremely cold (below 15°F)	_____
WFGD Storage Tank:	
Isolate & Drain make-up supply line to Storage Tank, when not in use	_____
Ensure at least 3 agitators are in service, if tank has adequate level	_____
Dump Tanks:	
Isolate & Drain make-up supply lines to Dump Tanks when not in use	_____
Utilize Make-up pumps to recirculate the Dump Tanks below 30°F	_____
Utilize Deaerator dump bypass to heat dump tanks as needed during extreme cold weather	_____
Verify the Demineralization Tank Supply Pump is in service & recirculating the flow	_____

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Screen House:

Consider continuous operation of the Screen Wash Booster Pump & the Traveling Water Screens_____

Run air jumper line to the Screen house _____

Crack open moisture trap associated with Station Air to Screen house
(Crack open air connection in Screen house & drain along south side of Bridge Walkway) _____

SCR Systems:

Crack open the Steam Bypass valves on Unit 3 & 4 Steam Coils prior to the inlet header & crack open the three steam coil traps _____

Cooling Towers:

Ensure Unit 2 Cooling Tower Quenching Water Blowdown Line is isolated and drained _____

Ensure Units 2, 3 & 4 Cooling Tower pump motor stators are blown out with instrument air when the Cooling Tower pump is removed from service _____

Monitor the Cooling Towers for ice buildup, if necessary lower the Cooling Tower Fan speed output to decrease the air flow _____

Maintain the Cooling Tower cold water temperature above 60°F, temps below this greatly increase the probability of tower icing _____

Fire System/City Water System:

Isolate City water to drinking fountains on boiler landings & drain supply lines
(Shutoff valve is on Landing 5) _____

Place any equipment that has the potential to freeze in the recirculation mode or left in service and that cannot be left in service or recirculated will be removed from service and drained _____

Maintain Fuel Oil inventory for Operations to use torpedo type space heaters to prevent equipment from freezing when the temperature inside the plant drops below freezing _____

Monitor outside air temperature and initiate, maintain winterization procedures (below 32°F) _____

Ensure availability of and maintain shovels and food _____

Ensure Units 1&2 Absorber Level Backup Service Water Line (12" Service Water Supply out of Unit 1) is isolated and drained when not in use during cold weather. Isolation is located behind Units 1&2 Plant Fly Ash Filter Separator and at the new WFGD where it intersects with the Clearwell Supply on the new pipe rack. _____

Cold Weather Winterization Efforts for 1-4 WFGD:

Building Preparation:

Verify installation of temporary structures (wind breaks) w/ heat lamps, ext. cords & GFI's.

1&2 WFDG Sample Sink area _____

4 WFGD Sample Sink area _____

Operations to shut off ABS Recycle Pump Room Vent Fans _____

Equipment: Rosebuds and propane tanks _____

Heat Trace:
I/E Verify that all Heat Trace circuits have been checked by I&E to be operational _____

In the event a Unit outage occurs during extreme cold weather conditions, operations should consider draining the following systems based on the length of downtime:

Boiler and Economizer (all drains) _____

NOTE: When a Unit is removed from service during cold weather, the boiler should be drained at 50 psi to ensure all boiler sections including the pendant and platen sections are drained or blown out.

Feedwater System (all drains) _____

Boiler Fill/Drain Piping _____

Condensate System (all drains) _____

Sealing Water Systems (Plant & Yard) _____

Deaerator Storage Tank _____

Boiler Feed Pump & Boiler Feed Pump Suction Header _____

Injection Water System _____

Water Coil Air Heater System (purge with air) _____

Hotwell _____

Ash Handling System, Ash Hoppers & Piping _____

Circulating Water System (Coolers) _____

Service Water System _____

Stator Cooling Water System (purge with air) and Make-up line _____

Heater Shell Drain System _____

Mist Eliminator Wash System _____

Snow Removal

Material Handling will be responsible for snow removal and ordering salt.

Material Handling contacts for Snow removal:

Don VanWinkle Cell [redacted] Home [redacted]

Derek Ferrell Cell [redacted] Work [redacted]

Fuel Oil

The Operations Support Supervisor is responsible for maintaining a safe #1 Fuel Oil tank level. The tank is located on the south side of the RO Building and is to be used as fuel for the space heaters.

Main Fuel Oil Supply Source – Southern Petroleum/Albert Oil Company [redacted]

- For alternate Fuel Oil Supply Source, contact Warehouse Supervisor [redacted]

Emergency Supplies

- 4 Wheel Drive Vehicle (Office Vehicle)
- Rosebuds
- Cots, Blankets
- It is recommended that employees keep their essential items such as medication, clothing, food snacks etc. in their locker to cover emergency situations.
- All Company trucks will be inspected no later than November 15th for needed items which include fire extinguisher, jacks, and lug wrenches.
- Emergency items will be inventoried and replenished no later than November 15th.
- The Emergency Winterization Response Team Leaders, or their designee, will be responsible for inventorying emergency supplies.

Reporting

- The Manager of each area will be responsible to ensure adequate coverage in the event the Winterization Emergency Plan is initiated.
- The Managers will be responsible to furnish a list of personnel on site to the Emergency Winterization Response Team Leaders. They must also coordinate the transporting of personnel to and from the Station in the event roads are impassable. The Emergency Winterization Response Team will transport personnel as the Managers dictate.
- Reporting for Winter Emergency, see attached list of employees in the zip codes closest to the plant, 40216, 40258, and 40272.

Cold Weather Preparation Action Dates

Activity	Date Completed	Responsible Person
Winter Operation Review Meeting	October 1st	Tim Parcell
Fuel Oil Heaters Serviced	October 1st	Tim Parcell
Replace Missing Insulation	October 1st	Rob Meadway
Unit List with Winterization Work Orders	October 1st	Jim McGowan
Service All Heat Trace	November 15th	Jim McGowan
Inventory and Order Sand & Salt	November 15th	Don VanWinkle
Inspect Company Vehicles for Emergency Items, Fire Extinguishers, Jacks & Lug Wrench, Fix-a –Flat	November 15th	Department Supervisors
Cover Turbine Room Floor Openings	November 15th	Tim Parcell
Winterize Vulnerable Transmitters & Instrumentation Not Needed For Service	November 15th	Jim McGowan
Update Emergency Phone List	December 1st	Senior Admin. Assist.
Winterize Roof Exhausters	December 1st	Jim McGowan
Implement Snow Removal Plan	Inclement Weather	Don VanWinkle
Initiate Coal Freeze Treatment	Inclement Weather	Don VanWinkle

Food & Supply Coordinator List:

Mill Creek General Managers' Senior Administrative Assistant

NOTE: Coordinate planned food & supplies pickup with all areas to minimize trips outside of the plant.