
	GILES CHEMICAL ~ PREMIER MAGNESIA		
	Company Procedure		
	Title: Salt Cooler Startup and Shutdown	Number: P12-PR-200-085	
	Owner: Patrick Owen	Revision: 01	
	Effective Date: 09/03/13	Page: 1 of 3	

1.0 Purpose

The purpose of this procedure is to describe how to properly startup and shutdown the Salt Cooler.

2.0 Scope

This procedure applies to the Salt Cooler at the Manufacturing Facility.

3.0 Responsibility

Lead Operator or designee will be responsible for this procedure.

4.0 Safety Considerations

Observe all Manufacturing safety requirements. Safety glasses and steel toed shoes are required at a minimum.

Safety is a condition of employment. Employees are not authorized to work in an unsafe manner and are prohibited from harming the environment of the facility or the community.

5.0 Materials/Equipment

N/A

6.0 Procedure

The Salt Cooler system blows cool air through the salt to cool it before packaging. The three components of the system are: 1. The Scrubber, 2. The Chiller, and 3. The Cooler. Each system needs to operate for the total system to work.



Start Up

A. Scrubber

1. Ensure the scrubber makeup valve is turned on so the scrubber can feed water.
2. Start the Scrubber Pump (CTRL6) by pressing the green start button on the drive panel.
3. Ensure the Scrubber Pump flow is greater than 77 gallons per minute.
4. Start the Exhaust Fan (CTRL1) by pressing the black start button on the drive panel.
5. Adjust the Blowdown Valve at the Scrubber Pump so that about 2.5 gallons per minute is going to the Mother Liquor Pot.

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B. Chiller

1. Open the creek valve and discharge valve so water can pass through the left-hand strainer.
2. Close the left-hand strainer clean out valve once water comes through it.
3. Open the right-hand strainer cleanout valve
4. Close the right hand strainer discharge and close the Creek Water inlet valve.
5. Open the Kuhno strainer and remove the basket.
6. Wash the basket clean in the hot well.
7. Replace the basket and close the Kuhno strainer.
8. Open the Creek water inlet and right hand strainer discharge.
9. Close valves to and from the left-hand strainer and open the clean valve on it.
10. Ensure all valves are open feeding Creek Water to the Chiller.
11. Start the Chiller Creek Pump (CTRL9) by pressing the green start button on the drive panel.
12. Outside, make sure some water is flowing from the Chiller creek return line.
13. At the Chiller, ensure the Evaporator Pump and Process pump switches are on.
14. Start the Chiller with the Master Start switch.
15. If an alarm sounds on startup, the alarm can be silenced by pressing the "Select" button.
16. The temperature can be adjusted by using the arrow keys; do not run the Chiller set point below 48 degrees.

C. Cooler

1. At MCC #3, start the Blue Conveyor, Screw to Cooler, and Screw from Cooler.
2. Start the Cooler Vibrator Drives (CTRL7 and CTRL8) at the same time by pressing the green buttons on the drive panel.
3. Ensure that the discharge weir is fully in the upright position.
4. Start the Cooler Fan (CTRL3) by pressing the black start button on the drive panel.
5. The Cooler air temperature is controlled by the arrow keys on the Cooler Supply Air Temp controller located on the Dryer/Cooler control panel.
6. Ensure the Cooler pressure drop gauge is reading between 6 and 9 inches.
7. Ensure the Cooler Vacuum gauge is reading 1.5 inches or less.
8. Start salt into the cooler by opening the Slide Gate on the main screw.



Shut Down

D. Chiller

1. Turn the Master Start switch to the off position.
2. Stop the Chiller Creek Pump (CTRL9) by pressing the red stop button on the drive panel.

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E. Cooler

1. Reverse the main dryer screw.
2. Close the Slide Gate from the main screw.
3. Wait until the salt into the Omnibelt slows to a trickle.
4. Drop the discharge weir down to "open".
5. When the salt slows again to a trickle, move the weir back to the upright position.
6. Stop the Cooler Vibrator Drives (CTRL7 and CTRL8) at the same time by pressing the red stop buttons on the drive panel
7. Stop the Cooler Fan (CTRL3) by pressing the red stop button on the drive panel.

F. Scrubber

1. Stop the Exhaust Fan (CTRL1) by pressing the red stop button on the drive panel.
2. Stop the Scrubber Pump (CTRL6) by pressing the red stop button on the drive panel.
3. Close the scrubber make up valve so the Scrubber tank won't flood.

7.0 Reference Documents

N/A

8.0 Change Information

Document review- updated format using new template and numbering system.

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