1.0 Purpose

To outline steps to clean out the Mass Flow Density Loops on Crystallizers #1, #2, and #3

2.0 Scope

This procedure applies to all manufacturing workers.

3.0 Responsibility

All

4.0 Safety Considerations

All safety glasses and appropriate safety apparel is to be worn at all times. This includes wearing the appropriate protection for working at heights above six feet and using the appropriate lockout devises for production equipment.

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 community.

5.0 Materials/Equipment

N/A

6.0 Procedure

These procedures should be conducted on the Density Loops every two hours to ensure proper operation on the Loops

Crystallizer #2 and Crystallizer #3

1. Quick connect the water connection to the density washout valve if not connected. Turn off Input valve on Density Loop going into crystallizer. Turn on Density Washout valve to wash water into the system.

2. Next ensure that density loop return valve is on. Make sure sample port is in the off position. Once washout of this portion is begun open sample port valve to full open position to ensure that line is washed out properly. Then return sample port valve to the off position.

3. While washing back into density loop return valve check Density on Flow meter to ensure that the density is close to 1.0.

4. Next turn Density Loop Return Valve to the off position and turn Density Loop Pump off using the start/stop button located between density loop for #2 and #3 Crystallizers.

5. Return Input valve to the open position to wash back into the crystallizer.

6. Next turn pump on using the start/stop button. Turn Density loop return valve to the open position and then at the same time cut the Input valve on going into the crystallizer and cut off the Density Washout valve to ensure pump will be working properly.

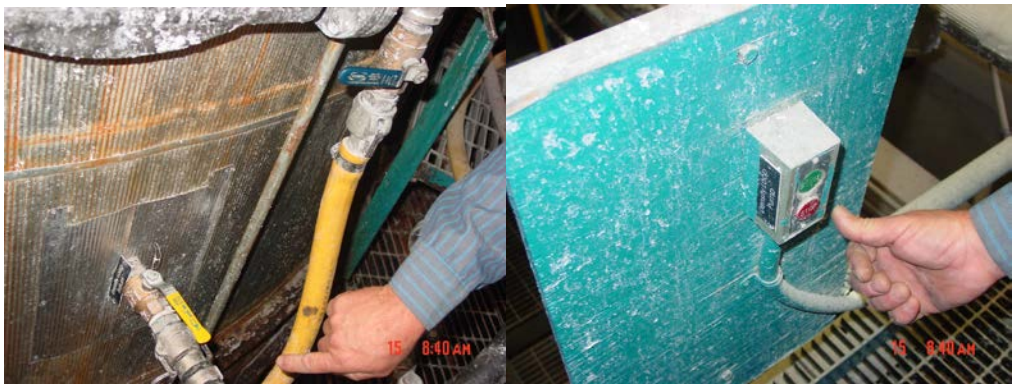
Crystallizer #1

1. Turn off Input valve going into crystallizer #1 and at the same time cut on Density washout valve to ensure wash water into the system.

2. Next ensure that density loop return valve is on. Make sure sample port is in the off position. Once washout of this portion is begun open sample port valve fully open to ensure that line is washed out properly. Then return sample port valve to the off position.

3. While washing back into density loop return valve check Density on Flow meter to ensure that the density is close to 1.0.

4. Next turn Density Loop Return Valve to the off position and turn Density Loop Pump off using the start/stop button located near Crystallizer #1.



5. Return Input valve to the open position to wash back into the crystallizer.

6. Next turn pump on using the start/stop button. Turn Density loop return valve to the open position and then at the same time cut the Input valve on going into the crystallizer and cut off the Density Washout valve to ensure pump will be working properly. Washout is complete.

7.0 Reference Documents

N/A

8.0 Change Information

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