Safety: Safety Shoes and Safety Glasses are required in the Production Area. Avoid touching hot surfaces around the heat exchanger.

Purpose or Objective: The purpose of this procedure is to use the remelt heat exchanger to aid in starting up a Crystallizer.

Procedure:

1. Fill Crystallizer with 1.33 brine as normal (see appropriate procedure).
2. Pull vacuum and let it cool to 30 C.
3. At remelt exchanger, connect Crystallizer #3 discharge to exchanger feed (open feed valve).
4. Close the exchanger sample and drain valves.
5. Open the valve to the PECO tank (on the right).
6. Start Brine into Crystallizer at 25 gpm.
7. Set the set point on the discharge control to 20.0 gpm.
8. Open discharge valve and let flow stabilize.
9. At exchanger, verify flow by opening the sample valve.
10. Fully open the condensate valve.
11. Open steam valve slowly (1/2 turn at a time) until temperature gauge reads 150 F.
12. When the density in the Crystallizer reaches 1.40, close the discharge valve and wash through the system.
13. Go to the exchanger, close the valve to the PECO tank, and open the valve to the brine feed tank (middle valve).
14. Close the wash water and open the discharge valve
15. Add about 5 gpm of Mother Liquor and reduce brine to 22 gpm or as needed to maintain level.
16. Continue running until crystals are large enough to dry well.
17. When ready for dryer, stop discharge and open washout.
18. Open Solids sample valve and close feed valve (to centrifuge but connected to exchanger).
19. Swap hose to Centrifuge.
20. Close the washout valve.
21. Open the discharge.
22. Close the sample and open the feed to centrifuge.
23. Check to ensure feed to centrifuge.
24. Close the steam valve.
25. Ensure washout and sample valves are open to drain the system.

TRAINING DOCUMENTATION

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