

GILES CHEMICAL COMPANY POLICY / PROCEDURE

85 Tons per Shift Production Rate

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Revision :

2/11/2009

Author: Patrick Owen

Job Specific Instruction

Personnel responsible:

1. All

Safety equipment:

Safety glasses and safety shoes, other safety equipment as needed for each situation encountered

Summary:

This document outlines the process parameters for making 170 tons of Crystal per day (85 tons per shift). It is a guideline, not an absolute since it is hard to predict every situation you may encounter. The key to running this process correctly is consistency – keep it running. Do not run hard and then shut down.

Procedure:

Raw Materials

1. Ensure a sufficient supply of MgO and Acid are in their respective storage tanks at all times.

Digesters

- 1. **Use both digesters** for making 85 tons.
- 2. Set MgO drive dials on 8.
- 3. Run about 40 gallons per minute of Mother Liquor (20 in each digester)
- 4. Aim for a Density of 1.384
- 5. Slow the Mother Liquor down if the density drops below 1.380.

Press

- 1. Kick the press off when the Mud Tanks get to 60%.
- 2. If needed set gpm shutoff to 40 gpm to get press productivity up. This shouldn't be necessary if you are turning both presses over.

Crystallizer

- 1. **Run all 3 Crystallizers** when making 85 tons per shift.
- 2. Feed 10 15 gallons per minute of Mother Liquor (4 to 5 gpm in each Crystallizer)
- 3. Keep solids below 160 if possible. Use more Mother Liquor if necessary.
- 4. Density should not exceed 1.44.
- 5. The discharge pump should run at 20 22 gallons per minute.
- 6. Adjust the brine feed if the level gets above 180 or below 150.
- 7. Run the vacuum set point at 0.85" Hg, close the automatic bleeder valve up top if you have to in warmer weather.

Dryers

- 1. Run salt temperatures at 32-35 degrees C. Do not exceed 35 C.
- 2. Dryer rotation should be set to 1350 on the dryer speed drives.



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TRAINING DOCUMENTATION

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Revision Number	Revision Date	Revision Author	Revision Description
00	2/11/2009	Patrick Owen	New Procedure