	GILES CHEMICAL		
	COMPANY POLICY / PROCEDURE		
	93 Tons per Shift Production Rate	Page : 1 of 3	Revision : 00 Date : 1/13/2010
	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 185 tons of Crystal per day (93 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 93 tons.
2. Set MgO drive dials on 8, or higher if Liquid Loads exceed 2 per day.
3. Run about 48 gallons per minute of Mother Liquor (24 in each digester)
4. Aim for a Density of 1.385
5. Slow the Mother Liquor down if the density drops below 1.380.

Press


1. Start the press 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 18 - 20 gallons per minute of Mother Liquor (6 to 7 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 23 – 25 gallons per minute.
6. Adjust the brine feed if the level gets above 180 or below 160.
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 33-37 degrees C. **Do not exceed 38 C.**
2. Dryer rotation should be set to 1350 on the dryer speed drives.

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TRAINING DOCUMENTATION

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