	<b>GILES CHEMICAL</b>		
	<b>COMPANY POLICY / PROCEDURE</b>		
	<b>30 Tons per Shift Production Rate</b>	Page : 1 of 3	Revision : 02 Date : 10/26/2009
	Author: <b>Patrick Owen</b>	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 60 tons of Crystal per day (30 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 one digester** for making 30 tons.
2. Set MgO drive dial on 6.
3. Run about 14 gallons per minute of Mother Liquor
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 1 Crystallizers** when making 30 tons per shift.
2. Feed 5-6 gallons per minute of Mother Liquor
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 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. One dryer may be sufficient for 30 tons per shift.
3. Dryer rotation should be set to 1350 on the dryer speed drives.

	<b>GILES CHEMICAL</b>		
	<b>COMPANY POLICY / PROCEDURE</b>		
	30 Tons per Shift Production Rate	Page : 2 of 3	Revision : 02
	Author: Patrick Owen	Date : 10/26/2009	
		Job Specific Instruction	

## TRAINING DOCUMENTATION

	EMPLOYEE	TITLE	SIGNATURE	DATE
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**GILES CHEMICAL**  
**COMPANY POLICY / PROCEDURE**

**30 Tons per Shift Production Rate**

Page : 3 of 3

Revision : 02  
Date : 10/26/2009

Author: **Patrick Owen**

Job Specific Instruction

Revision Number	Revision Date	Revision Author	Revision Description
00	8/21/2006	PLO	New Procedure
01	6/5/2009	PLO	Updated for new format and level control
02	10/26/2009	PLO	Updated Mother Liquor from 4-5 to 5-6 gpm