
	GILES CHEMICAL ~ PREMIER MAGNESIA		
	Company Procedure		
	Title: Crystallizer Operation	Number: P12-PR-200-026	
	Owner: Patrick Owen	Revision: 3	
	Effective Date: 5/13/13	Page: 1 of 2	

1.0 Purpose

This procedure outlines the running of the Crystallizer by only making small adjustments at a time.

2.0 Scope

This procedure applies to all manufacturing workers.

3.0 Responsibility

Lead Operator, Material Handler

4.0 Safety Considerations

Safety shoes and safety glasses are required when working in, on, or around the crystallizers.

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

Crystallizer operation is simple under most circumstances, usually just monitoring the parameters and making small adjustments to the flows. It takes a very long time to make a large change to a crystallizer, so care should be taken so as not to try to change things too quickly. Small adjustments are the key.

1. Normal operation (the limits are on the log sheets, and the other specifications are on the Standard Operating Conditions for each tonnage):
 - a) Operators regularly check and record the following in the log:
 - b) brine feed rate
 - c) brine feed specific gravity
 - d) Fine Salt loop is operating
 - e) brine tank level;
 - f) mother liquor feed rate
 - g) mother liquor tank level;

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- h) Crystallizer body temperature
- i) Crystallizer contents specific gravity
- j) level of contents in Crystallizer

2. Correcting the Process:

- a) If the level gets too high, increase the speed of the discharge pump or slow the feed of brine and mother liquor.
- b) If the level gets too low, decrease the speed of the discharge pump or increase the feed of brine and mother liquor.
- c) If the specific gravity or solids reading gets too high, increase the mother liquor ratio to brine, keeping the total gpm the same.
- d) If the specific gravity or solids reading gets too low, decrease the mother liquor ratio to the brine, keeping the total gpm the same.
- e) If the temperature goes high or low, technical assistance may be needed.

7.0 Reference Documents

N/A

8.0 Change Information

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

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