

GILES CHEMICAL ~ PREMIER MAGNESIA

Company Procedure

Title: Mother Liquor Management Number: P12-PR-200-014

Owner: Patrick Owen Revision: 2

Effective Date: 05/13/13 Page: 1 of 2



1.0 Purpose

The purpose of this procedure illustrates how to properly supervise the management of the Mother Liquor. The Mother Liquor is a mandatory agent needed for proper cooling at high production rates.

2.0 Scope

This procedure applies to all manufacturing workers.

3.0 Responsibility

All

4.0 Safety Considerations

Safety glasses and steel-toed shoes.

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

In some ways Mother Liquor may seem like a useless byproduct of the Crystallization process, but it is crucial to production in the Digesters. Mother Liquor has to be either produced in or recycled to the Digesters. Also, cooling at high production rates is nearly impossible without Mother Liquor. The following are some guidelines for managing Mother Liquor in the Giles process.

Liquid Loads:

- 1. Never load Liquid product from the Mother Liquor Tank unless no other source is available. (Must Check with Production Management before using)
- 2. Mother Liquor that has overflowed to the Peco Tanks should be used in a Liquid Load or pumped back to the Mother Liquor Tank as soon a possible.



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Digesters:

- 1. Start with about half as much Mother Liquor on the Digesters as the total feed to the Crystallizers. (For instance the Crystallizers have 30 gallons of Brine and 5 gallons of Mother Liquor, then start with about 17.5 gallons of Mother Liquor in the Digesters)
- 2. Adjust the Mother Liquor feed to the Digesters up or down to keep the Mother Liquor Tank level constant.

7.0 Reference Documents

N/A

8.0 Change Information

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