

# GILES CHEMICAL ~ PREMIER MAGNESIA

**Company Form** 

Title: Digester Start Up Number: G18-PR-200-001

Owner: Joe Phillips Revision: 00

Effective Date: 02/28/18 Page: 1 of 2



### 1.0 Purpose

This procedure is intended to be a step by step instructional guide to starting up and running the digesters. It will also list the acceptable parameters of both density and Ph of all digesters.

### 2.0 Scope

This procedure applies to the following equipment:

- MgO rotary valve, screw and bucket elevator
- MgO mixing pot
- Acid tanks
- Digesters 1-4

# 3.0 Responsibility

Lead Operator, Material Handler, Assistant Operator

# 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

- 1) Ensure that the acid tank that you're pulling from is pressurized and that the blocking valve at tank is open. Please refer to document "Acid Tank Operation" for a detailed description the process.
- 2) Turn on water to the mixing pot. There are two water valves for the mixing pot. The first is located on top of digester #1 and should be opened all the way. The second water valve is located on top of digester #2 and should be opened up ½ way.
- 3) Turn on mixing pot agitator.
- 4) Turn on the switch for the screw/elevator.

#### Controlled Document



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- 5) Turn the switch for desired rotary valve to the forward position. The set point is generally set around 70 but can be adjusted to help control the density and reaction in the digesters.
- 6) Take the two Ph probes that are sitting in solution on top of digester #3 and place them in the spillways from digester #1 and digester #2.
- 7) Check the Ph setpoint for the probes at the control panel beside the office. The set points generally run 4.2 on digester #1 and 5.2 on digester #2. These set points can be adjusted as needed to control the reaction inside the digesters.
- 8) After product has heated up you may add water to the digesters as necessary. Water will help to control the reaction inside the digesters as well as help regulate the densities in each digester.
  - a. Digester #1 runs at 1.330-1.370 Ph set point is 4.2
  - b. Digester #2 runs at 1.280-1.340 Ph set point is 5.2
  - c. Digester #3 runs at 1.320 and Ph is between 4-6
  - d. Digester #4 runs at 1.320 and Ph is between 5-6

### 7.0 Reference Documents

N/A

### **8.0 Change Information**

New Document