

GILES CHEMICAL CORPORATION		
COMPANY PROCEDURE		
Standard Operating Procedure	Page : 1 of 3	Revision : Date : 12/1/2005
Author: Patrick Owen	Title: (00) Starting and Stopping the Digesters	

**Personnel responsible:**

1. Lead Operator, Material Handler

**Safety equipment:**

Safety glasses and safety shoes. Sulfuric acid is in use, take necessary precautions to prevent contact.

**Summary:**

Starting and Stopping the Digesters is a routine occurrence. However, starting the Digesters can cause problems if MgO is started before the Digesters are acid. The MgO can form "rocks" of oxysulfate cement which can cause the circulation loop to stop.

**Procedure:**

1) STARTING A DIGESTER

- a) Check that the circulating line is operating, the pH meter is reading properly, and the agitator is on.
- b) Open the Mix Pot Water Supply valve. Check for water going into the mix pot.
- c) Open the Acid Control Shutoff valve.
- d) Wait until the pH in the primary digester goes below 5.00 before starting the MgO.
- e) On the #2 Side, Start the Short MgO Screw and the Long MgO Screw.
- f) Turn the MgO Feed Drive switch on and adjust the dial as needed
- g) Check to see that the MgO is flowing into the mix pot.
- h) Open the Density Control Shutoff valve.
- i) Slightly open the Mother Liquor Feeder valve.
- j) Close the Mother Liquor Recirculation valve and adjust flow with the Mother Liquor Feeder valve to about half of the TOTAL feed to the Crystallizer (15-20 gpm).

2) SHUTTING DOWN A DIGESTER

- a) Open the Mother Liquor Recirculation valve.
- b) Close the Mother Liquor Feeder valve.
- c) Stop the MgO Feed Drive.
- d) On #2 Side, stop the Short MgO Screw and the Long MgO Screw.
- e) Close the Acid Control Shutoff valve.
- f) Allow the liquid in the mix pot to clear up.
- g) Close the Mix Pot Water Supply valve.
- h) Close the Density Control Shutoff valve.

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## REVISION HISTORY

<u>Revision Date</u>	<u>Revision Number</u>	<u>Revision Description</u>
<b>2/6/06</b>	<b>0</b>	<b>New Document</b>

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**TRAINING DOCUMENTATION**

	EMPLOYEE	TITLE	SIGNATURE	DATE
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