

GILES CHEMICAL CORPORATION		
COMPANY PROCEDURE		
Standard Operating Procedure	Page : 1 of 2	Revision : 9/9/2005 Date :
Author: Patrick Owen	Title: (00) Starting Salt Side Digester from Empty	

**Personnel responsible:**

1. Lead Operator

**Safety equipment:**

Safety glasses and safety shoes.

**Summary:**

Start the brine making process from an empty digester by filling it with water or mother liquor and feeding raw materials.

**Procedure:**

1. Fill digester approximately 50% full with water or mother liquor:
  - a) Ensure all valves on the bottom of the digester except the circulation line are closed
  - b) If mother liquor tank is over 66% full, fill with mother liquor by opening mother liquor valve to digester fully and ensuring the mother liquor recirculation valve is closed.
  - c) If mother liquor tank is less than 66% full, fill digester with water by opening the water valve near the hose and possibly using the hose as well.
  - d) Fill digester to approximately 50% full or at least 2 feet above the bottom agitator blades.
  - e) Stop mother liquor or water addition.
2. Start the circulation pump.
3. Begin Sulfuric Acid delivery:
  - a) Open manual valve to the automatic valve
  - b) If the pH is above 3.5 the automatic valve should open
  - c) Check acid line for acid flow. The pH should begin to drop.
  - d) Verify meter pH reading with pH paper.
  - e) Do not proceed with adding MgO until the pH is 5.5 or less.

**Warning – Starting the MgO feed before the pH is 5.5 or less causes formation of oxysulphate cement clumps that can clog the circulation pump.**

4. Begin addition of MgO to the digester:
  - a) Fill MgO pot with water and turn on mixer
  - b) Start the rotary valve feed under the hopper and set feed dial on “7”.
  - c) Make sure the vibrator is running to insure proper MgO delivery.
  - d) Check to see that MgO is flowing properly into pot
5. Monitor density and pH. Once density reaches 1.38, mother liquor may be added to control the density.

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### REVISION HISTORY

<u>Revision Date</u>	<u>Revision Number</u>	<u>Revision Description</u>
9/9/05	0	New Document