Personnel responsible:

1. All

Safety equipment:

Safety glasses and safety shoes, other safety equipment as needed for each situation encountered

Summary:

This document outlines the process parameters for making 140 tons of Crystal per day (70 tons per shift). It is a guideline, not an absolute since it is hard to predict every situation you may encounter. The key to running this process correctly is consistency – keep it running. Do not run hard and then shut down.

Procedure:

Raw Materials

1. Ensure a sufficient supply of MgO and Acid are in their respective storage tanks at all times.
2. Use no more than 25% Baymag MgO to ensure that the press will run.

Digesters

1. **Use 2 digesters** for making 70 tons (assuming liquid tons average 25 per day)
2. Set MgO drive dials on or near "7".
3. It is much better to run a "7" consistently, than to run "10" for a while and have to shut down.
4. Run about 29 gallons per minute of Mother Liquor (about 14 in each digester)
5. Aim for a Density of 1.380.
6. Slow the Mother Liquor down if the density drops below 1.370.

Press

1. Kick the press off when the Mud Tanks get to 60%.
2. Set gpm shutoff to 40 gpm to get press productivity up.
3. You may need to press some mud through the small press to keep brine.

Crystallizer

1. **Run 2 Crystallizers** when making 70 tons per shift (preferably #2 and #3)
2. Feed 49-50 gallons per minute of Brine (24-25 in each Crystallizer)
3. Feed 9-10 gallons per minute of Mother Liquor (about 5 gpm in each Crystallizer)
4. Keep solids below 160 if possible. Use more Mother Liquor if necessary.
5. Density should not exceed 1.44.
6. Keep discharge pump running as fast as needed to maintain the level.

Dryers

1. Run salt temperatures at 34-37 degrees C. **Do not exceed 38 C.**
2. Dryer rotation should be set to 1350 on the dryer speed drives.