**Personnel responsible:**

Quality Associate

**Purpose or Objective:**

To describe procedure for granting Quality approval for incoming raw materials**.**

**Procedure:**

1. Open daily the Raw Material Inventory spreadsheet at N:\EngineerOps\RXR & Raw Material\Raw Material.
2. Identify railcars in which COA’s are available.
3. Review COA’s for identified railcars

3a) For Sulfuric Acid COA’s go to N:\EngineerOps\RXR & Raw Material\Raw Material\Acid Paper Work

3b) For MgO COA’s go to N:\EngineerOps\RXR & Raw Material\Raw Material\MgO Paper Work

1. Record information on the following forms:

4a) For Sulfuric Acid use form QA-14-F1.

4b) For MgO use form QA-14-F2.

1. Check to see if railcar is within control limits and specifications.

5a) Control Limits for Sulfuric Acid are as follows

* Strength (H2SO4 %)Lower Control Limit is 92.00%
* Clarity @ 500NM Lower Control Limit is 80.00%
* Chlorides Upper Control Limit is 10 ppm
* Color Upper Control Limit is 40.00
* Iron Upper Control Limit is 7.50 ppm

5b) Specification Limits for Sulfuric Acid are as follows

* H2SO4  Lower Specification Limit is 93.20%
* Upper Specification Limit is 95.00%
* Clarity @ 500NM Lower Specification Limit is 80.00%
* Chlorides Lower Specification Limit is 0 ppm Upper Specification Limit is 10 ppm
* Color Upper Specification Limit is 50.00
* Iron Upper Specification Limit is 50 ppm

5c) Control Limits for MgO are as follows

* -200 mesh Lower Control Limit is 56.00% Upper Control Limit is 87.00%
* CaO Upper Control Limit is 4.00%
* Insoluble Lower Control Limit is 1.60% Upper Control Limit is 2.50%
* LOI Upper Control Limit is 5.00%
* MgO Lower Control Limit is 92.50%
* R2O3 Upper Control Limit is 1.20%
* Sulfur Upper Control Limit is 0.50%
* Bulk Density Lower Control Limit is 57lbs/cu ft Upper Control Limit is 73lbs/cu ft
* Reactivity Upper Control Limit is 31 degrees

1. If any railcar is out of specification limits, it is automatically rejected.
2. If any railcar is out of control limits, it is recorded in O.O.C Railcar

Log book. Log book is reviewed by the Process Engineer, who will determine further action.

**Forms:** QA-14-F1, QA-14-F2

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| Revision  Number | Revision  Date | Effective  Date | Revision  Author | Quality  Approval | Production Approval | Revision Description |
| 00 | 8/20/2012 | 8/21/2012 | Louis Martin/Ashley Williams | Deborah Durbin | Jason Bumgarner | New Document |
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