



# Florida Department of Environmental Protection

Southwest District  
13051 N. Telecom Parkway  
Temple Terrace, Florida 33637-0926

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

## **PERMITTEE:**

Chemical Lime Company  
P.O. Box 10448  
Brooksville, Florida 34603

**FINAL Permit Nos.:** 1050125-006-AO<sup>1</sup>  
1050125-007-AC<sup>2</sup>

**County:** Polk

**Effective Date:** 12/07/2007

**Expiration Date:** 05/12/2011<sup>1</sup>  
01/31/2008<sup>2</sup>

**Project:** Lime Storage and Transfer Facility

These permits (one document) are issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 62-204, 62-210, 62-212, 62-213, 62-296, 62-297 & Chapter 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the Florida Department of Environmental Protection.

The construction permit revision (1050125-007-AC) includes additional requirements limiting silo loading and unloading operations to the smallest grade of lime at which the facility has conducted compliance testing. Operation at smaller grades of lime is prohibited until additional compliance testing is completed. A revised particulate matter emission limit and revised performance parameter recordkeeping requirements are also included. (*Note: Specific Conditions revised from the initial construction permit are indicated by an italicized Permitting Note to that effect placed below the condition.*)

The operation permit revision (1050125-006-AO) incorporates the construction permit modifications into the current operation permit and authorizes the operation of associated equipment and necessary activities for the storage and transfer of lime. The permitted emission units are described below:

## **Emission Units (Description)**

**Emission Unit ID No. 001:** Railcar / Truck Unloading to Storage Silos - consists of material transfer from the railcar/truck drop shed to either of two (2) storage silos. Different grades of lime are gravity "dropped" from either rail cars or trucks onto a conveyor system. A bucket elevator transfers lime from the conveyor directly into one storage silo, or alternatively to another conveyor feeding the second silo. Silos are vented to the common central baghouse, a Mix USA, Inc. Model No. SEBH.975.15, which has three (3) pickup points along the enclosed conveyor/elevator system. The capacity of the conveying system is 75 tons per hour (TPH). Fugitive particulate emissions in the drop shed area constitute the bulk of particulate emissions at this facility. The open ends of the shed are covered with vinyl curtains for control of particulate emissions.

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**Emission Unit ID No. 003:** Pneumatic Truck Unloading to Storage Silos - consists of pneumatic material transfer from trucks staged in the offload/onload area into either of the two (2) silos. All emissions are controlled by the common central baghouse.

**Emission Unit ID No. 004:** Truck Loading from Storage Silos - consists of material transfer from either storage silo to trucks staged in the offload/onload area. Material is gravity fed from either silo into a parked truck through a telescoping chute. The chute is constructed as a “pipe within a pipe” which allows displaced air and particulate matter (80% estimated capture) to be directed from the truck storage compartment to the common central baghouse. Fugitive particulate emissions also occur from truck loading (estimated at 20% of total).

**Title V Permitting Note:** *Based upon the limitations contained in Specific Condition No. 5 and the necessity of control devices to avoid Title V permitting thresholds, this plant is considered a Synthetic Minor, Non-Title V Source in accordance with the definition given in Rule 62-210.200 F.A.C.*

Attachments to these permits:

*ATTACHMENT 1 - General Conditions*

**Facility Information Summary**

**Location:** Highway 676, Nichols, Polk County, Florida

**UTM Coordinates:** Zone 17 – 397.8 km East      3084.4 km North

**Latitude:** 27° 52’ 51”      **Longitude:** 82° 02’ 17”

**Facility ID No.:** 1050125

**PERMITTED EMISSION UNITS**

<b>E.U. ID No.</b>	<b>Description</b>
001	Railcar / Truck Unloading to Storage Silos
003	Pneumatic Truck Unloading to Storage Silos
004	Truck Loading from Storage Silos

**EMISSION SOURCES/ACTIVITIES EXEMPT FROM PERMITTING:**

<b>Emission Source</b>	<b>Exemption</b>
Porta-Batch Units	Rule 62-210.300(3)(b), F.A.C.

*(Permitting Note: Porta-batch units are loaded pneumatically from trucks where lime enters the vessel underwater, or from the storage silos via a transfer pipe. When loaded from the silos, the facility will have the vessel hatch closed (per reasonable precautions) thereby eliminating virtually all particulate emissions.)*

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**Note:** Please reference the Facility Name, Permit Nos., Facility ID and Emission Unit ID No. in all correspondence, test report submittals, applications, etc.

**Permit History:**

Replaces Air Operating Permit 1050125-005-AO  
Modifies Air Construction Permit 1050125-004-AC

**SPECIFIC CONDITIONS:**

1. **General Conditions** - A part of these permits is the attached General Conditions.  
[Rule 62-4.160, F.A.C.]
2. **Other Requirements** - Issuance of these permits does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapters 62-204, 62-210, 62-212, 62-213, 62-296, 62-297 and 62-4, or any other requirements under federal, state or local law.  
[Rule 62-210.300, F.A.C.]

**Operation and Emission Limitations**

3. **Operating Hours** - The emission units are permitted for continuous operation (i.e., 8760 hours/year).  
[Rule 62-210.200, F.A.C. (Definitions - Potential to Emit); Construction Permit 1050125-004-AC]
4. **Operational Limits** - Facility Emission Units are limited as shown below.
  - A. **Facility**
    1. The maximum unloading rate to facility storage silos (via all unloading points and methods) shall not exceed 200,000 tons per any consecutive 12-month period.
    2. The maximum loading rate from facility storage silos to trucks shall not exceed 200,000 tons per any consecutive 12-month period.
  - B. **Emission Unit 001** - Silo loading via the conveyor/elevator system shall not exceed 75 TPH.
  - C. **Emission Unit 003** - Pneumatic unloading from trucks to silos (TPH) shall be limited in accordance with the transfer rate during the visible emissions compliance test. (*See Specific Condition Nos. 15 and 16*).
  - D. **Emission Unit 004** - Loading of material is limited to “closed” trucks only.

[Rule 62-210.200, F.A.C. (Def. “Potential to Emit”); Construction Permits 1050125-002-AC and 1050125-004-AC]

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5. **Reasonable Available Control Technology (RACT) Applicability** - The emission units are subject to the general provisions of Particulate Matter RACT and the source category rules for “Materials Handling, Sizing, Screening, Crushing and Grinding Operations” where applicable. (*See Specific Condition Nos. 6 and 15*)

[Rules 62-296.700 and 62-296.711, F.A.C.; Construction Permit 1050125-004-AC]

6. **RACT Emission Limits\*** - Emissions from the common central baghouse shall not exceed the following (based on a flow rate of 5,875 dscf/min):

<u>Pollutant</u>	<u>Emission Limitation</u>		
	<u>lbs/hr</u>	<u>tons/yr</u>	<u>grains/dscf</u>
Particulate Matter	1.51	6.62	0.03
Visible Emissions	None (Visible emissions less than or equal to five percent (5%) opacity)		

[Rules 62-4.070(3), 62-296.700 and 62-296.711, F.A.C.; Construction Permits 1050125-004-AC and 1050125-007-AC; Operation Permit 1050125-005-AO Application dated July 12, 2006]

*(\*Permitting Note: This condition revises the emission limits from the previous construction permit.)*

7. **Visible Emissions** – Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Rule 62-297.401, F.A.C.  
[Rules 62-296.320(4)(b)1, 62-296.320(4)(b)4 and 62-297.401, F.A.C.]

8. **Baghouse Visible Emission Limit** - Due to the expense and complexity of conducting a stack test on a minor source of particulate matter, and because a baghouse is used as the emission control devices, the Department, pursuant to the authority granted under Rule 62-296.711, F.A.C., hereby establishes a visible emission (VE) limitation not to exceed an opacity of five percent (5%) from the control device (baghouse) in lieu of a particulate stack test. Should the Department have reason to believe the particulate emission standard is not being met, the Department shall require that compliance with the particulate emission standard be demonstrated by the applicable test method specified in the applicable rule.

[Rule 62-296.711(3)(c), F.A.C.]

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9. **General Standards: Objectionable Odor** - No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An objectionable odor is any odor present in the outdoor atmosphere, which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.  
[Rules 62-210.200 (Definition "Objectionable Odor") and 62-296.320(2), F.A.C.]

10. **General Standards: Unconfined Particulates** - All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provisions in Rule 62-296.320, F.A.C. These provisions are applicable to any source, including but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility shall include, but not be limited to the measures shown below.

- A. Loading of porta-batch units from storage silos shall be conducted with moisture hatches closed. Once fully loaded these hatches can be restored to the normal open position.
- B. Both open sides of the railcar/truck unloading shed shall be equipped with vinyl curtains. These curtains shall extend from the top of the structure to ground level. Unloading of railcars/trucks from this area shall not be done without the vinyl curtains in place.
- C. During truck loading operations from the storage silos, any gaps between the loading chute and the truck shall be covered. In addition, the loading chute should extend into the truck cargo area where possible.
- D. Application of water to unpaved roads, yards, open stock piles and similar emission areas, when necessary to suppress emissions.
- E. Removal of particulate matter from roads and other paved areas under the control of the permittee to prevent re-entrainment, and from buildings or work areas to prevent particulate from becoming airborne.
- F. Enclosure or covering of conveyor systems.
- G. Curtailing of operation if winds are entraining unconfined particulate matter.
- H. Posting of vehicle speed limits.
- I. Landscaping or planting of vegetation.
- J. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.

[Rules 62-4.070(3) and 62-296.320(4)(c), F.A.C.; Construction Permit 1050125-004-AC]

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**11. Fugitive Emissions Opacity Standard** - In order to provide reasonable assurance that the precautions and practices taken at the facility are adequate; emissions from all sources of unconfined particulate matter should not exceed five percent (5%) opacity. If the five percent (5%) opacity (indicator value) is exceeded, it will not be a violation in and of itself, but an indication that additional control precautions and/or practices beyond those outlined in Specific Condition No. 10 may be necessary.  
[Rule 62-4.070(3), F.A.C.]

**12. Circumvention of Control Equipment** - The permittee shall not circumvent any air pollution control device or allow the emissions of air pollutants without the applicable air pollution control device (baghouse) operating properly. Increasing the volume of any exhaust stream for the purpose of reducing stack exhaust concentrations is forbidden. This includes allowing dilution air to enter the system through leaks, open vents, or similar means.  
[Rules 62-210.650 and 62-296.700(5), F.A.C.]

### **Compliance Testing and Monitoring**

**13. Compliance Testing Schedule** - The common central baghouse shall be tested for visible emissions on an annual basis between October 1<sup>st</sup> and September 30<sup>th</sup> (once per Federal Fiscal Year).  
[Rules 62-4.070(3) and 62-297.310(7)(a) 4., F.A.C.]

**14. Test Reports** - The permittee of an air pollution emissions unit, for which compliance tests are required, shall file a report with the Air Compliance Section of the Department's Southwest District Office on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after each test is completed. The test report submittal shall meet all applicable requirements of Chapter 62-297, F.A.C. Specifically, the reports shall provide the following information (where applicable) from the test period:

- A. input and/or output material transfer rate to/from each of the two (2) Storage Silos;
- B. grade of lime being transferred; and
- C. average pressure drop across the common central baghouse during the test run.

[Rules 62-4.070(3) and 62-297.310, F.A.C.]

**15. Test Methods and Procedures** - The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-204.800(8)(e), F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.  
[Rule 62-296.711(3), F.A.C.]

**16. Silo Test Operation Rate\*** - The permittee shall conduct visible emissions testing while loading the storage silos at a rate that is representative of the worst-case particulate loading on the common central baghouse as listed below.

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- A. One storage silo shall be loaded with the smallest grade of lime to be handled by that silo at the facility at the maximum rate of the Conveyor/Elevator System (75 TPH- See Specific Condition No. 4.B.).
- B. The second storage silo shall be concurrently loaded with the smallest grade of lime to be handled by that silo at a rate representative of the pneumatic truck offloading station (approx. 25 TPH).
- C. Silo levels before testing begins should be filled to a level which would result in levels near silo capacity (>85% full) at the completion of the test.

Subsequent emissions unit operation is limited to 110 percent of the most recent test transfer rate and the smallest grade of lime handled until a new test is conducted. Once the unit is so limited, operation at higher capacities or a smaller grade of lime is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at a higher capacity or a smaller grain size, not to exceed the permitted capacity.

[Rules 62-4.070(3) and 62-297.310(2), F.A.C.]

*(\*Permitting Note: This condition revises the operating rate during testing requirements from the previous construction permits.)*

**17. Special Compliance Tests** - When the Department, after investigation, has good reason (such as complaints, increased visible emissions, or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emission unit and to provide a report on the results of said tests to the Department.

[Rule 62-297.310(7)(b), F.A.C.]

### **Recordkeeping and Reporting**

**18. Notifications** - At least 15 days prior to the date on which any compliance test is due to begin, the permittee shall provide written notification of the test to the Air Compliance Section of the Department's Southwest District Office. The notification must include the following information: the date, time, and location of each test; the name and telephone number of the facility's contact person who will be responsible for coordinating the test; and the name, company, and telephone number of the person conducting the test.

[Rules 62-4.070(3) and 62-297.310(7)(a)9, F.A.C.]

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**19. Recordkeeping** - In order to document continuing compliance with Specific Condition Nos. 4 and 16, the permittee shall maintain, at a minimum, the following records:

- A. for each day of operation, the date and total material (tons) and grade(s) of lime offloaded from the railcar/truck shed area or pneumatically from the truck load/offload station to the storage silos;
- B. for each day of operation, the date and total material (tons) and grade(s) of lime transferred from the storage silos to trucks;
- C. for each truck unloaded pneumatically, the date, start and stop times of the offload operation, and amount (tons) of material offloaded; and
- D. for each month of operation, the total material offloaded to the facility silos (tons) and transferred from the facility silos (tons) to trucks.
- E. A cumulative total shall be calculated and recorded which indicates the total amount of material offloaded to the facility silos (tons) during the previous 12-calendar month period as well as the total material transferred from the facility silos (tons) to trucks during the previous 12-calendar month period.

The records shall be recorded in a permanent form suitable for inspection by the Department upon request, and shall be retained for at least a three-year period. Records for an operating month shall be completed by the 10th business day of the next operating month. Daily records shall be completed by three (3) business days.

[Rule 62-4.070(3), F.A.C.; Construction Permit 1050125-004-AC]

### **O & M Plan**

**20. Operation and Maintenance (O & M) Plan for Particulate Emissions Control\*** - In order to document compliance with Rules 62-296.700 and 62-296.711, F.A.C., for air pollution control devices and collection systems, the permittee shall maintain and implement an O & M Plan to include a schedule for the maintenance and inspection of each control device, collection systems, and auxiliary equipment. Records of inspections, maintenance, and performance data of control devices and auxiliary equipment shall be retained by the emissions unit for a minimum of two (2) years and shall be made available to the Air Compliance Section of the Department's Southwest District upon request. The performance parameters shall include operating rates and efficiencies. Such parameters and records shall include, at a minimum, that shown below.

#### **Performance Parameters:**

- A. Description of source: Baghouse (dust collector)
- B. Process controlled by collection system: Emissions from screw conveyors, bucket elevator, storage silos (including truck to silo unloading), and truck loading
- C. Baghouse manufacturer: Mix USA, Inc.

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- D. Model name and number: SEBH.975.15
- E. Efficiency rating: 99.97% for particulates exceeding 2 microns in diameter
- F. Air to cloth ratio: 5:1 at 5,875 CFM
- G. Maximum gas flow rate: 5,875 CFM (design gas flow rate)
- H. Maximum throughput rate: 200,000 tons of lime per any consecutive 12-month period
- I. Material handling rate: *See Specific Condition No. 5*
- J. Operation schedule: 8760 hours/year
- K. Minimum pressure drop: 1.5" water column (w.c.)
- L. Extraction fan current: 480 volts @ 60 Hz
- M. Perform corrective actions promptly on an as needed basis

During each shift:

- N. Check and record the pressure drop across the process baghouse.
- O. Observe the stack exhaust for visual emissions.
- P. Assure that dust is being removed from system.

On a monthly basis check the following and record the results:

- Q. Visually inspect access panel of process baghouse.
- R. Check all bags for sign of wear.
- S. Check baghouse and ductwork for excessive dust build-up.
- T. Check all gaskets for proper seal and grease as needed.

All documentation must have the month, day, year and time of the inspection check. The inspection check logbook shall include a listing of specific maintenance work that is required or completed at time of each inspection check. If a malfunction occurs and the process baghouse is not operational during process loading or unloading, the facility must contact the Air Compliance Section of the Department's Southwest District by the next business day and perform necessary corrective actions such as those listed in the O & M Plan submitted with the permit application for permit 1050125-005-AO, received July 13, 2006. Any updates to the O & M plan shall be submitted to the Department. [Rules 62-296.700(6)(a) and 62-4.070(3), F.A.C.; O & M Plan received July 13, 2006; Construction Permit 1050125-004-AC]

*(\*Permitting Note: This condition revises the performance parameters requirements from the previous construction permits.)*

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**Annual Operating Report (AOR)**

**21. Annual Operating Report** - The permittee shall submit each calendar year on or before March 1, a completed DEP Form 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility" (AOR) for the preceding calendar year. The report may be submitted electronically in accordance with the instructions received with the AOR package sent by the Department, or a hardcopy may be sent to the Air Compliance Section of the Department's Southwest District.  
[Rule 62-210.370(3), F.A.C.]

**Operation Permit Renewal**

**22. Operation Permit Application** - A completed application for renewal of the operation permit shall be submitted to the Air Permitting Section of the Department's Southwest District Office no later than 60 days prior to the expiration date of the operation permit. To properly apply for an operation permit, the applicant shall submit the following:

- A. the appropriate permit application form (*see current version of Rule 62-210.900, F.A.C. (Forms and Instructions), and/or FDEP Division of Air Resource Management website at: <http://www.dep.state.fl.us/air/>*);
- B. the appropriate operation permit application fee from Rule 62-4.050(4)(a), F.A.C.;
- C. a copy of the most recent compliance test reports required by Specific Condition No. 14; and
- D. copies of the most recent month of records/logs specified in Specific Condition Nos. 19 and 20.N. through T., and any revisions to the O & M Plan received July 16, 2007.

[Rules 62-4.030, 62-4.050, 62-4.070(3), 62-4.090, 62-210.300(2), and 62-210.900, F.A.C.]

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION



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Mara Grace Nasca  
District Air Permitting Supervisor  
Southwest District

MGN/BTG/pp