STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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General Alum New England Corp.
Waldo County
Searsport, Maine
A-171-71-O-R (SM)

Departmental
Findings of Fact and Order
Air Emission License

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., §344 and §590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. General Alum New England Corp., also known as GAC Chemical Corporation (GAC), has applied to renew their Air Emission License permitting the operation of emission sources associated with their chemical manufacturing facility.

2. The equipment addressed in this license is located at 34 Kidder Point Rd, Searsport, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (gal/hr)	Fuel Type, % sulfur	Stack #
Boiler #1	20.7	138	#2, #5, or #6 fuel oil, waste oil, and biofuel, 0.7%	1
Boiler #2	6.9	46	#2, #5, or #6 fuel oil, waste oil, and biofuel, 0.7%	1

Process Equipment

Equipment	Production Rate	Pollution Control Equipment	Date Installed	Stack #
Alum Digester	9 ton/hr	none	1998	3
Ammonium Sulfate Reactor	4 ton/hr	demister & cyclone	1992	5
Ammonium Sulfate Dryer	4 ton/hr	venturi scrubber	1992	6
Sodium Aluminate Reactor	6.25 ton/hr	none	1982	7
Pneumatic Aluminum Trihydrate Conveyor	15 ton/hr	4 baghouses w/only 1 outside vent	1982	8
Aqueous Ammonia Production System	10 ton/hr	venturi scrubber & bubble tank	1995	9
Fish Oil Processing System	20 ton/day	scrubber	1999	10
Sodium Hypochlorite Production System	21 ton/hr	scrubber	2001	11
Parts Washers (2)	15 gallon capacity (each)	none	N/A	N/A
Gasoline Storage Tank	350 gallon capacity	none	N/A	N/A

C. Application Classification

The application for GAC does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005). With the fuel and sulfur content limits on Boilers #1 and #2 the facility is licensed below the major source thresholds and is considered a synthetic minor.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). Separate control requirement categories exist for new and

existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boilers #1 and #2

Boilers #1 and #2 are operated for process steam and facility heating needs. Boilers #1 and #2 fire #2, #5 and #6 fuel oil. These boilers are also licensed to fire waste oil from the facility's maintenance operations as well as purchased bio-fuel.

Boiler #1 was installed in 1988. Boiler #2 has a maximum heat input of 6.9 MMBtu/hr. Therefore neither boiler is subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

A summary of the BPT analysis for Boilers #1 (20.7 MMBtu/hr) and #2 (6.9 MMBtu/hr) is the following:

1. The total fuel use for the facility shall not exceed 600,000 gal/year of #2, #5, and #6 fuel oil, and bio-fuel combined based on a 12 month rolling total, with a maximum sulfur content not to exceed 0.7% by weight.
2. GAC shall not exceed the firing of 600 gal/year of waste oil, based on a 12 month rolling total.
3. *Low Sulfur Fuel*, 06-096 CMR 106 (last amended June 9, 1999) regulates fuel sulfur content, however in this case it was determined a more stringent limit of 0.7% was required in order to meet BPT. BPT is based on BACT analysis for Boilers #1 and #2 performed in 1988 and 1989 respectively which determined that a sulfur content limit of 0.7% was appropriate.
4. *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (last amended November 3, 1990) regulates PM emission limits. The PM_{10} limits are derived from the PM limits.
5. NO_x emission limits are based on data from similar oil fired boilers of this size and age.
6. CO and VOC emission limits are based upon AP-42 data dated 9/98.
7. Visible emissions from the combined stack for Boilers #1 and #2 shall not exceed 30% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

C. Alum Production

The alum production operation was installed in 1952. In 1980 the process was converted from use of bauxite as one of the raw materials to aluminum trihydrate (ATH), however the equipment itself remained unchanged. Alum is produced by reacting ATH with sulfuric acid. The reaction is conducted in atmospheric batches of approximately 27 tons each. The exothermic reaction releases excess heat via the generation of steam. The exhaust steam is vented through stack #3 extending above the production building.

D. Ammonium Sulfate Production

The original ammonium sulfate production operation was installed in 1949. An amendment to the air emission license was issued on August 28, 1992 to relocate the ammonium sulfate production operation in addition to reconstructing the original reactor/crystallizer. An identical unit was constructed with minor modifications due to product quality concerns. The dryer was relocated without any modifications, only maintenance activities were performed (i.e., cleaning, adjustment, and painting). The ammonium sulfate production operation consists of an ammonia sulfate reactor followed by a cyclonic separator and an ammonia sulfate dryer followed by a venturi scrubber.

Ammonium sulfate is produced from the reaction between anhydrous ammonia and sulfuric acid. The reactor is fitted with an internal demister and an external cyclonic separator for particulate matter control prior to exiting the stack. GAC has proposed that the particulate emissions from the mist eliminator followed by the cyclonic separator are expected to be deminimus, based on EPA studies (EPA-450/3-79-034a, Ammonium Sulfate Manufacture—Backgroud Information for Proposed Emission Standards). Solids that are collected from the cyclonic separator are returned to the reactor vessel.

The ammonium sulfate exits the reactor and enters the ammonium sulfate dryer via a product centrifuge. The product centrifuge separates the product from the filtrate. The filtrate is then returned to the reactor/crystallizer for continued processing.

According to the New Source Performance Standards (NSPS), 40 CFR Part 60, Subpart PP, the ammonium sulfate dryer is the only applicable designated unit of an ammonium sulfate facility. NSPS applies to dryers which commenced construction or modifications after February 4, 1980. Reactor vessels are not identified nor are they defined to be a component of ammonium sulfate dryers. Since the dryer was originally installed prior to 1980 and no modification occurred when it was relocated, the dryer was determined not to be subject to NSPS.

The emission control device on the air discharge of the dryer is a MS Super Scrubber Package System manufactured by Fisher-Klosterman, Inc. to remove

particulates from the exhaust which exits to stack #6. The MS Super Scrubber Package System utilizes a venturi scrubber followed by a cyclonic separator to remove mist from the vent air stream. GAC states that the control system is better than 99.5% effective in removing particles 4 microns or greater in diameter, based on tests by the manufacturer. The expected emissions from the dryer scrubber should be well below the EPA NSPS limit for new ammonium sulfate dryers of 0.3 lb PM/ton product.

In February 1994 the dryer emissions were tested and found to be 0.044 lb PM/ton product and is therefore considered by the Department to be meeting BPT.

E. Sodium Aluminate Production

The sodium aluminate production operation was installed in 1982. Sodium aluminate is produced in 4,000 gallon batches in an atmospheric reactor by reacting aluminum trihydrate with sodium hydroxide. The reaction has an insignificant exotherm and therefore indirect heat must be added throughout the reaction via steam coils. The reactor stack is essentially an atmospheric vent to permit the release of water vapor from the reactor head space to the building exterior instead of releasing the vapor into the operator work space.

F. Aluminum Trihydrate Handling Systems

Currently GAC uses wet (6-10% moisture) aluminum trihydrate (ATH) which is transferred to GAC by dump truck once or twice per week and fed into the process via an inclined belt conveyor.

GAC also has a pneumatic conveyor system to handle dry ATH which is not being used. While a change back to using dry ATH is not anticipated in the foreseeable future, it is the intention of GAC to maintain the pneumatic system in operational condition in the event of a wet ATH supply problem.

The pneumatic conveyor system components include a storage silo, a weigh hopper, a product filter receiver, a vacuum filter receiver, two blowers, and associated piping and controls. The storage silo, weigh hopper, product filter receiver, and vacuum filter receiver all have baghouses (4 total) on the exhausts for particulate control. However, the storage silo baghouse vent is the only stack which vents directly outside. The other three vent inside existing buildings. Visible emissions from the storage silo baghouse shall be limited to 5% opacity on a six minute block average basis.

G. Aqueous Ammonia Production

The aqueous ammonia production operation was installed in 1995. Aqueous ammonia is produced by the mixing of anhydrous ammonia with water. Approximately 90 Btu/lb of 30% aqueous ammonia is generated as a result of the dilution of ammonia with water. Therefore, heat is removed by a refrigeration

system in order to keep the ammonia in solution and thus prevent any air emissions at atmospheric pressures. The entire mixing process of the aqueous ammonia is enclosed and emissions are collected by the Ammonia Wet Scrubber System.

After a batch of the solution is mixed, the product is transferred to storage or to vehicles transporting the aqueous ammonia from the facility. As the batch of solution is transferred the displaced air is collected and controlled by the Ammonia Wet Scrubber System.

The Ammonia Wet Scrubber System is a two stage scrubbing configuration composed of a venturi scrubber followed by a passive scrubber. The first scrubber stage is a venturi scrubber that recirculates the vapor in the system. Fresh water is used in the scrubber for each new production batch. The weak aqueous ammonia solution that is produced in the scrubber is used for production startup on the next batch. The second stage scrubber is a passive bubble tank partially filled with weak (5%) sulfuric acid. Any air that is displaced from the production system bubbles through the weak acid and reacts to form ammonium sulfate. This small quantity of ammonium sulfate is later processed in the ammonium sulfate system.

The storage of aqueous ammonia is comprised of two closed vessels with concrete containment and all vapor spaces for the tanks are collected and controlled by the Ammonia Wet Scrubber System. All displaced air as a result of product transfer to a transportation vehicle shall also be collected and controlled by the Ammonia Wet Scrubber System.

Based on the above, the Department finds that the use of the Ammonia Wet Scrubber System meets BPT.

H. Fish Oil Processing

The fish oil processing operation was installed in 1999. Two basic types of processed oil are produced, oxidized or "blown oil" and bisulfited blown oil. Oxidized oil is produced by pumping air into the agitated and heated oil. A slight exotherm is produced and must be removed via indirect cooling using a closed loop water system. Bisulfited blown oil is produced by further processing in the same vessel.

The discharge air is scrubbed in a Vanaire Model VT-550 Scrubber. The gas stream contains oil mist/particulates and a small fraction of byproduct formic acid vapor. The gas stream is hot (240°F) and dilution air is added to reduce the temperature of the stream.

The scrubber liquid is maintained at a neutral pH by addition of sodium hydroxide by an automatic pH control system. The sodium hydroxide combines with the oil

particulates to form a crude soap (solid) and facilitates the complete absorption and neutralization of formic acid vapor.

The bisulfiting process does not have any forced or process generated emissions. However, the bisulfiting chemicals may produce sulfur dioxide vapors in the vessel vapor space. Since the operators need to occasionally open the vessel door to observe the process, a negative pressure is maintained in the vessel by the scrubbing system. Dilution air is not used during this process. Any sulfur dioxide carried to the scrubber is absorbed by the scrubber liquid.

At the end of each batch the scrubber liquid is pumped out, bulked with sawdust and shipped to Penobscot Energy Recovery Company.

Based on the above the Department finds that the use of the Vanaire Scrubber System for the collection and control of all emissions from the production of oxidized and bisulfited blown oil by GAC to be BPT.

I. Sodium Hypochlorite Production

The Sodium Hypochlorite Production operation was permitted and installed in 2001. Sodium Hypochlorite is produced from Sodium Hydroxide and Chlorine according to the following reaction:

$$2NaOH + Cl_2 \rightarrow NaOCl + NaCl + H_2O + Heat$$

1. Equipment

Chlorine is received in 90 ton rail cars which are connected directly to the production process. The connection to the rail car is equipped with an emergency rail car closure system. The Powell manufactured system uses air driven motors to close the rail car valves. The air supply to the air motors is controlled by fail-open electric solenoid valves. An air supply reservoir with an upstream check valve provides a sufficient volume of compressed air to close the rail car valves during a power outage or if there is a problem with the compressed air source.

The chlorine supply line includes two expansion bottle assemblies to protect the integrity of the pipeline in the event that trapped chlorine in the line experiences thermal expansion. Each expansion bottle assembly includes a steel ASME cylinder, a rupture disc rated at 300 psig located between the assembly mount on the pipeline and the expansion bottle, and a rupture detection pressure switch located on the expansion bottle side of the rupture disk. The volume of each expansion bottle is more than sufficient to

accommodate the expansion of the liquid chlorine in the respective chlorine pipe section.

The production unit is a skid-mounted assembly manufactured by Powell. Included on the unit are the sodium hydroxide dilution system, the sodium hydroxide dilution heat exchanger, the sodium hypochlorite reaction loop, and the sodium hypochlorite reaction heat exchanger. The nominal production rate limit of the sodium hypochlorite production unit is 70 gallons per minute of 12.5% by weight sodium hypochlorite solution.

The production unit vents to a Powell ProVent Chlorine/Sulfur Dioxide Scrubber. The scrubber is also a skid-mounted unit which includes the scrubber sparger/recirculation tank, the recirculation pump, the chlorine eductor, and the ORP probes.

2. Monitoring

The chlorine rail car is monitored by three chlorine detectors. The three detectors are arranged in a triangle with one on one side of the rail car and two evenly spaced on the opposite side. Two chlorine detectors are located inside the production building, one on the scrubber and one near the chlorine flow control valve.

All five detectors are set to alarm a warning at 1 ppm of chlorine. A chlorine level detected at or above 3 ppm on any of the five detectors generates an emergency shutdown of the chlorine transfer system and activates the chlorine rail car closure system. Visual and audible alarm warning devices are also activated.

The automatic closure system is activated by any of the following:

- Ambient chlorine detected at or above the alarm set point by any one of the chlorine detectors at the rail car.
- Ambient chlorine detected at or above the alarm set point by any one of the chlorine detectors in the production building.
- Detection of movement of the rail car.
- Electrical power loss.
- Air supply pressure drops below a low set point.
- High chlorine supply pressure transient.

- Any emergency stop command in the sodium hypochlorite facility.
- High ORP values in the sodium hypochlorite production unit.
- High ORP values in the scrubber system.

3. BPT

A summary of the BPT analysis for the Sodium Hypochlorite Production System is the following:

1. GAC shall operate the scrubber system at all times that the Sodium Hypochlorite Production System is operating.
2. A pressure of 500 psig shall not be exceeded in the chlorine handling system. GAC shall record the pressure in the chlorine transfer line once per day for each day that the Sodium Hypochlorite Production System is operating. GAC shall report to the Department within 2 working days if this limit is exceeded.
3. The emergency closure system shall be tested at least once per quarter to ensure operability and readiness of the emergency system. GAC shall keep records of all emergency closure system tests and actuations.
4. Each chlorine detector shall be tested at least twice per year to ensure operability and readiness. GAC shall keep records of all chlorine detector tests.
5. Prior to each day's production start-up, the connections and rail car valves shall be checked for chlorine leaks by misting with weak aqueous ammonia. If any leaks are detected, the problem with the associated device or connection shall be corrected and retested before production start-up. GAC shall keep daily logs of leak inspections and any required corrective action.
6. GAC shall keep records of all expansion bottle inspections and maintenance activities including replacement of rupture disks.
7. GAC shall keep records of all maintenance activities on the rail car closure system, production unit, and scrubber system.

J. Degreaser Units

GAC operates two degreaser units with capacities of 15 gallons each. Records shall be kept of the solvent added and removed.

K. Gasoline Storage

GAC has a 350 gallon gasoline storage tank. The fill pipe shall extend within 6 inches of the bottom of the tank and GAC shall keep monthly and annual records of gasoline throughput.

L. Annual Emissions

GAC shall be restricted to the following annual emissions, based on a 12 month rolling total:

Total Licensed Annual Emission for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	PM_{10}	SO_2	NO_x	CO	VOC
Boilers	5.4	5.4	33.1	13.5	1.5	0.1
Ammonium Sulfate Production	1.2	1.2	-	-	-	-
Total TPY	**6.6**	**6.6**	**33.1**	**13.5**	**1.5**	**0.1**

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

Pollutant	Tons/Year
PM	25
PM_{10}	25
SO_2	50
NO_x	100
CO	250

Based on the total facility licensed emissions, GAC is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-171-71-O-R subject to the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]

(3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]

(4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [06-096 CMR 115]

(6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]

(7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]

(8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]

(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]

(10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]

(11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
   1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
   2. pursuant to any other requirement of this license to perform stack testing.

B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 115]

(13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]

(15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) **Boilers #1 and #2**

A. Total fuel use for Boilers #1 and #2 shall not exceed 600,000 gal/yr of #2, #5, and #6 fuel oil, and bio-fuel combined with a maximum sulfur content not to exceed 0.7% by weight. Compliance shall be demonstrated by fuel records from the supplier showing the quantity and type of fuel delivered and the percent sulfur of the fuel. Records of annual fuel use shall be kept on a 12-month rolling total basis. [06-096 CMR 115, BPT]

B. GAC shall not exceed the firing of 600 gal/year of waste oil, based on a 12 month rolling total, demonstrated by records of waste oil collected and transferred to the fuel oil storage tank. This fuel usage shall be included in the total annual fuel oil limit listed in Condition (16)(A). [06-096 CMR 115, BPT]

C. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM	0.12	06-096 CMR 103, Section 2(B)(1)(a)
Boiler #2	PM	0.12	06-096 CMR 103, Section 2(B)(1)(a)

D. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	2.48	2.48	15.22	6.21	0.69	0.04
Boiler #2	0.83	0.83	5.07	2.07	0.23	0.05

E. Visible emissions from the combined stack for Boilers #1 and #2 shall not exceed 30% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(17) **Ammonium Sulfate Production**

A. Particulate emissions from the ammonium sulfate dryer shall not exceed 0.3 lb/ton of ammonium sulfate produced. [40 CFR Part 60, Subpart PP]

B. GAC shall operate a demister and cyclonic separator on the ammonium sulfate reactor/crystallizer when this process is in operation. [06-096 CMR 115, BPT]

C. GAC shall operate the MS Super Scrubber Package System on the ammonium sulfate dryer discharge when this process is in operation. [06-096 CMR 115, BPT]

(18) **Aqueous Ammonia Production**

A. GAC shall operate the Ammonia Wet Scrubber System when this process is in operation. [06-096 CMR 115, BPT]

(19) **Fish Oil Processing System**

A. GAC shall operate the Vanaire Scrubber on the Fish Oil Processing System when this process is in operation. [06-096 CMR 115, BPT]

B. The scrubbing system shall maintain a negative pressure on the processing vessel to control SO_2 emissions when the bisulfiting process is operating. [06-096 CMR 115, BPT]

(20) **Pneumatic Aluminum Trihydrate Conveyor System**

A. GAC shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance for all baghouses associated with the pneumatic conveyor system to handle dry aluminum trihydrate. [06-096 CMR 115, BPT]

B. Visible emisssions from the aluminum trihydrate storage silo baghouse shall not exceed 5% opacity on a six minute block average basis. [06-096 CMR 115, BPT]

(21) **Sodium Hypochlorite Production**

A. GAC shall operate the scrubber system at all times that the Sodium Hypochlorite Production System is operating. [06-096 CMR 115, BPT]

B. A pressure of 500 psig shall not be exceeded in the chlorine transfer system. GAC shall record the pressure in the chlorine transfer line once per day for

each day that the Sodium Hypochlorite Production System is operating. GAC shall report to the Department within 2 working days if this limit is exceeded. [06-096 CMR 115, BPT]

C. The emergency closure system shall be tested at least once per quarter to ensure operability and readiness of the emergency system. GAC shall keep records of all emergency closure system tests and actuations. [06-096 CMR 115, BPT]

D. Each chlorine detector shall be tested at least twice per year to ensure operability and readiness. GAC shall keep records of all chlorine detector tests. [06-096 CMR 115, BPT]

E. Prior to each day's production start-up, the connections and rail car valves shall be checked for chlorine leaks by misting with weak aqueous ammonia. If any leaks are detected, the problem with the associated device or connection shall be corrected and retested before production start-up. GAC shall keep daily logs of leak inspections and any required corrective action. [06-096 CMR 115, BPT]

F. GAC shall keep records of all expansion bottle inspections and maintenance activities including replacement of rupture disks. [06-096 CMR 115, BPT]

G. GAC shall keep records of all maintenance activities on the rail car closure system, production unit, and scrubber system. [06-096 CMR 115, BPT]

(22) GAC is subject to and will comply with 40 CFR Part 68, *Chemical Accident Prevention Provisions*. [40 CFR Part 68]

(23) **Parts Washers**

Parts washers at GAC are subject to *Solvent Cleaners*, 06-096 CMR 130 (last amended June 28, 2004).

A. GAC shall keep records of the amount of solvent added to each parts washer. [06-096 CMR 115, BPT]

B. The following are exempt from the requirements of 06-096 CMR 130 [06-096 CMR 130]:

1. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
2. Wipe cleaning; and,
3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.

C. The following standards apply to cold cleaning machines that are applicable sources under Chapter 130.

1. GAC shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 CMR 130]:
   (i) Waste solvent shall be collected and stored in closed containers.
   (ii) Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
   (iii) Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
   (iv) The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
   (v) Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.
   (vi) When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
   (vii) Spills during solvent transfer shall be cleaned immediately. Sorbent material shall be immediately stored in covered containers.
   (viii) Work area fans shall not blow across the opening of the degreaser unit.
   (ix) The solvent level shall not exceed the fill line.
2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [06-096 CMR 130]

(24) **Gasoline Storage Tank**

GAC shall keep monthly and annual records of gasoline throughput. [06-096 CMR 115, BPT]

(25) GAC shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 4th DAY OF March , 2010.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Brooks
DAVID P. LITTELL, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 12/4/09
Date of application acceptance: 12/14/09

Date filed with the Board of Environmental Protection:

This Order prepared by Lynn Ross, Bureau of Air Quality.

FILED
MAR - 5 2010
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE