Company Name:	Jones Hamilton Co.	**Permit Writer:**	Snezana Popova
Permit Number:	0640-0069-CA	**Date:**	March 28, 2014

DATE APPLICATION RECEIVED: November 12, 2013

FACILITY DESCRIPTION Jones-Hamilton Co. is seeking an air construction permit for the construction of a new food grade acid production facility to be located at 4544 Lancaster Highway, near Richburg (Chester County), South Carolina.

PROJECT DESCRIPTION
The proposed Jones-Hamilton facility will produce dry food grade sodium bisulfate (sodium acid sulfate) from evaporated dry salt and liquid sulfuric acid. The facility will also produce liquid hydrochloric acid as a co-product.

Concentrated sulfuric acid (H_2SO_4) is unloaded from tank cars and tank trucks into storage tanks. Evaporated salt (NaCl) is unloaded from bulk trucks and hopper cars into bins or silos.

The sulfuric acid (H_2SO_4) and evaporated salt (NaCl) are continuously metered into closed reactors that are maintained at 600° F. The reactors are heated using multiple natural gas-fired burners. This reaction produces molten sodium bisulfate liquid ($NaHSO_4$, or SBS) and anhydrous hydrogen chloride gas (HCl).

The molten SBS overflows from the reactors into a common finishing pot where the liquid is cooled to slightly above 400° F through: (1) addition of recycle dry SBS from screening, (2) sparging of SBS-containing water from scrubbing operations, and (3) an oil jacket around the vessel. The molten SBS (at a temperature close to its freezing point) is then pumped to the top of a tower where it is sprayed into a stream of air that causes the droplets to freeze into beads. The hot beads then pass through a cooler and get screened before being conveyed to the storage silos. The dust, oversized and undersized SBS particles from these operations are recycled back into the process. The sodium bisulfate beads in the silos are loaded into bulk trucks, hopper cars, or get packaged and shipped in vans.

The hydrogen chloride gas discharges continuously from the reactor and is absorbed in water using a falling film graphite absorber and tails tower. This absorption creates a 35 to 36 percent concentration food grade hydrochloric acid solution that is stored in fiberglass storage tanks. The product in the storage tank is then loaded into tank trucks or tank cars for shipment. One or two emergency electrical generators driven by diesel powered engines will be installed at the facility. The generator(s) will provide electrical power to allow the plant to continue to operate the environmental control equipment and safely shut down the process in the event of a power outage.

At this time, it is expected that if one generator is installed, it will be a 1000 kW unit equipped with a 1300 HP engine. If two engines are installed, they will each be 500 kW units equipped with a 650 HP engine.

SOURCE TEST REQUIREMENTS- The source test will be performed for PM and HCl emissions (only the controlled emissions) within 180 days after the startup on the following equipment/control devices:
HCl: Wet Scrubbers A2850& A2950/HCl / CD-S2220, V2500/HCl &SBS / CD-S2500, and T2410-T2480, T2320, T2330/HCl/ CD-S2200
PM: Baghouses B2301&B2302/RAWMAT / CD-BH2301 and B2400/RAWMAT / CD-BH2400

The source test will be performed within 180 days after the startup for PM removal efficiency on the following equipment/control devices:
PM: Venturi Scrubbers BM2700/SBSPACK & T2730/SBSPACK / CD-S2550 and ST2500/SBS / CD-S2510

Periodic source testing may or may not be required based on the initial source testing results. If the results from the source testing indicate emissions close to the major threshold, a subsequent testing will be required in the Conditional Major operating permit for this facility.

EMISSIONS
The emissions from the proposed facility will consist primarily of particulate matter from the handling of material (salt and SBS) in solid form and hydrochloric acid (HCl) mist (CAS #7647-01-0) from the control of HCl in the high efficiency scrubbers. HCl is a listed HAP and Standard No. 8 listed TAP.

Process operations that generate particulate emissions and HCl are collected at an estimated 100 percent collection efficiency and vented to high control efficiency baghouse filters or wet scrubbers.

The basis for emission calculation from the proposed new facility in Richburg is presented in Tables A and B below.

Table A – Processing Rates

Equipment ID/Process ID (Stack ID)	Maximum Processing Rate (lbs/hr)	Basis for Processing Rate
B2301&B2302/RAWMAT (A)	4,949	Stoichiometric input rate of salt to make rated production (10,000 lb/hr) of SBS.
B2400/RAWMAT (B)	4,949	Stoichiometric input rate of salt to make rated production (10,000 lb/hr) of SBS.
FB2500/SBS (F)	10,000	Input at rated production for equipment.
ST2500/SBS (G)	10,000	Input at rated production for equipment.
Packaging/SBSPACK (H)	10,000	Input at rated production for equipment.
T2730/SBSPACK (H)	350*	Estimated amount of waste based on operation at Walbridge Ohio Plant
A2850&A2950/HCl (C)	8,677	Amount of HCl gas produced at rated production for equipment plus water to make up 35% concentration of HCl
V2500/HCl&SBS (D)	10,000	Input at rated production for equipment.
T2410-T2480, T2320, T2330/HCl (E)	8,677	HCl produced/stored at rated production for equipment.

Table B – Uncontrolled Emission Rates

Equipment ID/Process ID (Stack ID)	Pollutant *Emitted	PTE (Uncontrolled) Air Emission Estimate (lbs/hr)	Basis for Emission Rate
B2301&B2302/RAWMAT (A)	PM/PM10/PM2.5	13.0	Estimated based on process knowledge.
B2400/RAWMAT (B)	PM/PM10/PM2.5	100.0	Estimated based on process knowledge.
FB2500/SBS (F)	PM/PM10/PM2.5	250.0	Assumes 2.5% of dry SBS production is lost to baghouse based on process knowledge.
ST2500/SBS (G)	PM/PM10/PM2.5	400.0	Assumes 4% of dry SBS production is lost to scrubber based on process knowledge.
Packaging/SBSPACK (H)	PM/PM10/PM2.5	25.00	Assumes 0.25% of dry SBS production is lost to scrubber based on process knowledge.
T2730/SBSPACK (H)	PM/PM10/PM2.5	0.9	Assumes 0.25% of dry SBS waste is lost to scrubber based on process knowledge.
A2850&A2950/HCl (C)	HCl	0.15	Average tested rate for Plant 2 at Walbridge Ohio Plant. Test conducted on 2/11/10. Production rate during test = 9,774 lbs/hr SBS. Test witnessed and accepted by Ohio EPA.
V2500/HCl&SBS (D)	HCl	14.6	Average tested rate for Plant 2 at Walbridge Ohio Plant. Test conducted on 2/18/11. Production rate during test = 8,841 lbs/hr SBS. Test witnessed and accepted by Ohio EPA.
T2410-T2480, T2320, T2330/HCl (E)	HCl	75.8*	Average tested rate for Plant 1 at Walbridge Ohio Plant. Test conducted on 3/20/01.

The facility's December 4, 2013 e-mail clarified that the information in the Table B meets the requirement of "process knowledge" based on the emission testing at their facility in Ohio on the two (2) wet particulate scrubbers (Stacks G and H) and on the sodium bisulfate bag house (Stack ID F).

*The stack test on S-200 in Walbridge (similar to stack ID E for Richburg) lists the production rate of 24000 gallons per hour (about 400 gpm). According to facility's December 4, 2013 e-mail, the source of the information for this production number is unknown, but the Richburg facility will have far less activities that will impact the new scrubber (during production and operation, the facility routinely pump HCl from the storage tanks, from the process to the storage tanks, and from the rail cars to the storage tanks), than the ones that impacted the tested Walbridge scrubber.

PM emission estimates

Clarification was received from the facility on December 4 regarding the PM emissions estimates, explaining that they consider everything less than 100 mesh (150 microns) to be dust, the max amount of dust is 1.5% (as presented in the salt specification below), and it is assumed all of this dust hits the baghouse cloth.

Parameter	Unit	Specification
Sodium Chloride	%	≥ 99.5
Calcium Sulfate	%	≤ 0.30
Moisture	%	≤ 0.10
Water insoluble	ppm	≤ 150
Iron (free)	ppm	≤ 2.0
YPS	ppm	≥ 2 and ≤ 13
Particle Size		
40 mesh	% retained	≥ 10.0
70 mesh	% retained	≥ 92.0
100 Mesh	% retained	≥ 98.5%
Temperature	°F	≤ 105
Visible foreign material		None
Free flowing		Under all conditions

To simplify the calculations, and because a particle size distribution was not available, the size of all particulate matter was assumed to be PM2.5 (and also PM10).

Table 1 Estimated Particulate Matter (PM) Emission Rates to Atmosphere

(a)	(b)	(c)	(d)	(e)	(f)=(d)*(e)	(g)	(h)
Equipment ID/Process ID (Stack ID)	Maximum Processing Rate		Maximum Hourly Processing Rate	Maximum Operating Schedule	Maximum Annual Processing Rate	Notes	PTE (Uncontrolled) PM Air Emission Estimate
	(Value)	(Units)	(tons/hr)	(hr/yr)	(tons/yr)		(lb/hr)
B2301&B2302/RAWMAT (A)	4,949	lbs/hr	2.47	8,760	21,677	1-4	13.0 *
B2400/RAWMAT (B)	4,949	lbs/hr	2.47	8,760	21,677	1- 4	100.0*
FB2500/SBS (F)	10,000	lbs/hr	5.00	8,760	43,800	1- 4	250.0
ST2500/SBS (G)	10,000	lbs/hr	5.00	8,760	43,800	1- 4	400.0
Packaging/SBSPACK (H)	10,000	lbs/hr	5.00	8,760	43,800	1- 4	25.00
T2730/SBSPACK (H)	350	lbs/hr	0.18	365	64	1- 4, 5	0.9
Plant Totals							789

*Total "potential to emit" for salt PM emissions using the calculation 4949 lb/hr (from Table A) x 1.5% is 148 lb/hr for the two baghouses (B2301&B2302/RAWMAT (A) & B2400/RAWMAT (B). December 6, 2013 e-mail from Gary Nelson clarified that the particulate matter uncontrolled emission estimates of 13 pounds per hour and 100 pounds per hour shown in Table B-1 of the application for the salt storage bins and the salt head bin, respectively, are the rates reported for the Walbridge Ohio Plant on the 2005 Air Emission Inventory reported to the Ohio EPA and that the proposed plant will be very similar in design, size, and operation to the Walbridge Ohio Plant.
The Control Efficiency used in the PM calculation is 99.9%.We believe that the stack test performed on the baghouse with 100 lb/hr uncontrolled emissions will provide a clarification on the quantity of the PM emissions from the loading operation.

Table 1 cont.

Equipment ID/Process ID (Stack ID)	(j)=(h)*(1-(i))	(k)	(m)=(h)*8760/2000	(n)=(j)*8760/2000
	PTE (Controlled) PM Air Emission Estimate	Allowable PM Emission Rate at Maximum Capacity	PTE (Uncontrolled) PM Air Emission Estimate	PTE (Controlled) PM Air Emission Estimate
	(lb/hr)	(lb/hr)	(tons/yr)	(tons/yr)
B2301&B2302/RAWMAT (A)	0.013	7.5	56.9	0.057
B2400/RAWMAT (B)	0.10	7.5	438.0	0.44
FB2500/SBS (F)	0.25	12.1	1095.0	1.10
ST2500/SBS (G)	8.00	12.1	1752.0	35.0

Packaging/SBSPACK (H)	0.025	12.1	109.5	0.11
T2730/SBSPACK (H)	0.001	1.3	3.9	0.004
Plant Totals	8.39	52.5	3,455	36.7

1) The PTE emission estimates assume the emission unit operates 8760 hours per year.
2) PM particle size distribution not available. As a worst case, assumed all PM is PM10/PM2.5.
3) The emission estimates above are based on stack testing and other data from a similar facility operating in Walbridge, Ohio.
4) The allowable PM emission rate, at maximum capacity, of SCDHEC Reg 61-62.5, Std. No. 4, for Process Industries for material processing rates shown in column (d) is calculated from equation $E = (F)4.1(P)^{0.67}$ and is shown in column (k).
5) The source T2730/SBSPACK operates 1 hour per day or less.

HCl emission estimates

HCl emissions are based on the stack tests results for the comparable sources of the facility's plant in Ohio. Our stack testing group confirmed the validity of the Ohio's plant stack tests and until the stack evaluation on the new facility is performed, the Bureau relies on the following facility's information that supports the 2001, 2010 and 2011 stack equivalencies.

-For the 3/20/2001 air sampling report –" This is the scrubber that holds the HCl storage tanks under slight vacuum and also ventilates the HCl loading racks for both Plant 1 and Plant 2 in Ohio, so this is the equivalent of S-2200 (Stack E) on the Richburg permit application. There won't be anything different about the two functions except we have 14 HCl storage tanks and 4 loading racks in Ohio, and Richburg will only have 10 tanks and 1 loading rack, so the air flow rate will be less."

-For the 3/13/2010 air sampling report – "This is the venturi scrubber that removes particulate (SBS dust) from the air leaving the spray tower, so this is the equivalent of S-2510 (Stack G) on the Richburg application. The air flow rates will be similar."

-For the 2/9-11/2010 sampling report – "S-221 in Walbridge Plant 2 will be the equivalent of S-2220 (Stack C) in Richburg, and S-501 in Walbridge Plant 2 will be the equivalent of S-2500 (Stack D) in Richburg. The air flow rates will be similar."

Estimated HCl Emission Rates to Atmosphere

(a)	(b)	(h)	(i)	(j)=(h)*(1-(i))	(k)=(h)*8760/2000	(l)=(j)*8760/2000
\\\\\\\\\\\\\\\\\\\\\\k ID)	Maximum Processing Rate	PTE (Uncontrolled) HCl Air Emission Estimate	Scrubber Control Efficiency	PTE (Controlled) HCl Air Emission Estimate	PTE (Uncontrolled) HCl Air Emission Estimate	PTE (Controlled) HCl Air Emission Estimate
	(Value)	(lb/hr)	(percent)	(lb/hr)	(tons/yr)	(tons/yr)
A2850&A2950/ HCl (C)	8,677	0.15	98.0%	0.003	0.7	0.013
V2500/HCl&SBS (D)	10,000	14.6	99.5%	0.073	63.9	0.32
T2410-T2480, T2320, T2330/HCl (E)	8,677	75.8*	99.0%	0.76	332.0	3.33
Plant Totals		91		0.84	397	3.7

1) The PTE emission estimates assume the emission unit operates 8760 hours per year.
2) Uncontrolled HCl shown in column (h) assumed to be a vapor (gas) vented to the control device.
3) HCl emitted from the wet scrubber shown in column (j) assumed to be acid mist (as defined by SC Regs.).
4) The emission estimates above are based on stack testing and other data from a similar facility operating in Walbridge, Ohio.

During the process of controlling the HCl emissions that are listed in Table B-2 in Appendix B of the permit application , a small amount of hydrochloric acid mist may be formed in the wet scrubbers. The scrubbers will be equipped with mist eliminators to control any acid mist

that may be generated.
Acid mist is also regulated by Standard No. 4. The allowable acid mist limit at maximum production is calculated using the process weight rate equation $(E) = (F)4.1(P)^{0.67}$ and applying an Effect Factor (F) for acid mist of 0.25, as stated in Table B of Standard No. 4.
A sample calculation of the allowable acid mist limit is shown below for the HCl Absorber and Tails Tower (Equipment IDs A2850 and A2950, Stack ID C).
From Table A, process weight rate (P) = 4.34 tons per hour.
Allowable emission rate $(E) = (F)4.1(P)^{0.67} = (0.25)4.1(4.34)^{0.67} = 2.74$ lb./hour of acid mist.
The allowable acid mist rates for Equipment IDs V2500/HCl&SBS, Stack ID D and Equipment IDs T2410-T2480, T2320, T2330/HCl, Stack ID E are calculated to be 3.00 lb./hour and 2.74 lb./hour of acid mist, respectively.

The facility' statement in the Application that no fugitive emissions of any pollutant are expected is supported by the following:

Sodium Bisulfate
The main activities where there is a potential for fugitive SBS emissions is in the packaging and loading of SBS into trucks. The facility's Dec 17 e-mail stated: "We have perfected state of the art dust collection systems on all our handling equipment in Ohio (that will be duplicated in Richburg) to pull the dust that is generated from displacement of air in packaged and bulk trucks/hopper cars into hoods and vents and recover it in our process." - This system is depicted in Fig 6 of the application.

Hydrochloric Acid
The main activities where there is potential for fugitive HCl emissions is in the loading of HCl into bulk trucks and tank cars. The facility stated: "Our loading activities are closed loop (the HCl being pumped into the vessel forces the air into our scrubber system for recovery) and there is additional vapor collection located at the HCl loading racks for varying circumstances where we need to open cars for inspection." –Figure 4 in the Application shows a schematic of the vapor recovery for the tanks and the loading/unloading areas associated with HCl.

Bureau's understanding is that there is still some potential for fugitive particulate emissions but they will be controlled in a manner that should not produce undesirable levels of PM (Dust) emissions. Because this facility would have been subject to Subpart NNNNN that has LDAR requirements, implying there are fugitives from this type of operation, the fugitive emissions from this facility will need to be estimated and included in the modeling analysis to show compliance with Standard 8, or, alternatively, they should be minimized through the use of preventive maintenance Leak detection and repair (LDAR) program. The facility agreed (via Jan 13, 2014 e-mail) to have an LDAR plan submitted prior to the startup in April 2015. The LDAR plan condition will be a condition in the operating permit for this facility.

Air emissions from sulfuric acid handling and storage are not expected at higher than trace levels because the vapor pressure of sulfuric acid is extremely low.

The expected operating schedule for the facility is 24 hours per day, 7 days per week, and 52 weeks per year. Calculation of the "Potential-to-Emit" (PTE), as defined in Federal and State Air Regulations assumed that the facility will operate at maximum design capacity for 8,760 hours per year, in the absence of air pollution control equipment. The uncontrolled emission rate is estimated at the inlet point to the baghouse or scrubber and the controlled emission rate is estimated at the outlet from the control device.

Natural gas combustion emissions
Criteria pollutant air emissions resulting from the combustion of natural gas in the burners used to heat the two reactors are estimated in Table-3. The emission estimate also includes pollutants from the one million Btu/hour heat input direct-fired heater used dry the air to the spray tower. These estimates are based on the AP-42 emission factors for natural gas combustion in small boilers. The emissions estimate assumes continuous operation of all of the burners at rated capacity.

Table 4 presents estimates of the maximum emissions of "Greenhouse Gases" (GHG) from the combustion of natural gas-fired burners used to heat the two reactors, expressed as carbon dioxide equivalents. These estimates are also based on the emission factors contained in the EPA Publication AP-42 and 40 CFR 98, Subpart A, Table A-1.

Table 3 -Estimated Criteria Pollutant PTE for Fuel Burning Emissions from Site Natural Gas Combustion

Rated Heat	PM	PM	SO2	SO2	NOx	NOx	CO	CO	VOC	VOC	VOC

	Input Cap. (MMBtu/hr)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(tpy)
AP-42 Em. Factor, Supl. D (7/98) Table1.4-1, and -2 (lb/MMcf) ***		7.60		0.6		50		84		5.5		
Unit Name												
SBS Reactor V-2100	9.00	0.065	0.29	0.005	0.02	0.43	1.9	0.72	3.2	0.05	0.21	0.21
SBS Reactor V-2200	9.00	0.065	0.29	0.005	0.02	0.43	1.9	0.72	3.2	0.05	0.21	0.21
SBS Spray Tower Air Heater	1.00	0.007	0.03	0.001	0.003	0.05	0.2	0.08	0.4	0.01	0.02	0.02
Total	19.0	0.14	0.6	0.01	0.05	0.90	4.0	1.5	6.7	0.1	0.4	0.4

Natural Gas consumption for SBS Reactor V-2100 in cu. ft./hour at rated capacity =8,571
Natural Gas consumption for SBS Reactor V-2200 in cu. ft./hour at rated capacity =8,571
Natural Gas consumption for SBS Air Heater in cu. ft./hour at rated capacity = 952
Potential emissions are based on 8760 hours of operation per year.
*** Used emission factor for Low NOx burners for small industrial boilers.

Table 4 Estimated Greenhouse Gas PTE for Fuel Burning Emissions from Site Natural Gas Combustion

	(a) Rated Heat Input Cap. (MMBtu/hr)	(b) Heat Content of Fuel	(c)=(a)/(b) Natural Gas Combustion	(d)=(c)*EF CO2 (lb/hr)	(e)=(d)*4.38 CO2 (tpy)	(f)=(e)*1 CO2 CO2e (tpy)	(g)=(c)*EF CH4 (lb/hr)
				120,000			2.3
Unit Name							
SBS Reactor V-2100	9.00	1050	0.00857	1029	4505		
SBS Reactor V-2200	9.00	1050	0.00857	1029	4505	4505	0.02
SBS Spray Tower Air Heater	1.00	1050	0.00095	114	501	4505	0.02
						501	
	19.0		0.02	2,171	9,511		
						9,511	

Table 4 cont.

	(a) Rated Heat Input Cap. (MMBtu/hr)	(h)=(g)*4.38 CH4 (tpy)	(i)=(h)*21 CH4 CO2e (tpy)	(j)=(c)*EF N2O (lb/hr)	(k)=(j)*4.38 N2O (tpy)	(l)=(k)*310 N2O CO2e (tpy)	Total CO2e (tpy)
				2.2			
Unit Name							
SBS Reactor V-2100	9.00						4533
SBS Reactor V-2200	9.00	0.09	1.8	0.02	0.08	26	4533
SBS Spray Tower Air Heater	1.00	0.09	1.8	0.02	0.08	26	504
					501		
	19.0	0.02	2,171	9,511		9,511	9,569
					9,511		

Carbon dioxide (GHG) equivalents from Table A-1, 40 CFR 98, Subpart A (CO_2 = 1, Methane = 21, N2O = 310).
Potential emissions (PTE) based on 8760 hours of operation per year.

FACILITY WIDE EMISSIONS		
Pollutant	**Uncontrolled Emissions**	**Controlled/Limited Emissions**
	TPY	**TPY**
PM	3456	37
PM_{10}/	3456	37
$PM_{2.5}$	3456	37
SO2	1	1
NOx	4	4
CO	7	7
VOC	1	1
Lead	N/A	N/A
Greenhouse Gases (GHG)	9511	9511
Greenhouse Gases (CO2e basis))	9569	9569
Highest HAP (HCl)	397	4
Total HAP emissions	397	4

OPERATING PERMIT STATUS-
This construction permit is a synthetic minor because the facility is taking federally enforceable limits to stay below the Title V and PSD major source thresholds for PM, PM_{10}, $PM_{2.5}$ and HAPs.

REGULATORY APPLICABILITY REVIEW

Regulation	Comments/Periodic Monitoring Requirements
Section II.E - Synthetic Minor	This construction permit is a synthetic minor because the facility requests federally enforceable limits to stay below the Title V and PSD major facility thresholds for PM, PM_{10}, $PM_{2.5}$ and HAPS.
Standard No. 1	Regulation 61-62.5, Standard No. 1 will apply to the natural gas fired burners used to heat the reactors. The potential particulate matter and sulfur dioxide emissions that will result from natural gas

Regulation	Comments/Periodic Monitoring Requirements
	combustion in the reactors will be below the allowable rates in Regulation 61-62.5, Standard No. 1, so the units will comply with this Standard.
Standard No. 3 (state only)	This process does not contain waste combustion or reduction sources.
Standard No. 4	The emission sources within the facility have opacity limits (including any fugitives) and Particulate Matter (PM) allowable emissions rates (based on a process weight rate in tons per hour) imposed by this standard.
Standard No. 5	The facility was not in existence in 1979 or 1980.
Standard No. 5.1 (state only)	The VOC emissions from this project are below the applicability limit of this Regulation..
Standard No. 5.2	The natural gas burners used to heat the reactors and the air heater for the spray tower are not subject to SCDHEC Air Regulation 61-62.5, Standard No. 5.2, "Control of Oxides of Nitrogen" because the heat input of each unit is below 10 million Btu/hour heat input, so the equipment qualifies for exemption (b)(1) of Air Regulation 61-62.5, Standard No. 5.2. However, the facility plans to utilize low NOx burners to heat the reactors.
Standard No. 7	The facility's PTE for PM emissions is greater than 100 TPY for non-GHG emissions. However, the facility will take Synthetic Minor Emission Limitations of 100 tpy for PM, PM10, PM2.5 and will remain a minor source for NSR.
61-62.6	The fugitive PM (Dust) emissions will be controlled in a manner that should minimize the levels of PM (Dust) emissions.
40 CFR 60 and 61-62.60	The NSPS for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE) at 40 CFR Part 60 Subpart IIII will apply to the diesel powered engine(s) that drive the emergency electrical generator(s). The units will be for emergency use only. A non-resettable hour meter will be installed, and non-emergency operation for maintenance and readiness testing of the engine will be limited to 100 hours per year for each engine. The engines purchased will meet the requirements of this regulation. NSPS Standards for Synthetic Organic Chemical Manufacturing, including Subparts VV, VVa, III, NNN, and RRR do not apply to the Jones-Hamilton plant because the proposed facility will not "produce as a product, co-product, or intermediate" any chemical regulated as a Synthetic Organic Chemical by these Standards. Subpart H does not apply because the facility does not have a sulfuric acid production unit. No other "affected facility" as defined in NSPS Regulations will be constructed at the facility, so Subpart IIII applicable to the engine(s) and the General Requirements contained in Subpart A are the only NSPS Regulations that apply.
40 CFR 61 and 61-62.61	This facility does not contain any processes/operations that emit the pollutants subject to this standard
40 CFR 63 and 61-62.63	With the requested enforceable permit conditions limiting HCl emissions to less than 10 tons per year, the facility will not be classified as a major source of HAP emissions. The facility will, however, be classified as a minor source (called an "area" source under 40 CFR 63 Regulations). 40 CFR 63, Subpart NNNNN, (HCl Production) does not apply to this facility because this Rule applies only to major HAP sources and the facility is not classified as a major source of HAPs. No other provisions of the MACT Rules applicable to major sources apply to the proposed facility because the facility will be limited by the air permit to non-major (area) source classification for HAP emissions. Following are the MACT Rules promulgated under 40 CFR 63 that apply to area sources that might be potentially applicable . The MACT Rule for Reciprocating Internal Combustion Engine (RICE) at 40 CFR Part 63, Subpart

Regulation	Comments/Periodic Monitoring Requirements
	ZZZZ that applies to both major and area sources of HAPs will apply to the diesel powered engine(s) that drive the emergency electrical generator(s). However, the only applicable requirement of this rule for an emergency generator at an area source is to meet any applicable provisions of NSPS Subpart IIII. No further requirements, including the initial notification and other NESHAP provisions apply to the generator engine(s) under this rule. -Area source MACT Rules at 40 CFR 63, Subpart VVVVVV [6V] (Chemical Manufacturing Industry Area Sources – CMAS)-Subpart VVVVVV does not apply to the operations at the proposed facility because it will not use as feedstocks, generate as byproducts, or produce as products any of the HAPs listed in Table 1 of the Rule. -Subpart BBBBBBB [7B] (Chemical Preparations Industry) does not apply to the proposed facility because it will not contain a chemical preparation operation in "Target HAP Service" as defined in the Rule.
61-62.68	Not applicable; The liquid HCl stored at the site is below 37% HCl concentration. And the total amount of anhydrous HCl present at anytime will be 75 pounds, below this Regulation's threshold quantity limit of 5000 lbs of anhydrous HCl.
40 CFR 64	Not applicable; Not a Title V facility.

MODELING REVIEW

Regulation	Comments/Periodic Monitoring Requirements
Standard No. 2	This facility has demonstrated compliance through modeling; see modeling summary dated 12/17/13 (GSQ)
Standard No. 7.c	This facility has demonstrated compliance through modeling; see modeling summary dated 12/17/13 (GSQ).
Standard No. 8 (state only)	This facility has demonstrated compliance through modeling; see modeling summary dated 12/17/13 (GSQ). An LDAR plan for the fugitive HCl emissions will be submitted prior to the start of operation of this facility.

PUBLIC NOTICE

This construction permit will undergo a 30-day public notice period to establish synthetic minor limits in accordance with SC Regulation 61-62.1, Section II(N). This permit was placed in *The News and Reporter* newspaper on January 17, 2014. The comment period was open from January 17, 2014 to February 15, 2014 and was placed on the BAQ website during that time period. Comments were received during the comment period. The public notice was republished in *The News and Reporter* and the comment period was open to March 20, 2014.

ADDITIONAL PUBLIC PARTICIPATION

A public meeting was held on Tuesday, February 18, 2014 in Richburg, SC. A public hearing was held on Thursday, March 13, 2014 in the same location to receive oral and written comments on the record. All comments are addressed in the response to comments document.

SUMMARY AND CONCLUSIONS

It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.