CHATTANOOGA-HAMILTON COUNTY AIR POLLUTION CONTROL BUREAU

Statement of Basis
Part 70 Permit No. 47-065-4240

Porter Warner Industries, LLC
P.O. Box 2159
Chattanooga, Tennessee 37409-0159
2 East 38th Street
Chattanooga, Tennessee 37410-1423
Designated Representative: Gerald Hilton
Telephone: (423) 266-4735

J. Alan Frazier
Engineer
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Emission Unit No.	Equipment
001	Three 310-Ton Capacity Sand Storage Silos
002	Sand Delivery System
003	Resin-Coated Sand Production Lines #1, #2, and #3
004	150-Ton Capacity Sand Storage Silo

Purpose

Porter Warner Industries, LLC has applied for the renewal of their Part 70 permit, which is due to expire on February 2, 2009. This company name is listed with the Office of the Tennessee Secretary of State. A Part 70 permit application update was received from Porter Warner on August 29, 2008. This statement of basis includes discussions of the operation of the permitted equipment, the air pollutant emissions, and the applicable regulations. It has been adapted from the Bureau annual inspection report for Porter Warner dated August 27, 2009.

Process Description

Porter Warner produces resin-coated sand, known as shell sand, that is subsequently used by iron and steel foundries for forming cores. This sand is also infrequently used by the foundries to form molds, but other sand mixtures are normally used for this purpose. Molten iron or steel is poured into the sand molds, which form the external surface of metal castings. Cores are molded sand shapes that are used to fashion internal voids in the castings.

Sand (silica, silicon dioxide, SiO_2) is normally received at the plant in railcars, but it can also be brought in by truck. The sand is transferred from the railcars to a bucket elevator by way of a belt conveyor. The bucket elevator then loads any of three storage silos **(Emission Unit 001)** that are each dedicated to hold sand of a specific size classification. Sand that is delivered by truck is pneumatically conveyed directly to the appropriate silo. The capacity of each of the three silos is 310 tons. The bucket elevator and three silos are each equipped with a sock filter that is used to control particulate emissions of sand that occur during loading. A portion of the air that is displaced from loading a silo is considered to be exhausted through the sock filter for the bucket elevator.

Sand from the three 310-ton capacity silos is unloaded onto a belt conveyor by way of separate screw conveyors. Only one of the three silos can be unloaded at a time. This belt conveyor deposits the sand into a bucket elevator that carries it to a compartmentalized hopper. The belt conveyor for railcar unloading and the belt conveyor for unloading the three silos are adjacent to each other and are collectively referred to as the sand delivery system **(Emission Unit 002)**. Uncontrolled fugitive particulate emissions of sand result from four transfer points of this system. These points are as follows: where sand is unloaded onto the first belt conveyor from railcars, where sand is discharged from the first belt conveyor to the bucket elevator for the three silos, where sand is deposited onto the second belt conveyor from the three screw conveyors that serve the three silos, and where sand is discharged from the second belt conveyor to the bucket elevator for the compartmentalized hopper. The point where sand is discharged from the first belt conveyor to the bucket elevator for the silos is partially covered by an enclosure with a screened vent. No particulate emissions result from the filling of the compartmentalized hopper and a weigh hopper that follows it because these vessels are sealed and are vented back to the enclosed bucket elevator.

From the compartmentalized hopper, sand of the required size classification is weighed and pneumatically conveyed to any of three resin-coated sand production lines **(Emission Unit 003)**. These batch lines are designated as Lines #1, #2, and #3. Lines #1 and #2 are nearly identical, and they each have a production capacity of 7,500 lbs/hr. The production capacity of Line #3 is 12,000 lbs/hr. Lines #1 and #2 each consist of the following pieces of equipment, in order: a surge hopper, a weigh hopper, a heater, a “muller,” an initial screen, a cooler, an enclosed bucket elevator, a storage bin, a final screen, and a bagging station. Line #3 consists of the same pieces of equipment in the same order, except that the final screen precedes the bucket elevator. On rare occasions, zircon sand (zirconium silicate, $ZrO_2 \cdot SiO_2$) may be used in place of silica sand. If needed, it is dispensed to any of the three production lines by hand from bulk bags.

The sand is directly heated to a temperature of about 295°F in the heaters, which are fueled exclusively by natural gas. The heaters for Lines #1 and #2 each have a rated capacity of about 1.0 MMBtu/hr, and the rated capacity of the heater for Line #3 is about 2.0 MMBtu/hr. Emissions that result from fuel combustion in each of these three heaters are classified as an insignificant activity in accordance with §4-56(c)(12)(xiii).

The thermosetting resin that is used to coat the sand is novolac, which is a polymer of phenol (C_6H_5OH) and formaldehyde (methanal, CH_2O). The novolac resin, in the form of flakes, is mixed in with each batch of heated sand in the mullers. The resin melts and adheres to the sand grains. The coated sand in the mullers is then partially cooled by being quenched with water into which hexamethylenetetramine [HMTA, hexamine, $(CH_2)_6N_4$] has been dissolved. The hexamine serves to cure the resin. A small quantity of calcium stearate

$[(CH_3[CH_2]_{16}COO)_2Ca]$ powder, which functions as a lubricant for the coated sand, is added to the sand in the mullers at the end of each batch.

Novolac resin, which is made by using excess phenol, contains some unpolymerized phenol monomer and a lesser amount of unpolymerized formaldehyde monomer. A portion of the hexamine may decompose in the mullers by reacting with water to form formaldehyde and ammonia (NH_3) in accordance with the following reaction: $(CH_2)_6N_4 + 6H_2O \rightarrow 6CH_2O + 4NH_3$. Steam is vented from the mullers during the water quenching step, and uncontrolled VOC emissions of phenol and uncontrolled particulate emissions of sand are entrained in this steam. Any VOC emissions of formaldehyde and any ammonia emissions that may be entrained in this steam are uncontrolled and negligible.

A solution known as Ecosorb® is injected as a fine spray through three atomization nozzles that are located just above the base of the exhaust stack for each muller while steam is being vented. It is injected upwards in the exhaust stacks for Lines #1 and #2, and it is injected horizontally in the stack for Line #3. According to the manufacturer, it serves to neutralize the phenol odors that result from the mullers. Ecosorb® contains non-toxic, naturally occurring essential oils, which are derived from plants, and its MSD sheet indicates that it has a slight citrus or floral odor. While the manufacturer claims that it is not a masking agent, the mechanism by which it counteracts odors is not readily apparent. Therefore, Ecosorb® cannot be considered to actually decrease the emissions of phenol, formaldehyde, or ammonia.

Particulate emissions of sand that result from the heater, cooler, and final screen of each of the three production lines, from the initial screen and bagging station of each of Lines #1 and #2, and from the storage bin of Line #3 are controlled by a single baghouse. No particulate emissions are currently considered to result from the initial screen and bagging station of Line #3 because these two pieces of equipment are located indoors and are not adjacent to any openings.

Filterable particulate emissions that result from burning natural gas in the heaters of the three production lines are controlled by the baghouse, and other emissions that result from fuel combustion in the heaters are uncontrolled. Particulate emissions of calcium stearate are also emitted from the coolers and are controlled by the baghouse. The coolers function by sparging cold air through the sand. Calcium stearate is not emitted from the exhaust stacks for the mullers because a drying fan damper is closed off before the calcium stearate is added.

Particulate emissions of sand from the surge hoppers of Lines #1 and #2 are controlled by a single baghouse, and particulate emissions of sand from the surge hopper of Line #3 are controlled by another baghouse. No particulate emissions result from the filling of the weigh hoppers of the three lines or from the filling of the storage bins of Lines #1 and #2 because these vessels are sealed and are vented to the equipment that precedes them.

The resin-coated sand product is packaged in the bagging station of each of the three production lines into bulk bags that have an average capacity of 1.5 tons. Rather than being bagged, some of the coated sand product can be transferred by way of a belt conveyor from the bucket elevator of Line #3 to a 150-ton capacity silo **(Emission Unit 004)**. Particulate emissions of sand that result from filling this silo are controlled by a baghouse. Either railcars or trucks can be loaded with product from the silo by way of another belt conveyor. No particulate emissions result from either of the two belt conveyors because the points where sand is deposited onto them and discharged from them are enclosed.

Evaluation

Emission Unit 001 Three 310-Ton Capacity Sand Storage Silos

Each of the three 310-ton capacity sand storage silos can be loaded from a railcar at a maximum rate of about 50,000 lbs/hr and from a truck at a maximum rate of approximately 22,500 lbs/hr. Only one of the silos can be loaded at any one time from a railcar, and only one of them can be loaded at a time from a truck, although loading from trucks is not normally done. The three resin-coated sand production lines combined use sand at a maximum rate of 27,000 lbs/hr, and they are each operated for no more than 6,000 hrs/yr. The annual production of resin-coated sand from the three lines combined during calendar year 2008 was 7,595.71 tons. No sand was received by truck in 2008. Each of the sock filters has an estimated particulate control efficiency of 99%.

The estimated particulate emissions from the three silos and bucket elevator combined are given in the table at the end of this section. These emissions were calculated by using an AP-42 (1993) uncontrolled emission factor of 0.029 lb/ton. The potential emissions are based on loading sand at the maximum rate and on supplying the maximum amount of sand that could be required by the three resin-coated sand production lines.

The particulate emissions from the three 310-ton capacity sand storage silos and bucket elevator combined are limited by Rule 10.7 to 0.25 gr/scf. This limitation is equivalent to 0.011 lb/hr for the calculated exhaust flow rate of 5.05 scfm when a silo is being loaded from a railcar by way of the bucket elevator, and it is equivalent to 0.64 lb/hr for the stated exhaust flow rate of 300 scfm when a silo is being pneumatically loaded from a truck. The exhaust flow rate for loading from a railcar is considered to be equivalent to the amount of air that is displaced from a silo by sand that has a specific gravity of 2.65, according to an MSD sheet. The Rule 10.7 limitation is more stringent than the Rule 10.3 (Schedule 2) particulate emission limit of 26.4 lbs/hr for loading from a railcar and 16.1 lbs/hr for loading from a truck.

Emission Unit 002 Sand Delivery System

Railcars are unloaded at a rate of about 50,000 lbs/hr. The three larger silos can each be unloaded at a maximum rate of about 80,000 lbs/hr, and only one of them can be unloaded at a time. The three resin-coated sand production lines combined use sand at a maximum rate of 27,000 lbs/hr, and they are each operated for no more than 6,000 hrs/yr. The annual production of resin-coated sand from the three lines combined during calendar year 2008 was 7,595.71 tons. No sand was received by truck in 2008.

The estimated particulate emissions from the sand delivery system are given in the table at the end of this section. These emissions were calculated by using an AP-42 (1993) emission factor of 0.029 lb/ton for each of the four transfer points of this system. The potential emissions are based on unloading sand at the maximum rates and on supplying the maximum amount of sand that could be required by the three resin-coated sand production lines.

The particulate emissions from the sand delivery system are limited by Rule 10.3 (Schedule 2) to 26.4 lbs/hr for the belt conveyor for railcar unloading and 31.2 lbs/hr for the belt conveyor for unloading the three 310-ton capacity silos. The Rule 10.7 particulate emission limit of 0.25 gr/scf for each of the four transfer points of the sand delivery system is not applicable because the emissions are fugitive in nature.

Emission Unit 003 Resin-Coated Sand Production Lines #1, #2, and #3

Each of Resin-Coated Sand Production Lines #1 and #2 operate at a rate of about 4.0 minutes/batch, and Resin-Coated Sand Production Line #3 operates at a rate of about 3.75 minutes/batch. Lines #1 and #2 each have a production capacity of 500 lbs/batch and 7,500 lbs/hr, and the production capacity of Line #3 is 750 lbs/batch and 12,000 lbs/hr. Each of the three lines is operated for no more than 6,000 hrs/yr. The annual hours of operation during calendar year 2008 were 271.68 hours for Line #1, 0 hours for Line #2, and 1,143.16 hours for Line #3. The annual production of resin-coated sand from the three lines combined during 2008 was 7,595.71 tons. Apportioning this quantity among the production lines by prorating by actual hours of operation and weighting by production capacities results in 982.32 tons for Line #1 and 6,613.39 tons for Line #3.

Novolac resin is applied to the sand at average and maximum rates that are equivalent to 3.0% and 4.0% of the production rate, respectively. The hexamine usage rate is equal to 15% of the usage rate for resin. According to MSD sheets, the novolac resin that is used has average and maximum unpolymerized phenol concentrations of 4.0% and 5.5%, respectively. However, if the resin is applied at the maximum rate of 4.0% of the production rate, it can have an unpolymerized phenol concentration of no more than 4.4%. In addition, if the resin has the maximum unpolymerized phenol concentration of 5.5%, it can be applied at a rate of no more than 3.2% of the production rate. The resulting average and maximum unpolymerized phenol concentrations of any batch of sand when resin is initially applied to it are 0.120% ($0.030 \times 4.0\%$, 1,200 ppm) and 0.176% ($0.040 \times 4.4\%$ or $0.032 \times 5.5\%$, 1,760 ppm), respectively. The average and maximum concentrations of unpolymerized formaldehyde that are in the resin are 0.2% and 0.3%, respectively.

Samples of resin-coated sand product were collected on March 2, 1995, and were analyzed to determine the concentration of unpolymerized phenol in them. These samples were produced by using novolac resin that had the average unpolymerized phenol concentration of 4.0% and that was applied to the sand at varying rates. The sample analysis results indicate that the amount of unpolymerized phenol that is in a given quantity of coated sand is nearly linearly proportional to the amount of unpolymerized phenol that was in the resin that was applied to that sand. Analyses of the samples that were produced by applying resin at the average rate, which is equivalent to 3.0% of the production rate, resulted in an unpolymerized phenol concentration of 800 ppm in the coated sand product. Using the method of least squares to extrapolate the sample analysis results to coated sand that is produced by using sand that has the maximum unpolymerized phenol concentration of 1,760 ppm upon resin application results in an unpolymerized phenol concentration of 1,304.8 ppm in the product. All of the unpolymerized phenol that is supplied from the resin and that does not remain in the product is considered to be emitted. No formaldehyde emissions were detected by sampling of the muller for Line #1 that was conducted on May 28, 1998, using Sensidyne/Gastec detector tubes.

The main baghouse for the resin-coated sand production process, the baghouse for the surge hoppers of Lines #1 and #2, and the baghouse for the surge hopper of Line #3 each have an estimated particulate control efficiency of 99.9%. It is estimated that approximately 1,000 pounds of particulate matter were collected by the main baghouse per month before Line #3 began operating and before the surge hoppers of Lines #1 and #2 were vented to a separate baghouse. Based on the average production rate at that time of 1,500 tons/month and on not counting the filterable particulate emissions that result from natural gas combustion in the heaters, the resulting process particulate emission factor is 0.666 lb/ton before control by the baghouse. The emission sources of each of Lines #1 and #2 that are encompassed by this emission factor are the surge hopper, the heater, and the cooler.

AP-42 (1993) uncontrolled emission factors for the screens and bulk loading are 0.16 lb/ton and 0.056 lb/ton, respectively. Because the initial screens, final screens, and bagging stations of Lines #1 and #2 are now also vented to the main baghouse, the revised process particulate emission factor for each of these two production lines, including their surge hoppers, is approximately 1.042 lb/ton before control by a baghouse. Since the final screen and storage bin of Line #3 are currently vented to the main baghouse, the revised process particulate emission factor for Line #3, including its surge hopper, is approximately 0.882 lb/ton before control by a baghouse. The particulate emissions that result from each of the three mullers have not been estimated, but are assumed to be less than 0.10 lb/hr.

The estimated process particulate emissions and VOC emissions of phenol from the three resin-coated sand production lines are given in the table at the end of this section. The potential emissions are based on simultaneous operation of all three production lines for 6,000 hrs/yr at their capacities while using resin that contains the maximum unpolymerized phenol concentration and that is applied to the sand at the maximum rate. The emissions that result from natural gas combustion in the heater of each of the three production lines are classified as an insignificant activity.

The resin-coated sand production process was modified in 1996 by the addition of Line #3. Therefore, the VOC emissions from this process are subject to BACT (Rule 25.3). It has been determined that no controls are necessary in order to satisfy BACT for these emissions. Appropriate BACT limitations for the VOC emissions of phenol have been previously determined to be 3.5 lbs/hr for each of Lines #1 and #2 and 5.7 lbs/hr for Line #3. An appropriate BACT limitation for the unpolymerized phenol concentration of sand when novolac resin is initially applied to it has been previously determined to be 0.176%. In addition, an appropriate BACT limitation for the operating hours for each line of this process has been previously determined to be 6,000 hrs/yr.

The particulate emissions from the resin-coated sand production process are subject to BACT (Rule 27.1). Control of the particulate emissions from various emission sources of this process by a baghouse has been determined to be BACT. An appropriate BACT limitation for the particulate emissions from the two surge hoppers of Lines #1 and #2 combined has been previously determined to be 0.005 lb/hr. An appropriate BACT limitation for the particulate emissions from the surge hopper of Line #3 has also been previously determined to be 0.005 lb/hr. An appropriate BACT limitation for the particulate emissions from the main production process baghouse has been previously determined to be 0.04 lb/hr. In addition, an appropriate BACT limitation for the particulate emissions from the muller of each of the three production lines has been previously determined to be 0.10 lb/hr.

Each of the BACT particulate emission limitations is more stringent than the Rule 10.7 particulate emission limit of 0.25 gr/scf. The Rule 10.7 limit for the surge hoppers of Lines #1 and #2 cannot be converted into units of lbs/hr because the exhaust flow rate of the baghouse for these surge hoppers is not available at this time. The Rule 10.7 limit for the Line #3 surge hopper is equivalent to 0.75 lb/hr for the stated exhaust flow rate of 350 scfm for the baghouse of this surge hopper. The Rule 10.7 limit for the main production process baghouse is equivalent to 16.69 lbs/hr for the stated exhaust flow rate of 7,789 scfm for this baghouse. Each of the Rule 10.7 limits for the mullers of Lines #1 and #2 are equivalent to 1.61 lbs/hr for the previously stated exhaust flow rate of 750 scfm for each of these mullers, although the actual exhaust flow rate for the Line #1 muller is now somewhat higher than that for the Line #2 muller. The Rule 10.7 limit for the muller of Line #3 is equivalent to 2.57 lbs/hr for the stated exhaust flow rate of 1,200 scfm for this muller. The sum of the BACT particulate emission limitations for the emission sources of the production process is equal to 0.35 lb/hr and is more stringent than the Rule 10.3 (Schedule 2) particulate emission limit of 18.0 lbs/hr for the combined sources of the production process.

Emission Unit 004 150-Ton Capacity Sand Storage Silo

The 150-ton capacity sand storage silo can be loaded at a rate of 12,000 lbs/hr, which is the maximum production rate for Resin-Coated Sand Production Line #3. This line is operated for no more than 6,000 hrs/yr. The baghouse has an estimated particulate control efficiency of 99.9%. No sand was loaded into the silo during calendar year 2008.

The estimated particulate emissions from the silo are given in the table at the end of this section. These emissions were calculated by using an AP-42 (1993) uncontrolled emission factor of 0.029 lb/ton. The potential emissions are based on loading, at the maximum rate, the maximum amount of resin-coated sand that could be produced by Line #3.

Porter Warner is located within the former particulate non-attainment area. The 150-ton capacity sand storage silo was installed in 1990. As of 2002, the silo went for two years without being used, and it was no longer considered to be an existing source at that time, in accordance with §4-8(c)(1). In addition, potential particulate emissions from the silo, before being controlled, are estimated to be 0.52 ton/yr. Although the particulate emissions from the silo could be considered (as of 2002) to be subject to Rule 27.3 (reasonable and proper emission limitations), these emissions continue (since 1990) to be subject to BACT [§4-8(e)(2)] because BACT is more stringent. Control of these emissions by a baghouse has been determined to be BACT. An appropriate BACT limitation for the particulate emissions from the silo has been previously determined to be 0.002 lb/hr. This limitation is more stringent than both the Rule 10.3 (Schedule 2) particulate emission limit of 10.9 lbs/hr and the Rule 10.7 particulate emission limit of 0.25 gr/scf, which is equivalent to 0.54 lb/hr for the stated exhaust flow rate of 250 scfm for the baghouse of the silo.

Plant-Wide Emissions

Pollutant and Source	Actual Emissions *tons/yr*	Potential Emissions *lbs/hr*	Potential Emissions *tons/yr*	Allowable Emissions *lbs/hr*
Particulate Matter				
Silos Loading from Railcar (001)	0.0011	0.0073	0.012	0.011*
Silos Loading from Truck (001)	-0-	0.0033		0.64*
Railcar Unloading (002)	0.220	1.450	2.349	26.4
Silos Unloading (002)	0.220	2.320	2.349	31.2
Resin Line #1 Muller (003)	0.014	0.100	0.300	0.10
Resin Line #2 Muller (003)	-0-	0.100	0.300	0.10
Resin Line #3 Muller (003)	0.057	0.100	0.300	0.10
Resin Process Baghouses (003)	0.0034	0.013	0.039	0.05
150-Ton Capacity Silo (004)	-0-	0.00017	0.00052	0.002
Total Particulate	**0.516**	**4.094**	**5.650**	**58.603**
Phenol (Volatile Organic Compound)				
Resin Line #1 (003)	0.393	3.414	10.242	3.5
Resin Line #2 (003)	-0-	3.414	10.242	3.5
Resin Line #3 (003)	2.645	5.462	16.387	5.7
Total Phenol	**3.038**	**12.290**	**36.871**	**12.7**

*0.25 gr/scf

Health Risk Analysis

Phenol is a HAP. It is an irritant to the nose and throat, and it is a severe eye and skin irritant. Inhalation of phenol can result in anorexia, weight loss, weakness, muscle ache, convulsions, kidney damage, and liver damage. It has a distinctive medicinal odor.

SCREEN3 modeling (assuming flat terrain and no building downwash) of the total allowable phenol emissions of 12.70 lbs/hr and 38.10 tons/yr from the resin-coated sand production process results in maximum ambient concentrations of 1,340.9 μg/m^3 (1 hr avg.), 938.6 μg/m^3 (8 hr avg.), and 73.47 μg/m^3 (approximate annual avg.). The concentration resulting from a one-hour averaging time is *2.2%* of the REL (ceiling) of 60,000 μg/m^3 and *5.7* times greater than the odor threshold of 60 ppb (234.8 μg/m^3). (Actual phenol emission odors are counteracted by the use of the Ecosorb® exhaust injection systems.) The concentration resulting from an eight-hour averaging time is *4.8%* of the TLV (8 hr avg.) of 5 ppm (19,570 μg/m^3). The concentration resulting from an annual averaging time is *1.58* times greater than the TLV divided by 420. SCREEN3 modeling (assuming flat terrain and no building downwash) of the actual phenol emissions of 7.119 tons/yr from this process results in a maximum ambient concentration of 14.55 μg/m^3 (approximate annual avg.). This concentration is *31%* of the TLV divided by 420.

Formaldehyde is a HAP. It has been classified as a probable human carcinogen by the EPA and as a suspected human carcinogen by the American Conference of Governmental Industrial Hygienists (ACGIH). It is an irritant to the nose, throat, and respiratory tract, and it is a severe eye and skin irritant. Inhalation of formaldehyde can result in coughing, difficult breathing, bronchospasm, and pneumonia. In addition, exposure to formaldehyde in the air can result in excessive tears. It has a hay/straw-like pungent odor. It has a TLV (ceiling) of 0.3 ppm (374.6 μg/m^3), an REL (15 min avg.) of 0.1 ppm (124.9 μg/m^3), an inhalation unit risk factor of 1.3×10^{-5}, and an odor threshold of 0.83 ppm (1,036 μg/m^3). Air dispersion modeling of any negligible VOC emissions of formaldehyde from the resin-coated sand production process is not necessary.

Ammonia is a severe irritant to the eyes, nose, throat, and respiratory tract. Inhalation of ammonia can result in difficult breathing and chest pain. It has a pungent, suffocating odor. It has a TLV (15 min avg.) of 35 ppm (24,790 μg/m^3), a TLV (8 hr avg.) of 25 ppm (17,710 μg/m^3), and an odor threshold of 0.037 ppm (26.21 μg/m^3). Air dispersion modeling of any negligible ammonia emissions from the resin-coated sand production process is not necessary.

Conclusions

The three 310-ton capacity sand storage silos (Emission Unit 001) are subject to and in compliance with §4-41, Rule 3 (visible emissions), Rule 10 (particulate emissions), and Rule 26.11 (RACT visible emissions from material handling sources) of the Chattanooga Air Pollution Control Ordinance (the Ordinance).

The sand delivery system (Emission Unit 002) is subject to and in compliance with §4-41, Rule 10 (particulate emissions), Rule 11 (visible emissions from material handling in open air), and Rule 26.11 (RACT visible emissions from material handling sources) of the Ordinance.

The three resin-coated sand production lines (Emission Unit 003) are subject to and in compliance with §4-41, Rule 12 (odor), Rule 25.3 (BACT VOC emissions), and Rule 27.1 (BACT particulate and visible emissions) of the Ordinance.

The 150-ton capacity sand storage silo (Emission Unit 004) is subject to and in compliance with §4-8(e)(2) (BACT particulate and visible emissions) of the Ordinance.

§4-68(d) (Compliance Assurance monitoring [40 CFR Part 64 (§64.1-10)]) of the Ordinance is not applicable to any of the emission sources at this plant.