



STATEMENT OF BASIS

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BAQ Engineering Services Division
 2600 Bull Street, Columbia, SC 29201
 Phone: 803-898-4123 Fax: 803-898-4079

Company Name:	Conbraco Industries, Inc.	Permit Writer:	Reginald E. Robinson
Permit Number:	CM-1340-0061	Date:	August 3, 2008

DATE APPLICATION RECEIVED: June 30, 2008

DATE OF LAST INSPECTION: March 19, 2007. This source was found to be operating in violation of a condition of the permit. This matter is being referred to BAQ Enforcement for resolution. The dust collection system on the Induction Melting Deck is ineffective and needs to be modified. The reasons for the excess emissions from the Wax Burnout Oven and the fugitive emissions from the Pangborn blaster should be found and these problems corrected.

FACILITY DESCRIPTION: Conbraco produces investment steel castings, industrial ball valves and screw machine products that function as valves for either gas, water and/or oil properties. These valves are primarily bronze, stainless steel and carbon steel. Also produced at this facility are valves made from special materials such as titanium. Conbraco is a potential major source for PM₁₀ but has effectively installed baghouses to control these particulates from discharging to the ambient air.

PROJECT DESCRIPTION: Facility is requesting a renewal of their Conditional Major operating permit.

CHANGES SINCE LAST OP ISSUANCE: ID 13 Kolene Nu-Tride Salt Bath and Rinse unit has been removed from the facility along with the control device SCR-15 Wet Scrubber. Exempt sources PU3 and PU4 are no longer present at the facility and have been removed from the operating permit tables. An additional exempt source was added to the facility (CAPT) Citric Acid Passivation Tank. On January 2, 2008, the EPA published the NESHAP for Area Sources for Iron and Steel Foundries (40 CFR Part 63, Subpart ZZZZZ). This facility will be required to comply with all related requirements within this regulation.

PUBLIC NOTICE: The facility has agreed to federally enforceable operating limitations to limit its potential to emit to less than 100 tons per consecutive 12-month period for PM₁₀ emissions. The facility has agreed to federally enforceable operating limitations to limit potential to emit to less than 250 tons per year for PM₁₀ emissions to avoid PSD requirements

EMISSIONS

UNCONTROLLED POTENTIAL EMISSIONS (PROJECT ONLY)				
ID	Pollutant	lb/hr	TPY	Method for Estimating Emissions
01	PM	1.50	6.57	Engineering Calculations
	PM ₁₀	1.50	6.57	
02	PM	1.50	6.57	Engineering Calculations
	PM ₁₀	1.50	6.57	
03	PM	0.0164	0.07	Source: AP-42 Fifth Edition, Tables 1.4-1,-2, 7/98 Update
	PM ₁₀	0.0164	0.07	
	SO ₂	0.0013	0.01	
	NO _x	0.2157	0.94	
	CO	0.1812	0.79	
	VOC	0.0119	0.05	
04	PM	0.0246	0.11	Source: AP-42 Fifth Edition, Tables 1.4-1,-2, 7/98 Update
	PM ₁₀	0.0246	0.11	
	SO ₂	0.0019	0.01	
	NO _x	0.3235	1.42	
	CO	0.2718	1.19	
	VOC	0.0178	0.08	



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UNCONTROLLED POTENTIAL EMISSIONS (PROJECT ONLY)				
ID	Pollutant	lb/hr	TPY	Method for Estimating Emissions
05	PM	33.9	148.482	Source: AP-42 Fifth Edition, Table 12.5-1, 7/98 Update
	PM ₁₀	33.9	148.482	
06	PM	0.0149	0.07	Source: AP-42 Fifth Edition, Tables 1.4-1,-2, 7/98 Update
	PM ₁₀	0.0149	0.07	
	SO ₂	0.0012	0.01	
	NO _x	0.1961	0.86	
	CO	0.1647	0.72	
	VOC	0.0108	0.05	
07	PM	0.0149	0.07	Source: AP-42 Fifth Edition, Tables 1.4-1,-2, 7/98 Update
	PM ₁₀	0.0149	0.07	
	SO ₂	0.0012	0.01	
	NO _x	0.1961	0.86	
	CO	0.1647	0.72	
	VOC	0.0108	0.05	
08	PM	17.48	76.5624	Source: AP-42 Fifth Edition, Table 12.5-2 7/98 Update
	PM ₁₀	6.08	26.63	
09	PM	16.80	73.584	Engineering Calculations
	PM ₁₀	1.680	7.3584	
10	PM	8.55	37.449	Engineering Calculations
	PM ₁₀	0.85	3.723	
11	PM	0.9	3.942	Engineering Calculations
	PM ₁₀	0.9	3.942	
	SO ₂	0.000	0.000	
	NO _x	0.075	0.3285	
	CO	0.0165	0.0723	
	VOC	0.0045	0.0197	
	NaOH	0.50	2.19	
12	PM	0.9	3.942	Engineering Calculations
	PM ₁₀	0.9	3.942	
	SO ₂	0.000	0.000	
	NO _x	0.075	0.3285	
	CO	0.0165	0.0723	
	VOC	0.0045	0.0197	
	NaOH	0.50	2.19	
	HCl	1.070	4.687	
14	PM	8.55	37.449	Engineering Calculations
	PM ₁₀	0.85	3.723	
15	PM	3.30	14.454	Engineering Calculations
	PM ₁₀	3.30	14.454	
16	PM	8.74	38.2812	Source: AP-42 Fifth Edition, Table 12.5-2 7/98 Update
	PM ₁₀	3.04	13.3152	
17	PM	1.20	5.256	Engineering Calculations
	PM ₁₀	1.20	5.256	
18	PM	8.55	37.449	Engineering Calculations
	PM ₁₀	0.85	3.723	
19	PM	8.55	37.449	Engineering Calculations
	PM ₁₀	0.85	3.723	



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CONTROLLED POTENTIAL EMISSIONS (PROJECT ONLY)

ID	Pollutant	lb/hr	TPY	Method for Estimating Emissions
01	PM	0.015	0.0655	Engineering Calculations
	PM ₁₀	0.015	0.0655	
02	PM	0.015	0.0655	Engineering Calculations
	PM ₁₀	0.015	0.0655	
05	PM	0.129	0.565	Source: AP-42 Fifth Edition, Table 12.5-1, 7/98 Update
	PM ₁₀	0.129	0.565	
08	PM	0.086	0.3767	Source: AP-42 Fifth Edition, Table 12.5-2 7/98 Update
	PM ₁₀	0.0654	0.2865	
09	PM	0.168	0.736	Engineering Calculations
	PM ₁₀	0.017	0.074	
10	PM	0.0855	0.3745	Engineering Calculations
	PM ₁₀	0.0085	0.0375	
11	PM	0.009	0.03942	Engineering Calculations
	PM ₁₀	0.009	0.03942	
	NaOH	0.0005	0.0022	
12	PM	0.009	0.03942	Engineering Calculations
	PM ₁₀	0.009	0.03942	
	NaOH	0.0005	0.0022	
14	PM	0.0855	0.3745	Engineering Calculations
	PM ₁₀	0.0085	0.0375	
15	PM	0.033	0.145	Engineering Calculations
	PM ₁₀	0.033	0.143	
16	PM	0.043	0.1883	Source: AP-42 Fifth Edition, Table 12.5-2 7/98 Update
	PM ₁₀	0.0327	0.1432	
17	PM	0.012	0.0526	Engineering Calculations
	PM ₁₀	0.012	0.0526	
18	PM	0.0855	0.3745	Engineering Calculations
	PM ₁₀	0.0085	0.0375	
19	PM	0.0855	0.3745	Engineering Calculations
	PM ₁₀	0.0085	0.0375	

FACILITY WIDE EMISSIONS

Pollutant	Uncontrolled Emissions	Controlled Emissions
	TPY	TPY
PM	527.7596	4.021
PM ₁₀	251.7316	1.873
SO ₂	0.04	--
NO _x	4.737	--
CO	3.5646	--
VOC	0.2694	--
NaOH	4.38	0.0044
HCl	4.687	--
HF	1.529	--



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PROJECT REGULATORY APPLICABILITY REVIEW

Regulation	Applicable		Comments
	Yes	No	
South Carolina Regulation 61-62.1 through 62.99: Air Pollution Regulations (PROJECT ONLY)			
Section II(E): Synthetic Minor		X	PTE of the facility is 251.7316 TPY for PM ₁₀ but has effectively installed baghouses to control these particulates from discharging to the ambient air to avoid Title V requirements. The facility has agreed to federally enforceable operating limitations to limit potential to emit to less than 100 tons per year for PM ₁₀ emissions. The twelve month rolling sum shall neither exceed 100 tons of PM ₁₀ .
Section II(G): Conditional Major	X		PTE of the facility is 251.7316 TPY for PM ₁₀ but has effectively installed baghouses to control these particulates from discharging to the ambient air to avoid Title V requirements. The facility has agreed to federally enforceable operating limitations to limit potential to emit to less than 100 tons per year for PM ₁₀ emissions. The twelve month rolling sum shall neither exceed 100 tons of PM ₁₀ .
Standard 1: Fuel Burning Operations	X		(ID 03,04,06,07,11,12) All emission sources in this process are subject to 20% opacity limits under this standard. Particulate matter emission have are subject to 0.6 lb/10 ⁶ BTU/hr for PM. SO ₂ emission have are subject to 3.5 lb/10 ⁶ BTU/hr.
Standard 2: Ambient Air Quality Standards		X	Conbraco has demonstrated compliance through modeling; see modeling summaries dated 12/5/07.
Standard 3: Waste Combustion/Reduction (state only)		X	No waste combustion/reduction on site
Standard 3.1: HMI Waste Incinerators		X	No waste incineration on site
Standard 4: Emissions from Process Industries			All emission sources in this process are subject to 20% opacity limits under this standard. (ID 01,02,05,09,10,15,17,18,19) particulate matter emission allowable rates are based on a process weight rate of 3-tons/hr subject to 8.56 lbs/hr. (ID 08) particulate matter emission allowable rates are based on a process weight rate of 2-tons/hr subject to 6.523 lbs/hr. (ID 11) particulate matter emission allowable rates are based on a process weight rate of 0.25-tons/hr subject to 1.62 lbs/hr. (ID 14) particulate matter emission allowable rates are based on a process weight rate of 0.274-tons/hr subject to 1.722 lbs/hr. (ID 16) particulate matter emission allowable rates are based on a process weight rate of 1-tons/hr subject to 4.10 lbs/hr.
Standard 5: Volatile Organic Compounds		X	No applicable categories; facility not in existence in 1979-80
Standard 5.1: BACT/LAER For VOC (state only)		X	The facility does not have the PTE of 100 TPY of VOCs.
Standard 5.2: Control of Oxides of Nitrogen		X	Sources were installed before 06/25/2004.
Standard 7: Prevention of Significant Deterioration	X		The facility's PTE for PM ₁₀ is more than 250 TPY.
Standard 7(c): Ambient Air Increments		X	There are no baselines established for PM ₁₀ , SO ₂ , or NO _x for Horry County.
Standard 7.1: Standards for Non Attainment Areas		X	In an attainment area.
Standard 8: Toxic Air Pollutants (state only)		X	This facility has demonstrated compliance through modeling for all TAPs; see modeling summaries dated 12/5/07.
Regulation 61-62.6: Control of Fugitive Particulate Matter		X	There are no fugitive PM (Dust) emissions associated with this facility.
Regulation 61-62.60: SC Designated Facility Plan and NSPS		X	This process does not contain sources subject to this standard



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PROJECT REGULATORY APPLICABILITY REVIEW			
Regulation	Applicable		Comments
	Yes	No	
Regulation 61-62.61: NESHAP		X	This process/operation does not emit the pollutants subject to this standard (asbestos, benzene, beryllium, coke oven emissions, arsenic, mercury, radio nuclide, radon, or vinyl chloride).
Regulation 61-62.63: NESHAP For Source Categories		X	The HAP emissions associated with this operating permit are less than the major source thresholds for HAP emissions. This facility is not an area source.
Regulation 61-62.68: Chemical Accident Prevention		X	This construction project does not store or use chemicals subject to 112(r) above the threshold quantities.
Regulation 61-62.70: Title V		X	This facility is major for PM ₁₀ . The facility has taken federally enforceable emissions limitations to be a Conditional Major facility.
Regulation 61-62.72: Acid Rain		X	This facility is not a power utility.
Regulation 61-62.96: Nitrogen Oxides (NO _x) Budget Trading Program		X	This facility is not apart of the Nitrogen Oxides (NO _x) Budget Trading Program
Regulation 61-62.99: Nitrogen Oxides (NO _x) Budget Program Requirements for Stationary Sources Not In the Trading Program		X	
Federal Regulations (PROJECT ONLY)			
NSPS (Part 60) Subpart(s)		X	This process does not contain sources subject to this standard
NESHAP (Part 61) Subpart(s)		X	This process/operation does not emit the pollutants subject to this standard (asbestos, benzene, beryllium, coke oven emissions, arsenic, mercury, radio nuclide, radon, or vinyl chloride).
MACT (Part 63) Subpart(s)		X	The HAP emissions associated with this operating permit are less than the major source thresholds for HAP emissions. This facility is not an area source.
Compliance Assurance Monitoring (CAM) (Part 64)		X	Not a Title V source.

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.