



STATEMENT OF BASIS
Page 1 of 5
 BAQ Engineering Services Division
 2600 Bull Street, Columbia, SC 29201
 Phone: 803-898-4123 Fax: 803-898-4079

Company Name:	Pharr Yarns	Permit Writer:	Jeremy Lawson
Permit Number:	CM-2440-0002	Date:	September 25, 2009

DATE APPLICATION RECEIVED: July 1, 2009

DATE OF LAST INSPECTION: February 11, 2009; No violations were cited during the inspections visit.

FACILITY DESCRIPTION This facility is involved in the manufacturing of synthetic yarn.

PROJECT DESCRIPTION This is an operating permit renewal. During this renewal the facility has asked to be moved from a Title V to a Conditional Major with a limitation on the amount of fuel consumed each year.

CHANGES SINCE LAST OP ISSUANCE The facility has not stated any changes since the last operating permit was issued.

EMISSIONS

UNCONTROLLED POTENTIAL EMISSIONS (PROJECT ONLY)				
ID	Pollutant	lb/hr	TPY	Method for Estimating Emissions
01	PM	3.822	16.74	AP-42 5th Ed, Tables 1.3-1,-2,-3,-7
01	PM ₁₀	3.344	14.64	AP-42 5th Ed, Tables 1.3-1,-2,-3,-7
01	SO ₂	45.50	199.28	AP-42 5th Ed, Tables 1.3-1,-2,-3,-7
01	NO _x	7.590	33.24	AP-42 5th Ed, Tables 1.3-1,-2,-3,-7
01	CO	1.705	7.47	AP-42 5th Ed, Tables 1.3-1,-2,-3,-7
01	VOC	0.112	0.49	AP-42 5th Ed, Tables 1.3-1,-2,-3,-7
01	Formaldehyde	0.013	0.06	Engineers Calculations
01	Antimony	0.001	0.006	Engineers Calculations
01	Arsenic	0.0004	0.0015	Engineers Calculations
01	Benzene	0.0001	0.0005	Engineers Calculations
01	Beryllium	0.00001	0.00004	Engineers Calculations
01	Cadmium	0.0001	0.0005	Engineers Calculations
01	Chromium	0.0002	0.001	Engineers Calculations
01	Cobalt	0.002	0.007	Engineers Calculations
01	Dichlorobenzene	0.00002	0.0001	Engineers Calculations
01	Ethylbenzene	0.00002	0.00008	Engineers Calculations
01	Fluoride Compounds	0.01	0.045	Engineers Calculations
01	Hexane	0.037	0.16	Engineers Calculations
01	Lead	0.0004	0.0018	Engineers Calculations
01	Manganese	0.0008	0.0036	Engineers Calculations
01	Mercury	0.00003	0.00013	Engineers Calculations
01	Methyl Chloroform	0.000065	0.00029	Engineers Calculations
01	Naphthalene	0.0003	0.0014	Engineers Calculations
01	Nickel	0.023	0.102	Engineers Calculations
01	Phosphorus	0.0026	0.0115	Engineers Calculations
01	Polycyclic Organic Matter (POM)	0.00035	0.0015	Engineers Calculations
01	Selenium	0.00019	0.0008	Engineers Calculations
01	Toluene	0.0018	0.0078	Engineers Calculations
01	Xylene	0.00003	0.00013	Engineers Calculations
02	PM/ PM ₁₀	9.83	43.05	Source Testing
02	VOC	1.39	6.07	Source Testing



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Page 2 of 5
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UNCONTROLLED POTENTIAL EMISSIONS (PROJECT ONLY)

ID	Pollutant	lb/hr	TPY	Method for Estimating Emissions
02	Ethylene Oxide	0.0002	0.0008	Engineers Calculations
02	Acetaldehyde	0.04	0.20	Engineers Calculations
02	1,4-Dioxane	0.05	0.20	Engineers Calculations
02	Glycol Ethers	0.67	2.92	Engineers Calculations

CONTROLLED POTENTIAL EMISSIONS (PROJECT ONLY)

ID	Pollutant	lb/hr	TPY	Method for Estimating Emissions
01	SO ₂	45.50*	98.91*	AP-42 5th Ed, Tables 1.3-1,-2,-3,-7

* - Facility is limited to 2.1% sulfur on #6 fuel oil and 600,000 gallons per year as a result of modeling and subsequent permit condition

FACILITY WIDE EMISSIONS

Pollutant	Uncontrolled Emissions	Limited Emissions
	TPY	TPY
PM	59.79	N/A
PM ₁₀	14.64	N/A
SO ₂	199.28	98.91
NO _x	33.24	N/A
CO	7.47	N/A
VOC	6.56	N/A
Formaldehyde	0.06	N/A
Antimony	0.006	N/A
Arsenic	0.0015	N/A
Benzene	0.0005	N/A
Beryllium	0.00004	N/A
Cadmium	0.0005	N/A
Chromium	0.001	N/A
Cobalt	0.007	N/A
Dichlorobenzene	0.0001	N/A
Ethylbenzene	0.00008	N/A
Fluoride Compounds	0.045	N/A
Hexane	0.16	N/A
Lead	0.0018	N/A
Manganese	0.0036	N/A
Mercury	0.00013	N/A
Methyl Chloroform	0.00029	N/A
Naphthalene	0.0014	N/A
Nickel	0.102	N/A
Phosphorus	0.0115	N/A
Polycyclic Organic Matter (POM)	0.0015	N/A
Selenium	0.0008	N/A
Toluene	0.0078	N/A
Xylene	0.00013	N/A
Ethylene Oxide	0.0008	N/A
Acetaldehyde	0.20	N/A
1,4-Dioxane	0.20	N/A
Glycol Ethers	2.92	N/A
TOTAL HAPs	3.73	N/A



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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	This is an operating permit renewal.
Section II(G): Conditional Major	X		The facility is currently a Title V but has taken limits to bring their potential emissions of SO ₂ below 100 TPY and 10TPY/25YPY for single HAP/Total HAP to become a Conditional Major.
Standard 1: Fuel Burning Operations	X		ID01 has PM, SO ₂ , and Opacity limits imposed by this standard which are listed in Table 1 below.
Standard 2: Ambient Air Quality Standards	X		This facility has demonstrated compliance through modeling; see modeling summary dated August 7, 2001. The following operational restriction has been established to ensure compliance with the modeled emission rates: Fuel oil sulfur content shall be less than or equal to 0.5 percent by weight for No. 2 fuel oil, less than or equal to 2.0 percent by weight for No. 5 fuel oil, and less than or equal to 2.1 percent by weight for No. 6 fuel oil and a total fuel usage of 600,000 gallons per year.
Standard 3: Waste Combustion/Reduction (state only)		X	This facility does not operate any waste combustion or reduction sources.
Standard 3.1: HMI Waste Incinerators		X	This facility contains no medical waste incineration.
Standard 4: Emissions from Process Industries	X		The emission sources listed in Table 2 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 5: Volatile Organic Compounds		X	None of the processes within the facility, which are regulated by the regulation, apply.
Standard 5.1: BACT/LAER For VOC (state only)		X	The facility was built before July 1, 1979. The facility's baseline VOC emissions, current actual VOC emissions, and current PTE of VOC emissions are 39.37 TPY. The facility is not subject to BACT/LAER at this time.
Standard 5.2: Control of Oxides of Nitrogen		X	Source was installed before 06/25/2004 and the burner assembly has not been replaced.
Standard 7: Prevention of Significant Deterioration		X	The facility's PTE for any pollutant is less than 250 TPY; therefore the facility is not major for PSD. Additionally, the facility does not contain any emission sources that are subject to any Synthetic Minor Emission Limitations.
Standard 7(c): Ambient Air Increments	X		This facility has demonstrated compliance through modeling for the PSD Class II increments for York County; see modeling summary dated August 7, 2001.
Standard 7.1: Standards for Non Attainment Areas		X	This facility is not in a Non Attainment area.
Standard 8: Toxic Air Pollutants (state only)	X		This facility has demonstrated compliance through modeling; see modeling summary dated August 7, 2001.
Regulation 61-62.6: Control of Fugitive Particulate Matter		X	This facility does not have fugitive PM (Dust) emissions.
Regulation 61-62.60: SC Designated Facility Plan and NSPS		X	Although ID01 is considered affected sources as defined under a NSPS Standard Subpart Dc because the boiler is greater than 10 million BTU/hr, ID01 is not subject to the applicable NSPS standard at this time because the unit was constructed before effective date of June 9, 1989.



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PROJECT REGULATORY APPLICABILITY REVIEW

Regulation	Applicable		Comments
	Yes	No	
Regulation 61-62.61: NESHAP		X	This facility does not contain any processes/operations that 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 facility's PTE for single HAP or total HAPs emission is less than 10 TPY and 25 TPY, respectively; therefore the facility is not major for HAP emissions.
Regulation 61-62.68: Chemical Accident Prevention		X	This facility 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 SO ₂ . As such, the emission sources listed in Table 3 have taken federally enforceable emissions limitations to be a Conditional Major facility.
Regulation 61-62.72: Acid Rain		X	This facility does not meet applicability requirements under this regulation.
Regulation 61-62.96: Nitrogen Oxides (NO _x) Budget Trading Program		X	This facility is not in the NO _x or SO ₂ budget trading program.
Regulation 61-62.99: Nitrogen Oxides (NO _x) Budget Program Requirements for Stationary Sources Not In the Trading Program		X	This facility does not have any NO _x emissions from cement manufacturing.
Other		X	N/A
Federal Regulations (PROJECT ONLY)			
NSPS (Part 60) Subpart(s)		X	Although ID01 is considered affected sources as defined under a NSPS Standard Subpart Dc because the boiler is greater than 10 million BTU/hr, ID01 is not subject to the applicable NSPS standard at this time because the unit was constructed before effective date of June 9, 1989.
NESHAP (Part 61) Subpart(s)		X	This facility does not contain any processes/operations that 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	Although ID01 is considered affected sources as defined under a NSPS Standard Subpart DDDDD, ID01 is not subject to the applicable NSPS standard at this time because facility is not a major source for HAPs.
Area Source Standards (Part 63) Subpart(s)		X	This facility does not meet applicability of any area source requirements.
Compliance Assurance Monitoring (CAM) (Part 64)		X	This is not a Title V facility.
Other		X	N/A



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Page 5 of 5
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Table 1

OP ID	Equip ID	Opacity	PM Allowable (0.6 lb/10 ⁶ BTU) lb/hr	SO ₂ Allowable (3.5 lb/10 ⁶ BTU) lb/hr	Uncontrolled Emissions (lb/hr)		Controlled Emissions (lb/hr)	
					PM	SO ₂	PM	SO ₂
01	B1	20%	12.42	72.45	3.82	45.50	3.82	45.50

Table 2

OP ID	Equip ID	Opacity	Process Weight Rate (Tons/hr)	PM Allowable (lb/hr)	Uncontrolled Emissions	Controlled Emissions
					PM (lb/hr)	PM (lb/hr)
02	HS2-1 thru HS2-6	40%	.225	1.51	1.05	1.05
02	HS2-7 thru HS2-9	20%	.25	1.62	1.17	1.17

Table 3

OP ID	Equipment ID	CP Issue Date	Public Notice Date	Emission Limitation (TPY)	Compliance Method
01-02	ALL	N/A	N/A	SO ₂ <100*	Record keeping of each batch of fuel oil received to limit SO ₂ sulfur content and total fuel usage to less than 600,000 gallons per year

*The calculation of the 100 TPY is based on the sulfur content of the worst case fuel.

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.