

STATEMENT OF BASIS

for the issuance of Draft Air Permit # 921-AOP-R3

PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality
8001 National Drive
Post Office Box 8913
Little Rock, Arkansas 72219-8913

APPLICANT:

Quebecor World, Inc. – Jonesboro Division
4708 Krueger Drive
Jonesboro, Arkansas 72401

PERMIT WRITER:

Paul Osmon

PROCESS DESCRIPTION AND SIC CODE:

SIC Description: Printing Facility
SIC Code: 2752

SUBMITTALS:

November 5, 2002

REVIEWER'S NOTES:

Quebecor World, Inc. – Jonesboro Division’s initial Title V air permit is being renewed with the issuance of this permit. This permit modification also authorizes the addition of a new press No. 822-8 (SN-14) which will operate controlled by the existing Katec afterburners (SN-07 and SN-09). This will result in an increase in emission limits of 39.3 tons per year for the non-stack emissions from the new press and stack emissions from the outlet of the afterburners. There will also be minor changes in the record keeping for the facility. All calculations for the emissions sources have been re-calculated resulting in minor changes to some emission limits.

COMPLIANCE STATUS:

The following summarizes the current compliance status of the facility including active/pending enforcement actions and recent compliance activities and issues

APPLICABLE REGULATIONS:

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PSD Applicability

Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, et cetera)? Y/N N

Has this facility undergone PSD review in the past? Y/N Permit# N

Is this facility categorized as a major source for PSD? Y/N Y

\$ 100 tpy and on the list of 28 (100 tpy)? Y/N N

\$ 250 tpy all other Y/N Y

PSD Netting

Was netting performed to avoid PSD review in this permit? Y/N N

Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation [NSPS, NESHAP (Part 61 & Part 63), or PSD only]
None	NA	NA

EMISSION CHANGES:

The following table summarizes plant wide emission changes associated with this permitting action.

Plant Wide Permitted Emissions (ton/yr)			
Pollutant	Air Permit 921-AOP-R2	Air Permit 921-AOP-R3	Change
PM/PM ₁₀	3.0	2.1	-0.9
SO ₂	0.1	0.2	0.1
VOC	259.6	298.9	39.3
CO	15.4	22.6	7.2
NO _x	26.3	26.9	0.6

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Plant Wide Permitted Emissions (ton/yr)			
Pollutant	Air Permit 921-AOP-R2	Air Permit 921-AOP-R3	Change
Glycol Ether	10.74	12.61	1.87
R.T. 1.0 HAPS	77.92	78.80	0.88
R.T. 0.1 HAP	0.01	0.01	0

MODELING:

Criteria Pollutants

Pollutant	Emission Rate (lb/hr)	NAAQS Standard ($\mu\text{g}/\text{m}^3$)	Averaging Time	Highest Concentration ($\mu\text{g}/\text{m}^3$)	% of NAAQS
PM ₁₀	0.5	50	Annual	NA	0%
		150	24-hour	NA	0%
SO ₂	0.2	80	Annual	NA	0%
		1,300	3-hour	NA	0%
		365	24-hour	NA	0%
NO _x	6.2	100	Annual	NA	0%
VOC	95.6	0.12	1-hour (ppm)	0.0175	14.5%
CO	5.2	10,000	8-hour	NA	0%
		40,000	1-hour	NA	0%

Non-Criteria Pollutants

1st Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Department deemed PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value

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(mg/m³), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11*TLV	Proposed lb/hr	Pass?
01, 02, 03, 04, 05, 07, 08, 09, 13, 14	R.T. 1.0 HAP (Naphthalene CAS# 91-20-3)	5.72	4.4	Yes
01, 02, 03, 04, 05, 07, 08, 09, 12, 13, 14	Glycol Ether (Butyl Carbitol CAS # 112-34-5) (Dipropylene Glycol Monomethyl Ether CAS # 34590-94-8)	40.6*	8.68	Yes
11	R.T. 1.0 HAP (Methanol CAS # 67-56-1)	28.82	12.2	Yes
12	R.T. 0.1 HAP (Vinyl Acetate CAS # 108-54)	3.85	0.002	Yes

* - only DGME has a published TLV which is the value used.

CALCULATIONS:

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
1, 2, 3, 4, 5, 8, 10, 13, 14	Material balance	Actual Usages	-	-	Point source emission from the presses are controlled by the afterburners. Spread sheet assumptions are that 80% of the ink ,

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SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
					40% of the automatic blanket wash, and 70% of the fountain solution are captured (point source emissions). All other usage is emitted as a non-point source.
7, 9	Material balance	Actual Usages	Afterburner	95%	All captured VOC and HAP from the presses undergoes 95% destruction
11	Material Balance	Actual Usage	None	NA	
12	Material Balance	Actual Usage	None	NA	

TESTING REQUIREMENTS:

This permit requires stack testing of the following sources.

SN(s)	Pollutant	Test Method	Test Interval	Justification For Test Requirement
07 & 09	VOC	25A	5 years	Necessary to prove the continued effectiveness of the control device.

MONITORING OR CEMS

The permittee must monitor the following parameters with CEMs or other monitoring equipment (temperature, pressure differential, etc), frequency of recording and the need for records included in any annual, semiannual or other reports.

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SN	Parameter or Pollutant to be Monitored	Method of Monitoring (CEM, Pressure Gauge, etc)	Frequency*	Report (Y/N)**
07 09	Afterburner operation	Visual Annunciator	Continuously	N

* Indicate frequency of recording required for the parameter (Continuously, hourly, daily, etc.)

** Indicates whether the parameter needs to be included in reports.

RECORD KEEPING REQUIREMENTS

The following are items (such as throughput, fuel usage, VOC content of coating, etc) that must be tracked and recorded, frequency of recording and whether records are needed to be included in any annual, semiannual or other reports.

SN	Recorded Item	Limit (as established in permit)	Frequency*	Report (Y/N)**
Presses – SN-01, SN-02, SN-03, SN-04, SN-05, SN-08, SN-10, SN-13	Annual Usages and contents of Ink, Automatic Blanket Wash, Manual Blanket Wash, and Fountain Solution (these are proportioned to each press based on sheets printed).	See Permit	Monthly	Y
SN-14	Emissions VOC material balance based on actual usages and permit application capture efficiencies and destruction efficiencies	39.3 tpy	Monthly	Y

Ink Jet Printers SN-11	Annual Usages and contents of MeOH Ink, MeOH Wash, and Makeup Solvent	See Permit	Monthly	Y
Misc. Solvents and Adhesives SN-12	Annual Usages and contents of Solvents and Adhesives	See Permit	Monthly	Y

* Indicate frequency of recording required for the item (Continuously, hourly, daily, etc.)

** Indicates whether the item needs to be included in reports

OPACITY

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
07 & 09	5%	Department Guidance	Natural gas fuel.

DELETED CONDITIONS:

The previous permit contained the following deleted Specific Conditions.

Former SC	Justification for removal
None	NA

VOIDED, SUPERSEDED OR SUBSUMED PERMITS

List all active permits voided/superseded/subsumed by issuance of this permit for this facility.

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921-AOP-R2

CONCURRENCE BY:

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The following supervisor concurs with the permitting decision:

Thomas Rheume, P.E.