

Synthetic Minor Determination and/or  Netting Determination

Permit To Install **04-01379**

**A. Source Description**

This PTI is for modification of the Line 3 beverage can coating line to allow for the production of 24-ounce cans. The line currently produces 12-ounce beverage cans, and this modification will allow for production of either 12-ounce or 24-ounce cans. This PTI combines former OEPA emissions unit IDs K007 and K008 into one emissions unit - K011.

This process consists of the following equipment: cupper which will be modified to allow for production of shallow cups that will be used for producing cups for either 12-ounce or 24-ounce cans; two sets of bodymakers, of which one set will be for producing 12-ounce can bodies and the other for producing 24-ounce can bodies; two sets of trimmers, of which one set will be for trimming 12-ounce can bodies and the other for trimming 24-ounce can bodies; one can washer & can dryer; a printer for applying overvarnish, bottom varnish and ink followed by a pin oven for drying coating applied by the printer; inside body spray application followed by the inside body bake oven; two neckers, of which one will be to reduce the can body neck size for 12-ounce can bodies and the other to reduce the can body neck size for 24-ounce can bodies. The following portions of Line 3 that are not included in K011 are the can washer, due to not being an air contaminant source, and the neckers, which are not an air contaminant source. As requested by the permittee, this PTI also adds an emission limitation of 5.09 tons/yr VOC to K006 to reduce the allowable emissions from K006. No physical changes or changes in the method of operation are occurring with K006.

**B. Facility Emissions and Attainment Status**

The facility is currently a major source of VOC and HAP emissions.

<u>Pollutant</u>	<u>Significant Net Emission Increase Levels</u>	<u>Attainment Status</u>
PM <sub>10</sub>	25 TPY	unclassifiable
SO <sub>2</sub>	40 TPY	attainment
VOC	40 TPY	1-hr attainment/8-hr non-attainment
NO <sub>x</sub>	40 TPY	unclassifiable/attainment
CO	100 TPY	unclassifiable/attainment

**C. Source Emissions**

1. Emissions from bodymaking process

- a. Bodymaking process - VOC emissions from the bodymaking process occur due to coolant used in the process. Coolant is used in the bodymaker tooling. Coolant forms an oil mist which is captured by an oil mist collection system designed to remove 95-98% of particulate greater than 0.3 micron. The supplier has indicated that the coolant does not volatilize to any appreciable extent.

Maximum coolant usage is 30 gallons/day  
Solids content = 55% (maximum by weight)  
VOC content = 6.5% (maximum by weight)  
Density = 8.55 lb/gal  
Control efficiency 95%

Emissions:

$$30 \text{ gal coolant /day } (8.55 \text{ lb coolant/gal coolant})(0.55 \text{ lb solid/lb coolant})(1-0.95)(1 \text{ day}/24 \text{ hr}) = 0.30 \text{ lb (PE or PM10)/hr}$$
$$0.30 \text{ lb (PE or PM10)/hr } (8760 \text{ hr/yr})/(2000 \text{ lb/t}) = 1.32 \text{ ton (PE or PM10) /yr}$$

$$30 \text{ gal coolant /day } (8.55 \text{ lb coolant/gal coolant})(0.065 \text{ lb VOC/lb coolant})(1-0.95)(1 \text{ day}/24 \text{ hr}) = 0.04 \text{ lb VOC/hr}$$
$$0.04 \text{ lb VOC/hr } (24 \text{ hr/day}) = 0.96 \text{ lb VOC/day}$$
$$0.04 \text{ lb VOC/hr } (8760 \text{ hr/yr})/(2000 \text{ lb/t}) = 0.18 \text{ ton VOC/yr}$$

- b. Emissions from the can dryer - cans are washed at the end of the bodymaking process and are then dried in a 1.925 mmBtu/hr drying oven.

CO	$84 \text{ lb/mmscf}(1.925 \text{ mmBtu/hr}) / (1020 \text{ mmBtu/mmscf}) = 0.16 \text{ lb/hr}$ $= 0.69 \text{ TPY}$
NOx	$100 \times 1.925/1020 = 0.19 \text{ lb/hr} = 0.83 \text{ ton/yr}$
PE	$1.9 \times 1.925/1020 = 0.01 \text{ lb/hr} = 0.05 \text{ ton/yr}$
PM10	$7.6 \times 1.925/1020 = 0.02 \text{ lb/hr} = 0.09 \text{ ton/yr}$
SO2	$0.6 \times 1.925/1020 = 0.01 \text{ lb/hr} = 0.05 \text{ ton/yr}$
VOC	$5.5 \times 1.925/1020 = 0.01 \text{ lb/hr} = 0.05 \text{ ton/yr}$

Total Emissions from Bodymaking & drying oven

PE	$0.30 + 0.01 = 0.31 \text{ lb/hr}$
PE	$1.32 + 0.05 = 1.37 \text{ ton/yr}$
PM10	$0.30 + 0.02 = 0.32 \text{ lb/hr}$
PM10	$1.32 + 0.09 = 1.41 \text{ ton/yr}$
VOC	$0.04 + 0.01 = 0.05 \text{ lb/hr}$
VOC	$0.18 + 0.05 = 0.23 \text{ ton/yr}$

2. Continuous motion printer & pin oven emissions

AP-42 emission factors for natural gas combustion Section 1.4 dated 7/1998

<u>Pollutant</u>	<u>lb/mmscf</u>
CO	84
NOx	100
PE	1.9
PM10	7.6
SO2	0.6
VOC	5.5

1020 mmBtu/mmscf of natural gas burned

- a. Continuous Motion Printer  
Coating/clean-up material information

Over varnish: 7.96 gal coating/hr maximum, 50,596 gal coating/yr maximum, 33 % solids by volume, 16,697 gallons solids/yr, 2.1 lb VOC/gal-H2O, 2.9 lb VOC/gal solids, coating density 8.75 lb/gal

Bottom varnish: 0.38 gal coating /hr maximum, 2,447 gal coating /yr maximum, 45.4% solids by volume, 1,111 gallons solids/yr, 2.1 lb VOC/gal-H2O, 2.9 lb VOC/gal solids

Inks: 0.67 gal coating /hr maximum, 4,270 gallons/yr, 12.96 lb/gal, maximum weight % VOC in the ink is 20%

Clean-up solvent: annual average, 360 gal/yr, 6 lb VOC/gal

(Note: while a small amount of emissions from clean-up solvents may be associated with the inside spray operation, all emissions are tracked as if they were emitted only from this source.)

Hourly emissions:  $7.96 \text{ gal coating/hr}(0.33 \text{ gal solids/gal coating})(2.9 \text{ lb VOC/gal solids}) + 0.38 \text{ gal coating/hr}(0.454 \text{ gal solids/gal coating})(2.9 \text{ lb VOC/gal solids}) + 0.67 \text{ gal/hr}(12.96 \text{ lb/gal})(0.2 \text{ lb VOC/lb coating}) = 9.86 \text{ lb VOC/hr}$  (clean-up materials are not included in this "worst case" calculation)

Potential Annual Emissions:  $9.86 \text{ lb VOC/hr}(8760 \text{ hrs/hr}) / (2000 \text{ lbs/ton}) = 43.19 \text{ tons VOC/yr}$

Restricted Annual Emissions:  $[50,596 \text{ gal coating/yr}(0.33 \text{ gal solids/gal coating})(2.9 \text{ lb VOC/gal solids}) + 2,447 \text{ gal coating/yr}(0.454 \text{ gal solids/gal coating})(2.9 \text{ lb VOC/gal solids}) + 4,270 \text{ gallons/yr}(12.96 \text{ lb/gal})(0.2 \text{ lb VOC/lb coating}) + 360 \text{ gal/yr}(6 \text{ lb VOC/gal})] / 2000 \text{ lb/ton} = 32.43 \text{ ton VOC/yr}$

b. Pin oven emissions:

CO  $(84 \text{ lb/mmescf}) \times (2.75 \text{ mmBtu/hr}) / (1020 \text{ mmBtu/mmescf}) = 0.23 \text{ lb/hr} = 1.01 \text{ TPY}$

NO<sub>x</sub>  $100 \times 2.75/1020 = 0.27 \text{ lb/hr} = 1.18 \text{ ton/yr}$

PE  $1.9 \times 2.75/1020 = 0.01 \text{ lb/hr} = 0.05 \text{ ton/yr}$

PM<sub>10</sub>  $7.6 \times 2.75/1020 = 0.02 \text{ lb/hr} = 0.09 \text{ ton/yr}$

SO<sub>2</sub>  $0.6 \times 2.75/1020 = 0.01 \text{ lb/hr} = 0.05 \text{ ton/yr}$

VOC  $5.5 \times 2.75/1020 = 0.02 \text{ lb/hr} = 0.09 \text{ ton/yr}$

Total allowable VOC emissions for continuous motion coater (2.a) and pin oven (2.b) are:

$9.86 \text{ lb/hr} + 0.02 \text{ lb/hr} = 9.88 \text{ lb/hr}$

$32.43 \text{ tons/yr} + 0.09 \text{ ton/yr} = 32.52 \text{ tons/yr}$

3. Inside spray coating with inside bake oven emissions

a. Inside spray coating emissions

Coating density: 8.43 lb/gal

23.52 gal coating/hr maximum

148,214 gal coating/yr maximum

27,864 gal solids/yr

18.8% solids by volume

Solids content: 21.6% by weight

Particulate emission factor: 0.006 lb/lb (94% transfer efficiency with 90% efficient collection by sleeves)

VOC content: 4.9 lb/gal solids, 2.9 lb/gallon excluding water and exempt solvents

Hourly emissions: PE/PM<sub>10</sub> =  $23.52 \text{ gal/hr} (8.43 \text{ lb coating/gal})(0.216 \text{ lb PM/lb coating})(1 - 0.94)(1 - 0.90) = 0.26 \text{ lb/hr}$

VOC =  $23.52 \text{ gal coating/hr}(0.188 \text{ gal solids/gal coating})(4.9 \text{ lb VOC/gal solids}) = 21.68 \text{ lb/hr}$

Potential Annual Emissions: PE/PM10 = .26 lb/hr (8760/2000) = 1.14 tons/yr

VOC = 21.68 lb/hr (8760/2000) = 94.96 tons/yr

Restricted Annual Emissions: PE/PM10 = [148,214 gal/yr (8.43 lb coating/gal)(0.216 lb PM/lb coating)(1-0.94)(1-0.90)] / 2000 lb/ton = 0.81 ton/yr

VOC = [148,214 gal coating/yr(0.188 gal solids/gal coating)(4.9 lb VOC/gal solids)] / 2000 lb/ton = 68.27 tons/yr

b. Inside bake oven emissions:

CO 84 lb/mmscf(5.2 mmBtu/hr) / (1020 mmBtu/mmscf) = 0.43 lb/hr  
= 1.88 TPY

NOx 100 x 5.2/1020 = 0.51 lb/hr = 2.24 ton/yr

PE 1.9 x 5.2/1020 = 0.01 lb/hr = 0.05 ton/yr

PM10 7.6 x 5.2/1020 = 0.04 lb/hr = 0.18 ton/yr

SO2 0.6 x 5.2/1020 = 0.01 lb/hr = 0.05 ton/yr

VOC 5.5 x 5.2/1020 = 0.03 lb/hr = 0.13 ton/yr

Total VOC & PE for spray coating & Inside Bake Oven

PE = 0.26 + 0.01 = 0.27 lb/hr

PE = 0.81 + 0.05 = 0.86 ton/yr

PM<sub>10</sub> = 0.26 + 0.04 = 0.30 lb/hr

PM<sub>10</sub> = 0.81 + 0.18 = 0.99 ton/yr

VOC = 21.68 + 0.03 = 21.71 lb/hr

VOC = 68.27 + 0.13 = 68.40 ton/yr

4. K011 total emissions

CO	0.16 + 0.23 + 0.43 = 0.82 lb/hr	0.69 + 1.01 + 1.88 = 3.58 tons/yr
NOx	0.19 + 0.27 + 0.51 = 0.97 lb/hr	0.83 + 1.18 + 2.24 = 4.25 tons/yr
PE	0.31 + 0.01 + 0.27 = 0.59 lb/hr	1.37 + 0.05 + 0.86 = 2.28 tons/yr
PM10	0.32 + 0.02 + 0.30 = 0.64 lb/hr	1.41 + 0.09 + 0.99 = 2.49 tons/yr
SO2	0.01 + 0.01 + 0.01 = 0.03 lb/hr	0.05 + 0.05 + 0.05 = 0.15 tons/yr
VOC	0.05 + 9.88 + 21.71 = 31.64 lb/hr	0.23 + 32.52 + 68.40 = 101.15 tons/yr

5. K006 - Line 2 Base Coat operation

Allowable Coating usage: 10,181 gallons

Volume % solids: 40.9

VOC content: 2.0 lb/gal, excluding water & exempt solvents & 2.4 lb/gal solids

Maximum coating application rate: 6.22 gallons per hour

VOC emissions = 6.22 gal/hr (0.409 gal solids/gal coating)(2.4 lb VOC/gal solids) = 6.11 lb VOC/hr

Potential Annual Emissions: 6.11 lb VOC/hr (8760 hrs/hr)/(2000 lbs/ton) = 26.77 tons per year

Restricted Annual Emissions: VOC emissions = 10,181 gal/yr (0.409 gal solids/gal coating)(2.4 lb VOC/gal solids) / (2000 lb/ton) = 5.00 tons/yr

Pin oven emissions

CO 84 lb/mmscf(3.0 mmBtu/hr) / (1020 mmBtu/mmscf) = 0.25 lb/hr = 1.10 tons/yr

NOx 100 x 3.0/1020 = 0.30 lb/hr = 1.32 tons/yr

PE 1.9 x 3.0/1020 = 0.01 lb/hr = 0.05 ton/yr

PM10 7.6 x 3.0/1020 = 0.03 lb/hr = 0.13 ton/yr  
 SO2 0.6 x 3.0/1020 = 0.01 lb/hr = 0.05 ton/yr  
 VOC 5.5 x 3.0/1020 = 0.02 lb/hr = 0.09 ton/yr

VOC 6.11 lb/hr + 0.02 lb/hr = 6.13 lb/hr  
 VOC 5.00 tpy + 0.09 tpy = 5.09 tpy

6. The allowable emissions (future potential emissions) from K011(Line 3) are 101.15 tons/yr VOC. Past actual emissions for P011 are 66.31 tons/yr (2002 & 2003 average emissions). Within the last 5 year period, the following emission increase occurred: K006 (Line 2 coater and coater pin oven) installation resulted in + 30 tons/yr VOC. To net out of non-attainment area review, the permittee has requested a federally enforceable emission limitation of 5.09 tons/yr VOC be added to K006.

The net emission increase associated with the proposed modification is 101.15 - 66.34 = 34.81 tons/yr VOC. The source-wide creditable contemporaneous emissions increase is + 5.09 tons/yr. The net contemporaneous increase is 34.81 tons/yr VOC + 5.09 tons/yr VOC = 39.90 tons/yr VOC.

7. The facility is subject to the state's air toxics policy. Emission of air toxic materials is estimated as follows:

lb/hr	gallons/year	glycol ethers	ethyl benzene	formaldehyde	methanol	isopropyl alcohol	xylene
TLV ( $\mu\text{g}/\text{m}^3$ )		19,000	441,000	270	266,000	999,000	441,000
basecoat	10,181	0.35	0.013				0.05
ink	4,270	0.0095		0.00064	0.00126	-	
overvarnish	50,596	3.66		-	-	-	
inside spray	148,214	7.42		-	-	-	
cleaning solvent	360	-		-	-	0.36	
lbs/TLV		<b>6.0E-04</b>	2.9E-08	2.4E-06	4.8E-09	3.6E-07	1.1E-07
potential tpy		50.11	0.06	0.01	0.01	1.58	0.22

Since glycol ethers appear the most significant: Screens was run resulting in a maximum predicted ground level concentration of 79.81 with a MAGLC of 452.

11/18/04  
 11:16:54

\*\*\* SCREEN3 MODEL RUN \*\*\*  
 \*\*\* VERSION DATED 96043 \*\*\*

Rexam Can K006 and K011

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT  
 EMISSION RATE (G/S) = 1.44000  
 STACK HEIGHT (M) = 17.0400

STK INSIDE DIAM (M) = .7620  
 STK EXIT VELOCITY (M/S)= 10.7111  
 STK GAS EXIT TEMP (K) = 422.0000  
 AMBIENT AIR TEMP (K) = 293.0000  
 RECEPTOR HEIGHT (M) = .0000  
 URBAN/RURAL OPTION = URBAN  
 BUILDING HEIGHT (M) = 9.1400  
 MIN HORIZ BLDG DIM (M) = 50.0000  
 MAX HORIZ BLDG DIM (M) = 122.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.  
 THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = 4.661 M<sup>4</sup>/S<sup>3</sup>; MOM. FLUX = 11.563 M<sup>4</sup>/S<sup>2</sup>.

\*\*\* FULL METEOROLOGY \*\*\*

\*\*\*\*\*  
 \*\*\* SCREEN AUTOMATED DISTANCES \*\*\*  
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\*\*\* TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES \*\*\*

DIST (M)	CONC (UG/M <sup>3</sup> )	U10M STAB	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	.0000	1	1.0	1.1	320.0	79.78	1.57 1.56	NO
100.	78.08	3	4.0	4.4	1280.0	29.98	21.89 20.34	HS
200.	63.73	4	3.0	3.4	960.0	36.87	31.31 27.78	HS
300.	55.34	4	2.0	2.3	640.0	46.78	46.14 41.12	NO
400.	47.19	4	1.5	1.7	480.0	56.70	60.49 54.11	NO
500.	51.80	6	1.0	1.2	10000.0	56.10	51.43 32.23	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:  
 70. 79.81 3 3.5 3.8 1120.0 29.13 22.67 17.97 HS

DWASH= MEANS NO CALC MADE (CONC = 0.0)  
 DWASH=NO MEANS NO BUILDING DOWNWASH USED  
 DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED  
 DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED  
 DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3\*LB

\*\*\*\*\*  
 \*\*\* REGULATORY (Default) \*\*\*  
 PERFORMING CAVITY CALCULATIONS  
 WITH ORIGINAL SCREEN CAVITY MODEL  
 (BRODE, 1988)  
 \*\*\*\*\*

\*\*\* CAVITY CALCULATION - 1 \*\*\*      \*\*\* CAVITY CALCULATION - 2 \*\*\*  
 CONC (UG/M<sup>3</sup>) = .0000      CONC (UG/M<sup>3</sup>) = .0000

CRIT WS @10M (M/S) = 99.99      CRIT WS @10M (M/S) = 99.99  
 CRIT WS @ HS (M/S) = 99.99      CRIT WS @ HS (M/S) = 99.99  
 DILUTION WS (M/S) = 99.99      DILUTION WS (M/S) = 99.99  
 CAVITY HT (M) = 9.14      CAVITY HT (M) = 9.14  
 CAVITY LENGTH (M) = 49.23      CAVITY LENGTH (M) = 36.96  
 ALONGWIND DIM (M) = 50.00      ALONGWIND DIM (M) = 122.00

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

\*\*\*\*\*  
 END OF CAVITY CALCULATIONS  
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\*\*\*\*\*  
 \*\*\* SUMMARY OF SCREEN MODEL RESULTS \*\*\*  
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CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	79.81	70.	0.

\*\*\*\*\*  
 \*\* REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS \*\*  
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Summary of PTI 04-01379 Project Emissions							
Emissions Unit	NOx	SO2	PM10	CO	VOC	H2SO4	HAPs
<b>New/Modified Sources</b>							
K006 (modified)	1.32	0.05	0.13	1.10	5.09	-	-
K011 (modified)	4.25	0.15	2.49	3.58	101.15	-	-
<b>Total</b>	5.57	0.20	2.62	4.68	106.24	-	1.58/1.88
<b>PSD/NANSR Significance Levels</b>	40	40	15	100	40	7	NA not major
Above Significance Levels	NO	NO	NO	NO	Yes	NO	NO
The net emission increase for all pollutants is less than major for all pollutants except VOC.							

Contemporaneous Changes (Period 11/1999 - 11/2004)			
Project	Year of Change	VOC, tons/yr	Description

PTI 04-01379 (K006)	11/2004	5.09	This unit was modified on 5/18/2002 as a result of PTI 04-01269 issued on 9/25/2001 which contained allowable emissions of 30 tons/yr VOC for K006. PTI 04-01379 restricts VOC emissions from K006 to 5.09 tons/yr.
PTI 04-01379 (K011)		Permit allowable 101.15 2002 & 2002 actuals -66.34	
<b>Contemporaneous Subtotal</b>		39.90	
PSD/NNSR Significance Level		40	
Above Significance Levels? PSD/NNSR Triggered?		No	

#### D. Conclusion

The net contemporaneous emission increase is less than 40 tons/yr VOC, and does not result in a major increase of VOC emissions.

#### **PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:**

OAC rule 3745-17-11(B)(1) applies, but is less stringent as follows:

$E = 0.551 \text{ lb PE/hr for } P < 100 \text{ lb/hr}$

$E = 4.10 P^{0.67}$  where  $P = \text{tons per hour for } P > 0.05$

$P \text{ from bodymaking process} = 30 \text{ gal coolant /day } (8.55 \text{ lb coolant/gal coolant})(1 \text{ day/24 hr}) = 10.69 \text{ lb/hr}$

$E \text{ for bodymaking process} = 0.551 \text{ lb PE/hr; allowable} = 0.30 \text{ lb PE/hr}$

$P \text{ from inside spray} = 10.07 \text{ gal/hr } (8.43 \text{ lb coating/gal}) = 84.89 \text{ lb/hr}$

$E \text{ from inside spray} = 0.551 \text{ lb PE/hr; allowable} = 0.19 \text{ lb PE/hr}$

Exemption from Table II applicability for total uncontrolled emissions < 10 lb/hr:

from bodymaking process:  $30 \text{ gal coolant /day } (8.55 \text{ lb coolant/gal coolant})(0.55 \text{ lb solid/lb coolant})(1 \text{ day/24 hr}) = 5.88 \text{ pounds per hour}$

from inside spray:  $10.07 \text{ gal/hr } (8.43 \text{ lb coating/gal})(0.216 \text{ lb PM/lb coating})(1-0.94) = 1.10 \text{ lb/hr}$

combined total: 6.98 lb/hr which is less than 10 lb uncontrolled: Table II does not apply

#### BAT

base coat 2.8 lb VOC/gal coating excluding water and exempt solvents, 2.42 lb VOC/gal cs

inside spray 2.9 lb VOC/gal of coating minus water and exempt solvents, 4.9 lb VOC/gal solids

overvarnish 2.1 lb VOC/gal of coating minus water and exempt solvents, 2.9 lb VOC/gal solids

bottom varnish (exterior body end) 2.1 lb VOC/gal of coating minus water and exempt solvents, 2.9 lb VOC/gal solids;

inks 2.59 lb VOC/gal of coating minus water and exempt solvents

K011 (Line 3) will only be used for the following type of coating operations: ink application, overvarnish, bottom varnish. Basecoat and end sealing compound will not be applied at K011.

K006 will only apply basecoat

OAC rule 3745-21-09(D)

base coat	2.8 lb VOC/gal coating excluding water and exempt solvents
overvarnish	2.8 lb VOC/gal coating excluding water and exempt solvents
interior body	4.2 lb VOC/gal coating excluding water and exempt solvents
exterior body end	4.2 lb VOC/gal coating excluding water and exempt solvents
end sealing compound	3.7 lb VOC/gal coating excluding water and exempt solvents - end sealing compound is not applied at K006 or K011.

40 CFR Part 60, Subpart WW

base coat	0.29 kg VOC/l coating solids	2.42 lb VOC/gal cs	(1 lb/0.454 kg)(3.785 l/gal)
overvarnish	0.46 kg VOC/l coating solids	3.84 lb VOC/gal cs	
clear base coat	0.46 kg VOC/l coating solids	3.84 lb VOC/gal cs	
inside spray coating	0.89 kg VOC/l coating solids	7.42 lb VOC/gal cs	

40 CFR Part 63, Subpart KKKK (not applicable)

all coatings	0.07 kg HAP/l coating solids	0.59 lb HAP/gal cs
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This facility is exempted from applicability of Subpart KKKK by 40 CFR 63.3481(b): emissions of HAPs from this facility do not exceed 10 tpy individual or 25 tpy combined. Note: USEPA delisted EGBE (68 FR65648 dated 11/18/04). Because EGBE was delisted, 40 CFR Part 63, Subpart KKKK will not apply to this facility.



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
122 S. Front Street  
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049  
Columbus, OH 43216-1049

**RE: DRAFT PERMIT TO INSTALL**

**LUCAS COUNTY**

**Application No:** 04-01379

**Fac ID:** 0448002007

**DATE:** 12/2/2004

Rexam Beverage Can Company  
Geoffrey Wortley  
8770 West Bryn Mawr Ave Suite 175  
Chicago, IL 606313655

**CERTIFIED MAIL**

	TOXIC REVIEW
	PSD
Y	SYNTHETIC MINOR
	CEMS
KKKK	MACT
WW	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$400** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

**LUCAS COUNTY**

**PUBLIC NOTICE**

**ISSUANCE OF DRAFT PERMIT TO INSTALL 04-01379 FOR AN AIR CONTAMINANT SOURCE FOR  
Rexam Beverage Can Company**

On 12/2/2004 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Rexam Beverage Can Company**, located at **10444 Waterville Swanton Road, Whitehouse, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 04-01379:

**Modification of Line 3 to allow for production of either 12 ounce or 24 ounce beverage cans.**

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Karen Granata, Toledo Department of Environmental Services, 348 South Erie Street, Toledo, OH 43602  
[(419)936-3015]



**Permit To Install  
Terms and Conditions**

**Issue Date: To be entered upon final issuance  
Effective Date: To be entered upon final issuance**

**DRAFT PERMIT TO INSTALL 04-01379**

Application Number: 04-01379  
Facility ID: 0448002007  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: Rexam Beverage Can Company  
Person to Contact: Geoffrey Wortley  
Address: 8770 West Bryn Mawr Ave Suite 175  
Chicago, IL 606313655

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**10444 Waterville Swanton Road  
Whitehouse, Ohio**

Description of proposed emissions unit(s):  
**Modification of Line 3 to allow for production of either 12 ounce or 24 ounce beverage cans.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. State and Federally Enforceable Permit To Install General Terms and Conditions

#### 1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the

previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

## **2. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

## **3. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

## **4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

## **5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or

condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

## **6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

## **7. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

## **8. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

**9. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

**10. Permit To Operate Application**

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or

modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

**11. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

**12. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**B. State Only Enforceable Permit To Install General Terms and Conditions**

**1. Compliance Requirements**

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

**2. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**3. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**4. Termination of Permit To Install**

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**5. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

**6. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

**7. Applicability**

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

**8. Construction Compliance Certification**

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**C. Permit To Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
CO	4.68
NOx	5.57
PE	2.33
PM10	2.62
SO2	0.20
VOC	106.24 (39.90 contemporaneous increase)

**Rexam Beverage Can Company**

**PTI Application: 04-01379**

**Issued: To be entered upon final issuance**

**Facility ID: 0448002007**

**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K006 - Line 2 with one exhaust stack	OAC rule 3745-31-05(C)	5.13 tons VOC per rolling, 12-month period
2-piece beverage can continuous motion base coater and 3.0 mmBtu direct fired natural gas pin oven with no controls	OAC 3745-31-05(A)(3) (PTI 04-01269 issued 9/25/2001)	2.0 pounds of volatile organic compounds (VOC ) per gallon of coating minus water and exempt solvents; and see Section A.I.2.a
	OAC rule 3745-31-05(C)	6.16 pounds per hour and 5.04 tons VOC per rolling, 12-month period from all coatings and clean-up materials; 0.25 pound per hour and 1.10 tons per year carbon monoxide (CO) emissions; 0.30 pound per hour and 1.32 tons per year nitrogen oxides (NO <sub>x</sub> ) emissions; 0.01 pound per hour and 0.05 ton per year of (PE); 0.03 pound per hour and 0.13 ton per year of PM <sub>10</sub> ; and 0.01 pound per hour and 0.05 ton per year sulfur dioxide (SO <sub>2</sub> ) emissions; and 0.02 pound per hour and 0.09 ton VOC per rolling, 12-month period from the combustion of natural gas (see Section A.I.2.b)
	OAC rule 3745-21-09(D)(1)	See Section A.I.2.c
	40 CFR Part 60, Subpart WW	2.42 pounds of VOC per gallon of coating solids (0.29 kilogram of VOC per liter of coating solids); and see section A.I.2.d

OAC rule 3745-18-06(C)	See Section A.I.2.c
OAC rule 3745-21-08(B)	See Section A.I.2.e
OAC rule 3745-23-06(B)	See Section A.I.2.f

**2. Additional Terms and Conditions**

- 2.a** The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart WW, and 40 CFR Part 63, Subpart KKKK.
- 2.b** The hourly and annual emission limitations were established for PTI purposes to reflect the potential to emit for the combustion of natural gas in this emissions unit at the maximum burner capacity of 3.0 mmBtu per hour. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.
- 2.c** The emission limitation specified by this rule is less stringent than the emission limitation established by OAC rule 3745-31-05(A)(3).
- 2.d** This emissions unit is subject to the applicable provisions of Subpart WW of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.
- 2.e** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by complying with all applicable rules.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.f** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

## **II. Operational Restrictions**

1. The permittee shall burn only natural gas as fuel in this emissions unit.
2. Coating usage shall not exceed 10,181 gallons per year based upon a rolling, 12-month summation of the usage rates. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

## **III. Monitoring and/or Recordkeeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall collect and record the following information each month for the line:
  - a.
    - i. the name and identification number of each coating (i.e., base coat), as applied,
    - ii. the volume of each coating, in gallons,
    - iii. the VOC content of each coating, in pounds of VOC per gallon of coating,
    - iv. the VOC content of each coating, in pounds of VOC per gallon of coating excluding water and exempt solvents,
    - v. the VOC content of each coating, in pounds of VOC per gallon of solids, as applied,
    - vi. the monthly total VOC emissions from all coatings employed (ii) x (iii), in tons;
  - b.
    - i. the name and identification number of each clean-up material employed,
    - ii. the volume of each clean-up material employed, in gallons,
    - iii. the VOC content of each clean-up material employed, in pounds of VOC per gallon,
    - iv. the monthly total VOC emissions from all clean-up materials employed (ii) x (iii), in tons;
  - c. the rolling, 12-month summation of all coatings employed, in gallons; and
  - d. the rolling, 12-month summation of VOC emissions from all coatings and clean-up materials employed, in tons.

## **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit as fuel. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying coatings. The notification shall include a copy of such record and shall be sent to the Director (the

appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month usage rate limitations for coatings specified under A.II.2. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section A.1.
4. Pursuant to the 40 CFR Part 60.7, the permittee shall submit quarterly written reports listing each coating used during the previous calendar quarter and the VOC content of each coating determined using Method 24 or supplied by the manufacturers of the coatings. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section A.1.

## **V. Testing Requirements**

1. Compliance with the Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

0.25 pound per hour CO emissions

Applicable Compliance Method

Compliance shall be demonstrated by multiplying the maximum burner capacity (3.0 mmBtu/hr) by an emission factor of 84 pounds of CO per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 10 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

- b. Emission Limitation:

1.10 tons per year CO emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.25 pound CO per hour) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly CO limit constitutes compliance with the annual CO limit.

c. Emission Limitation:

0.30 pound per hour NO<sub>x</sub> emissions

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum burner capacity (3.0 mmBtu/hr) by an emission factor of 100 pounds of NO<sub>x</sub> per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

d. Emission Limitation:

1.32 tons per year NO<sub>x</sub> emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.30 pound NO<sub>x</sub>/hr) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly NO<sub>x</sub> limit constitutes compliance with the annual NO<sub>x</sub> limit.

e. Emission Limitation:

0.01 pound per hour PE

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum burner capacity (3.0 mmBtu/hr) by an emission factor of 1.9 pounds of PE per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance using Methods 1 thru 5 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

f. Emission Limitation:

0.05 ton per year PE

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.01 pound per hour) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.

g. Emission Limitation:

0.03 pound per hour  $PM_{10}$

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum burner capacity (3.0 mmBtu/hr) by an emission factor of 7.6 pounds of  $PM_{10}$  per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

h. Emission Limitation:

0.13 ton per year  $PM_{10}$

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.03 pound per hour  $PM_{10}$ ) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.

i. Emission Limitation:

0.01 pound per hour  $SO_2$

Applicable Compliance Method

Compliance shall be demonstrated by multiplying the maximum burner capacity (3.0 mmBtu/hr) by an emission factor of 0.6 pound of  $SO_2$  per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from

AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 6 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

j. Emission Limitation:

0.05 ton per year SO<sub>2</sub> emissions from the pin oven

Applicable Compliance Method

Annual allowable emissions are based on the hourly allowable emission rate (0.01 pound per hour SO<sub>2</sub>) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly emission limitation constitutes compliance with the annual SO<sub>2</sub> emission limitation.

k. Emission Limitation:

0.02 pound per hour VOC emissions from the combustion of natural gas

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum burner capacity (3.0 mmBtu/hr) by an emission factor of 5.5 pounds of VOC per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Method 25 of 40 CFR Part 60, Appendix A. This demonstration shall be based on a summation of the emissions from the combustion of natural gas (0.02 pound per hour) and the emissions from all coatings and clean-up materials utilized (6.11 pounds per hour). Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

l. Emission Limitation:

0.09 ton of VOC per year from the combustion of natural gas

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.01 pound per hour VOC) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly emission limitation constitutes compliance with the annual VOC emission limitation.

m. Emission limitation:

2.0 pounds of VOC per gallon of coating minus water and exempt solvents

Applicable Compliance Method:

Compliance shall be determined through the monitoring and record keeping requirements of section A.III. If required, compliance shall be demonstrated by an evaluation performed in accordance with OAC rule(s) 3745-21-09(B)(3)(f) and 3745-21-10(B) using the methods and procedures specified in USEPA Reference Method 24 of 40 CFR Part 60, Appendix A.

Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services. If, pursuant to Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

n. Emission limitation:

2.42 pound of VOC per gallon of coating solids (0.29 kilogram of VOC per liter of coating solids)

Applicable Compliance Method:

Compliance shall be determined through the monitoring and record keeping requirements of section A.III. If required, compliance shall be demonstrated by an evaluation performed in accordance with OAC rule 3745-21-10(B) and 40 CFR 60.496 using the methods and procedures specified in USEPA Reference Method 24 of 40 CFR Part 60, Appendix A.

Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services. If, pursuant to Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

o. Emission Limitation:

6.16 pounds per hour VOC emissions from the coatings and clean-up materials

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum coating application rate (6.22 gallon per hour) by the maximum VOC content recorded in Section A.III. above (in pounds VOC per gallon).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Method 25 of 40 CFR Part 60, Appendix A. This demonstration shall be based on a summation of the emissions from the combustion of natural gas (0.02 pound per hour) and the emissions from all coatings and clean-up materials utilized (6.11 pounds per hour). Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

p. Emission Limitation:

5.04 tons of VOC per year from all coatings and clean-up materials

Applicable Compliance Method:

Compliance with this emission limitation will be demonstrated by the monitoring and recordkeeping requirements of Section III.

q. Emission Limitation:

5.13 tons of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance with this emissions limitation shall be demonstrated as the summation of the VOC emissions for the combustion of natural gas and the VOC emissions from all coatings and clean-up materials. Compliance with this emission limitation will be demonstrated by the monitoring and recordkeeping requirements of Section III.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K006 - Line 2, 2-piece beverage can continuous motion base coater and pin oven with no controls		

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for emissions units K006 and K011 was evaluated based on the actual materials and the design parameters of the each emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: glycol ethers

TLV (mg/m<sup>3</sup>): 19 (5ppm\*90.12/24.05)

Maximum Hourly Emission Rate (lbs/hr): 11.41  
 (for emissions units K006 and K011)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 79.81 ug/m<sup>3</sup>

2. Physical changes to or changes in the method of operation of the emissions unit(s) after its (their) installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or clean-up materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### **IV. Reporting Requirements**

None

#### **V. Testing Requirements**

**Rexam Beverage Can Company**

**PTI Application: 04-01379**

**Issued: To be entered upon final issuance**

**Facility ID: 0448002007**

Emissions Unit ID: K011

None

**VI. Miscellaneous Requirements**

None

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K011 - Line 3 / Two-piece beverage can manufacturing and coating line with four exhaust stacks	OAC rule 3745-31-10 thru 27	101.15 tons per rolling, 12-month period of volatile organic compound (VOC) emissions
12-ounce and 24-ounce beverage can bodymaking process consisting of: (1) cupper, and (2) trimmers, all uncontrolled, and (2) bodymakers controlled by an oil mist collector	OAC rule 3745-31-05(A)(3)	0.30 pound per hour and 1.32 tons per year of particulate emissions (PE); 0.30 pound per hour and 1.32 tons per year of PM <sub>10</sub> ; 0.04 pound per hour and 0.18 ton per year VOC; and see sections A.I.2.a. and A.I.2.b
	OAC rule 3745-17-07(A)(1)	See section A.I.2.c
	OAC rule 3745-17-11(B)(1)	See section A.I.2.c
	OAC rule 3745-21- 07(G)(1)	See section A.I.2.c
1.925 mmBtu/hr direct-fired natural gas washer drying oven with no controls	OAC rule 3745-31-05(A)(3)	0.16 pound per hour and 0.69 ton per year carbon monoxide (CO) emissions; 0.19 pound per hour and 0.83 ton per year nitrogen oxides (NO <sub>x</sub> ) emissions; 0.01 pound per hour and 0.05 ton per year of (PE); 0.02 pound per hour and 0.09 ton per year of PM <sub>10</sub> ; and 0.01 pound per hour and 0.05 ton per year sulfur dioxide (SO <sub>2</sub> ) emissions; and

<p>continuous motion printer and pin oven - ink, over varnish, and exterior bottom end varnish application, clean-up solvent emissions and 2.75 mmBtu/hr direct-fired natural gas curing oven, with no controls</p>	<p>OAC rule 3745-18-06(C)</p> <p>OAC rule 3745-21-08(B)</p> <p>OAC rule 3745-23-06(B)</p> <p>OAC rule 3745-31-05(A)(3)</p>	<p>0.01 pound per hour and 0.05 ton VOC per year from the combustion of natural gas; and see sections A.I.2.d and A.I.2.e</p> <p>See section A.I.2.c</p> <p>See section A.I.2.f</p> <p>See section A.I.2.g</p>
<p>inside body spray coating with 5.2 mmBtu/hr direct fired natural gas inside body bake oven, with no controls</p>	<p>OAC rule 3745-18-06(C)</p> <p>OAC rule 3745-21-08(B)</p> <p>OAC rule 3745-21-09(D)</p> <p>OAC rule 3745-23-06(B)</p> <p>40 CFR Part 60, Subpart WW</p> <p>OAC rule 3745-31-05(A)(3)</p>	<p>0.23 pound per hour and 1.01 tons per year carbon monoxide (CO) emissions; 0.27 pound per hour and 1.18 tons per year nitrogen oxides (NOx) emissions; 0.01 pound per hour and 0.05 ton per year of PE; 0.02 pound per hour and 0.09 ton per year of PM<sub>10</sub>; 0.01 pound per hour and 0.05 ton per year sulfur dioxide (SO<sub>2</sub>) emissions; 0.02 pound per hour and 0.09 ton VOC per year from the combustion of natural gas (see section A.I.2.d); 9.86 pounds per hour and 32.43 tons per year VOC emissions from all coatings and clean-up materials; and see sections A.I.2.e, A.I.2.h, and A.I.2.i</p> <p>See section A.I.2.c</p> <p>See section A.I.2.f</p> <p>See section A.I.2.c</p> <p>See section A.I.2.g</p> <p>See section A.I.2.j</p> <p>0.43 pound per hour and 1.88 tons per year CO emissions; 0.51 pound per hour and 2.24 tons per year NOx emissions; 0.01 pound per hour and 0.05 ton per year of PE;</p>

	0.04 pound per hour and 0.18 ton per year of PM <sub>10</sub> ; 0.01 pound per hour and 0.05 ton per year SO <sub>2</sub> emissions; 0.03 pound per hour and 0.13 ton VOC per year from the combustion of natural gas (see section A.I.2.d); 0.26 pound per hour and 0.81 ton per year of PE from all coating operations; 0.26 pound per hour and 0.81 ton per year of PM <sub>10</sub> from all coating operations; 21.68 pounds per hour and 68.27 tons per year VOC emissions from all coatings; and see sections A.I.2.e, A.I.2.i, and A.I.2.k
OAC rule 3745-18-06(C)	See section A.I.2.c
OAC rule 3745-21-08(B)	See section A.I.2.f
OAC rule 3745-21-09(D)	See section A.I.2.c
OAC rule 3745-23-06(B)	See section A.I.2.g
40 CFR Part 60, Subpart WW	See section A.I.2.j

**2. Additional Terms and Conditions**

- 2.a** The permittee shall not operate the bodymaking equipment when the oil mist collection system is not in operation.
- 2.b** Visible particulate emissions from the oil mist collector exhaust shall not exceed 5% opacity as a 6-minute average.
- 2.c** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.d** The hourly and annual emission limitations were established for PTI purposes to reflect the potential to emit for the combustion of natural gas in this emissions unit at the maximum burner capacity. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.
- 2.e** Visible particulate emissions from the oven exhaust shall not exceed 0% opacity as a 6-minute average.
- 2.f** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by complying with all applicable rules.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.g** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.
- 2.h** Volatile organic compound (VOC) emissions from individual coatings shall not exceed the following:
- inks: 2.59 pounds per gallon of coating excluding water and exempt solvents;
  - over varnish: 2.1 pounds per gallon of coating excluding water and exempt solvents;
  - over varnish: 2.9 pounds per gallon of coating solids;
  - exterior bottom end varnish: 2.1 pounds per gallon of coating excluding water and exempt solvents;
  - exterior bottom end varnish: 2.9 pounds per gallon of coating solids; and
  - clean-up solvent: 6.0 pounds of VOC per gallon.
- 2.i** The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(D), 40 CFR Part 60, Subpart WW, and 40 CFR Part 63, Subpart KKKK.
- 2.j** This emissions unit is subject to the applicable provisions of Subpart WW of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.
- 2.k** Volatile organic compound (VOC) emissions from individual coatings shall not exceed the following:
- inside spray: 2.9 pounds per gallon of coating excluding water and exempt solvents; and
  - inside spray: 4.9 pounds per gallon of coating solids.

## II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.
2. Coating and clean-up material usage shall not exceed the following levels based upon a rolling, 12-month summation of the usage rates:

**Rexam Beverage Can Company****PTI Application: 04-01379****Issued: To be entered upon final issuance****Facility ID: 0448002007****Emissions Unit ID: K011**

Inside spray: 148,214 gallons per rolling 12-month period;  
 Over varnish: 50,596 gallons per rolling 12-month period;  
 Bottom varnish: 2,447 gallons per rolling 12-month period;  
 Inks: 4,270 gallons per rolling 12-month period; and  
 Clean-up solvent: 360 gallons per rolling 12-month period.

To ensure enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

#### **Maximum Allowable Cumulative Usage**

<u>Month</u>	<u>Over Varnish gallons</u>	<u>Bottom Varnish gallons</u>	<u>Inside Spray gallons</u>	<u>Inks gallons</u>	<u>Clean-up Solvent gallons</u>
1	4,460	220	12,640	370	30
1-2	8,920	440	25,280	740	60
1-3	13,380	660	37,920	1,110	90
1-4	17,840	880	50,560	1,480	120
1-5	22,300	1,100	63,200	1,850	150
1-6	26,760	1,320	75,840	2,220	180
1-7	31,220	1,540	88,480	2,590	210
1-8	35,680	1,760	101,120	2,960	240
1-9	40,140	1,980	113,760	3,330	270
1-10	44,600	2,200	126,400	3,700	300
1-11	49,060	2,440	139,040	4,070	330
1-12	50,596	2,447	148,214	4,270	360

After the first 12 calendar months of operation following issuance of this permit, compliance with the annual usage limitations shall be based upon a rolling, 12-month summation of the usage rates.

### **III. Monitoring and/or Recordkeeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain daily records that document any time periods when the oil mist collection system was not in service when the bodymaking equipment was in operation.
3. The permittee shall perform daily checks, when the body making process is in operation and when the weather conditions allow, for any visible particulate emissions from the oil mist collector stack. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to eliminate the visible emissions.

If the daily checks show no visible emissions for 30 consecutive days, the required frequency of visible emissions checks may be reduced to weekly (once per week), when the emissions unit is in operation. If a subsequent check by the permittee or an Ohio EPA inspector indicates visible emissions, the frequency of emissions checks shall revert to daily until such time as there are 30 consecutive days of no visible emissions during operation.

4. The permittee shall collect and record the following information each month for the line:
  - a.
    - i. the name and identification number of each coating (i.e., over varnish, bottom varnish or inside spray coating), as applied,
    - ii. the volume of each coating, in gallons,
    - iii. the VOC content of each coating, in pounds of VOC per gallon of coating,
    - iv. the VOC content of each coating, in pounds of VOC per gallon of coating excluding water and exempt solvents,
    - v. the VOC content of each coating, in pounds of VOC per gallon of solids, as applied,
    - vi. the monthly total VOC emissions from all coatings employed,  $(ii) \times (iii) \div 2000$ , in tons;
  - b.
    - i. the name and identification number of each ink, as applied,
    - ii. the volume (and mass) of each ink, in gallons (and pounds),
    - iii. the VOC content of each ink, in pounds of VOC per gallon (or pound) of ink,
    - iv. the VOC content of each ink, in pounds of VOC per gallon of coating excluding water and exempt solvents,
    - v. the monthly total VOC emissions from all inks employed, calculated on a volume (or mass) basis,  $(ii) \times (iii) \div 2000$ , in tons;
  - c.
    - i. the name and identification number of each clean-up material employed,
    - ii. the volume of each clean-up material employed, in gallons,
    - iii. the VOC content of each clean-up material employed, in pounds of VOC per gallon,
    - iv. the monthly total VOC emissions from all clean-up materials employed,  $(ii) \times (iii) \div 2000$ , in tons;
  - d. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling 12-month summation of VOC emissions from all coatings, inks and clean-up materials employed, in tons. Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative VOC emission rate for each calendar month.

- e. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling 12-month summation, of each type of coating employed in gallons. Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative coating usage rates for each calendar month.
- f. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling 12-month summation, of each type of ink employed in gallons. Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative ink usage rates for each calendar month.
- g. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling 12-month summation, of each type of clean-up solvent employed, in gallons. Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative clean-up solvent usage rates for each calendar month.

#### **IV. Reporting Requirements**

- 1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit as fuel. Each report shall be submitted within 30 days after the deviation occurs.
- 2. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any daily record showing that the oil mist collector was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
- 3. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying coatings, inks, or clean-up solvent. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.
- 4. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month usage rate limitations for coatings, inks and clean-up solvents specified under A.II.2. and, for the first 12 calendar months of operation following issuance of this permit, all exceedances of the maximum allowable cumulative usage levels of coatings, inks and clean-up solvents. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section A.1.
- 5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from any stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Pursuant to the 40 CFR Part 60.7, the permittee shall submit written reports of the following:
  - a. Construction date (no later than 30 days after such date);
  - b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);  
and
  - c. Actual start-up date (within 15 days after such date)

The reports are to be sent to:

Ohio Environmental Protection Agency  
DAPC - Permit Management Unit  
P. O. Box 163669  
Columbus, Ohio 43216-3669

and

Toledo Division of Environmental Services  
348 South Erie Street  
Toledo, Ohio 43602

8. Pursuant to the 40 CFR Part 60.8, the permittee shall submit quarterly written reports listing each coating used during the previous calendar quarter and the VOC content of each coating determined using Method 24 or supplied by the manufacturers of the coatings. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section A.1.

## **V. Testing Requirements**

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
101.15 tons of VOC per rolling, 12-month period  
  
Applicable Compliance Method:  
  
Compliance with this emissions limitation shall be demonstrated as the summation of the VOC emissions for the combustion of natural gas and the VOC emissions from all coatings, inks and clean-up materials. Compliance with this emission limitation will be demonstrated by the monitoring and recordkeeping requirements of Section III.
  - b. Emission Limitation:  
  
0% opacity as a 6-minute average from the oven exhaust

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emissions readings taken in accordance with Method 9 of 40 CFR Part 60, Appendix A.

b. Emission Limitation:

5% opacity as a 6-minute average from the oil mist collector

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emissions readings taken in accordance with Method 9 of 40 CFR Part 60, Appendix A.

c. Emission Limitation:

0.30 pound per hour PE from the bodymaking process

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum coolant usage (1.25 gal/hr) by the coolant density (8.55 lb coating/gal coating), the solid concentration (0.55 lb PE/lb coating) and the estimated oil mist collector efficiency (1-0.95).

If required, the permittee shall demonstrate compliance using Methods 1 thru 5 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

d. Emission Limitation:

1.32 tons per year PE from the bodymaking process

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.30 pound per hour) multiplied by the maximum annual operating hours (8760 hours per year), divided by 2000 pounds/ton. Therefore, compliance with the hourly particulate emission limitation constitutes compliance with the annual particulate emission limitation.

e. Emission Limitation:

0.30 pound per hour PM<sub>10</sub> from the bodymaking process

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum coolant usage (1.25 gal/hr) by the coolant density (8.55 lb coating/gal coating), the solid concentration (0.55 lb PM<sub>10</sub>/lb coating) and the estimated oil mist collector efficiency (1-0.95).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

f. Emission Limitation:

1.32 tons per year PM<sub>10</sub> from the bodymaking process

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.30 pound per hour PM<sub>10</sub>) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly emission limitation constitutes compliance with the annual PM<sub>10</sub> emission limitation.

g. Emission Limitation:

0.04 pound per hour VOC from the bodymaking process

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum coolant usage (1.25 gal/hr) by the coolant density (8.55 lb coating/gal coating), the VOC concentration (0.065 lb PE/lb coating) and the estimated oil mist collector efficiency (1-0.95).

If required, the permittee shall demonstrate compliance using Methods 1 thru 5 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

h. Emission Limitation:

0.18 ton per year VOC from the bodymaking process

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.04 pound per hour) multiplied by the maximum annual operating hours (8760 hours per year), divided by 2000 pounds/ton. Therefore, compliance with the hourly VOC emission limitation constitutes compliance with the annual particulate emission limitation.

i. Emission Limitation:

0.16 pound per hour CO emissions from the washer oven

Applicable Compliance Method

Compliance shall be demonstrated by multiplying the maximum burner capacity (1.925 mmBtu/hr) by an emission factor of 84 pounds of CO per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 10 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

j. Emission Limitation:

0.69 ton per year CO emissions from the washer oven

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.16 pound per hour) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly CO limit constitutes compliance with the annual CO limit.

k. Emission Limitation:

0.19 pound per hour NO<sub>x</sub> emissions from the washer oven

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum burner capacity (1.925 mmBtu/hr) by an emission factor of 100 pounds of NO<sub>x</sub> per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

l. Emission Limitation:

0.83 ton per year NO<sub>x</sub> emissions from the washer oven

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.19 pound per hour) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly NO<sub>x</sub> limit constitutes compliance with the annual NO<sub>x</sub> limit.

m. Emission Limitation:

0.01 pound per hour PE from the washer oven

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum burner capacity (1.925 mmBtu/hr) by an emission factor of 1.9 pounds of PE per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance using Method 5 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

n. Emission Limitation:

0.05 ton per year PE from the washer oven

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.01 pound per hour) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.

o. Emission Limitation:

0.02 pound per hour PM<sub>10</sub> from the washer oven

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum burner capacity (1.925 mmBtu/hr) by an emission factor of 7.6 pounds of PM<sub>10</sub> per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

p. Emission Limitation:

0.09 ton per year  $PM_{10}$  from the washer oven

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.02 pound per hour) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.

q. Emission Limitation:

0.01 pound per hour  $SO_2$  emissions from the washer oven

Applicable Compliance Method

Compliance shall be demonstrated by multiplying the maximum burner capacity (1.925 mmBtu/hr) by an emission factor of 0.6 pound of  $SO_2$  per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 6 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

r. Emission Limitation:

0.05 ton per year  $SO_2$  emissions from the washer oven

Applicable Compliance Method

Annual allowable emissions are based on the hourly allowable emission rate (0.01 pound per hour) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly emission limitation constitutes compliance with the annual  $SO_2$  emission limitation.

s. Emission Limitation:

0.01 pound per hour VOC emissions from the combustion of natural gas in the washer oven

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum burner capacity (1.925 mmBtu/hr) by an emission factor of 5.5 pounds of VOC per million standard cubic feet of

natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

t. Emission Limitation:

0.05 ton per year VOC emissions from the combustion of natural gas in the washer oven

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.01 pound per hour) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Compliance with the hourly VOC emissions limit constitutes compliance with the annual limit.

u. Emission Limitation:

0.23 pound per hour CO emissions from the combustion of natural gas in the pin oven

Applicable Compliance Method

Compliance shall be demonstrated by multiplying the maximum burner capacity (2.75 mmBtu/hr) by an emission factor of 84 pounds of CO per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 10 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

v. Emission Limitation:

1.01 tons per year CO emissions from the combustion of natural gas in the pin oven

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.23 pound per hour) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly CO limit constitutes compliance with the annual CO limit.

w. Emission Limitation:

0.27 pound per hour NO<sub>x</sub> emissions from the combustion of natural gas in the pin oven

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum burner capacity (2.75 mmBtu/hr) by an emission factor of 100 pounds of NO<sub>x</sub> per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

x. Emission Limitation:

1.18 tons per year NO<sub>x</sub> emissions from the combustion of natural gas in the pin oven

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.27 pound per hour) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly NO<sub>x</sub> limit constitutes compliance with the annual NO<sub>x</sub> limit.

y. Emission Limitation:

0.01 pound per hour PE emissions from the combustion of natural gas in the pin oven

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum burner capacity (2.75 mmBtu/hr) by an emission factor of 1.9 pounds of PE per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance using Methods 1 thru 5 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

z. Emission Limitation:

0.05 ton per year PE emissions from the combustion of natural gas in the pin oven

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.01 pound per hour) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.

aa. Emission Limitation:

0.02 pound per hour PM<sub>10</sub> emissions from the combustion of natural gas in the pin oven

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum burner capacity (2.75 mmBtu/hr) by an emission factor of 7.6 pounds of PM<sub>10</sub> per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

bb. Emission Limitation:

0.09 ton per year PM<sub>10</sub> emissions from the combustion of natural gas in the pin oven

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.02 pound per hour) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.

cc. Emission Limitation:

0.01 pound per hour SO<sub>2</sub> emissions from the combustion of natural gas in the pin oven

Applicable Compliance Method

Compliance shall be demonstrated by multiplying the maximum burner capacity (2.75 mmBtu/hr) by an emission factor of 0.6 pound of SO<sub>2</sub> per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from

AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 6 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

dd. Emission Limitation:

0.05 ton per year SO<sub>2</sub> emissions from the combustion of natural gas in the pin oven

Applicable Compliance Method

Annual allowable emissions are based on the hourly allowable emission rate (0.01 pound per hour) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly emission limitation constitutes compliance with the annual SO<sub>2</sub> emission limitation.

ee. Emission Limitation:

0.02 pound per hour VOC emissions from the combustion of natural gas in the pin oven

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum burner capacity (2.75 mmBtu/hr) by an emission factor of 5.5 pound of VOC per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Method 25 of 40 CFR Part 60, Appendix A. This demonstration shall be based on a summation of the emissions from the combustion of natural gas in the pin oven (0.02 pound per hour) and the emissions from all coatings and clean-up materials utilized in the continuous motion printer (9.86 pounds per hour). Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

ff. Emission Limitation:

0.09 ton per year VOC emissions from the combustion of natural gas in the pin oven

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.02 pound per hour) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Compliance with the hourly VOC emissions limit constitutes compliance with the annual limit.

gg. Emission Limitation:

9.86 pounds per hour VOC emissions from all coatings, inks and clean-up materials utilized in the continuous motion printer

Applicable Compliance Method:

Compliance shall be demonstrated by a summation of the VOC emissions from each coating and ink, calculated as the maximum application rate (in gallons per hour) for each coating and ink, multiplied by the maximum VOC content recorded in Section A.III. above (in pounds VOC per gallon).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Method 25 of 40 CFR Part 60, Appendix A. This demonstration shall be based on a summation of the emissions from the combustion of natural gas in the pin oven (0.02 pound per hour) and the emissions from all coatings, inks and clean-up materials utilized in the continuous motion printer (9.86 pounds per hour). Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

hh. Emission Limitation:

32.43 tons of VOC per year emissions from all coatings, inks and clean-up materials utilized in the continuous motion printer

Applicable Compliance Method:

Compliance with this emission limitation will be demonstrated by the monitoring and recordkeeping requirements of Section III.

ii. Emission Limitation:

0.43 pound per hour CO emissions from the combustion of natural gas in the inside body bake oven

Applicable Compliance Method

Compliance shall be demonstrated by multiplying the maximum burner capacity (5.2 mmBtu/hr) by an emission factor of 84 pounds of CO per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 10 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

jj. Emission Limitation:

1.88 tons per year CO emissions from the combustion of natural gas in the inside body bake oven

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.43 pound per hour) multiplied by the maximum annual hours of operation (8,760 hrs/yr), and divided by 2000 pounds/ton. Therefore, compliance with the hourly CO limit constitutes compliance with the annual CO limit.

kk. Emission Limitation:

0.51 pound per hour NO<sub>x</sub> emissions from the combustion of natural gas in the inside body bake oven

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum burner capacity (5.2 mmBtu/hr) by an emission factor of 100 pounds of NO<sub>x</sub> per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

ll. Emission Limitation:

2.24 tons per year NO<sub>x</sub> emissions from the combustion of natural gas in the inside body bake oven

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.51 pound per hour) multiplied by the maximum annual hours of operation (8760 hrs/yr), and divided by 2000 pounds/ton. Therefore, compliance with the hourly NO<sub>x</sub> limit constitutes compliance with the annual NO<sub>x</sub> limit.

mm. Emission Limitation:

0.01 pound per hour PE emissions from the combustion of natural gas in the inside body bake oven

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum burner capacity (5.2 mmBtu/hr) by an emission factor of 1.7 pounds of PE per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance using Methods 1 thru 5 of 40 CFR part 60, Appendix A. This demonstration shall be based on a summation of the emissions from the combustion of natural gas in the inside body bake oven (0.01 pound per hour) and the emissions from all coatings utilized in the inside body spray operation (0.19 pound per hour). Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

oo. Emission Limitation:

0.05 ton per year PE emissions from the combustion of natural gas in the inside body bake oven

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.01 pound per hour) multiplied by the maximum annual hours of operation (8760 hrs/yr), and divided by 2000 pounds/ton. Therefore, compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.

pp. Emission Limitation:

0.04 pound per hour PM<sub>10</sub> emissions from the combustion of natural gas in the inside body bake oven

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum burner capacity (5.2 mmBtu/hr) by an emission factor of 7.6 pound of PM<sub>10</sub> per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. This demonstration shall be based on a summation of the emissions from the combustion of natural gas in the inside body bake oven (0.04 pound per hour) and the emissions from all coatings utilized in the inside body spray operation (0.19 pound per hour). Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

qq. Emission Limitation:

0.18 ton per year  $PM_{10}$  emissions from the combustion of natural gas in the inside body bake oven

**Applicable Compliance Method:**

Annual allowable emissions are based on the hourly allowable emission rate (0.04 pound per hour) multiplied by the maximum annual hours of operation (8760 hrs/yr), and divided by 2000 pounds/ton. Therefore, compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.

rr. **Emission Limitation:**

0.01 pound per hour  $SO_2$  emissions from the combustion of natural gas in the inside body bake oven

**Applicable Compliance Method**

Compliance shall be demonstrated by multiplying the maximum burner capacity (5.2 mmBtu/hr) by an emission factor of 0.6 pound of  $SO_2$  per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 6 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

ss. **Emission Limitation:**

0.05 ton per year  $SO_2$  emissions from the combustion of natural gas in the inside body bake oven

Applicable Compliance Method

Annual allowable emissions are based on the hourly allowable emission rate (0.01 pound per hour) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly emission limitation constitutes compliance with the annual SO<sub>2</sub> emission limitation.

tt. Emission Limitation:

0.03 pound per hour VOC emissions from the combustion of natural gas in the inside body bake oven

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum burner capacity (5.2 mmBtu/hr) by an emission factor of 5.5 pounds of VOC per million standard cubic feet of natural gas (mmscft) divided by a heating value of 1020 million Btu per mmscft from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Method 25 of 40 CFR Part 60, Appendix A. This demonstration shall be based on a summation of the emissions from the combustion of natural gas in the inside body bake oven (0.03 pound per hour) and the emissions from all coatings utilized in the inside body spray operation (21.68 pounds per hour). Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

uu. Emission Limitation:

0.13 ton per year of VOC emissions from the inside body bake oven

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate (0.03 pound per hour) multiplied by 8760 hours per year and divided by 2000 pounds/ton. Compliance with the hourly VOC emissions limit constitutes compliance with the annual limit.

vv. Emission Limitation:

0.26 pound per hour PE emissions from the inside body spray

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum coating usage rate (23.52 gal/hr) by the coating density (8.43 lb coating/gal coating), the solid

concentration (0.216 lb PE/lb coating), the estimated transfer efficiency (1-0.94) and the estimated collector efficiency (1-0.90).

If required, the permittee shall demonstrate compliance using Methods 1 thru 5 of 40 CFR part 60, Appendix A. This demonstration shall be based on a summation of the emissions from the combustion of natural gas in the inside body bake oven (0.01 pound per hour) and the emissions from all coatings utilized in the inside body spray operation (0.26 pound per hour). Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

ww. Emission Limitation:

0.81 ton per year PE emissions from the inside body spray

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum coating usage rate (148,214 gal/yr) by the coating density (8.43 lb coating/gal coating), the solid concentration (0.216 lb PE/lb coating), the estimated transfer efficiency (1-0.94) and the estimated collector efficiency (1-0.90), and then dividing by 2000 lb/ton.

xx. Emission Limitation:

0.26 pound per hour PM<sub>10</sub> emissions from the inside body spray

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum coating usage rate (23.52 gal/hr) by the coating density (8.43 lb coating/gal coating), the solid concentration (0.216 lb PM<sub>10</sub>/lb coating), the estimated transfer efficiency (1-0.94) and the estimated collector efficiency (1-0.90).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. This demonstration shall be based on a summation of the emissions from the combustion of natural gas in the inside body bake oven (0.04 pound per hour) and the emissions from all coatings utilized in the inside body spray operation (0.19 pound per hour). Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

yy. Emission Limitation:

0.81 ton per year PM<sub>10</sub> emissions from the inside body spray

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum coating usage rate (148,214 gal/yr) by the coating density (8.43 lb coating/gal coating), the solid concentration (0.55 lb PM<sub>10</sub>/lb coating), the estimated transfer efficiency (1-0.94) and the estimated collector efficiency (1-0.90), and then dividing by 2000 lb/ton.

zz. Emission Limitation:

21.68 pounds per hour VOC emissions from all coatings utilized in the inside body spray operation

Applicable Compliance Method:

Compliance shall be demonstrated by a summation of the VOC emissions from each coating utilized, calculated as the maximum application rate for the inside spray coating (23.52 gallons per hour), multiplied by the maximum VOC content recorded in Section A.III. above (in pounds VOC per gallon).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Method 25 of 40 CFR Part 60, Appendix A. This demonstration shall be based on a summation of the emissions from the combustion of natural gas in the inside body bake oven (0.03 pound per hour) and the emissions from all coatings utilized in the inside body spray operation (21.68 pounds per hour). Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

aaa. Emission Limitation:

68.27 tons of VOC per year emissions from all coatings utilized in the inside body spray operation

Applicable Compliance Method:

Compliance with this emission limitation will be demonstrated by the monitoring and recordkeeping requirements of Section III.

bbb. Emission limitation:

inks: 2.59 pounds per gallon of coating excluding water and exempt solvents

Applicable Compliance Method:

Compliance shall be determined through the monitoring and record keeping requirements of section A.III. If required, compliance shall be demonstrated by an evaluation performed in

accordance with OAC rule(s) 3745-21-09(B)(3)(f) and 3745-21-10(B) using the methods and procedures specified in USEPA Reference Method 24 of 40 CFR Part 60, Appendix A.

Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services. If, pursuant to Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

ccc. Emission limitation:

over varnish: 2.1 pounds per gallon of coating, excluding water and exempt solvents

Applicable Compliance Method:

Compliance shall be determined through the monitoring and record keeping requirements of section A.III. If required, compliance shall be demonstrated by an evaluation performed in accordance with OAC rule(s) 3745-21-09(B)(3)(f) and 3745-21-10(B) using the methods and procedures specified in USEPA Reference Method 24 of 40 CFR Part 60, Appendix A.

Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services. If, pursuant to Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

ddd. Emission limitation:

over varnish: 2.9 pounds per gallon of coating solids

Applicable Compliance Method:

Compliance shall be determined through the monitoring and record keeping requirements of section A.III. If required, compliance shall be demonstrated by an evaluation performed in accordance with OAC rule 3745-21-10(B) and 40 CFR 60.496 using the methods and procedures specified in USEPA Reference Method 24 of 40 CFR Part 60, Appendix A.

Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services. If, pursuant to Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides

alternative analytical procedures or alternative precision statements for Method 24 or 24A.

eee. Emission limitation:

bottom varnish (exterior bottom end coating): 2.1 pounds per gallon of coating excluding water and exempt solvents

Applicable Compliance Method:

Compliance shall be determined through the monitoring and record keeping requirements of section A.III. If required, compliance shall be demonstrated by an evaluation performed in accordance with OAC rule(s) 3745-21-09(B)(3)(f) and 3745-21-10(B) using the methods and procedures specified in USEPA Reference Method 24 of 40 CFR Part 60, Appendix A.

Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services. If, pursuant to Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

fff. Emission limitation:

bottom varnish (exterior bottom end coating): 2.9 pounds per gallon of coating solids

Applicable Compliance Method:

Compliance shall be determined through the monitoring and record keeping requirements of section A.III. If required, compliance shall be demonstrated by an evaluation performed in accordance with OAC rule 3745-21-10(B) and 40 CFR 60.496 using the methods and procedures specified in USEPA Reference Method 24 of 40 CFR Part 60, Appendix A.

Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services. If, pursuant to Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

ggg. Emission limitation:

clean-up solvent: 6.0 pounds of VOC per gallon.

Applicable Compliance Method:

The permittee shall determine the VOC-content of the clean-up solvent from manufacturer's formulation data.

hhh. Emission limitation:

inside spray: 2.9 pounds per gallon of coating excluding water and exempt solvents

Applicable Compliance Method:

Compliance shall be determined through the monitoring and record keeping requirements of section A.III. If required, compliance shall be demonstrated by an evaluation performed in accordance with OAC rule(s) 3745-21-09(B)(3)(f) and 3745-21-10(B) using the methods and procedures specified in USEPA Reference Method 24 of 40 CFR Part 60, Appendix A.

Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services. If, pursuant to Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

iii. Emission limitation:

inside spray: 4.9 pounds per gallon of coating solids

Applicable Compliance Method:

Compliance shall be determined through the monitoring and record keeping requirements of section A.III. If required, compliance shall be demonstrated by an evaluation performed in accordance with 3745-21-10(B) and 40 CFR 60.496 using the methods and procedures specified in USEPA Reference Method 24 of 40 CFR Part 60, Appendix A.

Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services. If, pursuant to Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K011 - Line 3 / Two-piece beverage can manufacturing and coating line		

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for emissions units K006 and K011 was evaluated based on the actual materials and the design parameters of the each emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: glycol ethers

TLV (mg/m3): 19 (5ppm\*90.12/24.05)

Maximum Hourly Emission Rate (lbs/hr): 11.41  
 (for emissions units K006 and K011)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 79.81 µg/m<sup>3</sup>

2. Physical changes to or changes in the method of operation of the emissions unit(s) after its (their) installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
  - a. changes in the composition of the materials used (typically for coatings or clean-up materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
  - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### **IV. Reporting Requirements**

None

**Rexam Beverage Can Company**

**PTI Application: 04-01379**

**Issued: To be entered upon final issuance**

**Facility ID: 0448002007**

**Emissions Unit ID: K011**

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None