COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Valley Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

CCL Container (Harrisonburg), Inc.
Harrisonburg, Virginia
Permit No. VRO80067

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, CCL Container (Harrisonburg), Inc. has applied for a Title V Operating Permit for its metal tube and container manufacturing facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact:_____ Date:_____

Air Permit Manager:_____ Date:_____

Regional Permit Manager:_____ Date:_____

FACILITY INFORMATION

Permittee
CCL Container (Harrisonburg), Inc.
810 North Main Street
Harrisonburg, Virginia 22802

Facility
CCL Container (Harrisonburg), Inc.
810 North Main Street
Harrisonburg, Virginia 22802

NET Identification Number: 51-660-0013

SOURCE DESCRIPTION

SIC 3354 – Aluminum Extruded Products
SIC 3089 – Plastics Products, Not Elsewhere Classified
SIC 3099 – Miscellaneous Metal Parts

CCL Container (Harrisonburg), Inc. manufactures aluminum and tin squeeze tubes as well as aluminum metered dose inhaler (MDI) tubes. The tubes are extruded from metal sheets, annealed in gas-fired ovens and are coated. Coatings are applied to the interior and exterior surfaces and are cured in electric or gas-fired ovens. Plastic caps are also manufactured for some of the tubes.

The facility is a Title V major source of VOC and HAPs. This source is located in an attainment area for all pollutants, and is a PSD synthetic minor source. The facility was previously permitted under a minor new source review permit issued on February 15, 2001.

COMPLIANCE STATUS

The facility is inspected once a year.

CCL was last inspected on August 29, 2000. At that time, CCL was determined not be in compliance because they had violated several of their throughput/emission limits. A permit modification was in process (ultimately issued on December 22, 2000) to increase the subject throughput/emission limits.

At this time, CCL appears to be in compliance with all applicable requirements.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

Table I. Significant Emission Units.

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
1	A-01-E-1 A-01-E-2	Aluminum Tube Line Equipped with an Outside Enamel System and a Decorating System (installed 1990)	25,000 tubes/day	-	-	-	2/15/2001
4	A-04-E-1 A-04-E-2	Aluminum Tube Line Equipped with an Outside Enamel System and a Decorating System (installed 1986)	42,000 tubes/day	-	-	-	2/15/2001
5	A-05-I-1 A-05-I-2 A-05-I-3 A-05-I-4 A-05-E-1 A-05-E-2	Aluminum Tube Line Equipped with an Internal Coating System, an Outside Enamel System, and a Decorating System (installed 1986)	30,000 tubes/day	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001
7A	A-07-I-1 A-07-I-2 A-07-I-3 A-07-I-4 A-07-E-1 A-07-E-2	Aluminum Tube Line Equipped with an Internal Coating System, an Outside Enamel System, and a Decorating System (installed 1999)	85,000 tubes/day	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
8	A-08-I-1 A-08-I-2 A-08-I-3 A-08-I-4 A-08-E-1 A-08-E-2 A-08-E-3	Aluminum Tube Line Equipped with an Internal Coating System, an Outside Enamel System, and a Decorating System (installed 1986)	85,000 tubes/day	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001
9	A-09-E-1 A-09-E-2 A-09-E-3	Aluminum Tube Line Equipped with an Outside Enamel System and a Decorating System (installed 1985)	120,000 tubes/day	-	-	-	2/15/2001
10	A-10-I-1 A-10-I-2 A-10-I-3 A-10-I-4 A-10-E-1 A-10-E-2	Aluminum Tube Line Equipped with an Internal Coating System, an Outside Enamel System, and a Decorating System (installed 1987)	40,000 tubes/day	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001
11	A-11-I-1 A-11-I-2 A-11-I-3 A-11-I-4 A-11-E-1 A-11-E-2 A-11-E-3 A-11-E-4 A-11-E-5	Aluminum Tube Line Equipped with an Internal Coating System, an Outside Enamel System, and a Decorating System (installed 1997)	100,000 tubes/day	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001
12	A-12-I-1 A-12-I-2 A-12-I-3 A-12-I-4 A-12-E-1 A-12-E-2	Aluminum Tube Line Equipped with an Internal Coating System, an Outside Enamel System, and a Decorating System (installed 1990)	110,000 tubes/day	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
13	A-13-I-1 A-13-I-2 A-13-I-3 A-13-I-4 A-13-E-1 A-13-E-2	Aluminum Tube Line Equipped with an Internal Coating System, an Outside Enamel System, and a Decorating System (installed 1992)	110,000 tubes/day	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001
14	A-14-I-1 A-14-I-2 A-14-I-3 A-14-I-4 A-14-E-1 A-14-E-2 A-14-E-3	Aluminum Tube Line Equipped with an Internal Coating System, an Outside Enamel System, and a Decorating System (installed 1993)	140,000 tubes/day	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001
15	A-15-I-1 A-15-I-2 A-15-I-3 A-15-I-4 A-15-E-1 A-15-E-2	Aluminum Tube Line Equipped with an Internal Coating System, an Outside Enamel System, and a Decorating System (installed 1999)	85,000 tubes/day	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001
20	A-20-A A-20-I-1 A-20-I-2 A-20-I-3 A-20-E-1 A-20-E-2 A-20-E-3 A-20-D	Aluminum Tube Line Equipped with an Internal Coating System, an Outside Enamel System, and a Decorating System (to be installed 2001)	9,000 tubes/hour	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001
				Permanent total enclosures & thermal oxidizer (internal coating application)	C-1	VOC	

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
21	A-21-A A-21-I-1 A-21-I-2 A-21-I-3 A-21-E-1 A-21-E-2 A-21-D	Aluminum Tube Line Equipped with an Internal Coating System, an Outside Enamel System, and a Decorating System (to be installed 2001)	9,000 tubes/hour	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001
				Permanent total enclosures & thermal oxidizer (internal coating application)	C-1	VOC	
22	A-22-A A-22-I-1 A-22-I-2 A-22-I-3 A-22-I-4 A-22-E-1 A-22-E-2 A-22-D	Aluminum Tube Line Equipped with an Internal Coating System, an Outside Enamel System, and a Decorating System (to be installed 2001)	9,000 tubes/hour	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001
				Permanent total enclosures & thermal oxidizer (internal coating application)	C-1	VOC	
23	A-23-A A-23-I-1 A-23-I-2 A-23-I-3 A-23-E-1 A-23-E-2 A-23-D	Aluminum Tube Line Equipped with an Internal Coating System, an Outside Enamel System, and a Decorating System (to be installed 2001)	10,800 tubes/hour	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001
				Permanent total enclosures & thermal oxidizer (internal coating application)	C-1	VOC	
24	A-24-A A-24-I-1 A-24-I-2 A-24-E-1 A-24-E-2 A-24-D	Aluminum Tube Line Equipped with an Internal Coating System, an Outside Enamel System, and a Decorating System (to be installed 2001)	10,800 tubes/hour	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001
				Permanent total enclosures & thermal oxidizer (internal coating application)	C-1	VOC	

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
25	A-25-A A-25-I-1 A-25-I-2 A-25-I-3 A-25-E-1 A-25-E-2 A-25-D	Aluminum Tube Line Equipped with an Internal Coating System, an Outside Enamel System, and a Decorating System (to be installed 2001)	9,000 tubes/hour	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001
				Permanent total enclosures & thermal oxidizer (internal coating application)	C-1	VOC	
6	M-06-I-1 M-06-I-2 M-06-I-3 M-06-I-4	Metered Dose Inhaler Line Equipped with an Internal Coating System (installed 1985)	20,000 tubes/day	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001
18	M-18-I-1 M-18-I-2 M-18-I-3 M-18-I-4	Metered Dose Inhaler Line Equipped with an Internal Coating System (installed 1985)	75,000 tubes/day	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001
19	M-19-I-1 M-19-I-2 M-19-I-3	Metered Dose Inhaler Line Equipped with an Internal Coating System (installed 1985)	153,000 tubes/day	Dry paint filters (internal coating application)	-	PM PM-10	2/15/2001
K-8	K-8-E-1 K-8-E-2 K-8-D	Tin Tube Line Equipped with an Outside Enamel System and a Decorating System (to be installed 2001)	9,000 tubes/hour	-	-	-	2/15/2001
31	T-31-E-1	Tin Tube Line Equipped with an Outside Enamel System and a Decorating System (installed 1998)	60,000 tubes/day	-	-	-	2/15/2001
32	T-32-E-1	Tin Tube Line Equipped with an Outside Enamel System and a Decorating System (installed 1985)	40,000 tubes/day	-	-	-	2/15/2001

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
33	T-33-E-1	Tin Tube Line Equipped with an Outside Enamel System and a Decorating System (installed 1998)	35,000 tubes/day	-	-	-	2/15/2001

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

EMISSIONS INVENTORY

A copy of the 2000 annual emission update is attached as Attachment A. Emissions are summarized in the following tables.

Table II. 2000 Actual Criteria Pollutant Emissions.

	Criteria Pollutant Emissions (tons/yr)				
	VOC	CO	SO_2	PM-10	NO_x
Facility-Wide	120.02	0.06	0.00	0.00	0.30

Table III. 2000 Actual Hazardous Air Pollutant Emissions.

Pollutant	Hazardous Air Pollutant Emissions (tons/yr)
Ethylbenzene (CAS # 100-41-4)	2.16
Ethylene Glycol (CAS # 107-21-1)	20.0
Formaldehyde (CAS # 50-00-0)	0.12
Isophorone (CAS # 78-59-1)	0.88
Methyl Ethyl Ketone (CAS # 78-93-3)	14.01
Methyl Isobutyl Ketone (CAS # 108-10-1)	2.32
Naphthalene (CAS # 91-20-3)	3.48
Phenol (CAS # 108-95-2)	0.03
Toluene (CAS # 108-88-3)	7.50
Xylene (CAS # 1330-20-7)	11.28

EMISSION UNIT APPLICABLE REQUIREMENTS

Limitations

The following limitations are requirements from the minor new source review permit issued on February 15, 2001. Please note that the condition numbers are from the 2001 permit; a copy of the permit is enclosed as Attachment B.

Condition 3: replacement of Line 7 with Line 7A; reactivation of Line 7 may require a permit

Condition 4: particulate emissions from interior coating operations shall be controlled with dry paint filters

Condition 5: VOC emissions from interior coating operations on Lines K-1 – K-4, K-6, and K-7 shall be controlled with permanent total enclosures and a thermal oxidizer

Condition 6: the thermal oxidizer shall maintain a control efficiency of no less than 95%

Condition 7: the thermal oxidizer shall maintain a minimum combustion zone temperature equal to or higher than that established during the stack test and a residence time of at least 0.4 second

Condition 8: Lines K-1 – K-4, K-6, and K-7 shall not be operated more than 500 hours per year without the thermal oxidizer being operated

Condition 9: each total enclosure shall have a capture efficiency of 100%

Condition 10: criteria for each total enclosure

Condition 12: internal coating operations on Lines K-6 and K-7 may be operated prior to installation of the total enclosures and thermal oxidizer for up to 180 days after February 15, 2001

Condition 13: VOC emissions from cleaning and purging shall be minimized by adjustment of production schedules to minimize coating changes

Conditions 14 & 15: VOC content limits for each type of material utilized on the lines

Condition 16: VOC shall be handled in a manner consistent with air pollution control practices for minimizing emissions

Conditions 18 & 19: VOC throughput limits from interior coatings

Condition 20: VOC throughput limits from metered dose inhaler interior coatings

Condition 21: VOC throughput limits from exterior coatings to Lines 1, 4 – 6, 7A, 8 – 15, 18, 19, and 31 – 33

Conditions 22 & 23: VOC throughput limits from organic cleaning solvents

Condition 24: VOC throughput limit from ink to Lines K-1 – K-4 and K-6 – K-8

Condition 25: VOC throughput limit to Line 14

Conditions 26 – 32: individual VOC throughputs from exterior coatings to Lines K-1 – K-4 and K-6 – K-8

Condition 33: approved fuel for the thermal oxidizer is natural gas

Condition 34: VOC, PM, and PM-10 emission limits from Lines 1, 4 – 6, 7A, 8 – 15, 18, 19, and 31 – 33

Condition 35: VOC, PM, and PM-10 emission limits from Lines K-1 – K-4 and K-6 – K-8

Conditions 36 – 43: HAP emissions limits for Lines 7A, 15, K-1, K-2, K-3, K-4, K-6, and K-7

Condition 44: Visible emission limit of 5% from interior spray operations on Lines 1, 4 – 6, 7A, 8 – 15, 18, 19, and 31 – 33

Condition 45: Visible emission limit of 5% from the thermal oxidizer

Condition 61: Permit invalidation condition – if Lines K-1 – K-4 and K-6 – K-8 are not installed within the established time frames, the portions of the permit pertaining to those lines are invalid

Condition 63: Requirement to shutdown processing lines, at the request of the Department, if their emissions increase in any amount due to a bypass, malfunction, shutdown, or failure of the process or its associated air pollution control equipment

Condition 65: Requirement to establish maintenance schedules, train employees, and maintain an inventory of spare parts

It should be noted that CCL created a new system of unit reference numbers in their Title V application for the "K" units. The Title V permit reflects the new system. Table IV, below, details the changes.

Table IV. Cross Reference Guide for Change in Unit Reference Numbers.

Reference Number From **February 15, 2001 Permit**	Reference Number From **Title V Permit**
K-1	25
K-2	22
K-3	23
K-4	24
K-6	20
K-7	21

Monitoring

The monitoring requirements in Conditions 11, 51, 52, 53, and 54 of the minor new source review permit have been incorporated into the permit.

Particulate Emissions

Particulate emissions are only expected from interior coating applicators. Interior coatings are spray applied, while all other coatings (including exterior, inks, and MDI) are applied using a roller.

CCL will be required to perform daily inspections of each dry filter each day the interior coating application for a given line is in operation. The inspections will include a check of correct filter placement and filter condition. A properly operating filter will eliminate particulate emissions. The daily inspections will reveal potential problems with the filters, thereby allowing the problems to be fixed prior to operation of the interior coating applicators. If the filters are not functioning properly, particulate emissions will be increased.

Once each month CCL will calculate the particulate emissions from interior spray applications as follows:

- To calculate particulate emissions on a monthly or annual basis:

$$E = \left(\sum_{i=1}^{n} \left(\frac{P_i}{100} \right) G_i D_i \right) \left(\frac{100 - T}{100} \right) \left(\frac{100 - CE}{100} \right)$$

.... Equation 1

Where:

E	=	Particulate emission rate (lb/time period)
P_i	=	Solids content of each interior coating [including MDI Coatings, if applicable] (i) applied during the time period (%)
G_i	=	Number of gallons of each interior coating [including MDI Coatings, if applicable] (i) applied during the time period (gal/time period)
D_i	=	Density of each interior coating [including MDI Coatings, if applicable] (i) applied during the time period (lb/gal)
T	=	Transfer efficiency of the coating spray applicators (%)
	=	50 [unless records demonstrate a different value]
CE	=	Control efficiency of the dry paint filter (%)
	=	85 [unless records demonstrate a different value]

Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period.

- To calculate average hourly emission rates:

$$PE = \frac{E}{H}$$

.... Equation 2

Where:

PE	=	Average hourly particulate emission rate (lb/hr)
E	=	Particulate emission rate (lb/month)
H	=	Combined hours of operation of all interior spray coating applicators [including MDI applicators, if applicable] (hr/month)

Average hourly particulate emissions shall be calculated once each month.

The daily inspections and recordkeeping requirements will satisfy the periodic monitoring requirement for the particulate emission limit(s) for all interior coating applications.

VOC Emissions

CCL is required to maintain certified MSDS showing VOC content for each coating, ink, and organic cleaning solvent used in the lines. The certified MSDS sheets that CCL obtains from their vendor should include the VOC content, derived by Reference Method 24. The certified MSDS will be utilized in calculating VOC emissions as detailed below.

CCL will demonstrate compliance with the VOC emission limits using the VOC content listed on the certified MSDS in mass balance calculations. The VOC content has been certified by the vendor, thereby providing reasonable assurance that the VOC emission limits are not violated.

- To determine compliance with the monthly average VOC content limits:

$$AC = \frac{\sum_{i=1}^{n} C_i G_i}{\sum_{i=1}^{n} G_i}$$

.... Equation 3

Where:

AC	=	Average VOC content of coatings within a coating category (lb/gal)
C_i	=	VOC content of each coating (i), excluding water, within a coating category applied during each month (lb/gal)
G_i	=	Number of gallons of each coating (i) within a coating category applied during each month (gal)

- To determine compliance with the VOC limit for Lines 1, 4 – 6, 7A, 8 – 15, 18, 19, and 31 - 33:

$$VE = \left(\sum_{i=1}^{n} C_i G_i \right) - V_R$$

.... Equation 4

Where:

VE	=	VOC emission rate (lb/time period)
C_i	=	VOC content of each coating [including interior, exterior, MDI, and inks] and organic cleaning solvent (i) utilized during the time period (lb/gal)
G_i	=	Number of gallons of each coating [including interior, exterior, MDI, and inks] and organic cleaning solvent (i) utilized during the time period (gal)
V_R	=	VOC recovered and sent off-site (lbs/time period)

Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period.

- To determine compliance with the VOC limit for Lines K-1 – K-4 and K-6 – K-8:

$$VE = \left(\sum_{i=1}^{n} C_i G_i \right) + \left(\left(\sum_{i=1}^{n} I_i U_i \right) \left(\frac{100 - CE}{100} \right) \right) - V_R$$

.... Equation 5

Where:

VE	=	VOC emission rate (lb/time period)

C_i	=	VOC content of each coating [including exterior and inks] and organic cleaning solvent (i) utilized during the time period (lb/gal)
G_i	=	Number of gallons of each coating [including exterior and inks] and organic cleaning solvent (i) utilized during the time period (gal)
I_i	=	VOC content of each interior coating (i) utilized during the time period (lb/gal)
U_i	=	Number of gallons of each interior coating (i) utilized during the time period (gal)
CE	=	Control efficiency of the thermal oxidizer (%)
	=	90
V_R	=	VOC recovered and sent off-site (lbs/time period)

Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period.

The VOC emissions from internal coating operations on Lines K-1 – K-4, K-6, and K-7 are controlled by a thermal oxidizer. A control efficiency of 90% is assumed for calculation purposes (calculated by assuming 500 hours of operation without the oxidizer and 8260 hours of operation with the oxidizer at 95% efficiency). The permit requires that the minimum combustion zone temperature be calculated as a three hour average. This provides reasonable assurance that the oxidizer is being operated properly and satisfies the periodic monitoring requirement for the thermal oxidizer. Further information on the testing requirements can be found in the *Testing* section.

Compliance with the VOC limits will be demonstrated through a combination of recordkeeping, performance testing, and parametric monitoring of the thermal oxidizer. These requirements satisfy the periodic monitoring requirements for the VOC emissions from the facility.

<u>HAP Compound Emissions</u>

In order to avoid 112(g) applicability, HAP emission limits of 9.9 tons per year of an individual HAP or 24.9 tons per year of any combination of HAPs were set for Lines 7A, 15, K-1, K-2, K-3, K-4, K-6, and K-7. CCL is required to maintain certified MSDS showing HAP compound content (derived from Method 311) for each coating, ink, and organic cleaning solvent used in the lines. The certified MSDS will be utilized in calculating total HAP emissions for each line. The following formulas should be used to calculate actual HAP emissions for each line:

- To determine monthly or annual emission rates of individual HAPs:

$$E_t = \sum_{i=1}^{n} C_i T_i + I_i U_i + ((V_i A_i)(\frac{100 - CE}{100}))$$

.... Equation 6

Where:

E_t = Emission rate of HAP (t) [lb/time period]

C_i = Content of HAP (t) in each coating [including exterior, MDI, and inks] and organic cleaning solvent (i) utilized during the time period [lb/gal]

T_i = Number of gallons of each coating [including exterior, MDI, and inks] and organic cleaning solvent (i) utilized during the time period [gal]

I_i = Content of HAP (t) in each interior coating (i) used in Lines 1, 4 – 6, 7A, 8 – 15, 18, 19, and 31 – 33 during the time period [lb/gal]

U_i = Number of gallons of each interior coating (i) used in Lines 1, 4 – 6, 7A, 8 – 15, 18, 19, and 31 – 33 during the time period [gal]

V_i = Content of HAP (t) in each interior coating (i) used in Lines K-1 – K-4, K-6, and K-7 during the time period [lb/gal]

A_i = Number of gallons of each interior coating (i) used in Lines K-1 – K-4, K-6, and K-7 during the time period [gal]

CE = Control efficiency of the thermal oxidizer
= 90

Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period.

- To determine total HAP emissions:

$$\sum_{t=1}^{n} E_t$$

.... Equation 7

Where:

E_t = Emission rate of HAP (t) [lb/time period]

Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period.

The maintenance of certified MSDS sheets for each material utilized in the lines and the recordkeeping requirements satisfy the periodic monitoring requirements for the HAP compound emissions from the facility.

Visible Emissions

Particulate emissions are only expected from interior coating applicators. Interior coatings are spray applied, while all other coatings (including exterior, inks, and MDI) are applied using a roller. As such, a visible emission limit has only been established for interior coating applications.

CCL will be required to perform daily inspections of each dry filter each day the interior coating application for a given line is in operation. The inspections will include a check of correct filter placement and filter condition. A properly operating filter will eliminate particulate emissions, which will also eliminate visible emissions that are caused by particulate emissions. The daily inspections will reveal potential problems with the filters, thereby allowing the problems to be fixed prior to operation of the interior coating applicator. If the filters are not functioning properly, visible emissions will be present. This will satisfy the periodic monitoring requirement for the visible emission limit for all interior coating applications.

CCL will also be operating a thermal oxidizer to control VOC emissions from the interior coating applications for Lines K-1 – K-4, K-6, and K-7. The oxidizer will be fired only on natural gas. No visible emissions are expected from the unit, so no periodic monitoring has been included for the visible emission requirement on the thermal oxidizer.

Recordkeeping

The recordkeeping requirements in Condition 55 of the minor new source review permit have been incorporated into the permit. The permit includes requirements for maintaining records of all monitoring and testing. These records include:

- Daily records of the amount (in gallons) of each coating, ink, and organic cleaning solvents issued from storage.

- Monthly and annual throughput (in gallons) of each coating, ink, and organic cleaning solvents used in each of Lines 1, 4 – 6, 7A, 8 – 15, 18, 19, and 31 – 33.

- Monthly and annual VOC throughput (in tons) of each coating and organic cleaning solvent used in each of Lines 1, 4 – 6, 7A, 8 – 15, 18, 19, and 31 – 33.

- Monthly and annual throughput (in gallons) of each coating, ink, and organic cleaning solvent used in each of Lines K-1 – K-4 and K-6 – K-8.

- Monthly and annual VOC throughput (in tons) of each internal coating, ink, and organic cleaning solvent used in each of Lines K-1 – K-4 and K-6 – K-8.

- Monthly and annual VOC throughput (in tons) to Line 14.

- Monthly and annual VOC throughput from external coatings (in tons) to Line K-1.

- Monthly and annual VOC throughput from external coatings (in tons) to Line K-2.

- Monthly and annual VOC throughput from external coatings (in tons) to Line K-3.

- Monthly and annual VOC throughput from external coatings (in tons) to Line K-4.

- Monthly and annual VOC throughput from external coatings (in tons) to Line K-6.

- Monthly and annual VOC throughput from external coatings (in tons) to Line K-7.

- Monthly and annual VOC throughput from external coatings (in tons) to Line K-8.

- Monthly and annual VOC recovered from Lines 1, 4 – 6, 7A, 8 – 15, 18, 19, and 31 – 33 and sent off-site (in tons).

- Monthly and annual VOC recovered from Lines K-1 – K-4 and K-6 – K-8 and sent off-site (in tons).

- Monthly and annual VOC emissions (in tons) from coating, ink, and organic cleaning solvent usage in Lines 1, 4 – 6, 7A, 8 – 15, 18, 19, and 31 – 33.

- Monthly and annual VOC emissions (in tons) from coating, ink, and organic cleaning solvent usage in Lines K-1 – K-4 and K-6 – K-8.

- Monthly and annual calculations showing compliance with the VOC content limits in Conditions III.A.11 and III.A.12.

- Average hourly, monthly, and annual particulate emissions from interior coating and MDI coating operations on Lines 1, 4 – 6, 7A, 8 – 15, 18, 19, and 31 – 33.

- Average hourly, monthly, and annual particulate emissions from interior coating operations on Lines K-1 – K-4 and K-6 – K-8.

- Total hours that each manufacturing line operates on a monthly basis.

- Certified Material Safety Data Sheets (MSDS) or other vendor information showing VOC content, toxic compound content, water content, and solids content for each coating and organic cleaning solution used. VOC content shall be established using EPA Method 24 or 24A.

- Monthly and annual emissions to verify compliance with the individual and total HAP emission limitations for Lines 7A, 15, K-1 – K-4, K-6, and K-7 in Conditions III.A.32 – III.A.39.

- DEQ approved documentation demonstrating the removal efficiency of the filters utilized to control particulate emissions from the interior coating spray applicators if a value other than 85% is utilized for calculations.

- DEQ approved documentation demonstrating the transfer efficiency of the interior coating spray applicators if a value other than 50% is utilized for calculations.

- Average combustion zone temperature of any three hour period (during actual interior coating application) during which the average combustion zone temperature of the thermal oxidizer is below the minimum combustion zone temperature established during the performance test.

- Total hours that the thermal oxidizer operates on a monthly basis.

- Strip charts showing the combustion zone temperature for the thermal oxidizer.

- Results of all stack tests, visible emission evaluations, and total enclosure verifications.

Testing

The testing requirements in Conditions 17, 46, 47, 48, 49, and 50 of the minor new source review permit have been incorporated into the permit.

Initial performance testing, including a concurrent visible emission evaluation, is required for the thermal oxidizer. The initial tests are required for VOC emissions from the thermal oxidizer to determine compliance with the control efficiency requirements contained in Condition III.A.4. The results of the performance tests shall be used to establish appropriate operating parameter ranges for the thermal oxidizer, including the minimum combustion zone temperature necessary to achieve the destruction efficiency contained in Condition III.A.4. Testing is also required for the permanent total enclosures on Lines K-1 – K-4, K-6, and K-7.

The permit also contains requirements for CCL to perform additional performance tests for VOC emissions from the thermal oxidizer and additional visible emission evaluations at the request of DEQ.

A table of test methods has been included in the permit if testing is performed beyond that required in the permit. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

Conditions 56 and 57 of the minor new source review permit requires submittal of a semi-annual report and a pollution prevention report and these requirements have been incorporated into the permit. The pollution prevention report is due semi-annually, and the data to be submitted is also required in the semi-annual report. As such, the two reports may be submitted together. The semi-annual reports must contain the following information (the items followed by a "*" are also required to be submitted in the pollution prevention report).

- Monthly and annual throughput (in gallons) of each coating, ink, and organic cleaning solvent used in Lines 1, 4 – 6, 7A, 8 – 15, 18, 19, and 31 – 33 during the semi-annual reporting period. Annual throughputs shall be calculated monthly as the sum of each consecutive 12 month period.*

- Monthly and annual throughput (in gallons) of each coating, ink, and organic cleaning solvent used in Lines K-1 – K-4 and K-6 – K-8 during the semi-annual reporting period. Annual throughputs shall be calculated monthly as the sum of each consecutive 12 month period.*

- Monthly and annual calculations of weighted average VOC content for each coating category (interior, exterior, and MDI) utilized in Lines 1, 4 – 6, 7A, 8 – 15, 18, 19, and 31 – 33 during the semi-annual reporting period.*

- Monthly and annual calculations of weighted average VOC content for each coating category (interior, exterior, and ink) utilized in Lines K-1 – K-4 and K-6 – K-8 during the semi-annual reporting period.*

- Monthly and annual VOC emissions from Lines 1, 4 – 6, 7A, 8 – 15, 18, 19, and 31 – 33 for each month during the semi-annual reporting period. Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period.

- Monthly and annual VOC emissions from Lines K-1 – K-4 and K-6 – K-8 for each month during the semi-annual reporting period. Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period.

- For the thermal oxidizer, any three-hour period (during actual interior coating application) during which the average combustion zone temperature is below the minimum combustion zone temperature established during the performance test.

- Total hours of operation of the thermal oxidizer during the semi-annual reporting period.

- Total hours of operation of the Lines K-1 – K-4, and K-6 – K-8 during the semi-annual period.

Notifications

Lines K-1 – K-4 and K-6 – K-8 have not yet been constructed. Therefore, the permittee has not fulfilled all of the notification requirements that are contained in the Condition 58 of the minor new source review permit. The following notification requirements have been incorporated into the Title V permit:

- The actual date on which installation of each new line and the thermal oxidizer commenced within 30 days after such date.

- The actual startup date of each new line and the thermal oxidizer within 15 days after such date.

- The anticipated date of the performance tests and visible emission evaluations of the thermal oxidizer postmarked at least 30 days prior to such date.

- The anticipated date of each total enclosure verification postmarked at least 30 days prior to such date.

Streamlined Requirements

All of the interior coating operations on the manufacturing lines and the thermal oxidizer are considered new units and are subject to 9 VAC 5-50-80, Standard for Visible Emissions. Under that regulation, the interior coating operations may not emit visible emissions of greater than 20% except for one six minute period where visible emissions may not exceed 30%.

The minor new source review permit limits the visible emissions from interior coating operations and the thermal oxidizer to 5%. Compliance with the permit requirement will ensure that the interior coating operations and the thermal oxidizer are in compliance with 9 VAC 5-50-80. Therefore, 9 VAC 5-50-80 has been streamlined.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions, including those caused by upsets, within one business day.

STATE ONLY APPLICABLE REQUIREMENTS

The minor new source review permit, dated February 15, 2001, contained a state-only enforceable section. The section was included pursuant to 9 VAC 5-50-160, *et. seq.*, and was not required under the federal Clean Air Act or under any of its applicable federal requirements. As such, those requirements have been included in the state-only section of the Title V permit.

The state-only requirements are as follows (please note that condition numbers refer to those found in the minor source review permit – a copy is included as Attachment B):

Condition 70: Emission limits for formaldehyde, glycol ethers, isophorone, methyl isobutyl ketone, methylene chloride, naphthalene, phenol, toluene, xylenes.

Condition 71: Limits the HAPs that can be utilized at the facility.

Condition 72: Formula to be used to calculate emissions rates of HAPs.

Condition 73: Recordkeeping requirements.

FUTURE APPLICABLE REQUIREMENTS

CCL is a major source of hazardous air pollutants. In the future, CCL could be subject to the miscellaneous metal parts and products (surface coating) MACT or the metal can (surface coating) MACT.

According to the Unified Air Toxics Website, the metal can (surface coating) MACT has a tentative proposal date of May 2001. From preliminary documents, the MACT appears to apply to facilities with a SIC code of 3411. The primary and secondary SIC codes for CCL are 3354 and 3089. At this time, it appears that this MACT may not apply to the processes at CCL.

According to the Unified Air Toxics Website, the miscellaneous metal parts and products (surface coating) MACT has a tentative proposal date of March 2001. From the preliminary documents, it appears that this MACT will apply to CCL. At this time, there is no information available as to the limits that will be established in the MACT.

INAPPLICABLE REQUIREMENTS

CCL did not identify any inapplicable requirements in their application. Therefore, no inapplicable requirements are included in the permit.

COMPLIANCE PLAN

CCL is currently in compliance with all applicable requirements. No compliance plan was included in the application or in the permit.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Table V. Insignificant Emission Units.

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
BF1 - 10	General Building Ventilation Fans (multiple)	9 VAC 5-80-720 A	-	-
IM1 - 17	17 Injection Molding Machines for making polyethylene and polypropylene caps	9 VAC 5-80-720 B	VOC	-
IMR1 - 17	17 Regrind Systems for Injection Molding Machines	9 VAC 5-80-720 B	PM-10	-
Ink1	Ink Mixer	9 VAC 5-80-720 B	VOC	-
LH1 - 2	Lab Hoods for quality control work	9 VAC 5-80-720 A	-	-
AST1 - 14	14 Aluminum Slug Tumblers	9 VAC 5-80-720 B	PM-10	-

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
AST15	Aluminum Slug Tumbler	9 VAC 5-80-720 B	PM-10	-
PCT1 - 4	Four Solvent Cleaning Tanks for cleaning tools	9 VAC 5-80-720 B	VOC	-
AO1 - 10	10 Annealing Ovens, electric	9 VAC 5-80-720 B	PM-10	-
A08	Natural Gas Annealing Oven	9 VAC 5-80-720 C	-	0.24 mmBTU/hr
PV1 - 15	15 Press Vents, one per line	9 VAC 5-80-720 B	PM-10	-
TV1 - 15	15 Trimmer Bag Houses, one per line	9 VAC 5-80-720 B	PM-10	-
SH1 - 20	20 Natural Gas Space Heaters	9 VAC 5-80-720 C	-	0.4 mmBTU/hr each
MDISC1 - 3	Three Solvent Cleaning Stations in MDI area	9 VAC 5-80-720 B	VOC	-
WH1	Welding Hood	9 VAC 5-80-720 B	PM-10	-
GR1	Grinder with Hood	9 VAC 5-80-720 B	PM-10	-
FSR1 - 2	Two Flammable Liquid Storage Rooms (closed containers)	9 VAC 5-80-720 B	VOC	-
FSC1	Flammable Liquid Storage Cabinet (closed containers)	9 VAC 5-80-720 B	VOC	-
PDS1	Paint Distribution System	9 VAC 5-80-720 B	VOC	-
TST1	Tin Slug Tumbler Vent	9 VAC 5-80-720 B	Methylene Chloride	-
BLR	Natural Gas-Fired Hot Water Heater	9 VAC 5-80-720 C	-	0.63 mmBTU/hr

[1]The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

CCL did not submit a request for confidentiality. Therefore, all portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

A public notice regarding the draft permit was placed in the Daily News Record, Harrisonburg, Virginia, on June 18, 2001. EPA was sent a copy of the draft permit and notified of the public notice on June 14, 2001. West Virginia, the only affected state, was sent a copy of the public notice in a letter dated June 18, 2001. All persons on the Title V mailing list were also sent a copy of the public notice in letters dated June 18, 2001.

Public comments were accepted from June 16, 2001, to July 18, 2001. No comments were received from the public, the affected state, or EPA.

Attachment A

2000 Annual Emission Update

Attachment B

Minor NSR Permit
February 15, 2001