West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

Permit to Operate

Pursuant to

Title V

of the Clean Air Act

Issued to:

Ball Metal Food Container Corporation

R30-00900027-2012

John A. Benedict
Director

Issued: September 11, 2012 • Effective: September 25, 2012
Expiration: September 11, 2017 • Renewal Application Due: March 11, 2017

Permit Number: **R30-00900027-2012**
Permittee: **Ball Metal Food Container Corporation**
Permittee Mailing Address: **3010 Birch Drive, Weirton, WV 26062**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Weirton, Brooke County, West Virginia
Facility Mailing Address:	3010 Birch Drive, Weirton, WV 26062
Telephone Number:	(304) 797-0062
Type of Business Entity:	Corporation
Facility Description:	The plant receives coils of tin-plated steel which it cuts into sheets and coats with inks and protective varnishes. The sheets are cured in natural gas-fired ovens and either transferred to the end department to be pressed into ends or shipped off site to be made into food can bodies.
SIC Codes:	3411
UTM Coordinates:	531.9 km Easting • 4,470.8 km Northing • Zone 17

Permit Writer: Denton B. McDerment

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

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1.0 Emission Units and Active R13, R14, and R19 Permits

1.1. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
Building No. 33 Emission Units					
C-1	33-1E	#C-1 Wagner Sheet Coater and Wagner Oven	1995	6,000 sheets/hr	TO-1
C-2	33-1E	#C-2 Wagner Sheet Coater and Wagner Oven	1990	6,000 sheets/hr	TO-1
C-3	33-1E	#C-3 Wagner Sheet Coater w/ UV & Oven	1990	6,000 sheets/hr	TO-1
C-4	33-6E	#C-4 Crabtree Sheet Coater Series 1200 & Oven	1997	7,800 sheets/hr	TO-2
MD-1	33-2E	Grace 800 End Liner	1997	85,800 ends/hr	None
MD-5	33-3E	Grace 800 End Liner	2007	75,000 ends/hr	None
MD-3	33-4E	Grace 800 End Liner	1996	85,800 ends/hr	None
MD-4	33-5E	Grace 800 End Liner	1997	85,800 ends/hr	None
MD-2	*See Note 1*	Grace 800 End Liner	1997	85,800 ends/hr	None
MD-6	*See Notes 1 and 2*	Grace 800 End Liner	2007	75,000 ends/hr	None
007-01	33-7E	No. 11 LTG-1 Sheet Coater	2008	7,800 sheets/hr	0003
007-02	33-7E	No. 11 LTG-1 Oven	2008	7,800 sheets/hr	0003
Building No. 33 Control Devices					
TO-1	33-1E	MEGTEC Cleanswitch® Regenerative Thermal Oxidizer (Model Number: CSII-200-HT)	2009	4.0 MMBtu/hr	None
TO-2	33-6E	Catalytic Products SR-6000 Thermal Oxidizer	1997	6.8 MMBtu/hr	None
0003	33-7E	LTG Thermal Oxidizer	2008	6.8 MMBtu/hr	None
Building No. 720 Emission Units					
001-01	720-1E	No. C-1 Wagner Sheet Coater (*designated by Ball Corp. internally as C-5*)	1970	6,000 sheets/hour	0001
001-02	720-1E	No. C-1 Oven	1970	6,000 sheets/hour	0001
001-03	720-1E	No. C-2 Wagner Sheet Coater (*designated by Ball Corp. internally as C-6*)	1970	6,000 sheets/hour	0001
001-04	720-1E	No. C-2 Oven	1970	6,000 sheets/hour	0001
001-05	720-1E	No. C-3 Wagner Sheet Coater (*designated by Ball Corp. internally as C-7*)	1970	6,000 sheets/hour	0001
001-06	720-1E	No. C-3 Oven	1970	6,000 sheets/hour	0001
001-07	720-1E	No. C-4 Wagner Sheet Coater (*designated by Ball Corp. internally as C-8*)	1970	6,000 sheets/hour	0001

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
001-08	720-1E	No. C-4 Oven	1970	6,000 sheets/hour	0001
001-09	720-1E	No. C-5 Wagner Sheet Coater (*designated by Ball Corp. internally as C-9*)	1970	6,000 sheets/hour	0001
001-10	720-1E	No. C-5 Oven	1970	6,000 sheets/hour	0001
001-11	720-1E	No. C-6 Wagner Sheet Coater (*designated by Ball Corp. internally as C-10*)	1970	6,000 sheets/hour	0001
001-12	720-1E	No. C-6 Oven	1970	6,000 sheets/hour	0001
002-01	720-4E	PC-3 HOE UV Press	1997	5,100 sheets/hour	NA
002-02	720-4E	PC-3 HOE UV Press	1997	5,100 sheets/hour	NA
002-03	NA	PC-3 Conventional Press	1997	5,100 sheets/hour	NA
002-04	720-4E	PC-4 HOE UV Press	1997	5,100 sheets/hour	NA
002-05	NA	PC-4 Conventional Press	1997	5,100 sheets/hour	NA
002-06	720-4E	PC-5 HOE UV Press	1970	5,100 sheets/hour	NA
002-07	NA	PC-5 Conventional Press	1997	5,100 sheets/hour	NA
002-08	NA	PC-6 Conventional Press	1970	5,100 sheets/hour	NA
002-09	NA	PC-6 Conventional Press	1970	5,100 sheets/hour	NA
002-10	720-4E	PC-7 HOE UV Press	1997	5,100 sheets/hour	NA
002-11	720-4E	PC-7 HOE UV Press	1997	5,100 sheets/hour	NA
002-12	720-4E	PC-7 HOE UV Press	1997	5,100 sheets/hour	NA
002-13	NA	PC-7 Conventional Press	1997	5,100 sheets/hour	NA
003-01	720-1E	No. PC-3 Wagner Sheet Coater	1970	6,000 sheets/hour	0001
003-02	720-1E	No. PC-3 Wagner Oven	1970	6,000 sheets/hour	0001
003-03	720-1E	No. PC-4 Wagner Sheet Coater	1970	6,000 sheets/hour	0001
003-04	720-1E	No. PC-4 Wagner Oven	1970	6,000 sheets/hour	0001
003-05	720-1E	No. PC-5 Wagner Sheet Coater	1970	6,000 sheets/hour	0001
003-06	720-1E	No. PC-5 Wagner Oven	1970	6,000 sheets/hour	0001
003-07	720-1E	No. PC-6 Wagner Sheet Coater	1970	6,000 sheets/hour	0001
003-08	720-1E	No. PC-6 Wagner Oven	1970	6,000 sheets/hour	0001
003-09	720-1E	No. PC-7 Wagner Sheet Coater	1970	6,000 sheets/hour	0001
003-10	720-1E	No. PC-7 Wagner Oven	1970	6,000 sheets/hour	0001
006-01	720-3E	No. PC-8 6-color Planeta Press	1999	7,200 sheets/hour	NA
006-02	720-3E	No. PC-8 Planeta Press UV Sheet Coater	1999	7,200 sheets/hour	NA

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
Building No. 720 Control Devices					
0001	720-1E	Two Regenerative Thermal Oxidizers	2000	6.6 MMBtu/hr × 2	NA

1 – Emissions from End Liner MD-2 and MD-6 are uncaptured and the units do not have a stack venting to the atmosphere outside the building.
2 – End Liner MD-6 has no applicable requirements at the time of issuance of this renewal permit.
NA – Not applicable

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-2111A	April 10, 2001
R13-1458D	April 30, 2010
R13-1546	December 22, 1992
R13-2295D	July 23, 2009

2.0 General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2. Acronyms

CAAA	Clean Air Act Amendments
CBI	Confidential Business Information
CEM	Continuous Emission Monitor
CES	Certified Emission Statement
C.F.R. *or* CFR	Code of Federal Regulations
CO	Carbon Monoxide
C.S.R. *or* CSR	Codes of State Rules
DAQ	Division of Air Quality
DEP	Department of Environmental Protection
FOIA	Freedom of Information Act
HAP	Hazardous Air Pollutant
HON	Hazardous Organic NESHAP
HP	Horsepower
lbs/hr *or* lb/hr	Pounds per Hour
LDAR	Leak Detection and Repair
m	Thousand
MACT	Maximum Achievable Control Technology
mm	Million
mmBtu/hr	Million British Thermal Units per Hour
mmft^3/hr *or* mmcf/hr	Million Cubic Feet Burned per Hour
NA *or* N/A	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAPS	National Emissions Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10μm in diameter
pph	Pounds per Hour
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
psi	Pounds per Square Inch
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant
TPY	Tons per Year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulate
USEPA	United States Environmental Protection Agency
UTM	Universal Transverse Mercator
VEE	Visual Emissions Evaluation
VOC	Volatile Organic Compounds

2.3. Permit Expiration and Renewal

2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]

2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]

2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]

2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

2.5.1. This permit shall be reopened and revised under any of the following circumstances:

a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.

b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.

c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

a. The change must meet all applicable requirements and may not violate any existing permit term or condition.

b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield.

d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.
[45CSR§30-5.8]

2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.
[45CSR§30-5.8.a.]

2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or

b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.

a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.

b. The permit shield shall extend to all terms and conditions under each such operating scenario; and

c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:

a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

2.16.1. It shall not be a defense for a 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 conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.
[45CSR§30-5.1.f.2.]

2.17. Emergency

2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
[45CSR§30-5.7.a.]

2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.
[45CSR§30-5.7.b.]

2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
[45CSR§30-5.7.d.]

2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.
[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.
[45CSR§30-5.2.a.]

2.18.2. Those provisions specifically designated in the permit as “State-enforceable only” shall become “Federally-enforceable” requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.
[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.
[45CSR§30-4.2.]

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.
[45CSR§30-5.6.a.]

2.21.2. Nothing in this permit shall alter or affect the following:

a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or

b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.

c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.
[45CSR§30-5.3.e.3.B. and 45CSR38]

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.
[45CSR§30-5.1.e.]

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.
[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.

b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.
[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1. **[45CSR§6-3.1.]**

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40 C.F.R. §61.145(b) and 45CSR34]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]

3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2]

3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]

3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.
[40 C.F.R. 68]

3.1.9. The use of any coatings or solvents containing hazardous air pollutants and/or toxic air pollutants not previously identified in Permit Applications R13-2111, R13-2111A, or in any supplemental submittal thereto, shall not be used without the prior approval of the Director.
[45CSR13, R13-2111, A.7.]

3.1.10. Total plantwide VOC emission rates from all sources at this facility shall not exceed 233.42 Tons per year of volatile organic compounds (223.0 Tons per year from sources as permitted in R13-1458 and 10.42 Tons per year from the C-4 coating line permitted in R13-2111).

Annual VOC emissions from sources located in Building 33 (point and fugitive) shall not exceed 233.42 tons of volatile organic compounds per year.

[45CSR13, R13-2111, A.6.; R13-1458, 3.1.7.]

3.1.11. The permitted facility shall be operated in accordance with information filed in Permit Applications R13-1458, R13-1458A, R13-1458B, R13-1458C, R13-1458D, R13-2111, R13-2111A, and any amendments thereto. The Director may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
[45CSR13, R13-1458, 2.5.1., and R13-2111, C.3.]

3.1.12. **Work Practice Plan** – If you use the emission rate with add-on controls option or the control efficiency/outlet concentration option to comply with the emission limitations, you must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, the coating operations. The permittee must generate documentation that the work practice plan is being implemented on a continuous basis. The plan must specify practices and procedures to ensure that, at a minimum, the elements specified in the following paragraphs of this permit condition are implemented.

i. All organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be stored in closed containers.

ii. Spills of organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be minimized.

iii. Organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.

iv. Mixing vessels which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.

v. Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.

[40 C.F.R. §§ 63.3493(b), 63.3500(a)(2)(iii), 63.3512(j)(8), 63.3540(b)(2), 63.3541(c), 63.3542(e), 63.3550(a)(2), 63.3550(b)(2), 63.3551(c), 63.3552(d); 45CSR34; 45CSR13, R13-2295, 4.1.6. and 4.1.7.]

3.1.13. **Startup, Shutdown, and Malfunction Plan** – The permittee must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 C.F.R. § 63.6(e)(3). The plan must address startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The plan must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures.
[40 C.F.R. §§ 63.3500(c); 45CSR34; 45CSR13, R13-2295, 4.1.9.]

3.1.14. **Options for meeting the 40 C.F.R. 63 Subpart KKKK emission limits**. You must include all coatings and thinners used in all surface coating operations within a subcategory or coating type segment when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in 40 C.F.R. §63.3490. To make that determination, you must use at least one of the four compliance options listed in paragraphs (a) through (d) of 40 C.F.R. §63.3491. You may apply any of the compliance options to an individual coating operation or to multiple coating operations within a subcategory or coating type segment as a group. You may use different compliance options for different coating operations or at different times on the same coating operation. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document that switch as required by 40 C.F.R. §63.3512(c), and you must report it in the next semiannual compliance report required in 40 C.F.R. §63.3511.
[40 C.F.R. §63.3491; 45CSR34]

3.1.15. You must be in compliance with the emission limitations in this subpart as specified in paragraphs (1) and (2) of this condition.

(1) Any coating operation(s) for which you use the compliant material option or the emission rate without add-on controls option, as specified in 40 C.F.R. §§ 63.3491(a) and (b), must be in compliance with the applicable emission limit in 40 C.F.R. §63.3490.
(2) Any coating operation(s) for which you use the emission rate with add-on controls option, as specified in 40 C.F.R. §63.3491(c), or the control efficiency/outlet concentration option, as specified in 40 C.F.R. §63.3491(d), must be in compliance with the emission limitations as specified in paragraphs (2)(i) through (iii) of this condition.
   (i) The coating operation(s) must be in compliance with the applicable emission limit in 40 C.F.R. §63.3490 at all times.
   (ii) The coating operation(s) must be in compliance with the operating limits for emission capture systems and add-on control devices required by §63.3492 at all times, except for those for which you use a solvent recovery system and conduct liquid-liquid material balances according to 40 C.F.R. §63.3541(i). The operating limits apply only to capture systems and control devices used for purposes of complying with this subpart.
   (iii) The coating operation(s) must be in compliance with the work practice standards in 40 C.F.R. §63.3493 at all times.

[40 C.F.R. §63.3500(a); 45CSR34]

3.1.16. You must always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes of complying with 40 C.F.R. 63 Subpart KKKK, according to the provisions in 40 C.F.R. §63.6(e)(1)(i).
[40 C.F.R. §63.3500(b); 45CSR34]

3.1.17. **Emission of Visible Particulate Matter** – No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.
[45CSR13, R13-2111, B.1.; R13-1458, 4.1.7.b.; 45CSR§6-4.3.]

3.1.18. The provisions of 45CSR§6-4.3. shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up.
[45CSR13, R13-2111, B.1.; R13-1458, 4.1.7.b.; 45CSR§6-4.4.]

3.1.19. No person shall cause, suffer, allow or permit the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.
[45CSR13, R13-2111, B.1.; 45CSR§6-4.5.]

3.1.20. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
[45CSR13, R13-2111, B.1., and 45CSR§6-4.6.]

3.1.21. No person shall construct, modify or relocate any incinerator without first obtaining a permit in accordance with the provisions of W. Va. Code §§22-5-1 et seq. and 45CSR13.
[45CSR13, R13-2111, B.1., and 45CSR§6-6.1.]

3.1.22. At such reasonable times as the Director may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 CFR Part 60, Appendix A, Method 5 or other equivalent EPA approved method approved by the Director, in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or the Director's authorized representative, may at the Director's option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.
[45CSR§6-7.1.]

3.1.23. The Director, or the Director's duly authorized representative, may conduct such other tests as the Director may deem necessary to evaluate air pollution emissions other than those noted in 45CSR§6-7.1.
[45CSR13, R13-2111, B.1., and 45CSR§6-7.2.]

3.1.24. Due to unavoidable malfunction of equipment, emissions exceeding those provided for in 45CSR6 may be permitted by the Director for periods not to exceed five (5) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.
[45CSR13, R13-2111, B.1., and 45CSR§6-8.2.]

3.1.25. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter.
[45CSR§7-5.1.]

3.1.26. The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures.
[45CSR§7-5.2.]

3.1.27. Facility wide emissions from natural gas consumption shall not exceed the following:

PM_{10}		**SO_2**		**VOC**		**CO**		**NOx**	
lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
0.51	2.0	0.05	0.2	0.36	1.4	5.60	22	6.62	26

Compliance with the annual emissions limitations from natural gas consumption only shall be on a 12-month rolling sum.
[45CSR13, R13-2295, 4.1.11.; 45CSR§30-5.1.c.] (Includes all Bldg. No. 720 Emission Units & Control Devices, and Bldg. No. 33 LTG-1 Coater 007-01, LTG-1 Oven 007-02, and LTG Thermal Oxidizer 0003)

3.1.28. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13, R13-2295, 4.1.14.; 45CSR§13-5.11.] (Includes all Bldg. No. 720 Emission Units & Control Devices, and Bldg. No. 33 LTG-1 Coater 007-01, LTG-1 Oven 007-02, and LTG Thermal Oxidizer 0003)

3.2. Monitoring Requirements

3.2.1. To demonstrate compliance with permit conditions 3.1.17., 3.1.18., and 3.1.19., at least weekly, visual emission checks of each emission point subject to an opacity limit shall be conducted. For the purpose of these checks, excess visible emissions are to include visible fugitive dust emissions that leave the plant site boundaries. These checks shall be conducted during periods of facility operation for a sufficient time interval to determine if the unit has visible emissions using 40 C.F.R. 60 Appendix A, Method 22. If sources of visible emissions are identified during the survey, or at any other time, the permittee shall conduct a 40 C.F.R. 60 Appendix A, Method 9 within twenty-four (24) hours. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operating at normal operating conditions. A record of each visible emission check required above shall be maintained. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, the name of the observer, and any data required by 40 C.F.R. 60 Appendix A, Method 22 or Method 9.
[45CSR§30-5.1.c.]

3.2.2. **Periodic visual verification of recorded data.** The permittee shall perform periodic visual verification of recorded data of the combustion chamber temperatures of the thermal oxidizers and the capture systems' differential pressures. Periodic visual verification shall ensure proper recordkeeping by checking if there are any periods when data was not acquired or other problems in the monitoring and recording of data. Periodic visual verification shall be performed once per calendar month, and no later than six (6) weeks after the previous verification.
[40 C.F.R. § 64.3(b)(2); 45CSR§30-5.1.c.] *(40 C.F.R. Part 64 is not applicable to End Liners in section 5.0, and Planeta Press PC-8 in section 9.0)*

3.2.3. **Commencement of operation**. The permittee shall conduct the monitoring required under 40 C.F.R. 64 upon issuance of this permit that includes such monitoring.
[40 C.F.R. § 64.7(a); 45CSR§30-5.1.c.] *(40 C.F.R. Part 64 is not applicable to End Liners in section 5.0, and Planeta Press PC-8 in section 9.0)*

3.2.4. **Proper Maintenance** – At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
[40 C.F.R. § 64.7(b); 45CSR§30-5.1.c.] *(40 C.F.R. Part 64 is not applicable to End Liners in section 5.0, and Planeta Press PC-8 in section 9.0)*

3.2.5. **Continued Operation** – Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 C.F.R. 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
[40 C.F.R. § 64.7(c); 45CSR§30-5.1.c.] *(40 C.F.R. Part 64 is not applicable to End Liners in section 5.0, and Planeta Press PC-8 in section 9.0)*

3.2.6. **Continuous Parameter Monitoring System** – The permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) for each thermal oxidizer (combustion chamber temperature) and emission capture system (differential pressure) according to the following criteria:

a. The data collection frequency shall be at least one (1) data point read every twenty (20) seconds by a continuous electronic recorder. Forty-five (45) consecutive data points shall be averaged to generate one (1) recorded datum every complete 15-minute cycle, equivalent to four (4) data points equally spaced over one (1) hour.

b. The permittee must determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.

c. The permittee must record the results of each inspection, calibration, and validation check of the CPMS.

d. The permittee must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

e. The permittee must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

f. The permittee must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities when calculating data averages. The permittee must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

g. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out of control and data are not available for required calculations is a deviation from the monitoring requirements.

[40 C.F.R. §§ 63.3547(a) and 63.3557(a); 45CSR34; 40 C.F.R. § 64.3(b)(4); 45CSR§30-5.1.c.; 45CSR13, R13-2295, 4.2.1.] *(40 C.F.R. Part 64 is not applicable to End Liners in section 5.0, and Planeta Press PC-8 in section 9.0)*

3.2.7. **Documentation of Need for Improved Monitoring** – After approval of monitoring under 40 C.F.R. 64, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
[40 C.F.R. § 64.7(e); 45CSR§30-5.1.c.] *(40 C.F.R. Part 64 is not applicable to End Liners in section 5.0, and Planeta Press PC-8 in section 9.0)*

3.2.8. **Quality Improvement Plan (QIP) –** Based on the results of a determination made under permit condition 3.4.9.(2), the Administrator or the Director may require the permittee to develop and implement a QIP. Consistent with 40 C.F.R. §64.6(c)(3), the permittee is limited to an accumulation of exceedances or excursions no greater than nine (9) during a reporting period, prior to requiring the implementation of a QIP. If a QIP is required, then it shall be developed, implemented, and modified as required according to 40 C.F.R. §§ 64.8(b) through (e). Refer to permit condition 3.5.11.(2)(iii). for reporting required when a QIP is implemented.
[40 C.F.R. § 64.8; 45CSR§30-5.1.c.] *(40 C.F.R. Part 64 is not applicable to End Liners in section 5.0, and Planeta Press PC-8 in section 9.0)*

3.2.9. The permittee must install the gas temperature monitors for the thermal oxidizers according to the following parameters:

a. The gas temperature sensor must be installed in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.
b. The gas temperature sensor must be installed in a position that provides a representative temperature.
c. The gas temperature sensor must have a:

i. minimum accuracy of ±1.2 degrees Celsius or ±1 percent of the temperature value in degrees Celsius, whichever is larger for Control Device IDs 0001 and 0003; and

ii. minimum accuracy specified in condition 6.2.1.e. for Control Device IDs TO-1 and TO-2.

d. The gas temperature sensors must be calibrated annually. The scheduled calibration shall be performed within twelve (12) months of the date of the previous scheduled calibration, but no earlier than six (6) months from the date of the previous scheduled calibration. This condition does not prevent the permittee from calibrating the device(s) at any time (not part of normal annual schedule) necessary to demonstrate ongoing reliability and compliance of the device.

[40 C.F.R. §§ 63.3547(c)(1) and (3), 63.3557(c)(1) and (3); 45CSR34; 40 C.F.R. §§64.3(b)(1)-(3) and 64.6(c)(1)(iii); 45CSR§§30-5.1.c. and 12.7; 45CSR13, R13-2295, 4.2.2.]

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status,

also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language.

2. The result of the test for each permit or rule condition.

3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code §§ 22-5-4(a)(14-15) and 45CSR13, R13-2111, B.5.]

3.3.2. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place.
[45CSR13, R13-2111, B.5.]

3.3.3. The Director, or the Director's duly authorized representative, may conduct such other tests as the Director may deem necessary to evaluate air pollution emissions other than those noted in 45CSR§6-7.1.
[45CSR§6-7.2.; 45CSR13, R13-2295, B.1.]

3.4. Recordkeeping Requirements

3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A.; 45CSR13, R13-1458, 4.4.1; 45CSR13, R13-2295, 4.4.1.]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.
[45CSR§30-5.1.c.2.B.]

3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§30-5.1.c. State-Enforceable only.]

3.4.4. **General Recordkeeping for 40 C.F.R. Part 63 Subpart KKKK** – All records must be kept in form suitable and ready for expeditious review, according to 40 C.F.R. §63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database. All records must be kept for five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Records must be kept on site for at least two (2) years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. Records may be kept off site for the remaining three (3) years.
[40 C.F.R. §§ 63.3513(a), (b), and (c), and 45CSR34]

3.4.5. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.1, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13, R13-1458, 4.4.2] (Control Device ID: TO-1)
[45CSR13, R13-2295, 4.4.2] (Control Device IDs: 0001, 0003)

3.4.6. **Record of Malfunctions of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.1, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-1458, 4.4.3.] (Control Device ID: TO-1)
[45CSR13, R13-2295, 4.4.3.] (Control Device IDs: 0001, 0003)

3.4.7. The permittee shall maintain on site a MSDS or manufacture's product technical data sheet that identify the VOC content of each coating applied by any emission unit located in Building 33 within the previous 12 months. Such information of any coating that is no longer being applied by any emission unit located in Building 33 shall be maintained in accordance with Condition 3.4.2. of this permit.
[45CSR13, R13-1458, 4.4.4]

3.4.8. **Recordkeeping for 40 C.F.R. Part 63 Subpart KKKK.** You must collect and keep records of the data and information specified in 40 C.F.R. §63.3512. Failure to collect and keep the records is a deviation from the applicable standard.

(a) A copy of each notification and report that you submitted to comply with 40 C.F.R. 63 Subpart KKKK and the documentation supporting each notification and report.

(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating and thinner and the volume fraction of coating solids for each coating. If you conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each compliance period, the records specified in paragraphs (c)(1) through (4) of this condition.

(1) A record of the coating operations at which you used each compliance option and the time periods (beginning and ending dates and times) you used each option.

(2) For the compliant material option, a record of the calculation of the organic HAP content for each coating, using Equation 1 of 40 C.F.R. §63.3521.

(3) For the emission rate without add-on controls option, a record of the calculation of the total mass of organic HAP emissions for the coatings and thinners used each month, using Equations 1, 1A, 1B, and 2 of 40 C.F.R. §63.3531 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to 40 C.F.R. §63.3531(e)(3); the calculation of the total volume of coating solids used each month, using Equation 2 of 40 C.F.R. §63.3531; and the calculation of each 12-month organic HAP emission rate, using Equation 3 of 40 C.F.R. §63.3531, or Equation 4 in 40 C.F.R. §63.3531, if applicable.

(4) For the emission rate with add-on controls option, records of the calculations specified in paragraphs (c)(4)(i) through (vi) of this condition.

(i) The calculation of the total mass of organic HAP emissions for the coatings and thinners used each month, using Equations 1, 1A, and 1B of 40 C.F.R. §63.3531 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to 40 C.F.R. §63.3531(e)(3).

(ii) The calculation of the total volume of coating solids used each month, using Equation 2 of 40 C.F.R. §63.3531.

(iii) The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices, using Equations 1 and 1A through 1C of 40 C.F.R. §63.3541, and Equations 2, 3, 3A, and 3B of 40 C.F.R. §63.3541, as applicable.

(iv) The calculation of the total mass of organic HAP emissions each month, using Equation 4 of 40 C.F.R. §63.3541.

(v) The calculation of each 12-month organic HAP emission rate, using Equation 5 of 40 C.F.R. §63.3541.

(vi) The OSEL calculation, if applicable, using Equation 4 of 40 C.F.R. §63.3531.

(d) A record of the name and volume of each coating and thinner used during each compliance period.

(e) A record of the mass fraction of organic HAP for each coating and thinner used during each compliance period.

(f) A record of the volume fraction of coating solids for each coating used during each compliance period.

(g) A record of the density for each coating used during each compliance period; and, if you use either the emission rate without add-on controls or the emission rate with add-on controls compliance option, the density for each thinner used during each compliance period.

(h) If you use an allowance in Equation 1 of 40 C.F.R. §63.3531 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to 40 C.F.R. §63.3531(e)(3) or otherwise managed in accordance with applicable Federal and State waste management regulations, you must keep records of the information specified in paragraphs (h)(1) through (3) of this condition.

(1) The name and address of each TSDF or other applicable waste management location to which you sent waste materials for which you use an allowance in Equation 1 of 40 C.F.R. §63.3531, a statement of which subparts under 40 CFR parts 262, 264, 265, and 266 apply to the facility and the date of each shipment.

(2) Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of 40 C.F.R. §63.3531.

(3) The methodology used in accordance with 40 C.F.R. §63.3531(e)(3) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF or other applicable waste management location each month and the methodology to determine the mass of organic HAP contained in these waste materials. That must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.

(i) You must keep records of the date, time, and duration of each deviation.

(j) If you use the emission rate with add-on controls option or the control efficiency/outlet concentration option, you must keep the records specified in paragraphs (j)(1) through (8) of this condition.

(1) For each deviation, a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.

(2) The records in 40 C.F.R. §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) The records required to show continuous compliance with each operating limit specified in Table 4 to 40 C.F.R. 63 Subpart KKKK that applies to you.

(4) For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent, as specified in 40 C.F.R. §63.3544(a).

(5) For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in 40 C.F.R. §§63.3543 and 63.3544(b) through (e) including the records specified in paragraphs (j)(5)(i) through (iii) of this condition that apply to you.

(i) *Records for a liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* Records of the mass of total volatile hydrocarbon (TVH) as measured by Method 204A or F of appendix M to 40 CFR part 51 for each material used in the coating operation and the total TVH for all materials used during each capture efficiency test run including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure (TTE) or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a TTE or a building enclosure.

(ii) *Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure.* Records of the mass of TVH emissions captured by the emission capture system as measured by Method 204B or C of appendix M to 40 CFR part 51 at the

inlet to the add-on control device including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the TTE or building enclosure during each capture efficiency test run as measured by Method 204D or E of appendix M to 40 CFR part 51 including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a TTE or a building enclosure.

(iii) *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol as specified in 40 C.F.R. §63.3544(e) if applicable.

(6) The records specified in paragraphs (j)(6)(i) and (ii) of this condition for each add-on control device organic HAP destruction or removal efficiency determination as specified in 40 C.F.R. §63.3545 or §63.3555.

(i) Records of each add-on control device performance test conducted according to 40 C.F.R. §63.3543 or §63.3553 and 40 C.F.R. §63.3545 or §63.3555.

(ii) Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.

(7) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in 40 C.F.R. §63.3546 or §63.3556 and to document compliance with the operating limits as specified in Table 4 to 40 C.F.R. 63 Subpart KKKK.

(8) A record of the work practice plan required by 40 C.F.R. §63.3493 and documentation that you are implementing the plan on a continuous basis.

[40 C.F.R. §§ 63.3512(a) through (j); 45CSR34]

3.4.9. **Response to Excursions or Exceedances**

(1) Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[40 C.F.R. § 64.7(d); 45CSR§30-5.1.c.] *(40 C.F.R. Part 64 is not applicable to End Liners in section 5.0, and Planeta Press PC-8 in section 9.0)*

3.4.10. **General recordkeeping requirements for 40 C.F.R. 64 (CAM)**
The permittee shall comply with the recordkeeping requirements specified in permit conditions 3.4.1. and 3.4.2. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 (permit condition 3.2.8.) and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 C.F.R. 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
[40 C.F.R. § 64.9(b); 45CSR§30-5.1.c.] *(40 C.F.R. Part 64 is not applicable to End Liners in section 5.0, and Planeta Press PC-8 in section 9.0)*

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
[45CSR§§30-4.4. *and* 5.1.c.3.D.]

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]

3.5.3. Except for the electronic submittal of the annual certification to the USEPA as required in 3.5.5 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:

Associate Director
Office of Air Enforcement and Compliance Assistance (3AP20)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
[45CSR§30-8.]

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The annual certification to the USEPA shall

be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. **[45CSR§30-5.1.c.3.A.]**

3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.

4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.
[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.
[45CSR§30-4.3.h.1.B.]

3.5.10. **Reporting for 40 C.F.R. 63, Subpart KKKK.** The permittee must submit semiannual compliance reports for each affected source according to the requirements of 40 C.F.R. § 63.3511.

a. The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period and ends on June 30 or December 31, whichever occurs first following the end of the initial compliance period.
b. Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. The semiannual compliance report shall be included with the semiannual monitoring report required by permit condition 3.5.6.
c. The semiannual compliance report must contain the information specified:
    i. Company name and address.
    ii. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
    iii. Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.
    iv. Identification of the compliance option or options specified in 40 C.F.R. § 63.3491 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning and ending dates you used each option.
    v. The calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period if either the emission rate without add-on controls or the emission rate with add-on controls compliance option (§§63.3491(b) or (c)) was used.
d. If there were no deviations from permit conditions emission limitations, operating limits, or work practice standards in 40 C.F.R. §§63.3490, 63.3492, and 63.3493 that apply to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations, operating limits, and work practice plan during the reporting period. If you used the emission rate with add-on controls option or the control efficiency/outlet concentration option and there were no periods during which the continuous parameter monitoring systems (CPMS) were out of control as specified in 40 C.F.R. §63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out of control during the reporting period.
e. If you used the *compliant material option* and there was a deviation from the applicable emission limit in 40 C.F.R. §63.3490, the semiannual compliance report must contain the information in 40 C.F.R. §§63.3511(a)(5)(i) through (iv).
f. If you used the *emission rate without add-on controls option* and there was a deviation from the applicable emission limit in 40 C.F.R. §63.3490, the semiannual compliance report must contain the information in 40 C.F.R. §§ 63.3511(a)(6)(i) through (iii).
g. If you used the *emission rate with add-on controls option* and there was a deviation from an emission limitation (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in 40 C.F.R. §§ 63.3511(a)(7)(i) through (xiv). This includes periods of startup, shutdown, and malfunction during which deviations occurred.
h. If you used the *control efficiency/outlet concentration option*, and there was a deviation from an emission limitation (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in 40 C.F.R. §§ 63.3511(a)(8)(i) through (xii).

i. *Performance test reports.* If you use the *emission rate with add-on controls option* or the *control efficiency/outlet concentration option*, you must submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in 40 C.F.R. §63.10(d)(2).

j. *Startup, shutdown, malfunction reports.* If you used the *emission rate with add-on controls option* or the *control efficiency/outlet concentration option* and you had a startup, shutdown, or malfunction during the semiannual reporting period, you must submit the reports specified in 40 C.F.R. §§63.3511(c)(1) and (2).

[40 C.F.R. §§ 63.3511(a), (b), and (c); 45CSR13, R13-1458, 4.5.1; and 45CSR34]

3.5.11. **General reporting requirements for 40 C.F.R. 64 (CAM)**

(1) On and after the date specified in 40 C.F.R. §64.7(a) by which the permittee must use monitoring that meets the requirements of 40 C.F.R. 64, the permittee shall submit monitoring reports to the DAQ in accordance with permit condition 3.5.6.

(2) A report for monitoring under 40 C.F.R. 64 shall include, at a minimum, the information required under permit condition 3.5.8. and the following information, as applicable:

(i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(iii) A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. § 64.9(a); 45CSR§30-5.1.c.] *(40 C.F.R. Part 64 is not applicable to End Liners in section 5.0, and Planeta Press PC-8 in section 9.0)*

3.6. Compliance Plan

3.6.1. There is no facility-wide compliance plan since the permittee certified compliance in with all applicable requirements in the renewal application.

3.7. Permit Shield

3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

a. **40 C.F.R. 60, Subpart TT - *Standards of Performance for Metal Coil Surface Coating*** – The fact sheet for permit R30-00900027-1995 states that, "*This facility cuts the metal coils prior to coating, and as such, is not applicable to Subpart TT. However, since Ball is similar to Subpart TT type facilities and has approximately the same capture and destruction rates, there were conditions in the R13 permit that required emission tests to be done in accordance with methods set forth in NSPS Subpart TT.*" The facility is not directly subject to Subpart TT, but is subject to certain requirements of Subpart TT that are incorporated by reference into applicable permit conditions. But permit R13-1458, condition 4.2.1. references Subpart TT, and the required performance testing methodologies that are specifically set forth by R13-1458 are those found in paragraphs §60.463 and §60.466 of Subpart TT.

b. **Condition 4.1.6. of Permit R13-1458D**. This requirement remained in effect until the Air Preheater F147 was replaced with the MEGTEC Cleanswitch® regenerative thermal oxidizer identified as TO-1. The permittee confirmed in a 4/3/2012 email to DAQ that the replacement has been completed; therefore, this requirement is no longer applicable.

c. **Condition 4.1.7.f. of Permit R13-1458D**. This requirement was to calibrate the temperature measuring system within 30 days of startup of TO-1. The permittee confirmed in a 6/21/2012 email to DAQ that startup was in March 2010 and the monitoring system has been calibrated twice since then; therefore, this requirement is no longer applicable.

d. **Condition 4.1.2. of Permit R13-2295D**. This requirement states that the old coating line LTG C-7 shall be disconnected and permanently removed from service before the new sheet coating line LTG-1 is placed into service. The permittee confirmed in a 4/3/2012 email to DAQ that LTG C-7 has been disconnected and removed from service, and the new coating line LTG-1 is in service; therefore, this requirement is no longer applicable.

e. **Condition 4.3.1. of Permit R13-2295D**. This requirement was for performance testing to establish the LTG-1 thermal oxidizer combustion temperature limit no later than 180 days after the startup of the new LTG-1 line. This testing has been completed, and there are no ongoing requirements; therefore, this requirement is no longer applicable.

4.0 Building No. 33 Sheet Coaters and Ovens, C-1, C-2, C-3, C-4 [emission point ID(s): 33-1E, 33-6E]

4.1. Limitations and Standards

4.1.1. The permittee shall maintain a 100% VOC capture efficiency for the metal sheet coating line (C-4) enclosure. The enclosure shall be maintained and operated as a Permanent Total Enclosure (PTE) as evaluated against EPA Method 204 and presented in the "PERMANENT TOTAL ENCLOSURE VERIFICATION" report dated January 3, 2007 (Attachment A of this permit). In accordance with the PTE verification, all access doors and windows must be closed at all times during the operation of the coating line (C-4).
[45CSR13, R13-2111, A.3.]

4.1.2. **40 C.F.R. 63 Subpart KKKK Emission Limitations**

a. The permittee shall use coatings and thinners used in the coating operations and the emission reductions achieved by the emission capture system and thermal oxidizers to limit the organic HAP emission rate to be less than 0.26 lbs HAP/gal solids, calculated as a rolling 12-month emission rate and determined on a monthly basis; or

b. If you control emissions with an emissions control system using the *Control efficiency/outlet concentration option* as specified in 40 C.F.R. §63.3491(d) (permit condition 4.1.3.c.), you must reduce total organic HAP emissions to the atmosphere measured as THC (as carbon), by 95 percent; or limit emissions of total HAP, measured as THC (as carbon), to 20 ppmvd at the control device outlet and use a PTE, determined according to the requirements of 40 C.F.R. §63.3551.

[40 C.F.R. §63.3490(b) and 63.3500(a)(2)(i); 45CSR34]

4.1.3. **40 C.F.R. 63 Subpart KKKK Compliance Options.** You must include all coatings and thinners used in all surface coating operations within a subcategory or coating type segment when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in 40 C.F.R. §63.3490. To make that determination, you must use at least one of the three compliance options listed in paragraphs a. through c. of this condition. You may apply any of the compliance options to an individual coating operation or to multiple coating operations within a subcategory or coating type segment as a group. You may use different compliance options for different coating operations or at different times on the same coating operation. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document that switch as required by 40 C.F.R. §63.3512(c), and you must report it in the next semiannual compliance report required in 40 C.F.R. §63.3511.

a. *Compliant material option*. Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in 40 C.F.R. §63.3490 (permit condition 4.1.2.), and that each thinner used contains no organic HAP. You must meet all the requirements of 40 C.F.R. §§63.3520, 63.3521, and 63.3522 to demonstrate compliance with the emission limit using this option.

b. *Emission rate with add-on controls option*. Demonstrate that, based on the coatings and thinners used in the coating operation(s) and the emission reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in 40 C.F.R. §63.3490 (permit condition 4.1.2.), calculated

as a rolling 12-month emission rate and determined on a monthly basis. If you use this compliance option, you must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) used for purposes of complying with 40 C.F.R. 63 Subpart KKKK meet the operating limits required in 40 C.F.R. §63.3492 (permit conditions 6.1.3. and 6.1.7.), except for solvent recovery systems for which you conduct liquid-liquid material balances according to 40 C.F.R. §63.3541(i), and that you meet the work practice standards required in 40 C.F.R. §63.3493 (permit condition 3.1.12.). You must meet all the requirements of 40 C.F.R. §§63.3540 through 63.3547 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

c. *Control efficiency/outlet concentration option*. Demonstrate that, based on the emission reductions achieved by emission capture systems and add-on controls, total HAP emissions measured as total hydrocarbon (THC) are reduced by 95 percent or greater for existing sources, or that outlet THC emissions are less than or equal to 20 parts per million by volume, dry basis (ppmvd). If you use this compliance option, you must have a capture device that meets EPA Method 204 of 40 CFR part 51, Appendix M criteria for a permanent total enclosure (PTE). You must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) used for purposes of complying with 40 C.F.R. 63 Subpart KKKK meet the operating limits required in 40 C.F.R. §63.3492 (permit conditions 6.1.3. and 6.1.7.), and that you meet the work practice standards required in 40 C.F.R. §63.3493 (permit condition 3.1.12.). You must meet all the requirements of 40 C.F.R. §§63.3550 through 63.3557 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

Note: The permittee is using the *Control efficiency/outlet concentration option* in 40 C.F.R. §63.3491(d) as of the issuance date of this renewal operating permit.

[40 C.F.R. §§ 63.3491(a), (c), and (d); 45CSR34]

4.1.4. The capture efficiency of your emission capture system must be 100 percent to use the control efficiency/outlet concentration option. You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a) and (b) of this condition are met.

(a) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(b) All coatings and thinners used in the coating operation are applied within the capture system, and coating solvent flash-off, curing, and drying occurs within the capture system. This criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

[40 C.F.R. § 63.3554; 45CSR34]

4.1.5. *Capture system bypass line.* You must meet the requirements of paragraph (1) or (2) of this condition for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. The flow indicator shall be installed at the entrance to any bypass line.
(2) Secure the bypass line valve in the nondiverting position with a car-seal or lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once

every month to ensure the valve is maintained in the nondiverting position, and the vent stream is not diverted through the bypass line.

[40 C.F.R. § 63.3557(b); 45CSR34]

4.1.6. **Demonstrating continuous compliance with the 40 C.F.R. 63 Subpart KKKK emission limitation**. To demonstrate continuous compliance with the emission limitations using the control efficiency/outlet concentration option, the organic HAP emission rate for each compliance period must be equal to or less than 20 ppmvd or must be reduced by the amounts specified in 40 C.F.R. §63.3490 (condition 4.1.2.b.). A compliance period consists of 12 months. Each month after the end of the initial compliance period described in 40 C.F.R. §63.3550 is the end of a compliance period consisting of that month and the preceding 11 months.
[40 C.F.R. § 63.3552(a); 45CSR34]

4.2. Monitoring Requirements

4.2.1. For emission units C-1, C-2, C-3, the permittee shall keep and maintain the following records in accordance with 3.4.2. of this permit:

a. The monthly and summarized annual usage of each coating and solvent and the VOC content of each compound and solvent;
b. Hours of operation of each sheet coating line during the month;
c. The monthly and summarized annual usage of each cleaning solvent and VOC emissions from cleaning solvent usage;
d. Average pounds per hour of VOC emitted from each sheet coating line, must identify fugitive point source VOCs emissions.

[45CSR13, R13-1458, 4.2.3.]

4.3. Testing Requirements

4.3.1. The owner or operator of the affected facility shall construct a temporary enclosure around the coating applicator and flashoff area during any performance test for the purpose of evaluating the capture efficiency of the system. The enclosure must be maintained at a negative pressure to ensure that all VOC emissions are measurable.
[45CSR13, R13-2111, B.3.] *(Em. Unit ID: C-4)*

4.3.2. To demonstrate compliance with condition 4.1.1., refer to condition 6.3.3.

4.4. Recordkeeping Requirements

4.4.1. Refer to permit condition 3.4.8.

4.5. Reporting Requirements

4.5.1. Annual reports shall be certified by the plant manager or corporate officer, and submitted to the Director on or before March 15 of each year for the previous calendar year as part of the semiannual monitoring report required by permit condition 3.5.6. The report shall contain the following information for each of the sheet coating lines:

a) The monthly and summarized annual usage of each coating and solvent and the VOC content of each compound and solvent.

b) Number of hours per month during which the incinerator has any down-time and the reason for the incinerator down-time when the sheet coating line C-4 is in service. Such operation shall not occur without approval of a variance by the Director as required.

c) Hours of operation of each sheet coating line during the month.

d) The monthly and summarized annual usage of each cleaning solvent and VOC emissions from cleaning solvent usage.

e) Tons per month and yearly totals of VOC emitted from each of the sheet coating lines.

f) Average pounds per hour of VOC emitted from each sheet coating line.

g) Amount of natural gas burned per month in the incinerator associated with sheet coating line C-4.

[45CSR13, R13-2111, A.8.; 45CSR§30-5.1.c.]

4.5.2. You must meet the requirements for bypass lines in §63.3557(b) (condition 4.1.5.). If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in §§63.3510(b)(6) and 63.3511(a)(7). For purposes of demonstrating compliance, you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation.
[40 C.F.R. § 63.3552(c); 45CSR34]

4.5.3. As part of each semiannual compliance report required in 40 C.F.R. §63.3511 (condition 3.5.10.), you must identify the coating operation(s) for which you used the control efficiency/outlet concentration option. If there were no deviations from the operating limits or work practice standards, submit a statement that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than 20 ppmvd or was reduced by the amount specified in §63.3490 (condition 4.1.2.b.), and you achieved the operating limits required by 40 C.F.R. §63.3492 (conditions 6.1.3., 6.1.7.) and the work practice standards required by 40 C.F.R.§63.3493 (condition 3.1.12.) during each compliance period.
[40 C.F.R. § 63.3552(e); 45CSR34]

4.6. Compliance Plan

4.6.1. There is no compliance plan since the permittee certified compliance in with all applicable requirements in the renewal application.

5.0 Building No. 33 End Liners MD-1, MD-5, MD-3, MD-4, and MD-2 [emission point ID(s): 33-2E, 33-3E, 33-4E, 33-5E]

5.1. Limitations and Standards

5.1.1. Maximum air emission rates from emission point 33-2E (the MD-1 end making press and liner) shall not exceed 9.30 pounds per hour of volatile organic compounds.
[45CSR13, R13-1458, 4.1.1.]

5.1.2. Maximum air emission rates from emission point 33-3E (the MD-5 end making press and liner) shall not exceed 9.30 pounds per hour of volatile organic compounds.
[45CSR13, R13-1458, 4.1.2]

5.1.3. Maximum air emission rates from emission point 33-5E (the MD-4 end making press and liner) shall not exceed 10.84 pounds per hour of volatile organic compounds.
[45CSR13, R13-1458, 4.1.4]

5.1.4. **40 C.F.R. 63 Subpart KKKK Emission Limitations.** You must limit organic HAP emissions to the atmosphere to no more than the emission limit(s) in Table 2 to 40 C.F.R. 63 Subpart KKKK that apply to you during each 12-month compliance period, determined according to the requirements in 40 C.F.R. §63.3521, or 40 C.F.R. §63.3531.

Applicable Emission Limits from Table 2 to 40 C.F.R. 63 Subpart KKKK:

If you apply surface coatings to metal cans or metal can parts in the End coating subcategory, then for all coating types in the following table, you must meet the following organic HAP emission limits.

Coating type	Organic HAP Emission Limit (lbs HAP/gal solids)
Aseptic end seal compounds	0.54
Nonaseptic end seal compounds	0.00
Repair spray coatings	17.17

If you perform surface coating in more than one subcategory or utilize more than one coating type within a subcategory, then you must meet the individual emission limit(s) for each subcategory and coating type included.

Note: The permittee is using the *Compliant material option* in 40 C.F.R. §63.3491(a), and is applying nonaseptic end seal compounds, as of the issuance date of this renewal operating permit.

[40 C.F.R. §§ 63.3490(b) and 63.3500(a)(1); 45CSR34]

5.1.5. Maximum emissions to the atmosphere from MD-2 (end seal lining machine) shall not exceed the following:

Pollutant	Emission Rate (lb/hr)
Ammonia	0.08
Volatile Organic Compounds	0 (zero)

[45CSR13, R13-1546, (A)(1)]

5.1.6. The use of any materials at MD-2 which contain volatile organic compounds shall be a violation of this permit.
[45CSR13, R13-1546, (A)(2)]

5.1.7. Maximum air emission rates from emission point 33-4E (the MD-3 end making press and liner) shall not exceed 10.23 pounds per hour of volatile organic compounds.
[45CSR13, R13-1458, 4.1.3.]

5.1.8. Total air emission rates from the end press area (emission points 33-2E, 33-3E, 33-4E, and 33-5E) shall not exceed 35.36 pounds per hour of volatile organic compounds.
[45CSR13, R13-1458, 4.1.5.]

5.1.9. **40 C.F.R. 63 Subpart KKKK Compliance Options.** You must include all coatings and thinners used in all surface coating operations within a subcategory or coating type segment when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in 40 C.F.R. §63.3490. To make that determination, you must use at least one of the two compliance options listed in paragraphs a. through b. of this condition. You may apply any of the compliance options to an individual coating operation or to multiple coating operations within a subcategory or coating type segment as a group. You may use different compliance options for different coating operations or at different times on the same coating operation. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document that switch as required by 40 C.F.R. §63.3512(c), and you must report it in the next semiannual compliance report required in 40 C.F.R. §63.3511.

a. *Compliant material option*. Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in 40 C.F.R. §63.3490 (permit condition 5.1.4.), and that each thinner used contains no organic HAP. You must meet all the requirements of 40 C.F.R. §§63.3520, 63.3521, and 63.3522 to demonstrate compliance with the emission limit using this option.

b. *Emission rate without add-on controls option*. Demonstrate that, based on the coatings and thinners used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in 40 C.F.R. §63.3490 (permit condition 5.1.4.), calculated as a rolling 12-month emission rate and determined on a monthly basis. You must meet all the requirements of §§63.3530, 63.3531, and 63.3532 to demonstrate compliance with the emission limit using this option.

[40 C.F.R. §§ 63.3491(a) and (b); 45CSR34]

5.1.10. **Demonstrating continuous compliance with the 40 C.F.R. 63 Subpart KKKK emission limitation**. For each compliance period, to demonstrate continuous compliance, you must use no coating for which the organic HAP content, determined using Equation 1 of 40 C.F.R. §63.3521, exceeds the applicable emission limit in 40 C.F.R. §63.3490 (condition 5.1.4.) and use no thinner that contains organic HAP, determined according to 40 C.F.R. §63.3521(a). A compliance period consists of 12 months. Each month after the end of the initial compliance period described in 40 C.F.R. §63.3520 is the end of a compliance period consisting of that month and the preceding 11 months.
[40 C.F.R. § 63.3522(a); 45CSR34]

5.2. Monitoring Requirements

5.2.1. Reserved.

5.3. Testing Requirements

5.3.1. Reserved.

5.4. Recordkeeping Requirements

5.4.1. Compliance with Provisions 5.1.1., 5.1.2., 5.1.3., 5.1.4., 5.1.5., 5.1.6., 5.1.7., and 5.1.8. of this permit shall be demonstrated by recording during each calendar month the identity, quantity, and VOC content of all end sealing compounds and solvents used at or on the permitted can end liner machines, and the number of hours the liner machines are operated. Monthly VOC emissions shall be determined by summing the products of the usage of each compound/solvent times the VOC content of each compound solvent. Average hourly VOC emissions from the permitted machines shall be determined by dividing the total VOC emissions during each calendar month by the actual hours of operation of the end liner machines during the month. This information shall be reported and certified by the plant manager or corporate officer, and submitted to the Director on or before March 15 of each year for the previous calendar year as part of the semiannual monitoring report required by permit condition 3.5.6.
[45CSR13, R13-1458, 4.2.2., and 45CSR§30-5.1.c.]

5.4.2. You must maintain records as specified in 40 C.F.R. §§63.3512 and 63.3513 (conditions 3.4.8. and 3.4.4., respectively).
[40 C.F.R. § 63.3522(d); 45CSR34]

5.5. Reporting Requirements

5.5.1. See permit condition 3.5.10.

5.5.2. If you choose to comply with the emission limitations by using the compliant material option, the use of any coating or thinner that does not meet the criteria specified in paragraph (a) of 40 C.F.R. §63.3522 (condition 5.1.10.) is a deviation from the emission limitations that must be reported as specified in 40 C.F.R. §63.3511(a)(5).
[40 C.F.R. § 63.3522(b); 45CSR34]

5.5.3. As part of each semiannual compliance report required by 40 C.F.R. §63.3511 (condition 3.5.10.), you must identify the coating operation(s) for which you used the compliant material option. If there were no deviations from the emission limitations set forth in 40 C.F.R. §63.3490 (condition 5.1.4.), submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because you used no coating for which the organic HAP content exceeded the applicable emission limit in 40 C.F.R. §63.3490, and you used no thinner that contained organic HAP, as determined according to 40 C.F.R. §63.3521(a).
[40 C.F.R. § 63.3522(c); 45CSR34]

5.6. Compliance Plan

5.6.1. Reserved.

6.0 Building No. 33 Thermal Incinerators TO-1 and TO-2 [emission point IDs: 33-1E, 33-6E]

6.1. Limitations and Standards

6.1.1. Emissions from emission point 33-1E (MEGTEC Cleanswitch® Regenerative Thermal Oxidizer (RTO) identified as TO-1) shall not exceed the following types and amounts of pollutants:

Pollutant	Pounds per Hour	Tons per Year
$PM/PM_{10}/PM_{2.5}$	0.03	0.13
NO_x	0.40	1.75
CO	0.34	1.47
VOC	8.20	35.92

Compliance with the PM limit in the table above ensures compliance with the less stringent limit required by 45CSR§6-4.1., which is 1,146 lbs/hr.

[45CSR13, R13-1458, 4.1.7.a.; 45CSR§6-4.1.]

6.1.2. The permittee shall maintain a minimum VOC destruction efficiency of 98% for the MEGTEC Cleanswitch® regenerative Thermal Oxidizer (RTO).
[45CSR13, R13-1458, 4.1.7.c]

6.1.3. The minimum operating temperature in the incinerator combustion chambers of both TO-1 and TO-2 shall be maintained as follows:

a. The minimum operating temperature in the combustion chamber of the RTO (TO-1) shall be maintained at 1600°F until the operating temperature can be established during the most recent performance testing that demonstrated compliance with the destruction efficiency requirement in condition 6.1.2. of this permit. Compliance with the minimum temperature requirement of this condition shall be based on a three-hour average.

b. The minimum operating temperature in the incinerator combustion chamber of TO-2 shall be maintained at 1400ºF.

[45CSR13, R13-1458, 4.1.7.d.; 45CSR13, R13-2111, A.1.; 40 C.F.R. §§ 63.3492(b), 63.3542(c), 63.3552(b); 45CSR34]

6.1.4. The Catalytic Products incinerator shall not use more than 1,258,320 ACF/hr (1.1×10^{10} ACF/yr) of natural gas, as determined by the monthly gas usage and monthly hours of operation.
[45CSR13, R13-2111, A.2.]

6.1.5. Emissions from the Catalytic Products incinerator, vented through emission point ID 33-6E, shall not exceed the following types and amounts of pollutants:

Pollutant	Pounds per Hour	Tons per Year
Carbon Monoxide	0.571	2.502
Nitrogen Oxides	0.680	2.978
Particulate Matter (PM)	0.175	0.767
Particulate Matter < 10 microns (PM_{10})	0.082	0.359
Sulfur Dioxide	0.004	0.018
Volatile Organic Compounds	2.378	10.416

[45CSR13, R13-2111, A.4.]

6.1.6. The permittee shall maintain a minimum VOC destruction efficiency of 99% for the Crabtree Series 1200 sheet coating line and associated oven with a 6.8 million BTU/hr, natural gas fired, Catalytic Products incinerator.
[45CSR13, R13-2111, A.5.]

6.1.7. The differential pressure across the permanent total enclosure (PTE) capture devices of C-1, C-2, C-3, and C-4 shall not be less than 0.007 inches of water relative to atmospheric pressure.
[40 C.F.R. §§ 63.3492(b), 63.3542(c), 63.3552(b); 45CSR34]

6.1.8. The permittee shall develop and implement a valve inspection plan that documents the steps taken to minimize the amount of leakage during the regenerative process. This plan can include, but is not limited to, routine inspection of key parameters of the valve operating system (e.g. solenoid valve operation, air pressure, hydraulic pressure); visual inspection of the valves during internal inspection; and/or actual testing of the emission stream for leakage. Such plan shall be developed and implemented within 60 days after startup of the RTO (TO-1).
[40 C.F.R. §§ 63.3546(c) and 63.3556(c); 45CSR34; 45CSR13, R13-1458, 4.1.7.g.] *(TO-1)*

6.1.9. This RTO (TO-1) shall be operated at all times when the any one of the sheet coaters (C-1, C-2, and C-3) is in operation.
[45CSR13, R13-1458, 4.1.7.h.]

6.1.10. The permittee shall install, operate and maintain a emissions capture system consisting of permanent total enclosures (PTEs) which meet the requirements of EPA Method 204. Said PTEs shall capture emissions from each of the sheet coaters (C-1, C-2, C-3) and route said emissions to TO-1. Such system shall be operated and maintained in accordance with 40 C.F.R. §63.3492.
[45CSR13, R13-1458, 4.1.8.]

6.1.11. **Operation and Maintenance of Air Pollution Control Equipment**. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment for the RTO (TO-1) and associated monitoring equipment in a manner consistent with safety and good air pollution control practices

for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11., R13-1458, 4.1.9.]

6.2. Monitoring Requirements

6.2.1. **Combustion Temperature in TO-1 and TO-2** – The permittee shall do the following:

a. The permittee shall install, calibrate, operate and maintain a device that continuously records the combustion temperature (limit set by permit condition 6.1.3.) of any effluent gases incinerated.
Compliance with the continuous temperature recording requirement of R13-2111 ensures compliance with the less stringent recording requirement of R13-1458.

[45CSR13, R13-2111, A.9.; R13-1458, 4.1.7.e.; 40 C.F.R. §§ 64.3(a)(1) and 64.6(c)(1)]

b. The permittee shall also record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in the incinerator remains more than 28 °C (50 °F) below the temperature set forth in permit condition 6.1.3.
[45CSR13, R13-2111, A.9.]

c. A period meeting the temperature and time criteria in 6.2.1.b. shall be deemed an excursion for purposes of 40 C.F.R. Part 64, thus initiating an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 3.4.9., 3.4.10., and 3.5.11.).
[**40 C.F.R. § 64.6(c)(2)]**

d. All records shall be retained on-site for a period of at least five (5) years and shall be made available to the Director or his duly authorized representative upon request.
[45CSR13, R13-2111, A.9.]

e. The monitoring device shall have an accuracy of ± 0.75 percent of the temperature being measured expressed in degrees Celsius, and shall be recalibrated as necessary in accordance with permit condition 3.2.9. Compliance with this device accuracy limit ensures compliance with less stringent limits in 40 C.F.R. Part 63 and R13-1458.
[**40 C.F.R. §§ 63.3547(c)(1), and (c)(3)(ii), and 63.3557(c)(1), and (c)(3)(ii); 45CSR34; 45CSR13, R13-2111, A.9.; and R13-1458, 4.1.7.e.]**

[40 C.F.R. §§ 64.3(a)(1), 64.3(a)(2), 64.3(a)(3)(i), 64.3(b)(3), 64.6(c)(1); 45CSR§30-5.1.c.]

6.2.2. **Differential Pressure in C-1, C-2, and C-3** – The permittee shall install, calibrate, maintain, and continuously operate a monitoring device for the continuous measurement of the pressure loss at the permanent total enclosures (PTEs) of C-1, C-2, and C-3, which directs emissions to thermal oxidizer TO-1. The pressure drop will be measured at the capture hood for coaters C-1, C-2, and C-3. An excursion shall be defined as recorded differential pressure readings less than the acceptable minimum pressure drop of 90% of the limit in permit condition 6.1.7. (which product is equal to 0.0063 inches of water column) for a period of time in excess of 30 minutes. Excursions initiate an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 3.4.9., 3.4.10., and 3.5.11.). The monitoring device accuracy is to be certified by the manufacturer and recalibrated as necessary in accordance with permit condition 6.3.4. The monitoring system shall continually sense the indicator and function in accordance with permit condition 3.2.6. This is Indicator 2 of 2 under the 40 C.F.R. Part 64 CAM plan.
[40 C.F.R. §§ 64.3(a), 64.3(b), 64.6(c)(1)(i), and 64.6(c)(2); 45CSR§30-5.1.c.]

6.2.3. **Differential Pressure in C-4**– The permittee shall install, calibrate, maintain, and continuously operate a monitoring device for the continuous measurement of the pressure loss at the permanent total enclosure (PTE) of C-4, which directs emissions to thermal oxidizer TO-2. The pressure drop will be measured at the capture hood for coater C-4. An excursion shall be defined as recorded differential pressure readings less than the acceptable minimum pressure drop of 90% of the limit in permit condition 6.1.7. (which product is equal to 0.0063 inches of water column) for a period of time in excess of 30 minutes. Excursions initiate an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 3.4.9., 3.4.10., and 3.5.11.). The monitoring device accuracy is to be certified by the manufacturer and recalibrated as necessary in accordance with permit condition 6.3.4. The monitoring system shall continually sense the indicator and function in accordance with permit condition 3.2.6. This is Indicator 2 of 2 under the 40 C.F.R. Part 64 CAM plan.
[40 C.F.R. §§ 64.3(a), 64.3(b), 64.6(c)(1)(i), and 64.6(c)(2); 45CSR§30-5.1.c.]

6.2.4. The permittee shall perform periodic visual verification of recorded data of the combustion chamber temperature of both thermal oxidizers TO-1 and TO-2 and the PTE pressures of C-1, C-2, C-3 and C-4. Periodic visual verification shall ensure proper recordkeeping by checking if there are any periods when data was not acquired or other problems in the monitoring and recording of data. Periodic visual verification shall be performed once per calendar month, and no later than six (6) weeks after the previous verification.
[40 C.F.R. §64.3(b)(2); 45CSR§30-5.1.c.]

6.2.5. At least weekly, visual emission checks of each emission point subject to an opacity limit shall be conducted. For the purpose of these checks, excess visible emissions are to include visible fugitive dust emissions that leave the plant site boundaries. These checks shall be conducted during periods of facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40 C.F.R. 60, Appendix A, Method 22. If sources of visible emissions are identified during the survey, or at any other time, the permittee shall conduct a 40 C.F.R. 60, Appendix A, Method 9 evaluation within twenty-four (24) hours. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions. A record of each visible emission check required above shall be maintained on site in accordance with condition 3.4.2. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR§30-5.1.c.]

6.2.6. For control device TO-1, the permittee shall monitor the following parameters and maintain records of such data in accordance with Condition 3.4.2. of this permit.

a. Monitor the temperature of the combustion chamber in 15 minute intervals; and

b. The data collected as required in item a. of this condition shall be used to determine the average for each successive 3-hour period of the temperature.

[45CSR13, R13-1458, 4.2.4.; 40 C.F.R. §§ 63.3547(a)(1) and (2), and §§ 63.3557(a)(1) and (2); 45CSR34]

6.2.7. The permittee shall monitor the bypass line pursuant to 40 C.F.R. §63.3547(b).
[45CSR13, R13-1458, 4.2.5.]

6.3. Testing Requirements

6.3.1. Compliance with Provisions 6.1.1. through 6.1.3. of this permit shall be determined in accordance with the performance test methodologies set forth under Subpart TT - "Standards of Performance for Metal Coil Surface Coating" under Part 60 to Title 40 of the Code of Federal Regulations, in particular, Paragraphs §60.463 and §60.466, except that VOC emissions do not have to be expressed in terms of mass of VOC per unit volume of coating solids. Specifically, the capture efficiency and destruction efficiency of the incinerators shall be calculated using 40 C.F.R. §60.463(c)(2).
[45CSR13, R13-1458, 4.2.1., and 45CSR§30-5.1.c.]

6.3.2. The owner or operator of the affected facility shall construct the VOC emission reduction system so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures of 40CFR60, Appendix A.
[45CSR13, R13-2111, B.2., and 45CSR§30-5.1.c.]

6.3.3. Tests to determine compliance with the emission limitations set forth in Specific Requirements 4.1.1. and 6.1.5. of this permit shall be conducted in accordance with the methods as set forth in 40 CFR 60, Appendix A. The Director may require a different test method or approve an alternative method in light of any technology advancements that may occur. Specifically, Reference Method 25 shall be used, both for measuring the VOC concentration in each gas stream entering and leaving the control device (incinerator) and for measuring the VOC concentration in each gas stream emitted directly to the atmosphere; Method 1 for sample and velocity traverses; Method 2 for velocity and volumetric flow rate; Method 3 for gas analysis; and Method 4 for stack gas moisture. For Method 25, the sampling time for each of three runs is to be at least 60 minutes, and the minimum sampling volume is to be at least 0.003 dry standard cubic meter (DSCM); however, shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the administrator.
[45CSR13, R13-2111, B.4.]

6.3.4. The permittee shall annually calibrate the pressure measuring devices used to monitor and record the pressure in the C-1, C-2, C-3, and C-4 PTEs. The calibration shall be performed within twelve (12) months of the date of the previous calibration, but no earlier than six (6) months from the date of the previous calibration. The pressure measuring devices shall have a minimum accuracy of 0.01 inches of water. This requirement does not prevent the permittee from calibrating if necessary on a more frequent basis as needed.
[40 C.F.R. §64.3(b)(3), and §64.6(c)(1)(iii); 45CSR§30-5.1.c.]

6.3.5. For the propose of determining initial compliance with the VOC emission limit in Condition 6.1.1., minimum destruction efficiency of Condition 6.1.2., and establishing parameters and/or operating ranges for the RTO (TO-1) and associated capture systems for Sheet Coaters C-1, C-2, and C-3, the permittee shall conduct performance testing after installing and calibrating the temperature and static pressure devices but no later than 180 days after start-up of the RTO. Such testing shall be conducted in accordance with the following:

a. The respective sheet coater shall be operated at a production rate of no less than 90 sheets per minute during each test run. The actual production rate during each test shall be recorded and included in the test report;

b. Demonstrating compliance with the parametric operating system requirements of 40 C.F.R. §63.3547.

c. Demonstrating the destruction efficiency (DE) of the RTO shall be conducted in accordance with test methods and procedures specified in 40 C.F.R. §§ 63.3543 and 63.3545;
[40 C.F.R. §63.3541(h); 45CSR34]

d. Establishing the operating temperature of the RTO shall be conducted by measuring and recording the temperature in the combustion chamber at least once every 15 minutes during each test run. Such collected data (measured temperatures) during the testing demonstration shall be used to calculate the average combustion temperature.
[40 C.F.R. §§ 63.3546(a)(1) and (a)(2); 45CSR34]

e. Such testing shall be conducted in accordance with Condition 3.3.1. of this permit.

[45CSR13, R13-1458, 4.3.1.]

6.3.6. For the purpose of demonstrating compliance with the visible emission limit of Conditions 3.1.17. and 3.1.18. of this permit, the permittee shall determine the visible emissions from RTO concurrently while conducting the required testing in Condition 6.3.5. Such testing shall be conducted in accordance with U.S. EPA Test Method 22 and Condition 3.3.1. of this permit. If visible emissions are observed during the aforementioned Method 22 testing, Method 9 testing shall be immediately implemented. Records of such testing shall be included in the submittal as required in Condition 3.5.10. and maintained in accordance with Condition 3.4.2. of this permit.
[45CSR§6-7.2; 45CSR13, R13-1458, 4.3.2.]

6.3.7. The permittee shall conduct the testing as required in Conditions 6.3.5. and 6.3.6. whenever the permittee elects to establish new operating limits for the capture system and/or the RTO or upon request of the Director or U.S. EPA Administrator, or once every ten years for the purpose of verifying the compliance.
[45CSR13, R13-1458, 4.3.3.]

6.4. Recordkeeping Requirements

6.4.1. The permittee shall maintain records required to show continuous compliance with the incinerator combustion chamber temperature (permit condition 6.1.3.) and the differential pressure across the permanent total enclosure capture device of coater C-1, C-2, and C-3 which lead to TO-1 and C-4, which leads to TO-2 (permit condition 6.1.7.). The permittee shall also record all periods (during actual coating operations) in excess of 30 minutes during which the average differential pressure in any PTE is less than the respective pressure limit set forth in permit condition 6.1.7.
[40 C.F.R. § 63.3512(j)(3); 45CSR34; 40 C.F.R. §64.6(c)(2); 45CSR§30-5.1.c.]

6.5. Reporting Requirements

6.5.1. The permittee shall monitor and report any emissions associated with a bypass line pursuant to 40 C.F.R. §63.3511(a).
[45CSR13, R13-1458, 4.5.2.] *(TO-1)*

6.6. Compliance Plan

6.6.1. Reserved.

7.0 Building No. 33 LTG-1 Coater and Oven, and Thermal Oxidizer, Control Device ID: 0003 [emission point ID: 33-7E]

7.1. Limitations and Standards

7.1.1. For an existing affected source, you must limit organic HAP emissions to the atmosphere to no more than the emission limit(s) in Table 2 to Subpart KKKK of Part 63 that apply to you during each 12-month compliance period, determined according to the requirements in 40 C.F.R. §63.3521, §63.3531, or 40 C.F.R. §63.3541; or if you control emissions with an emissions control system using the control efficiency/outlet concentration option as specified in 40 C.F.R. §63.3491(d), you must reduce organic HAP emissions to the atmosphere to no more than the limit(s) in Table 3 to Subpart KKKK of Part 63, determined according to the requirements of 40 C.F.R. §63.3551. If you perform surface coating in more than one subcategory or utilize more than one coating type within a subcategory, then you must meet the individual emission limit(s) for each subcategory and coating type included.

Table 2 to Subpart KKKK of Part 63 – Emission Limits for Existing Affected Sources

If you apply surface coatings to metal cans or metal can parts in this subcategory . . .	Then for all coatings of this type . . .	You must meet the following organic HAP emission limit in kg HAP/liter solids (lbs HAP/gal solids):[a,b]
Sheetcoating	Sheetcoating	0.03 (0.26).

[a]If you apply surface coatings of more than one type within any one subcategory you may calculate an OSEL according to §63.3531(i).
[b]Rounding differences in specific emission limits are attributable to unit conversions.

Table 3 to Subpart KKKK of Part 63 – Emission Limits for Affected Sources Using the Control Efficiency/Outlet Concentration Compliance Options

If you use the control efficiency/outlet concentration option to comply with the emission limitations for any coating operation(s) . . .	Then you must comply with one of the following by using an emissions control system to . . .
in an existing affected source	a. reduce emissions of total HAP, measured as THC (as carbon),[a] by 95 percent; or b. limit emissions of total HAP, measured as THC (as carbon),[a]to 20 ppmvd at the control device outlet and use a PTE.

[a]You may choose to subtract methane from THC as carbon measurements.

[40 C.F.R. §§ 63.3490(b) and 63.3500(a)(2)(i); 45CSR34]

7.1.2. The permanent total enclosure (PTE) for sheet coating line LTG1 shall have capture efficiency of 100% and shall meet the criteria given for PTEs in U.S. EPA Method 204 of 40 C.F.R. Part 51, Appendix M.

The capture efficiency of your emission capture system must be 100 percent to use the control efficiency/outlet concentration option. You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a) and (b) of this condition are met.

(a) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(b) All coatings and thinners used in the coating operation are applied within the capture system, and coating solvent flash-off, curing, and drying occurs within the capture system. This criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

[45CSR13, R13-2295, 4.1.4.1.; 40 C.F.R. § 63.3554; 45CSR34]

7.1.3. The operating temperature in the Integrated Thermal Oxidizers' combustion chamber shall be maintained at a minimum of 1,400°F (760°C) initially, and then after the initial performance test at a minimum temperature as established by 40 CFR §63.3556(a).
[45CSR13, R13-2295, 4.1.8.; 40 C.F.R. § 63.3492(b); 45CSR34]

7.1.4. At all times, the direction of the air flow shall be into the PTE for sheet coating line LTG1 and the six (6) new PTEs listed in permit condition 8.1.5., and the pressure drop across each of the seven (7) enclosures shall be at least 0.007 inch H_2O, as established in U.S. EPA Method 204 of 40 C.F.R. Part 51, Appendix M.
[45CSR13, R13-2295, 4.1.5.; 40 C.F.R. §§ 63.3491(d), 63.3492(b), and 63.3500(a)(2)(ii); 45CSR34]

7.1.5. Emissions from the new coating line LTG-1 shall not exceed the following:

Source Description	VOC	
	lb/hr	tpy
LTG-1	6.91	30.26

[45CSR13, R13-2295, 4.1.10.]

7.1.6. Old coating line LTG2, first permitted in R13-2295 (approved June 2, 1999), was never installed. Therefore, permission to install that line is hereby revoked.
[45CSR13, R13-2295, 4.1.1.]

7.1.7. The integrated thermal oxidizer for the new sheet coating line LTG-1 shall reduce emissions of total HAPs, measured as THC (as carbon) by at least 97%.
[45CSR13, R13-2295, 4.1.3.]

7.1.8. **40 C.F.R. 63 Subpart KKKK Compliance Options.** You must include all coatings and thinners used in all surface coating operations within a subcategory or coating type segment when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in 40 C.F.R. §63.3490. To make that determination, you must use at least one of the three compliance options listed in paragraphs a. through c. of this condition. You may apply any of the compliance options to an individual coating operation or to multiple coating operations within a subcategory or coating type segment as a group. You may use different compliance options for different coating operations or at different times on the same coating operation. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document that switch as required by 40 C.F.R. §63.3512(c), and you must report it in the next semiannual compliance report required in 40 C.F.R. §63.3511.

a. *Compliant material option*. Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in 40 C.F.R. §63.3490 (permit condition 7.1.1.), and that each thinner used contains no organic HAP. You must meet all the requirements of 40 C.F.R. §§63.3520, 63.3521, and 63.3522 to demonstrate compliance with the emission limit using this option.

b. *Emission rate with add-on controls option*. Demonstrate that, based on the coatings and thinners used in the coating operation(s) and the emission reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in 40 C.F.R. §63.3490 (permit condition 7.1.1.), calculated as a rolling 12-month emission rate and determined on a monthly basis. If you use this compliance option, you must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) used for purposes of complying with 40 C.F.R. 63 Subpart KKKK meet the operating limits required in 40 C.F.R. §63.3492 (permit conditions 7.1.2., 7.1.3., and 7.1.4.), except for solvent recovery systems for which you conduct liquid-liquid material balances according to 40 C.F.R. §63.3541(i), and that you meet the work practice standards required in 40 C.F.R. §63.3493 (permit condition 3.1.12.). You must meet all the requirements of 40 C.F.R. §§63.3540 through 63.3547 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

c. *Control efficiency/outlet concentration option*. Demonstrate that, based on the emission reductions achieved by emission capture systems and add-on controls, total HAP emissions measured as total hydrocarbon (THC) are reduced by 95 percent or greater for existing sources, or that outlet THC emissions are less than or equal to 20 parts per million by volume, dry basis (ppmvd). If you use this compliance option, you must have a capture device that meets EPA Method 204 of 40 CFR part 51, Appendix M criteria for a permanent total enclosure (PTE). You must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) used for purposes of complying with 40 C.F.R. 63 Subpart KKKK meet the operating limits required in 40 C.F.R. §63.3492 (permit conditions 7.1.2., 7.1.3. and 7.1.4.), and that you meet the work practice standards required in 40 C.F.R. §63.3493 (permit condition 3.1.12.). You must meet all the requirements of 40 C.F.R. §§63.3550 through 63.3557 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

Note: The permittee is using the *Control efficiency/outlet concentration option* in 40 C.F.R. §63.3491(d) as of the issuance date of this renewal operating permit.

[40 C.F.R. §§ 63.3491(a), (c), and (d); 45CSR34]

7.1.9. **Demonstrating continuous compliance with the 40 C.F.R. 63 Subpart KKKK emission limitation**. To demonstrate continuous compliance with the emission limitations using the control efficiency/outlet concentration option, the organic HAP emission rate for each compliance period must be equal to or less than 20 ppmvd or must be reduced by the amounts specified in 40 C.F.R. §63.3490 (condition 7.1.1.). A compliance period consists of 12 months. Each month after the end of the initial compliance period described in 40 C.F.R. §63.3550 is the end of a compliance period consisting of that month and the preceding 11 months.
[40 C.F.R. § 63.3552(a); 45CSR34]

7.1.10. *Capture system bypass line.* You must meet the requirements of paragraph (1) or (2) of this condition for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. The flow indicator shall be installed at the entrance to any bypass line.
(2) Secure the bypass line valve in the nondiverting position with a car-seal or lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once

every month to ensure the valve is maintained in the nondiverting position, and the vent stream is not diverted through the bypass line.

[40 C.F.R. § 63.3557(b); 45CSR34]

7.2. Monitoring Requirements

7.2.1. **Combustion Chamber Temperature in the Integrated Thermal Oxidizers (Control Device ID: 0003).** To determine compliance with the minimum temperature within the LTG-1 integrated oxidizer combustion chamber set forth in permit condition 7.1.3., the permittee shall install, calibrate, operate and maintain a device that continuously records the combustion temperature of any effluent gases incinerated. This device shall have an accuracy as set forth in condition 3.2.9. The permittee shall also record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in the incinerator remains more than 28°C (50°F) below the temperature set forth in permit condition 7.1.3. A period of time meeting these aforementioned temperature and time criteria shall be deemed an excursion for purposes of 40 C.F.R. Part 64, thus initiating an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 3.4.9., 3.4.10., and 3.5.11.). This is Indicator 1 of 2 under the 40 C.F.R. Part 64 CAM plan for the LTG-1 coater and thermal oxidizer 0003.
[40 C.F.R. §§ 64.3(a)(1), 64.3(a)(2), 64.3(a)(3)(i), 64.3(b)(3), 64.6(c)(1), and 64.6(c)(2); 45CSR§30-5.1.c.; 40 C.F.R. §§ 63.3500(a)(2)(ii), 63.3540(b)(1), 63.3541(b), 63.3542(c), 63.3546(a), 63.3550(b)(1), 63.3551(b), 63.3552(b), 63.3556(a); 45CSR34]

7.2.2. **Air Flow Direction and Differential Pressure across PTE** – The permittee shall collect (*i.e.*, monitor) at all times the direction of air flow into the PTE; and shall install, calibrate, maintain, and continuously operate a monitoring device for the continuous measurement of the pressure loss at the permanent total enclosure (PTE) for the LTG-1 coater, which directs emissions to thermal oxidizer 0003. The pressure drop will be measured inside the permanent total enclosure. For the purposes of 40 C.F.R. Part 64, an excursion shall be defined as recorded differential pressure readings less than the acceptable minimum pressure drop of 90% of the limit in permit condition 7.1.4. (which product is equal to 0.0063 inches of water column) for a period of time in excess of 30 minutes. Excursions initiate an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 3.4.9., 3.4.10., and 3.5.11.). The monitoring device accuracy is to be certified by the manufacturer and recalibrated as necessary in accordance with permit condition 7.3.3. The monitoring system shall continually sense the indicator and function in accordance with permit condition 3.2.6. This is Indicator 2 of 2 under the 40 C.F.R. Part 64 CAM plan for the LTG-1 coater and thermal oxidizers 0003.

[40 C.F.R. §§ 64.3(a)(1), 64.3(a)(2), 64.3(a)(3)(i), 64.3(b)(3), 64.6(c)(1), and 64.6(c)(2); 45CSR§30-5.1.c.; 40 C.F.R. §§ 63.3500(a)(2)(ii), 63.3540(b)(1), 63.3541(b), 63.3542(c), 63.3550(b)(1), 63.3551(b), 63.3552(b); 45CSR34]

7.3. Testing Requirements

7.3.1. To determine compliance with the emission limits set forth in permit condition 7.1.5., the criteria for permanent total enclosure pursuant to permit condition 7.1.2. must be satisfied, and records kept pursuant to permit condition 7.4.1., or equivalent shall be used. Or, as required by the Director, the permittee shall perform stack tests, at maximum production capacity, in accordance with the appropriate test outlined in 40 CFR 60 APPENDIX A – TEST METHODS, or alternate method approved by the Director. These tests shall be performed upon request by the Director or a duly authorized representative of the Director. The annual emission rate shall be determined by multiplying the results of the stack test (in pounds/hour) by the

hours of operation as reported under permit condition 7.4.1. More specifically, Reference Method 25 shall be used, both for measuring the VOC concentration in each gas stream entering and leaving the control device (incinerators) and for measuring the VOC concentration in each gas stream emitted directly to the atmosphere. Method 1 shall be used for sample and velocity traverses; Method 2 for velocity and volumetric flow rate; Method 3 for gas analysis; Method 4 for stack gas moisture; Method 5 for particulate matter; and Method 6 for sulfur dioxide. For Method 25, the sampling time for each of three runs is to be at least 60 minutes, and the minimum sampling volume is to be at least 0.003 dry standard cubic meters (DSCM). However, shorter sampling times or small volumes, when necessitated by process variables or other factors, may be approved by the Administrator.
[45CSR13, R13-2295, B.6.; 45CSR§30-5.1.c.]

7.3.2. **Calibration of Temperature Measuring Device.** The permittee shall annually calibrate the temperature measuring devices (thermocouple) used to monitor and record the combustion chamber temperature of the integrated thermal oxidizer (Control Device ID 0003, Emission Point ID 33-7E). The calibration shall be performed within twelve (12) months of the date of the previous calibration, but no earlier than six (6) months from the date of the previous calibration. This requirement does not prevent the permittee from calibrating if necessary on a more frequent basis as needed.
[40 C.F.R. §§ 64.3(b)(3), and 64.6(c)(1)(iii)]

7.3.3. **Calibration of Pressure Measuring Device.** The permittee shall annually calibrate the pressure measuring devices used to monitor and record the differential pressure across the PTE leading to the thermal oxidizer 0003. The calibration shall be performed within twelve (12) months of the date of the previous calibration, but no earlier than six (6) months from the date of the previous calibration. The pressure measuring devices shall have a minimum accuracy sufficient to demonstrate compliance with applicable pressure limits (permit conditions 7.1.4., 7.2.2.). This requirement does not prevent the permittee from calibrating if necessary on a more frequent basis as needed.
[40 C.F.R. §§ 64.3(b)(3), and 64.6(c)(1)(iii)]

7.4. Recordkeeping Requirements

7.4.1. For the sheet coating line LTG-1, the following records shall be maintained on-site for a period of 5 years and upon the request of the Secretary shall be certified by the plant manager or corporate officer and copies of these certified records shall be sent to the Secretary no later than fifteen (15) days following the Secretary's request:

(a) The monthly usage of each Coating, Varnish, Thinner, Solvent, Fountain Solution, and the VOC Content of each.

(b) The hours of operation of the LTG-1 coating line during each month.

(c) Tons per month of VOC emitted from the LTG-1 coating line.

(d) Average pounds per hour of VOCs emitted from the LTG-1 coating line.

[45CSR13, R13-2295, 4.4.4.]

7.4.2. The permittee shall maintain records required to show continuous compliance with the combustion chamber temperature (permit condition 7.1.3.) of the thermal oxidizer (Control Device ID 0003), and the

differential pressure (permit condition 7.1.4.) across the permanent total enclosure (PTE) capture device of the LTG-1 coater.
[40 C.F.R. § 63.3512(j)(3); 45CSR34; 40 C.F.R. §64.6(c)(2); 45CSR§30-5.1.c.]

7.4.3. Refer to permit condition 3.4.8. and 3.4.4. for recordkeeping requirements to demonstrate compliance with permit condition 7.1.1.

7.4.4. Refer to permit condition 3.4.10. for recordkeeping requirements pursuant to 40 C.F.R. Part 64.

7.5. Reporting Requirements

7.5.1. You must meet the requirements for bypass lines in 40 C.F.R. §63.3557(b) (condition 7.1.10.). If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in 40 C.F.R. §§63.3510(b)(6) and 63.3511(a)(7). For purposes of demonstrating compliance, you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation.
[40 C.F.R. § 63.3552(c); 45CSR34]

7.5.2. As part of each semiannual compliance report required in 40 C.F.R. §63.3511 (condition 3.5.10.), you must identify the coating operation(s) for which you used the control efficiency/outlet concentration option. If there were no deviations from the operating limits or work practice standards, submit a statement that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than 20 ppmvd or was reduced by the amount specified in 40 C.F.R. §63.3490 (condition 7.1.1.), and you achieved the operating limits required by 40 C.F.R. §63.3492 (conditions 7.1.3., 7.1.4.) and the work practice standards required by 40 C.F.R.§63.3493 (condition 3.1.12.) during each compliance period.
[40 C.F.R. § 63.3552(e); 45CSR34]

7.5.3. Refer to permit condition 3.5.10. for reporting requirements for 40 C.F.R. 63 Subpart KKKK.

7.5.4. Refer to permit condition 3.5.11 for general reporting requirements for 40 C.F.R. Part 64 CAM.

7.6. Compliance Plan

7.6.1. Reserved.

8.0 Building No. 720 Sheet Coaters C-5, C-6, C-7, C-8, C-9, and C-10 [emission point ID: 720-1E]

8.1. Limitations and Standards

8.1.1. The operating temperature in the Regenerative Thermal Oxidizers' (RTO's) combustion chamber shall be maintained at a minimum of 1,450°F (815°C) initially, and thereafter at a minimum temperature as established by 40 CFR §63.3556(a).
[45CSR13, R13-2295, 4.1.13.; 40 C.F.R. §§ 63.3492(b), 63.3500(a)(2)(ii), 63.3546(a), 63.3556(a); 45CSR34] (Control Device ID: 0001)

8.1.2. At all times, the direction of the air flow shall be into the PTE for the six (6) new PTEs listed below in Table 8.1.5. of condition 8.1.5., and the pressure drop across each of the six (6) enclosures shall be at least 0.007 inch H_2O, as established in Method 204 of 40 CFR part 51, appendix M.
[40 C.F.R. §§ 63.3492(b), and 63.3500(a)(2)(ii); 45CSR34; 45CSR13, R13-2295, 4.1.5.]

8.1.3. For an existing affected source, you must limit organic HAP emissions to the atmosphere to no more than the emission limit(s) in Table 2 to Subpart KKKK of Part 63 that apply to you during each 12-month compliance period, determined according to the requirements in 40 C.F.R. §63.3521, §63.3531, or 40 C.F.R. §63.3541; or if you control emissions with an emissions control system using the control efficiency/outlet concentration option as specified in 40 C.F.R. §63.3491(d), you must reduce organic HAP emissions to the atmosphere to no more than the limit(s) in Table 3 to Subpart KKKK of Part 63, determined according to the requirements of 40 C.F.R. §63.3551. If you perform surface coating in more than one subcategory or utilize more than one coating type within a subcategory, then you must meet the individual emission limit(s) for each subcategory and coating type included.

Table 2 to Subpart KKKK of Part 63 – Emission Limits for Existing Affected Sources

If you apply surface coatings to metal cans or metal can parts in this subcategory . . .	Then for all coatings of this type . . .	You must meet the following organic HAP emission limit in kg HAP/liter solids (lbs HAP/gal solids):[a,b]
Sheetcoating	Sheetcoating	0.03 (0.26).

[a]If you apply surface coatings of more than one type within any one subcategory you may calculate an OSEL according to §63.3531(i).
[b]Rounding differences in specific emission limits are attributable to unit conversions.

Table 3 to Subpart KKKK of Part 63 – Emission Limits for Affected Sources Using the Control Efficiency/Outlet Concentration Compliance Options

If you use the control efficiency/outlet concentration option to comply with the emission limitations for any coating operation(s) . . .	Then you must comply with one of the following by using an emissions control system to . . .
in an existing affected source	a. reduce emissions of total HAP, measured as THC (as carbon),[a]by 95 percent; or b. limit emissions of total HAP, measured as THC (as carbon),[a]to 20 ppmvd at the control device outlet and use a PTE.

[a]You may choose to subtract methane from THC as carbon measurements.

The Regenerative Thermal Oxidizers (RTO's) shall reduce emissions of total HAPs, measured as THC (as carbon) by 95%.

[40 C.F.R. §§ 63.3490(b) and 63.3500(a)(2)(i); 45CSR34; 45CSR13, R13-2295, 4.1.12.]

8.1.4. The maximum allowable particulate emissions for the Regenerative Thermal Oxidizers (controlling the emissions from the coaters and presses, which are grandfathered) are 1.4 pounds per hour per RTO. **[45CSR§6-4.1.]**

8.1.5. For the sheet coating lines listed below in Table 8.1.5., the shared large room PTE shall be dismantled and six (6) close-fitting individual PTEs shall be constructed. Each new PTE shall be individually evaluated for 100% capture efficiency as detailed in Method 204 of 40 CFR part 51, appendix M.

Table 8.1.5. - Sheet Coating Lines with New Close-fitting Individual PTEs (100% Capture Efficiency)

Emission Unit ID	Emission Point ID	Emission Unit Description	Designated in Permit Application R13-2295D and Ball Internally as:
001-01 Coater C-1	720-1E	No. C-1 Wagner Sheet Coater	C-5
001-03 Coater C-2	720-1E	No. C-2 Wagner Sheet Coater	C-6
001-05 Coater C-3	720-1E	No. C-3 Wagner Sheet Coater	C-7
001-07 Coater C-4	720-1E	No. C-4 Wagner Sheet Coater	C-8
001-09 Coater C-5	720-1E	No. C-5 Wagner Sheet Coater	C-9
001-11 Coater C-6	720-1E	No. C-6 Wagner Sheet Coater	C-10

[45CSR13, R13-2295, 4.1.4.2.; 40 C.F.R. §63.3491(d); 45CSR34]

8.1.6. **40 C.F.R. 63 Subpart KKKK Compliance Options.** You must include all coatings and thinners used in all surface coating operations within a subcategory or coating type segment when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in 40 C.F.R. §63.3490 (condition 8.1.3.). To make that determination, you must use at least one of the three compliance options listed in paragraphs a. through c. of this condition. You may apply any of the compliance options to an individual coating operation or to multiple coating operations within a subcategory or coating type segment as a group. You may use different compliance options for different coating operations or at different times on the same coating operation. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document that switch as required by 40 C.F.R. §63.3512(c), and you must report it in the next semiannual compliance report required in 40 C.F.R. §63.3511.

a. *Compliant material option*. Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in 40 C.F.R. §63.3490 (permit condition 8.1.3.), and that each thinner used contains no organic HAP. You must meet all the requirements of 40 C.F.R. §§63.3520, 63.3521, and 63.3522 to demonstrate compliance with the emission limit using this option.

b. *Emission rate with add-on controls option*. Demonstrate that, based on the coatings and thinners used in the coating operation(s) and the emission reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in 40 C.F.R. §63.3490 (permit condition 8.1.3.), calculated as a rolling 12-month emission rate and determined on a monthly basis. If you use this compliance option, you must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) used for purposes of complying with 40 C.F.R. 63 Subpart KKKK meet the operating limits required in 40 C.F.R. §63.3492 (permit conditions 8.1.1., 8.1.2.), except for solvent recovery systems for which you conduct liquid-liquid material balances according to 40 C.F.R. §63.3541(i), and that you meet the work practice standards required in 40 C.F.R. §63.3493 (permit condition 3.1.12.). You must meet all the requirements of 40 C.F.R. §§63.3540 through 63.3547 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

c. *Control efficiency/outlet concentration option*. Demonstrate that, based on the emission reductions achieved by emission capture systems and add-on controls, total HAP emissions measured as total hydrocarbon (THC) are reduced by 95 percent or greater for existing sources, or that outlet THC emissions are less than or equal to 20 parts per million by volume, dry basis (ppmvd). If you use this compliance option, you must have a capture device that meets EPA Method 204 of 40 CFR part 51, Appendix M criteria for a permanent total enclosure (PTE). You must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) used for purposes of complying with 40 C.F.R. 63 Subpart KKKK meet the operating limits required in 40 C.F.R. §63.3492 (permit conditions 8.1.1., 8.1.2.), and that you meet the work practice standards required in 40 C.F.R. §63.3493 (permit condition 3.1.12.). You must meet all the requirements of 40 C.F.R. §§63.3550 through 63.3557 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

Note: The permittee is using the *Control efficiency/outlet concentration option* in 40 C.F.R. §63.3491(d) as of the issuance date of this renewal operating permit.

[40 C.F.R. §§ 63.3491(a), (c), and (d); 45CSR34]

8.1.7. **Demonstrating continuous compliance with the 40 C.F.R. 63 Subpart KKKK emission limitation**. To demonstrate continuous compliance with the emission limitations using the control efficiency/outlet concentration option, the organic HAP emission rate for each compliance period must be equal to or less than 20 ppmvd or must be reduced by the amounts specified in 40 C.F.R. §63.3490 (condition 8.1.3.). A compliance period consists of 12 months. Each month after the end of the initial compliance period described in 40 C.F.R. §63.3550 is the end of a compliance period consisting of that month and the preceding 11 months.
[40 C.F.R. § 63.3552(a); 45CSR34]

8.1.8. The capture efficiency of your emission capture system must be 100 percent to use the control efficiency/outlet concentration option. You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a) and (b) of this condition are met.

(a) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(b) All coatings and thinners used in the coating operation are applied within the capture system, and coating solvent flash-off, curing, and drying occurs within the capture system. This criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

[40 C.F.R. § 63.3554; 45CSR34]

8.1.9. *Capture system bypass line.* You must meet the requirements of paragraph (1) or (2) of this condition for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. The flow indicator shall be installed at the entrance to any bypass line.
(2) Secure the bypass line valve in the nondiverting position with a car-seal or lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the nondiverting position, and the vent stream is not diverted through the bypass line.

[40 C.F.R. § 63.3557(b); 45CSR34]

8.2. Monitoring Requirements

8.2.1. **Combustion Chamber Temperature in RTO (Control Device ID: 0001).** To determine compliance with the minimum temperature within the Regenerative Thermal Oxidizers (Control Device ID 0001) combustion chamber set forth in permit condition 8.1.1., the permittee shall install, calibrate, operate and maintain a device that continuously records the combustion temperature of any effluent gases incinerated. This device shall have an accuracy as set forth in condition 3.2.9. The permittee shall also record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in the incinerator remains more than 28°C (50°F) below the temperature set forth in permit condition 8.1.1. A period of time meeting these aforementioned temperature and time criteria shall be deemed an excursion for purposes of 40 C.F.R. Part 64, thus initiating an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 3.4.9., 3.4.10., and 3.5.11.). This is Indicator 1 of 2 under the 40 C.F.R. Part 64 CAM plan for the coaters and regenerative thermal oxidizer. This is also Indicator 1 of 2 under the 40 C.F.R. Part 64 CAM plan for the coaters (Em. Unit IDs 003-03, 003-05, 003-07, 003-09) in Section 10.0. of this permit.
[40 C.F.R. §§ 64.3(a)(1), 64.3(a)(2), 64.3(a)(3)(i), 64.3(b)(3), 64.6(c)(1), and 64.6(c)(2); 45CSR§30-5.1.c.; 40 C.F.R. §§63.3492(b), 63.3500(a)(2)(ii), 63.3541(b), 63.3542(c), 63.3551(b), 63.3552(b); 45CSR34]

8.2.2. **Differential Pressure across PTEs** – The permittee shall install, calibrate, maintain, and continuously operate a monitoring device for the continuous measurement of the pressure loss at the permanent total enclosures (PTEs) for the coaters (Em. Unit IDs 001-01, 001-03, 001-05, 001-07, 001-09, 001-11), which directs emissions to thermal oxidizer 0001. The pressure drop will be measured inside the permanent total enclosures. An excursion shall be defined as recorded differential pressure readings less than the acceptable minimum pressure drop of 90% of the limit in permit condition 8.1.2. (which product is equal to 0.0063 inches of water column) for a period of time in excess of 30 minutes. Excursions initiate an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 3.4.9., 3.4.10., and 3.5.11.). The monitoring device accuracy is to be certified by the manufacturer and recalibrated as necessary in accordance with permit condition 8.3.2. The monitoring system shall continually sense the indicator and function in accordance with permit condition 3.2.6. This is Indicator 2 of 2 under the 40

C.F.R. Part 64 CAM plan for the coaters (Em. Unit IDs 001-01, 001-03, 001-05, 001-07, 001-09, 001-11) and thermal oxidizer (Control Device ID 0001).
[40 C.F.R. §§ 64.3(a)(1), 64.3(a)(2), 64.3(a)(3)(i), 64.3(b)(3), 64.6(c)(1), and 64.6(c)(2); 45CSR§30-5.1.c.; 40 C.F.R. §§ 63.3492(b), 63.3500(a)(2)(ii), 63.3541(b), 63.3542(c), 63.3551(b), 63.3552(b); 45CSR34]

8.2.3. **Valve Inspection Plan for Regenerative Thermal Oxidizers.** The permittee must develop, implement, and submit a valve inspection plan for the regenerative thermal oxidizers (Control Device ID 0001) that documents the steps taken to minimize the amount of leakage during the regenerative process. This plan can include, but is not limited to, routine inspection of key parameters of the valve operating system (*e.g.*, solenoid valve operation, air pressure, hydraulic pressure); visual inspection of the valves during internal inspections; and/or actual testing of the emission stream for leakage. If a problem is discovered during an inspection, the permittee must take corrective action as soon as practicable.
[40 C.F.R. § 63.3492(b), Table 4, Row #3; 40 C.F.R. §§ 63.3546(c)(2) and 63.3556(c)(2); 45CSR34]

8.3. Testing Requirements

8.3.1. **Calibration of Temperature Measuring Device.** The permittee shall annually calibrate the temperature measuring devices (thermocouple) used to monitor and record the combustion chamber temperature of the regenerative thermal oxidizers (Control Device ID 0001, Emission Point ID 720-1E). The calibration shall be performed within twelve (12) months of the date of the previous calibration, but no earlier than six (6) months from the date of the previous calibration. This requirement does not prevent the permittee from calibrating if necessary on a more frequent basis as needed.
[40 C.F.R. §§ 64.3(b)(3) and 64.6(c)(1)(iii); 45CSR§30-5.1.c.]

8.3.2. **Calibration of Pressure Measuring Device.** The permittee shall annually calibrate the pressure measuring devices used to monitor and record the differential pressure across the PTE leading to the thermal oxidizers 0001. The calibration shall be performed within twelve (12) months of the date of the previous calibration, but no earlier than six (6) months from the date of the previous calibration. The pressure measuring devices shall have a minimum accuracy sufficient to demonstrate compliance with applicable pressure limits (permit conditions 8.1.2., and 8.2.2.). This requirement does not prevent the permittee from calibrating if necessary on a more frequent basis as needed.
[40 C.F.R. §§ 64.3(b)(3) and 64.6(c)(1)(iii); 45CSR§30-5.1.c.]

8.4. Recordkeeping Requirements

8.4.1. The permittee shall maintain records required to show continuous compliance with the combustion chamber temperature (permit condition 8.1.1.) of the regenerative thermal oxidizers (Control Device ID 0001), and the differential pressure (permit condition 8.1.2.) across the permanent total enclosure (PTE) capture device of the coaters.
[40 C.F.R. §63.3512(j)(3); 45CSR34; 40 C.F.R. §64.6(c)(2); 45CSR§30-5.1.c.]

8.4.2. Refer to permit condition 3.4.8. for recordkeeping requirements to demonstrate compliance with permit condition 8.1.3.

8.4.3. Refer to permit condition 3.4.10. for recordkeeping requirements pursuant to 40 C.F.R. Part 64.

8.5. Reporting Requirements

8.5.1. Refer to permit condition 3.5.10. for reporting requirements for 40 C.F.R. 63 Subpart KKKK.

8.5.2. Refer to permit condition 3.5.11 for general reporting requirements for 40 C.F.R. Part 64 CAM.

8.6. Compliance Plan

8.6.1. **Compliance Plan for Coater C-7 (Em. Unit ID# 001-05).**

a. The coater is not operating at the date of issuance of this renewal permit, and the permittee has no immediate plan to operate the coater.

b. The coater shall not be operated until a Method 204 Permanent Total Enclosure (PTE) has been installed on the coater and Method 204 PTE verification testing successfully completed in accordance with condition 8.1.5. of this permit.

c. The permittee shall notify the Director:
   i. Within ten (10) days of commencing construction of the PTE for the coater;
   ii. Within ten (10) days of completing construction of the PTE for the coater;
   iii. At least fifteen (15) days before scheduled PTE verification testing for the coater (so that DAQ may at its option witness the testing).

d. The permittee shall submit a copy of the PTE verification test report to the Director within 60 days of completing testing.

e. After successful completion of PTE verification testing, the coater shall be in compliance with all applicable requirements upon startup of coating operations.

f. The permittee shall have appended to this permit a copy of the PTE verification test report as part of the next Title V permit modification or renewal, whichever permitting action occurs first.

[45CSR§§30-4.3.h. and 12.7.]

9.0 Building No. 720 Planeta Press PC-8 [emission point ID: 720-3E]

9.1. Limitations and Standards

9.1.1. For an existing affected source, you must limit organic HAP emissions to the atmosphere to no more than the emission limit(s) in Table 2 to Subpart KKKK of Part 63 that apply to you during each 12-month compliance period, determined according to the requirements in 40 C.F.R. §63.3521 or §63.3531. If you perform surface coating in more than one subcategory or utilize more than one coating type within a subcategory, then you must meet the individual emission limit(s) for each subcategory and coating type included.

Table 2 to Subpart KKKK of Part 63 – Emission Limits for Existing Affected Sources

If you apply surface coatings to metal cans or metal can parts in this subcategory . . .	Then for all coatings of this type . . .	You must meet the following organic HAP emission limit in kg HAP/liter solids (lbs HAP/gal solids):[a,b]
Sheetcoating	Sheetcoating	0.03 (0.26).

[a]If you apply surface coatings of more than one type within any one subcategory you may calculate an OSEL according to §63.3531(i).
[b]Rounding differences in specific emission limits are attributable to unit conversions.

[40 C.F.R. §§ 63.3490(b) and 63.3500(a)(1); 45CSR34]

9.1.2. Emissions from the Planeta Press (PC8) shall not exceed the following:

Source Description	VOC	
	lb/hr	tpy
Planeta Press (PC-8)	0.32	1.35

[45CSR13, R13-2295, 4.1.10.]

9.1.3. **40 C.F.R. 63 Subpart KKKK Compliance Options.** You must include all coatings and thinners used in all surface coating operations within a subcategory or coating type segment when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in 40 C.F.R. §63.3490. To make that determination, you must use at least one of the four compliance options listed in paragraphs a. and b. of this condition. You may apply any of the compliance options to an individual coating operation or to multiple coating operations within a subcategory or coating type segment as a group. You may use different compliance options for different coating operations or at different times on the same coating operation. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document that switch as required by 40 C.F.R. §63.3512(c), and you must report it in the next semiannual compliance report required in 40 C.F.R. §63.3511.

a. *Compliant material option*. Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in 40 C.F.R. §63.3490 (permit condition 9.1.1.), and that each thinner used contains no organic HAP. You must meet all the requirements of 40 C.F.R. §§63.3520, 63.3521, and 63.3522 to demonstrate compliance with the emission limit using this option.

b. *Emission rate without add-on controls option*. Demonstrate that, based on the coatings and thinners used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in 40 C.F.R. §63.3490 (permit condition 9.1.1.), calculated as a rolling 12-month emission rate and determined on a monthly basis. You must meet all the requirements of §§63.3530, 63.3531, and 63.3532 to demonstrate compliance with the emission limit using this option.

Note: The permittee is using the *Emission rate without add-on controls option* in 40 C.F.R. §63.3491(b) as of the issuance date of this renewal operating permit.

[40 C.F.R. §§ 63.3491(a) and (b); 45CSR34]

9.1.4. **Demonstrating continuous compliance with the 40 C.F.R. 63 Subpart KKKK emission limitation**. To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according to 40 C.F.R. §§63.3531(a) through (g), must be less than or equal to the applicable emission limit in 40 C.F.R. §63.3490. Alternatively, if you calculate an OSEL for all coating type segments within a subcategory according to 40 C.F.R. §63.3531(i), the organic HAP emission rate for the subcategory for each compliance period must be less than or equal to the calculated OSEL. You must use the calculated OSEL throughout each compliance period. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in 40 C.F.R. §63.3530 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in 40 C.F.R. §§63.3531(a) through (g) on a monthly basis using data from the previous 12 months of operation.
[40 C.F.R. § 63.3532(a); 45CSR34]

9.2. Monitoring Requirements

9.2.1. Reserved.

9.3. Testing Requirements

9.3.1. Reserved.

9.4. Recordkeeping Requirements

9.4.1. For the Planeta UV coating line [PC-8 (#006)], the following records shall be maintained on-site for a period of 5 years and upon the request of the Secretary shall be certified by the plant manager or corporate officer and copies of these certified records shall be sent to the Secretary no later than fifteen (15) days following the Secretary's request:

(a) The monthly usage of each Coating, Varnish, Thinner, Solvent, etc., and the VOC Content of each.

(b) The hours of operation of the Planeta Press during each month.

(c) Tons per month of VOC emitted from the Planeta Press.

(d) Average pounds per hour of VOCs emitted from the Planeta Press.

[45CSR13, R13-2295, 4.4.4.]

9.4.2. You must maintain records as specified in 40 C.F.R. §§63.3512 and 63.3513 (conditions 3.4.8. and 3.4.4., respectively).
[40 C.F.R. § 63.3532(d); 45CSR34]

9.5. Reporting Requirements

9.5.1. Refer to permit condition 3.5.10. for 40 C.F.R. Part 63 Subpart KKKK reporting.

9.5.2. If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in 40 C.F.R. §63.3490 (condition 9.1.1.) or the OSEL calculated according to 40 C.F.R. §63.3531(i), this is a deviation from the emission limitations for that compliance period and must be reported as specified in 40 C.F.R. §§63.3510(c)(6) and 63.3511(a)(6).
[40 C.F.R. § 63.3532(b); 45CSR34]

9.5.3. As part of each semiannual compliance report required by 40 C.F.R. §63.3511 (condition 3.5.10.), you must identify the coating operation(s) for which you used the emission rate without add-on controls option. If there were no deviations from the emission limitations, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in 40 C.F.R. §63.3490 (condition 9.1.1.) determined according to 40 C.F.R. §§63.3531(a) through (g), or using the OSEL calculated according to 40 C.F.R. §63.3531(i).
[40 C.F.R. § 63.3532(c); 45CSR34]

9.6. Compliance Plan

9.6.1. Reserved.

10.0 Building No. 720 Press-Coater-Oven Lines PC-3, PC-4, PC-5, PC-6, and PC-7 [Emission Unit IDs: 002-01, 002-02, 002-03, 002-04, 002-05, 002-06, 002-07, 002-08, 002-09, 002-10, 002-11, 002-12, 002-13, 003-01, 003-02, 003-03, 003-04, 003-05, 003-06, 003-07, 003-08, 003-09, 003-10; emission point IDs: 720-1E, 720-4E]

10.1. Limitations and Standards

10.1.1. For an existing affected source, you must limit organic HAP emissions to the atmosphere to no more than the emission limit(s) in Table 2 to Subpart KKKK of Part 63 that apply to you during each 12-month compliance period, determined according to the requirements in 40 C.F.R. §63.3521 or §63.3531. If you perform surface coating in more than one subcategory or utilize more than one coating type within a subcategory, then you must meet the individual emission limit(s) for each subcategory and coating type included.

Table 2 to Subpart KKKK of Part 63 – Emission Limits for Existing Affected Sources

If you apply surface coatings to metal cans or metal can parts in this subcategory . . .	Then for all coatings of this type . . .	You must meet the following organic HAP emission limit in kg HAP/liter solids (lbs HAP/gal solids):[a,b]
Sheetcoating	Sheetcoating	0.03 (0.26).

[a]If you apply surface coatings of more than one type within any one subcategory you may calculate an OSEL according to §63.3531(i).
[b]Rounding differences in specific emission limits are attributable to unit conversions.

[40 C.F.R. §§ 63.3490(b) and 63.3500(a)(2)(i); 45CSR34]

10.1.2. The differential pressure at the inlet duct of the regenerative thermal oxidizer (Control Device ID 0001), that controls emissions from the coaters, shall not be less than 1.0 inches of water relative to atmospheric pressure.
[40 C.F.R. §§ 63.3492(b) and 63.3500(a)(2)(ii); 45CSR34]

10.1.3. The maximum allowable particulate emissions for the Regenerative Thermal Oxidizers (controlling the emissions from the coaters and presses, which are grandfathered) are 1.4 pounds per hour per RTO.
[45CSR§6-4.1.]

10.1.4. **40 C.F.R. 63 Subpart KKKK Compliance Options.** You must include all coatings and thinners used in all surface coating operations within a subcategory or coating type segment when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in 40 C.F.R. §63.3490. To make that determination, you must use at least one of the four compliance options listed in paragraphs a. and b. of this condition. You may apply any of the compliance options to an individual coating operation or to multiple coating operations within a subcategory or coating type segment as a group. You may use different compliance options for different coating operations or at different times on the same coating operation. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document that switch as required by 40 C.F.R. §63.3512(c), and you must report it in the next semiannual compliance report required in 40 C.F.R. §63.3511.

a. *Compliant material option*. Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in 40 C.F.R. §63.3490

(permit condition 10.1.1.), and that each thinner used contains no organic HAP. You must meet all the requirements of 40 C.F.R. §§63.3520, 63.3521, and 63.3522 to demonstrate compliance with the emission limit using this option.

b. *Emission rate with add-on controls option*. Demonstrate that, based on the coatings and thinners used in the coating operation(s) and the emission reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in 40 C.F.R. §63.3490 (permit condition 10.1.1.), calculated as a rolling 12-month emission rate and determined on a monthly basis. If you use this compliance option, you must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) used for purposes of complying with 40 C.F.R. 63 Subpart KKKK meet the operating limits required in 40 C.F.R. §63.3492 (permit conditions 10.1.2.), except for solvent recovery systems for which you conduct liquid-liquid material balances according to 40 C.F.R. §63.3541(i), and that you meet the work practice standards required in 40 C.F.R. §63.3493 (permit condition 3.1.12.). You must meet all the requirements of 40 C.F.R. §§63.3540 through 63.3547 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

Note: The permittee is using the *Emission rate with add-on controls option* in 40 C.F.R. §63.3491(c) as of the issuance date of this renewal operating permit.

[40 C.F.R. §§ 63.3491(a) and (c); 45CSR34]

10.1.5. The Regenerative Thermal Oxidizers (RTO's) shall reduce emissions of total HAPs, measured as THC (as carbon) by 95%.
[45CSR13, R13-2295, 4.1.12.] (Control Device ID: 0001)

10.1.6. The operating temperature in the Regenerative Thermal Oxidizers' (RTO's) combustion chamber shall be maintained at a minimum of 1,450°F (815°C) initially, and thereafter at a minimum temperature as established by 40 CFR §63.3556(a).
[45CSR13, R13-2295, 4.1.13.; 40 C.F.R. §§ 63.3492(b), 63.3500(a)(2)(ii), 63.3546(a); 45CSR34] (Control Device ID: 0001)

10.1.7. **Demonstrating continuous compliance with the 40 C.F.R. 63 Subpart KKKK emission limitation**. To demonstrate continuous compliance with the applicable emission limit in 40 C.F.R. §63.3490 (permit condition 10.1.1.), the organic HAP emission rate for each compliance period, determined according to the procedures in 40 C.F.R. §63.3541, must be equal to or less than the applicable emission limit in 40 C.F.R. §63.3490. Alternatively, if you calculate an OSEL for all coating type segments within a subcategory according to 40 C.F.R. §63.3531(i), the organic HAP emission rate for the subcategory for each compliance period must be less than or equal to the calculated OSEL. You must use the calculated OSEL throughout each compliance period. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in to 40 C.F.R. §63.3540 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in 40 C.F.R. §63.3541 on a monthly basis using data from the previous 12 months of operation.
[40 C.F.R. § 63.3542(a); 45CSR34]

10.1.8. *Capture system bypass line.* You must meet the requirements of paragraph (b)(1) or (2) of this condition for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. The flow indicator shall be installed at the entrance to any bypass line.
(2) Secure the bypass line valve in the nondiverting position with a car-seal or lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the nondiverting position, and the vent stream is not diverted through the bypass line.

[40 C.F.R. § 63.3547(b); 45CSR34]

10.2. Monitoring Requirements

10.2.1. **Differential Pressure at RTO Inlet** – The permittee shall install, calibrate, maintain, and continuously operate a monitoring device for the continuous measurement of the pressure loss at the thermal oxidizer inlet (control device ID 0001), which controls emissions from the coaters (Em. Unit IDs 003-01, 003-03, 003-05, 003-07, 003-09). The pressure drop will be measured inside the oxidizer inlet duct. An excursion shall be defined as recorded differential pressure readings less than the acceptable minimum pressure drop of 90% of the limit in permit condition 10.1.2. (which product is equal to 0.90 inches of water column) for a period of time in excess of 30 minutes. Excursions initiate an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 3.4.9., 3.4.10., and 3.5.11.). The monitoring system shall continually sense the indicator and function in accordance with permit condition 3.2.6. This is Indicator 2 of 2 under the 40 C.F.R. Part 64 CAM plan for the press lines PC-3 through PC-7 (Em. Unit IDs 003-01, 003-03, 003-05, 003-07, 003-09) and thermal oxidizer (Control Device ID 0001).
[40 C.F.R. §§ 64.3(a)(1), 64.3(a)(2), 64.3(a)(3)(i), 64.3(b)(3), 64.6(c)(1), and 64.6(c)(2); 45CSR§30-5.1.c.; 40 C.F.R. §§ 63.3492(b), 63.3500(a)(2)(ii), 63.3541(b), 63.3542(c); 45CSR34]

10.2.2. **Combustion Chamber Temperature in RTO (Control Device ID: 0001).** The permittee shall monitor the combustion chamber temperature according to permit condition 8.2.1. to demonstrate compliance with the temperature requirement in condition 10.1.6.
[40 C.F.R. §§ 64.3(a)(1), 64.3(a)(2), 64.3(a)(3)(i), 64.3(b)(3), 64.6(c)(1), and 64.6(c)(2); 45CSR§30-5.1.c.; 40 C.F.R. §§63.3492(b), 63.3500(a)(2)(ii), 63.3541(b), 63.3542(c); 45CSR34]

10.2.3. Compliance with the particulate matter emissions limitations established for the Regenerative Thermal Oxidizers (permit condition 10.1.3.) shall be shown by demonstrating that natural gas was used as the only fuel in the RTOs.
[45CSR§30-5.1.c.]

10.3. Testing Requirements

10.3.1. **Calibration of Pressure Measuring Device.** The permittee shall annually calibrate the pressure measuring devices used to monitor and record the differential pressure at the inlet of the regenerative thermal oxidizers (Control Device ID 0001). The calibration shall be performed within twelve (12) months of the date of the previous calibration, but no earlier than six (6) months from the date of the previous calibration. The pressure measuring devices shall have a minimum accuracy of 0.01 inches of water. This requirement does not prevent the permittee from calibrating if necessary on a more frequent basis as needed.
[40 C.F.R. §§ 64.3(b)(3) and 64.6(c)(1)(iii); 45CSR§30-5.1.c.]

10.3.2. **Calibration of Temperature Measuring Device.** Calibration of the combustion chamber temperature measuring device according to permit condition 8.3.1. will satisfy the calibration requirements for the regenerative thermal oxidizer controlling emissions from the coater lines PC-3 through PC-7. **[45CSR§30-5.1.c.]**

10.4. Recordkeeping Requirements

10.4.1. Refer to permit condition 3.4.4., 3.4.8., and 8.4.1. for recordkeeping requirements to demonstrate compliance with permit condition 10.1.1.

10.4.2. Refer to permit condition 3.4.10. for recordkeeping requirements pursuant to 40 C.F.R. Part 64.

10.5. Reporting Requirements

10.5.1. Refer to permit condition 3.5.10. for reporting requirements for 40 C.F.R. 63 Subpart KKKK.

10.5.2. Refer to permit condition 3.5.11 for general reporting requirements for 40 C.F.R. Part 64 CAM.

10.6. Compliance Plan

10.6.1. Reserved.

ATTACHMENT A

Permanent Total Enclosure Report dated January 3, 2007

For Coating Line C-4

EPA METHOD 204.2.1

PERMANENT TOTAL ENCLOSURE

VERIFICATION OF THE EPA FIVE-POINT CRITERIA FOR

THE ASSUMPTION OF 100% CAPTURE EFFICIENCY

FOR COATING LINE C-4

at

BALL METAL FOOD CONTAINER CORP.

Plant #33
3010 Birch Drive
Weirton, West Virginia

by

Richard C. Sharp

Manager of Testing Services

SHARP ENVIRONMENTAL SERVICES, INC.

Date: January 3, 2007

4.1.1

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SECTION 1: OBJECTIVE

On January 9, 1995, the Office of Air Quality Planning and Standards of the U.S. Environmental Protection Agency located in Research Triangle Park, North Carolina issued a document entitled, "Guidelines for Determining Capture Efficiency." The purpose of this document was to provide technical guidance primarily to U.S. Environmental Protection Agency (EPA) Regional offices regarding capture efficiency testing and secondly, to be used by state agencies, local agencies, owners, and operators of stationary sources required to determine capture efficiency (CE).

Among the recommended CE test methods, the EPA lists five accepted protocols of which the most favored as indicated by the EPA is the Permanent Total Enclosure (PTE) where theoretically, all emissions from a process are enclosed, contained, and directed to a control device. If the enclosure can meet a Five Point Criteria documented in the Code of Federal Regulations, 40 CFR 51, Appendix M, Method 204.2.1, the capture efficiency for the source may be assumed to be 100 percent and need not be measured. This document lists the Five Point Criteria and applies each of these to the existing enclosure surrounding Coater Line C-4 at the Ball Corporation, Inc. facility located at 3010 Birch Drive, Weirton, West Virginia. Reference drawings of this enclosure are included.

SECTION 2: CRITERIA OF A PERMANENT TOTAL ENCLOSURE (Reference Drawing 0182-1)

Meeting the Five-Point Criteria for 100% Capture Efficiency

1. *Any natural draft opening (NDO) shall be at least four equivalent diameters from each volatile organic compound (VOC) emitting point.*

   The enclosure has a total of two notable NDOs. NDO #1 allows access for raw materials into the enclosure to feed the coater. This NDO measures ¾" x 46". The NDO measures 30" from the emitting point which is the coater roll.

$$ED = \left(\frac{4 \times area}{\pi}\right)^{0.5} = \left(\frac{4 \times 0.75 \times 46}{\pi}\right)^{0.5} = 6.63'$$

   The emitting point is the Coater roll which measures 30" from this NDO. The distance measured as equivalent diameters would be 4.52.

$$\left(\frac{30}{6.63} = 4.52\right)$$

   NDO #1 exceeds four equivalent diameters and, therefore, meets the requirement.

The exit end of the oven also meets the criterion. The exit end as NDO #2 measures approximately 51" x 52". The equivalent diameters for these dimensions would be 4.84'. The exit end NDO of the long oven (over 100' long) would, at a minimum, be no less than 20 diameters from the coater roll thereby easily exceeding the requirements of no less than four equivalent diameters.

2. The total of all NDOs shall not exceed five percent of the surface area of the enclosure's four walls, floor and ceiling.

   The surface area of the coater enclosure is as follows:

   Approximately: (3.5' x 22.5' x 2) + (3.5' x 5.1' x 2) + (22.5' x 5.1' x 2) = 422.7 ft^2

   The surface area of the oven is as follows:

$$(130' \times 6' \times 2) + (11' \times 130' \times 2) + (11' \times 6' \times 2) = 4552\ ft^2$$

Total PTE Surface Area = 4975 ft^2

The NDO surface area is as follows:

NDO #1 = (3/4' x 46")/144 = 0.24 ft^2
NDO #2 = (51" x 52")/144 = 18.42 ft^2

TOTAL NDO surface area = 18.66ft^2

Area percent of NDO's to surface area:

18.66/4975 x 100 = 0.38%

This requirement has been readily met with the NDO area totals less than 1% of the PTE area.

3. *The average facial velocity of air through all NDOs shall be at least 200 fpm into the enclosure or the pressure drop across the enclosure must be at least 0.007 inch H_2O*

The exhaust from the enclosure results from the one coater hood and the one oven exhaust.
Pressure measurements during the testing activities measured -0.007 to -0.008" inches H_2O consistently. The instrument used was a calibrated Dwyer Series 475 Mark III Digital Manometer, 0-1" H_2O range.

During the same test periods, the testing technician measured the Coater 6" exhaust duct pressure at -1.3" to -1.8" wc (reference section 6.2.1) compared to the datalogger measurements of approximately -0.8" to -1.0"wc (reference section 5.1.0).

NDO #2 is at the exit end of the the oven. The oven is considered a structural component of the PTE, thereby the exit end of the oven would be considered an NDO which, by definition normally would be required to demonstrate a minimum indraft velocity of 200 fpm or -0.007" H_2O. However, referencing the EPA Document #68-0204379 dated September 5, 1990, the exit end of the oven, because of its peculiar engineered airflow pattern, must simply demonstrate a negative indraft velocity. Using this criterion, the ovens' exit opening, considered as a component of a PTE, were evaluated as meeting the requirements if the exit end demonstrated a negative indraft condition.

Because of the heat at the exit end, it was not possible to measure the velocity

or pressure, however, a string attached to a rod inserted into the oven was drawn inward at the oven exit opening thereby exhibiting a negative indraft condition.

4. *All access doors and windows, that areas of which are not included in Items 2 and 3, shall be closed during routine operation of this process.*

All access openings shown on the drawing 0182-1 are normally closed to ensure proper positioning during operation. The operators have been instructed to keep these openings closed except for infrequent adjustments or maintenance.

It is the intent that the access will normally be closed, therefore, meeting the criteria.

5. *All VOC emissions must be captured and contained for discharge through a control device.*

All exhausts from the oven and the enclosure discharge to a control device designated as the OSI Thermal Oxidizer for Line C-4.

Since all exhausts from the enclosure are directed to the thermal oxidizer, this requirement has been met.

Ball Corporation *JANUARY 5, 2007*

4.1.6

SECTION 3: CONCLUSION

The preceding discussion clearly demonstrates that the PTE enclosing Coating Line C-4 complies with all five criteria of the capture guidelines for permanent total enclosures. Having determined this qualification according to the EPA, it may be assumed that the capture efficiency of this PTE is 100%.

ATTACHMENT B

Permanent Total Enclosure Report dated August 10, 2010

For Coating Lines C-5, C-6, C-8, C-9, and C-10

BALL CORPORATION

3010 Birch Drive
Weirton, West Virginia

TEST REPORT: CAPTURE EFFICIENCY OF FIVE PERMANENT TOTAL ENCLOSURES ENCAPSULATING COATERS C-5 (ID# 001-01), C-6 (ID# 001-03), C-8 (ID# 001-07), C-9 (ID#001-09) AND C-10 (ID# 001-11)

SES Job #0246
Permit Numbers: R13-2295D
R30-00900027 (Part 2 OF 2)

August 10, 2010

Submitted by:

Richard C. Sharp
Manager of Testing

SHARP ENVIRONMENTAL SYSTEMS
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SECTION ONE: EXECUTIVE SUMMARY

The following describes testing activities performed at Ball Corporation, 3010 Birch Drive, Weirton, West Virginia.

Verification of EPA Five Point Criteria at five enclosures on July 16, 2010 performed by Richard Sharp of Sharp Environmental Systems, Inc.

Don Jobes of Ball Corporation provided assistance and information representing the tested facility.

The Ball #720 facility in Weirton, West Virginia recently converted from a single Permanent Total Enclosure (PTE) encapsulating six Coater Lines (reference report dated January 31, 2006 to the WVDEP for description) to individual enclosures at each of five Coater Lines, C-5, C-6, C-8, C-9 and C-10. The sixth Coater Line designated as C-7 (ID# 001-05) has been temporarily disabled and is not part of this evaluation.

The purpose of the testing activities was to verify the EPA Five Point Criteria at each enclosure for the assumption of 100% capture efficiency.

For the five coater lines, the EPA Five-Point Criteria documented in 40 CFR 51, Appendix M, 204.5.1, 204.5.3, 204.5.4, 204.5.5 and 204.6.2 was demonstrated at each enclosure for the assumption of 100% capture efficiency. The pressure drop across each enclosure was measured in accordance with the methodology described in the EPA procedure documented in the Code of Federal Regulations, 40 CFR Appendix M, Method 204.5.4 where ΔP must equal or exceed .007" H_2O. The ΔP was manually measured and recorded approximately every 15 minutes over a one hour period using a calibrated Dwyer Series 475 Mark III Digital Manometer. Simultaneously with each manual measurement, the pressure data recorded at the Continuous Parameter Monitoring System (CPMS) was documented for comparison readings. The resulting manual measurements are included in Appendix 2.1; the datalogged results for the one hour test period are included in Appendices I.I and I.2. As these documents evidence, the ΔP at each enclosure maintained readings exceeding the required .007"wg. The five Coater Lines structurally duplicate one another. The newly fabricated and installed enclosures at the coater machinery are basically identical. Of the Five-Point Criteria the only variable would be the differential pressure (ΔP) measurements conducted to satisfy EPA Criterion 204.5.4

The average facial velocity (FV) of air through all NDOs shall be at least 3600 m/hr (200 fpm). The direction of air flow through all NDOs shall be into the enclosure. A pressure drop of 0.013 mm Hg (0.007 in. H_2O) corresponds to an FV of 3600 m/hr (200 fpm).

All five PTEs met the EPA Five Point Criteria thereby qualifying for the assumption of 100% Capture Efficiency as specified in the EPA document Method 204.1.2:

"An enclosure is evaluated against a set of criteria. If the criteria are met and

If all the exhaust gases from the enclosure are ducted to a control device, then the volatile organic compounds (VOC) capture efficiency (CE) is assumed to be 100 percent, and CE need not be measured."

Contact References:

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SECTION TWO: TESTING EVENTS

CAPTURE EFFICIENCY

The capture efficiency was determined for the five PTEs using the EPA Method 204.2 which identifies a Five Point Criteria which, when met, allows the user to assume 100% capture efficiency. The Five Point Criteria was applied to the five PTEs on the test day, July 16, 2010.

The five Coater Lines are virtually identical. Of the EPA Five Point Criteria documented in 40 CFR 51 Appendix M, only criterion 204.5.4 would vary. During the testing on July 16, 2010, the differential pressure at each PTE was recorded manually (Appendix 2.1) and datalogged (Appendices 1.1 and 1.2). As indicated by these records, the differential pressure consistently was maintained in excess of .007 in. wg. during the test period.

It was confirmed that the EPA Five Point Criteria remained valid throughout the testing activities. The EPA Five Point Criteria was satisfied for the PTEs, therefore, we have assumed the 100% capture efficiency as directed by the EPA Method 204 document.

SECTION THREE: DISCUSSION OF TEST RESULTS

CAPTURE EFFICIENCY

Introduction for Permanent Total Enclosure

On January 9, 1995, the Office of Air Quality Planning and Standards of the U.S. Environmental Protection Agency located in Research Triangle Park, North Carolina, issued a document entitled, "*Guidelines for Determining Capture Efficiency.*" The purpose of this document was to provide technical guidance primarily to U.S. Environmental Protection Agency (EPA) Regional offices regarding capture efficiency testing and secondly, to be used by state agencies, local agencies, owners, and operators of stationary sources required to determine capture efficiency (CE).

Among the recommended CE test methods, the EPA lists five accepted protocols of which the most favored as indicated by the EPA is the Permanent Total Enclosure (PTE) where theoretically, all emissions from a process are enclosed, contained, and directed to a control device. If the enclosure can meet a Five Point Criteria, the capture efficiency for the source may be assumed to be 100 percent and need not be measured. This document lists the Five Point Criteria and applies each of these to the enclosures surrounding Coater Lines C-5, C-6, C-8, C-9 and C-10. A reference drawing of the enclosure is included with this report.

FIVE POINT CRITERIA FOR PERMANENT TOTAL ENCLOSURES, COATER LINES: C-5, C-6, C-8, C-9, C-10

On Friday, July 16, 2010, Sharp Environmental Systems (SES) conducted testing at Ball Container Corporation in Weirton, West Virginia to demonstrate that the newly installed enclosures at Coating Lines C-5, C-6, C-8, C-9 and C-10 qualify as EPA approved Permanent Total Enclosures (PTEs) for the assumption of 100% Capture Efficiency.

The verification of the PTEs followed the guidelines published in the Code of Federal Regulations, 40 CFR 51, Appendix M, Method 204, Sections 5.1, 5.3 through 5.5 and 6.2.

The EPA capture guidelines had the following definitions:

- **Permanent Total Enclosures (PTE):** A permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge to a control device.

- **Natural Draft Opening:** Any significant opening in the enclosure that remains open during operation of the facility and is not connected to a duct in which a fan is installed.

According to Title 40 of the Code of Federal Regulations, Part 60, Appendix A, Method 1, the EPA defines that the equivalent diameter (De), as it pertains to determination of air flow characteristics, shall be calculated using the formula:

$$De = \left\{ \frac{4xArea}{\Pi} \right\}^{0.5}$$

Since the Coater Lines structurally are identical, the following items 1, 2, 4, and 5 will be treated as a single entity, applying to each of the five enclosures. Item 3 documents individually the one criterion that varies at each of the enclosures.

Meeting the Five-Point Criteria for 100% Capture Efficiency
(Reference drawing no. 0246-1A)

1. *Any natural draft opening (NDO) shall be at least four equivalent diameters from each volatile organic compound (VOC) emitting point.*

The enclosure has a total of two NDOs. NDO #1 allows access for materials into the enclosure to feed the coater.

NDO #2, at the end of the oven, provides the opening for the cured coated plate to exit the process.

NDO #1

NDO #1 allows the sheets to enter the enclosure just after the sheet feeder as shown on the Drawing No. 0246-1A This NDO is located 65" from the coater roll. This NDO measures 40" across by 3" high. The equivalent diameter is 12.4". The NDO is just over 5 equivalent diameters from the coater roller, which is the emitting point, thereby exceeding the minimum requirement of 4 equivalent diameters.

NDO #2

The exit opening of the oven also must meet this criterion. The exit end measures more than 140' from the VOC emitting point (i.e. the coater).

The opening at the exit end measures approximately 56" x 54". The equivalent diameter for these dimensions would be 5.17', which places the exit end more than 27 diameters from the source thereby easily meeting the criterion.

2. The total of all NDOs shall not exceed five percent of the surface area of the enclosure's four walls, floor and ceiling.

The approximate surface area of the enclosure covering the coater is as follows:

South face: 4'-8" x 6'-4"	=	29.6 ft^2
North face: 11' x 4'-8"	=	51.4 ft^2
West wall:(4'-1"x 4'-8") + (6'-4"x 6'-8") + (5'-8"x 4'-8")	=	85.2 ft^2
East wall: (4'-1"x 4'-8") + (6'-4"x 6'-8") + (5'-8"x 4'-8")	=	85.2 ft^2
Ceiling: (4'-1"x 4'-8") + (6'-3" x 4'- 8") + (5'- 8" x 4'-8")	=	74.7 ft^2
Floor: (4'-1"x 4'-8") + (6'-3" x 4'- 8") + (5'- 8" x 4'-8")	=	74.7 ft^2
Oven Surface Area: 2(140' x 11') + 2(140' x 5')	=	4480 ft^2
TOTAL PTE SURFACE AREA	=	4881 ft^2

The areas of the NDO are as follows:

NDO-1:	40" x 3"/144	= 0.83 ft^2
NDO-2:	56" x 54"/144	= 21.0 ft^2
TOTAL	=	21.83 ft^2

Area percent of NDOs to surface area:

$$\frac{21.83}{4881} \times 100 = 0.45\%$$

This requirement has been readily met with the NDO area totals less than 1% of the PTE area.

3. *The average facial velocity of air through all NDOs shall be at least 200 fpm into the enclosure or the pressure drop across the enclosure must be at least 0.007 inch H_2O.*

The negative differential pressure in each enclosure results from the coater hood and the Oven exhaust. The following table summarizes the average pressure manually measured and datalogged during the testing:

AVERAGE PRESSURE DIFFERENTIAL (In Wg..)

PTE ID	Manually Measured	CPMS Record	
		Maximum	Minimum
C-5	-0.022	-0.025	-0.024
C-6	-0.015	-0.018	-0.017
C-8	-0.019	-0.021	-0.02
C-9	-0.017	-0.019	-0.016
C-10	-0.014	-0.016	-0.014

The instrument used for the manual measurements was a calibrated Dwyer Series 475 Mk III Digital Manometer for pressure.

NDO #2 is at the exit end of the oven: The oven is considered a structural component of the PTE, thereby the exit end of the oven would be considered an NDO. We were unable to use the meter at the exit end of the oven because of limited clearance, moving wickets, and heat however, a string attached to a rod indicated the air flow movement was into the oven. The string indicator would meet the guideline for wicket ovens as referenced in EPA 204.7.I

Based on the results of the air flow indicators, each PTE complies with this criterion.

4. *All access doors and windows whose areas are not included as NDOs and are not included in the calculation of FV shall be closed during routine operation of the process.*

   Access doors, windows, etc. remained closed throughout testing activities. It is the intent that the enclosure over the coater remains in the intact position during operation. The CPMS indicates the integrity of the PTE by monitoring the differential pressure.

5. All VOC emissions must be captured and contained for discharge through a control device.

   All exhausts from each oven and each newly constructed enclosure discharge to a control device designated as the Smith Regenerative Thermal Oxidizer.

   Since all exhausts from each enclosure are directed to the thermal oxidizers, this requirement has been met.

CONCLUSION:

The preceding discussion clearly demonstrates that the PTEs enclosing Coater Lines C-5, C-6, C-8, C-9, and C-10 comply with all five criteria of the capture guidelines for permanent total enclosures. Having determined this qualification according to the EPA, it may be assumed that the capture efficiency of these PTEs is 100%.

ATTACHMENT C

Permanent Total Enclosure Report dated April 22, 2010

For Coating Lines C-1, C-2, and C-3

FIVE POINT CRITERIA FOR PERMANENT TOTAL ENCLOSURE COATER LINE #C-1

Meeting the Five-Point Criteria for 100% Capture Efficiency
(Reference drawing no. 0237-1C)

1. *Any natural draft opening (NDO) shall be at least four equivalent diameters from each volatile organic compound (VOC) emitting point.*

The enclosure has a total of two NDOs. NDO #1 allows access for materials into the enclosure to feed the coater.

NDO #2, at the end of the oven, provides the opening for the cured coated plate to exit the process.

NDO #1

NDO #1 allows the sheets to enter the enclosure just after the sheet feeder as shown on the Drawing No. 0237-1C. This NDO is located 65" from the coater roll. This NDO opening measures 40" across by 3" high. The equivalent diameter is 12.4". The NDO is just over 5 equivalent diameters from the coater roller, which is the emitting point, thereby exceeding the minimum requirement of 4 equivalent diameters.

NDO #2

The exit opening of the oven also must meet this criterion. The exit end measures more than 117' from the VOC emitting point (i.e. the coater).

The opening at the exit end measures approximately 51" x 52". The equivalent diameter for these dimensions would be 4.84', which places the exit end more than 24 diameters from the source thereby easily meeting the criterion.

2. The total of all NDOs shall not exceed five percent of the surface area of the enclosure's four walls, floor and ceiling.

The approximate surface area of the enclosure covering the coater is as follows:

South face: 4'-8" x 6'-4"	=	29.6 ft^2
North face: 11' x 4'-8"	=	51.4 ft^2
West wall:(4'-1"x 4'-8") + (6'-4"x 6'-8") + (5'-8"x 4'-8")	=	85.2 ft^2
East wall: (4'-1"x 4'-8") + (6'-4"x 6'-8") + (5'-8"x 4'-8")	=	85.2 ft^2
Ceiling: (4'-1"x 4'-8") + (6'-3" x 4'- 8") + (5'- 8" x 4'-8")	=	74.7 ft^2
Floor: (4'-1"x 4'-8") + (6'-3" x 4'- 8") + (5'- 8" x 4'-8")	=	74.7 ft^2
Oven Surface Area: 2(107' x 11') + 2(107' x 5')	=	3424 ft^2
TOTAL PTE SURFACE AREA	=	3825 ft^2

The areas of the NDO are as follows:

NDO-1:	40" x 3"/144	= 0.83 ft^2
NDO-2:	51" x 52"/144	= 18.42 ft^2
TOTAL	=	19.25 ft^2

Area percent of NDOs to surface area:

$$\frac{19.25}{3825} \times 100 = 0.50\%$$

This requirement has been readily met with the NDO area totals less than 1% of the PTE area.

3. *The average facial velocity of air through all NDOs shall be at least 200 fpm into the enclosure or the pressure drop across the enclosure must be at least 0.007 inch H_2O.*

The negative differential pressure in the enclosure results from the coater hood and the Oven exhaust. Although the differential pressure is the criteria selected for the PTE verification, we also measured the velocities at the NDO #1. Under normal operating conditions, we measured during each test the minimum and the average differential pressure at the enclosure surrounding the Coater and the minimum and the average velocity at NDO #1 as shown in the following table:

	Manual Measurement				CPMS Measurement	
Test	Differential Pressure		NDO Velocity		Differential Pressure	
No.	Min.	Avg.	Min.	Avg.	Min.	Avg.
1	0.014	0.018	275	291	0.014	0.017
2	0.012	0.017	240	260	0.013	0.017
3	0.014	0.017	240	277	0.012	0.013

The instrument used was a calibrated Dwyer Series 475 Mk III Digital Manometer for pressure and a calibrated AV2 Anemometer for velocity

As the measurements indicate, the enclosure exceeded the minimum criteria for both differential pressure (minimum .007 in wc) and velocity (200 fpm).

NDO #2 is at the exit end of the oven: The oven is considered a structural component of the PTE, thereby the exit end of the oven would be considered an NDO. We were unable to use the meter at the exit end of the oven because of limited clearance, moving wickets, and heat. However, a string attached to a rod indicated the air flow movement was into the oven. The string indicator would meet the guideline for wicket ovens as referenced in EPA 204.7.I

Based on the results of the air flow indicators, the PTE complies with this criterion.

4. *All access doors and windows whose areas are not included as NDOs and are not included in the calculation of FV shall be closed during routine operation of the process.*

Access doors, windows, etc. remained closed throughout testing activities. It is the intent that the enclosure over the coater remains in the intact position during operation. The CPMS indicates the integrity of the PTE by monitoring the differential pressure.

5. All VOC emissions must be captured and contained for discharge through a control device.

   All exhausts from the oven and the newly constructed enclosure discharge to a control device designated as the Megtec Regenerative Thermal Oxidizer.

   Since all exhausts from the enclosure are directed to the thermal oxidizer, this requirement has been met.

CONCLUSION:

The preceding discussion clearly demonstrates that the PTE enclosing Coating Line #C-1 complies with all five criteria of the capture guidelines for permanent total enclosures. Having determined this qualification according to the EPA, it may be assumed that the capture efficiency of this PTE is 100%.

PTE VERIFICATION FOR LINE # C-1 AT BALL, WEIRTON, WV

On Wednesday, March 24, 2010, Sharp Environmental Systems (SES) conducted testing at Ball Container Corporation in Weirton, West Virginia to demonstrate that the newly installed enclosure at Coating Line #C-1 qualified as an EPA approved Permanent Total Enclosure (PTE) for the assumption of 100% Capture Efficiency.

The verification of the Line #C-1 PTE followed the guidelines published in the Code of Federal Regulations, 40 CFR 51, Appendix M, Method 204, Sections 5.1, 5.3 through 5.5 and 6.2.

The EPA capture guidelines had the following definitions:

- **Permanent Total Enclosures (PTE):** A permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge to a control device.

- **Natural Draft Opening:** Any significant opening in the enclosure that remains open during operation of the facility and is not connected to a duct in which a fan is installed.

According to Title 40 of the Code of Federal Regulations, Part 60, Appendix A, Method 1, the EPA defines that the equivalent diameter (De), as it pertains to determination of air flow characteristics, shall be calculated using the formula:

$$De = \left\{ \frac{4xArea}{\Pi} \right\}^{0.5}$$

PTE VERIFICATION FOR LINE # C-2 AT BALL, WEIRTON, WV

On Wednesday, March 24, 2010, Sharp Environmental Systems (SES) conducted testing at Ball Container Corporation in Weirton, West Virginia to demonstrate that the newly installed enclosure at Coating Line #C-2 qualified as an EPA approved Permanent Total Enclosure (PTE) for the assumption of 100% Capture Efficiency.

The verification of the Line #C-2 PTE followed the guidelines published in the Code of Federal Regulations, 40 CFR 51, Appendix M, Method 204, Sections 5.1, 5.3 through 5.5 and 6.2.

The EPA capture guidelines had the following definitions:

- **Permanent Total Enclosures (PTE):** A permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge to a control device.
- **Natural Draft Opening:** Any significant opening in the enclosure that remains open during operation of the facility and is not connected to a duct in which a fan is installed.

According to Title 40 of the Code of Federal Regulations, Part 60, Appendix A, Method 1, the EPA defines that the equivalent diameter (De), as it pertains to determination of air flow characteristics, shall be calculated using the formula:

$$De = \left\{ \frac{4xArea}{\Pi} \right\}^{0.5}$$

FIVE POINT CRITERIA FOR PERMANENT TOTAL ENCLOSURE COATER LINE #C-2

Meeting the Five-Point Criteria for 100% Capture Efficiency
(Reference drawing no. 0237-1D)

1. *Any natural draft opening (NDO) shall be at least four equivalent diameters from each volatile organic compound (VOC) emitting point.*

The enclosure has a total of two NDOs. NDO #1 allows access for materials into the enclosure to feed the coater.

NDO #2, at the end of the oven, provides the opening for the cured coated plate to exit the process.

NDO #1

NDO #1 allows the sheets to enter the enclosure just after the sheet feeder as shown on the Drawing No. 0237-1D. This NDO is located 65" from the coater roll. This NDO opening measures 40" across by 3" high. The equivalent diameter is 12.4". The NDO is just over 5 equivalent diameters from the coater roller, which is the emitting point, thereby exceeding the minimum requirement of 4 equivalent diameters.

NDO #2

The exit opening of the oven also must meet this criterion. The exit end measures more than 142' from the VOC emitting point (i.e. the coater).

The opening at the exit end measures approximately 51" x 52". The equivalent diameter for these dimensions would be 4.84', which places the exit end more than 29 diameters from the source thereby easily meeting the criterion.

2. The total of all NDOs shall not exceed five percent of the surface area of the enclosure's four walls, floor and ceiling.

The approximate surface area of the enclosure covering the coater is as follows:

South face: 4'-8" x 6'-4"	=	29.6 ft^2
North face: 11' x 4'-8"	=	51.4 ft^2
West wall:(4'-1"x 4'-8") + (6'-4"x 6'-8") + (5'-8"x 4'-8")	=	85.2 ft^2
East wall: (4'-1"x 4'-8") + (6'-4"x 6'-8") + (5'-8"x 4'-8")	=	85.2 ft^2
Ceiling: (4'-1"x 4'-8") + (6'-3" x 4'- 8") + (5'- 8" x 4'-8")	=	74.7 ft^2
Floor: (4'-1"x 4'-8") + (6'-3" x 4'- 8") + (5'- 8" x 4'-8")	=	74.7 ft^2
Oven Surface Area: 2(140' x 11') + 2(140' x 5')	=	4480 ft^2
TOTAL PTE SURFACE AREA	=	4881 ft^2

The areas of the NDO are as follows:

NDO-1:	40" x 3"/144	= 0.83 ft^2
NDO-2:	51" x 52"/144	= 18.42 ft^2
TOTAL	=	19.25 ft^2

Area percent of NDOs to surface area:

$$\frac{19.25}{4881} \times 100 = 0.39\%$$

This requirement has been readily met with the NDO area totals less than 1% of the PTE area.

3. *The average facial velocity of air through all NDOs shall be at least 200 fpm into the enclosure or the pressure drop across the enclosure must be at least 0.007 inch H_2O.*

The negative differential pressure in the enclosure results from the coater hood and Oven exhaust. Although the differential pressure is the criteria selected for the PTE verification, we also measured the velocities at the NDO #1. Under normal operating conditions, we measured during each test the minimum and the average differential pressure at the enclosure surrounding the Coater and the minimum and the average velocity at NDO #1 as shown in the following table:

	Manual Measurement				CPMS Measurement	
Test	Differential Pressure		NDO Velocity		Differential Pressure	
No.	Min.	Avg.	Min.	Avg.	Min.	Avg.
1	0.026	0.029	395	416	0.022	0.029
2	0.015	0.024	350	390	0.025	0.026
3	0.018	0.022	410	442	0.024	0.026

The instrument used was a calibrated Dwyer Series 475 Mk III Digital Manometer for pressure and a calibrated AV2 Anemometer for velocity

As the measurements indicate, the enclosure exceeded the minimum criteria for both differential pressure (minimum .007 in wc) and velocity (200 fpm).

NDO #2 is at the exit end of the oven: The oven is considered a structural component of the PTE, thereby the exit end of the oven would be considered an NDO. We were unable to use the meter at the exit end of the oven because of limited clearance, moving wickets, and heat. However, a string attached to a rod indicated the air flow movement was into the oven. The string indicator would meet the guideline for wicket ovens as referenced in EPA 204.7.I

Based on the results of the air flow indicators, the PTE complies with this criterion.

4. *All access doors and windows whose areas are not included as NDOs and are not included in the calculation of FV shall be closed during routine operation of the process.*

Access doors, windows, etc. remained closed throughout testing activities. It is the intent that the enclosure over the coater remains in the intact position during operation. The CPMS indicates the integrity of the PTE by monitoring the differential pressure.

5. All VOC emissions must be captured and contained for discharge through a control device.

   All exhausts from the oven and the newly constructed enclosure discharge to a control device designated as the Megtec Regenerative Thermal Oxidizer.

   Since all exhausts from the enclosure are directed to the thermal oxidizer, this requirement has been met.

CONCLUSION:

The preceding discussion clearly demonstrates that the PTE enclosing Coating Line #C-2 complies with all five criteria of the capture guidelines for permanent total enclosures. Having determined this qualification according to the EPA, it may be assumed that the capture efficiency of this PTE is 100%.

PTE VERIFICATION FOR LINE # C-3 AT BALL, WEIRTON, WV

On Wednesday, March 24, 2010, Sharp Environmental Systems (SES) conducted testing at Ball Container Corporation in Weirton, West Virginia to demonstrate that the newly installed enclosure at Coating Line #C-3 qualified as an EPA approved Permanent Total Enclosure (PTE) for the assumption of 100% Capture Efficiency.

The verification of the Line #C-3 PTE followed the guidelines published in the Code of Federal Regulations, 40 CFR 51, Appendix M, Method 204, Sections 5.1, 5.3 through 5.5 and 6.2.

The EPA capture guidelines had the following definitions:

- **Permanent Total Enclosures (PTE):** A permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge to a control device.
- **Natural Draft Opening:** Any significant opening in the enclosure that remains open during operation of the facility and is not connected to a duct in which a fan is installed.

According to Title 40 of the Code of Federal Regulations, Part 60, Appendix A, Method 1, the EPA defines that the equivalent diameter (De), as it pertains to determination of air flow characteristics, shall be calculated using the formula:

$$De = \left\{ \frac{4xArea}{\Pi} \right\}^{0.5}$$

FIVE POINT CRITERIA FOR PERMANENT TOTAL ENCLOSURE COATER LINE #C-3

Meeting the Five-Point Criteria for 100% Capture Efficiency
(Reference drawing no. 0237-3C)

1. *Any natural draft opening (NDO) shall be at least four equivalent diameters from each volatile organic compound (VOC) emitting point.*

The enclosure has a total of two NDOs. NDO #1 allows access for materials into the enclosure to feed the coater.

NDO #2, at the end of the oven, provides the opening for the cured coated plate to exit the process.

NDO #1

NDO #1 allows the sheets to enter the enclosure just after the sheet feeder as shown on the Drawing No. 0237-3C. This NDO is located 65" from the coater roll. This NDO opening measures 40" across by 3" high. The equivalent diameter is 12.4". The NDO is just over 5 equivalent diameters from the coater roller, which is the emitting point, thereby exceeding the minimum requirement of 4 equivalent diameters.

NDO #2

The exit opening of the oven also must meet this criterion. The exit end measures more than 131' from the VOC emitting point (i.e. the coater).

The opening at the exit end measures approximately 51" x 52". The equivalent diameter for these dimensions would be 4.84', which places the exit end more than 27 diameters from the source thereby easily meeting the criterion.

3. *The average facial velocity of air through all NDOs shall be at least 200 fpm into the enclosure or the pressure drop across the enclosure must be at least 0.007 inch H_2O.*

The negative differential pressure in the enclosure results from the coater hood and Oven exhaust. Although the differential pressure is the criteria selected for the PTE verification, we also measured the velocities at the NDO #1. Under normal operating conditions, we measured during each test the minimum and the average differential pressure at the enclosure surrounding the Coater and the minimum and the average velocity at NDO #1 as shown in the following table:

	Manual Measurement				CPMS Measurement	
Test	Differential Pressure		NDO Velocity		Differential Pressure	
No.	Min.	Avg.	Min.	Avg.	Min.	Avg.
1	0.023	0.027	275	287	0.021	0.022
2	0.023	0.028	270	320	0.023	0.024
3	0.022	0.027	240	310	0.023	0.023

The instrument used was a calibrated Dwyer Series 475 Mk III Digital Manometer for pressure and a calibrated AV2 Anemometer for velocity

As the measurements indicate, the enclosure exceeded the minimum criteria for both differential pressure (minimum .007 in wc) and velocity (200 fpm).

NDO #2 is at the exit end of the oven: The oven is considered a structural component of the PTE, thereby the exit end of the oven would be considered an NDO. We were unable to use the meter at the exit end of the oven because of limited clearance, moving wickets, and heat. However, a string attached to a rod indicated the air flow movement was into the oven. The string indicator would meet the guideline for wicket ovens as referenced in EPA 204.7.I

Based on the results of the air flow indicators, the PTE complies with this criterion.

4. *All access doors and windows whose areas are not included as NDOs and are not included in the calculation of FV shall be closed during routine operation of the process.*

Access doors, windows, etc. remained closed throughout testing activities. It is the intent that the enclosure over the coater remains in the intact position during operation. The CPMS indicates the integrity of the PTE by monitoring the differential pressure.

5. All VOC emissions must be captured and contained for discharge through a control device.

   All exhausts from the oven and the newly constructed enclosure discharge to a control device designated as the Megtec Regenerative Thermal Oxidizer.

   Since all exhausts from the enclosure are directed to the thermal oxidizer, this requirement has been met.

CONCLUSION:

The preceding discussion clearly demonstrates that the PTE enclosing Coating Line #C-3 complies with all five criteria of the capture guidelines for permanent total enclosures. Having determined this qualification according to the EPA, it may be assumed that the capture efficiency of this PTE is 100%.