

MAY 17 2018



RENEWABLE OPERATING PERMIT RENEWAL APPLICATION FORM

MACES FILE/CC _____ MAEBS AOP 2018 00068

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Refer to instructions for additional information to complete the Renewable Operating Permit Renewal Application Form.

GENERAL INSTRUCTIONS

This application form should be submitted as part of an administratively complete application package for renewal of a Renewable Operating Permit (ROP). This application form consists of nine parts. Parts A – H must be completed for all applications and must also be completed for each section of a sectioned ROP. Answer all questions in all parts of the form unless directed otherwise. Detailed instructions for this application form can be found at <http://michigan.gov/air> (select the Permits Tab, "Renewable Operating Permits (ROP)/Title V", then "ROP Forms & Templates").

PART A: GENERAL INFORMATION

Enter information about the source, owner, contact person and the responsible official.

SOURCE INFORMATION

SRN B6175	SIC Code 339940	NAICS Code 322221	Existing ROP Number MI-ROP-B6175-2013	Section Number (if applicable)
Source Name Coding Products, Inc.				
Street Address 111 West Park Drive				
City Kalkaska		State MI	ZIP Code 49646	County Kalkaska
Section/Town/Range (if address not available)				
Source Description				
<input type="checkbox"/> Check here if any of the above information is different than what appears in the existing ROP. Identify any changes on the marked-up copy of your existing ROP.				

OWNER INFORMATION

Owner Name Illinois Tool Works	Section Number (if applicable)			
Mailing address (<input type="checkbox"/> check if same as source address) 3600 W. Lake Avenue				
City Glenview	State IL	ZIP Code 60025	County	Country USA

Check here if any information in this ROP renewal application is confidential. Confidential information should be identified on an Additional Information (AI-001) Form.

PART A: GENERAL INFORMATION (continued)

At least one contact and responsible official must be identified. Additional contacts and responsible officials may be included if necessary.

CONTACT INFORMATION

Contact 1 Name Lisa Surowitz		Title Production Manager		
Mailing address (<input checked="" type="checkbox"/> check if same as source address) 111 West Park Drive				
City Kalkaska	State MI	ZIP Code 49646	County Kalkaska	Country USA
Phone number (231) 258-5521 x3164		E-mail address Lisa.Surowitz@itwsf.com		

Contact 2 Name (optional) Ian Rittof		Title Facility Manager		
Mailing address (<input checked="" type="checkbox"/> check if same as source address) 111 West Park Drive				
City Kalkaska	State MI	ZIP Code 49646	County Kalkaska	Country USA
Phone number (231) 258-5521 x3158		E-mail address Ian.Rittof@itwsf.com		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name Michael Kyro		Title Operations Manager		
Mailing address (<input checked="" type="checkbox"/> check if same as source address) 111 West Park				
City Kalkaska	State MI	ZIP Code 49646	County Kalkaska	Country USA
Phone number (231) 258-5521 x3179		E-mail address Michael.Kyro@itwsf.com		

Responsible Official 2 Name (optional)		Title		
Mailing address (<input type="checkbox"/> check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

<input type="checkbox"/> Check here if an AI-001 Form is attached to provide more information for Part A. Enter AI-001 Form ID:

PART B: APPLICATION SUBMITTAL and CERTIFICATION by Responsible Official

Identify the items that are included as part of your administratively complete application in the checklist below. For your application to be complete, it must include information necessary to evaluate the source and to determine all applicable requirements. Answer the compliance statements as they pertain to all the applicable requirements to which the source is subject. The source's Responsible Official must sign and date this form.

Listing of ROP Application Contents. Check the box for the items included with your application.	
<input checked="" type="checkbox"/> Completed ROP Renewal Application Form (and any AI-001 Forms) (required)	<input type="checkbox"/> Compliance Plan/Schedule of Compliance
<input checked="" type="checkbox"/> Mark-up copy of existing ROP using official version from the AQD website (required)	<input type="checkbox"/> Stack information
<input type="checkbox"/> Copies of all Permit(s) to Install that have not been incorporated into existing ROP (required)	<input type="checkbox"/> Acid Rain Permit Initial/Renewal Application
<input checked="" type="checkbox"/> HAP/Criteria Pollutant Potential to Emit Calculations	<input type="checkbox"/> Cross State Air Pollution Rule (CSAPR) Information
<input type="checkbox"/> MAERS Forms (to report emissions not previously submitted)	<input type="checkbox"/> Confidential Information
<input type="checkbox"/> Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP	<input checked="" type="checkbox"/> Paper copy of all documentation provided (required)
<input checked="" type="checkbox"/> Compliance Assurance Monitoring (CAM) Plan	<input checked="" type="checkbox"/> Electronic documents provided (optional)
<input checked="" type="checkbox"/> Other Plans (e.g. Malfunction Abatement, Fugitive Dust, Operation and Maintenance, etc.)	<input type="checkbox"/> Other, explain:

Compliance Statement

This source is in compliance with **all** of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP. Yes No

This source will continue to be in compliance with all of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP. Yes No

This source will meet in a timely manner applicable requirements that become effective during the permit term. Yes No

The method(s) used to determine compliance for each applicable requirement is/are the method(s) specified in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and all other applicable requirements not currently contained in the existing ROP.

If any of the above are checked No, identify the emission unit(s) or flexible group(s) affected and the specific condition number(s) or applicable requirement for which the source is or will be out of compliance at the time of issuance of the ROP renewal on an AI-001 Form. Provide a compliance plan and schedule of compliance on an AI-001 Form.

Name and Title of the Responsible Official (Print or Type)

Michael Kyro, Operations Manager

As a Responsible Official, I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate, and complete.



Signature of Responsible Official

 5-16-18
Date

PART C: SOURCE REQUIREMENT INFORMATION

Answer the questions below for specific requirements or programs to which the source may be subject.

C1.	Actual emissions and associated data from all emission units with applicable requirements (including those identified in the existing ROP, Permits to Install and other equipment that have not yet been incorporated into the ROP) are required to be reported in MAERS. Are there any emissions and associated data that have not been reported in MAERS for the most recent emissions reporting year? If Yes, identify the emission unit(s) that was/were not reported in MAERS on an AI-001 Form. Applicable MAERS form(s) for unreported emission units must be included with this application.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C2.	Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C3.	Is this source subject to the federal Chemical Accident Prevention Provisions? (Section 112(r) of the Clean Air Act Amendments, 40 CFR Part 68) If Yes, a Risk Management Plan (RMP) and periodic updates must be submitted to the USEPA. Has an updated RMP been submitted to the USEPA?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
C4.	Does the source belong to one of the source categories that require quantification of fugitive emissions? If Yes, identify the category on an AI-001 Form and include the fugitive emissions in the PTE calculations for the source. <i>See ROP Renewal Application instructions.</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C5.	Does this stationary source have the potential to emit (PTE) of 100 tons per year or more of any criteria pollutant (PM-10, PM 2.5, VOC, NOx, SO ₂ , CO, lead)? If Yes, include potential emission calculations for each identified pollutant on an AI-001 Form.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C6.	Does this stationary source emit any hazardous air pollutants (HAPs) regulated by the federal Clean Air Act, Section 112? If Yes, include potential and actual emission calculations for HAPs on an AI-001 Form. Fugitive emissions must be included in HAP calculations.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C7.	Are any emission units subject to the Cross State Air Pollution Rule (CSAPR)? If Yes, identify the specific emission unit(s) subject to CSAPR on an AI-001 Form.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C8.	Are any emission units subject to the federal Acid Rain Program? If Yes, identify the specific emission unit(s) subject to the Federal Acid Rain Program on an AI-001 Form. Is an Acid Rain Permit Renewal Application included with this application?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C9.	Are any emission units identified in the existing ROP subject to compliance assurance monitoring (CAM)? If Yes, identify the specific emission unit(s) subject to CAM on an AI-001 Form. If a CAM plan has not been previously submitted to the MDEQ, one must be included with the ROP renewal application on an AI-001 Form. Is a CAM plan included with this application?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C10.	Does the source have any plans such as a malfunction abatement plan, fugitive dust plan, operation/maintenance plan, or any other monitoring plan that is referenced in an existing ROP, Permit to Install requirement, or any other applicable requirement? If Yes, then a copy must be submitted as part of the ROP renewal application.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C11.	Are there any specific requirements that the source proposes to be identified in the ROP as non-applicable? If Yes, then a description of the requirement and justification must be submitted as part of the ROP renewal application on an AI-001 Form.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input checked="" type="checkbox"/> Check here if an AI-001 Form is attached to provide more information for Part C. Enter AI-001 Form ID: AI-01		

PART D: PERMIT TO INSTALL (PTI) EXEMPT EMISSION UNIT INFORMATION

Review all emission units at the source and answer the question below.

D1. Does the source have any emission units that do not appear in the existing ROP but are required to be listed in the ROP application under R 336.1212(4) (Rule 212(4)) of the Michigan Air Pollution Control Rules? If Yes, identify the emission units in the table below. Yes No

If No, go to Part E.

Note: Emission units that are subject to process specific emission limitations or standards, even if identified in Rule 212, must be captured in either Part G or H of this application form. Identical emission units may be grouped (e.g. PTI exempt Storage Tanks).

Emission Unit ID	Emission Unit Description	Rule 201 Exemption Rule Citation [e.g. Rule 282(2)(b)(i)]	Rule 212(4) Citation [e.g. Rule 212(4)(c)]
DVTANK1	Tank 1 – Toluene	Rule 284(i)	Rule 212(4)(c)
DVTANK2	Tank 2 - Toluene	Rule 284(i)	Rule 212(4)(c)
DVTANK3	Tank 3 – Methyl Ethyl Ketone	Rule 284(i)	Rule 212(4)(c)
DVTANK4	Tank 4 – Methyl Ethyl Ketone	Rule 284(i)	Rule 212(4)(c)
DVTANK5	Tank 5 – Blend 1	Rule 284(i)	Rule 212(4)(c)
DVTANK6	Tank 6 – Blend 1	Rule 284(i)	Rule 212(4)(c)
DVTANK7	Tank 7 – Acetone	Rule 290(a)(i)	Rule 212(4)(f)
DVTANK8	Tank 8 – Isopropanol	Rule 284(i)	Rule 212(4)(c)
DVTANK9	Tank 9 – Methanol	Rule 284(n)	Rule 212(4)(c)
DVTANK10	Tank 10 – Methyl Ethyl Ketone	Rule 284(i)	Rule 212(4)(c)
DVTANK11	Tank 11 – Blend 6	Rule 284(i)	Rule 212(4)(c)
DVTANK12	Tank 12 – Blend 4	Rule 284(i)	Rule 212(4)(c)

Comments:

Check here if an AI-001 Form is attached to provide more information for Part D. Enter AI-001 Form ID: AI-

PART E: EXISTING ROP INFORMATION

Review all emission units and applicable requirements (including any source wide requirements) in the existing ROP and answer the questions below as they pertain to all emission units and all applicable requirements in the existing ROP.

<p>E1. Does the source propose to make any additions, changes or deletions to terms, conditions and underlying applicable requirements as they appear in the existing ROP? If Yes, identify changes and additions on Part F, Part G and/or Part H.</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>E2. For each emission unit(s) identified in the existing ROP, <u>all</u> stacks with applicable requirements are to be reported in MAERS. Are there any stacks with applicable requirements for emission unit(s) identified in the existing ROP that were <u>not</u> reported in the most recent MAERS reporting year? If Yes, identify the stack(s) that was/were not reported on applicable MAERS form(s).</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>E3. Have any emission units identified in the existing ROP been modified or reconstructed that required a PTI? If Yes, complete Part F with the appropriate information.</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>E4. Have any emission units identified in the existing ROP been dismantled? If Yes, identify the emission unit(s) and the dismantle date in the comment area below or on an AI-001 Form:</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>

Comments:

Check here if an AI-001 Form is attached to provide more information for Part E. Enter AI-001 Form ID: AI-

PART F: PERMIT TO INSTALL (PTI) INFORMATION

Review all emission units and applicable requirements at the source and answer the following questions as they pertain to **all** emission units with PTIs. Any PTI(s) identified below must be attached to the application.

<p>F1. Has the source obtained any PTIs where the applicable requirements from the PTI have not been incorporated into the existing ROP? If Yes, complete the following table. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If No, go to Part G.</p>			
Permit to Install Number	Emission Units/Flexible Group ID(s)	Description (Include Process Equipment, Control Devices and Monitoring Devices)	Date Emission Unit was Installed/Modified/Reconstructed
<p>F2. Do any of the PTIs listed above change, add, or delete terms/conditions to established emission units in the existing ROP? If Yes, identify the emission unit(s) or flexible group(s) affected in the comments area below or on an AI-001 Form and identify all changes, additions, and deletions in a mark-up of the existing ROP. <input type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p>F3. Do any of the PTIs listed above identify new emission units that need to be incorporated into the ROP? If Yes, submit the PTIs as part of the ROP renewal application on an AI-001 Form, and include the new emission unit(s) or flexible group(s) in the mark-up of the existing ROP. <input type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p>F4. Are there any stacks with applicable requirements for emission unit(s) identified in the PTIs listed above that were <u>not</u> reported in MAERS for the most recent emissions reporting year? If Yes, identify the stack(s) that were not reported on the applicable MAERS form(s). <input type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p>F5. Are there any proposed administrative changes to any of the emission unit names, descriptions or control devices in the PTIs listed above for any emission units not already incorporated into the ROP? If Yes, describe the changes on an AI-001 Form. <input type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p>Comments:</p>			
<p><input type="checkbox"/> Check here if an AI-001 Form is attached to provide more information for Part F. Enter AI-001 Form ID: AI-</p>			

PART G: EMISSION UNITS MEETING THE CRITERIA OF RULES 281(2)(h), 285(2)(r)(iv), 287(2)(c), OR 290

Review all emission units and applicable requirements at the source and answer the following questions.

G1. Does the source have any new and/or existing emission units which do not already appear in the existing ROP and which meet the criteria of Rules 281(2)(h), 285(2)(r)(iv), 287(2)(c), or 290.
 If Yes, identify the emission units in the table below. If No, go to Part H. Yes No
Note: If several emission units were installed under the same rule above, provide a description of each and an installation/modification/reconstruction date for each.

Origin of Applicable Requirements	Emission Unit Description – Provide Emission Unit ID and a description of Process Equipment, Control Devices and Monitoring Devices	Date Emission Unit was Installed/Modified/Reconstructed
<input type="checkbox"/> Rule 281(2)(h) or 285(2)(r)(iv) cleaning operation		
<input type="checkbox"/> Rule 287(2)(c) surface coating line		
<input type="checkbox"/> Rule 290 process with limited emissions		

Comments:

Check here if an AI-001 Form is attached to provide more information for Part G. Enter AI-001 Form ID: AI-

PART H: REQUIREMENTS FOR ADDITION OR CHANGE

Complete this part of the application form for all proposed additions, changes or deletions to the existing ROP. This includes state or federal regulations that the source is subject to and that must be incorporated into the ROP or other proposed changes to the existing ROP. **Do not include additions or changes that have already been identified in Parts F or G of this application form.** If additional space is needed copy and complete an additional Part H.

Complete a separate Part H for each emission unit with proposed additions and/or changes.

H1. Are there changes that need to be incorporated into the ROP that have not been identified in Parts F and G? If Yes, answer the questions below.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
H2. Are there any proposed administrative changes to any of the existing emission unit names, descriptions or control devices in the ROP? If Yes, describe the changes in questions H8 – H16 below and in the affected Emission Unit Table(s) in the mark-up of the ROP.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
H3. Does the source propose to add a new emission unit or flexible group to the ROP not previously identified in Parts F or G? If Yes, identify and describe the emission unit name, process description, control device(s), monitoring device(s) and applicable requirements in questions H8 – H16 below and in a new Emission Unit Table in the mark-up of the ROP. See instructions on how to incorporate a new emission unit/flexible group into the ROP.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
H4. Does the source propose to add new state or federal regulations to the existing ROP? If Yes, on an AI-001 Form, identify each emission unit/flexible group that the new regulation applies to and identify <u>each</u> state or federal regulation that should be added. Also, describe the new requirements in questions H8 – H16 below and add the specific requirements to existing emission units/flexible groups in the mark-up of the ROP, create a new Emission Unit/Flexible Group Table, or add an AQD template table for the specific state or federal requirement.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were not incorporated into the existing ROP? If Yes, list the CO/CJ number(s) below and add or change the conditions and underlying applicable requirements in the appropriate Emission Unit/Flexible Group Tables in the mark-up of the ROP.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
H6. Does the source propose to add, change and/or delete source-wide requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
H7. Are you proposing to streamline any requirements? If Yes, identify the streamlined and subsumed requirements and the EU ID, and provide a justification for streamlining the applicable requirement below.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

<p>H8. Does the source propose to add, change and/or delete emission limit requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>H9. Does the source propose to add, change and/or delete material limit requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>H10. Does the source propose to add, change and/or delete process/operational restriction requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>H11. Does the source propose to add, change and/or delete design/equipment parameter requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>H12. Does the source propose to add, change and/or delete testing/sampling requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>H13. Does the source propose to add, change and/or delete monitoring/recordkeeping requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p> <p>Pressure sensors were added in 2018 to verify PTE in five coating heads.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>H14. Does the source propose to add, change and/or delete reporting requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H15. Does the source propose to add, change and/or delete stack/vent restrictions ? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
H16. Does the source propose to add, change and/or delete any other requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
H17. Does the source propose to add terms and conditions for an alternative operating scenario or intra-facility trading of emissions? If Yes, identify the proposed conditions in a mark-up of the corresponding section of the ROP and provide a justification below.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/> Check here if an AI-001 Form is attached to provide more information for Part H. Enter AI-001 Form ID: AI-	



RENEWABLE OPERATING PERMIT APPLICATION AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

SRN: B6175	Section Number (if applicable):
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1. Additional Information ID AI-01
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Additional Information

2. Is This Information Confidential? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Below are the calculations for Potential to Emit as well as HAP calculations

VOC Potential to Emit is limited by a Legally Enforceable Limit in Title V Permit

FGCOATING-ALL I.2 171.9 Tons per YEAR VOC
We use solvent based ink so PTE for HAP OF 171.9 TONS PER YEAR

Actual Emissions for 2017 were 24.05 Tons of VOC and 10.78 Tons of HAPS

Based on a material balance on Toluene for 2016, if we increase throughput to meet the 171.9 Ton per year limit, the fugitive emissions would be 69.69 Tons per year.

In 2016 Coding Products had 3.66% fugitive emissions for 9.75 tons per year.

CAM Emission units are EUCOATER1, EUCOATER2, EUCOATER3, EUCOATER4, EUCOATER5, and EUCOATER6

SRN: B6175	Section Number (if applicable):
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**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

EFFECTIVE DATE: December 9, 2013

ISSUED TO

Coding Products, Incorporated

State Registration Number (SRN): B6175

LOCATED AT

111 West Park Drive, Kalkaska, Kalkaska County, Michigan 49646

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B6175-2013

Expiration Date: December 9, 2018

Administratively Complete ROP Renewal Application Due Between
June 9, 2017 and June 9, 2018

This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Pursuant to Michigan Air Pollution Control Rule 210(1), this ROP constitutes the permittee's authority to operate the stationary source identified above in accordance with the general conditions, special conditions and attachments contained herein. Operation of the stationary source and all emission units listed in the permit are subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-B6175-2013

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(5) of Act 451. Pursuant to Michigan Air Pollution Control Rule 214a, the terms and conditions herein, identified by the underlying applicable requirement citation of Rule 201(1)(a), constitute a federally enforceable PTI. The PTI terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

Michigan Department of Environmental Quality

Janis Denman, Cadillac District Supervisor

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AUTHORITY AND ENFORCEABILITY

For the purpose of this permit, the **permittee** is defined as any person who owns or operates an emission unit at a stationary source for which this permit has been issued. The **department** is defined in Rule 104(d) as the Director of the Michigan Department of Environmental Quality (MDEQ) or his or her designee.

The permittee shall comply with all specific details in the permit terms and conditions and the cited underlying applicable requirements. All terms and conditions in this ROP are both federally enforceable and state enforceable unless otherwise footnoted. Certain terms and conditions are applicable to most stationary sources for which an ROP has been issued. These general conditions are included in Part A of this ROP. Other terms and conditions may apply to a specific emission unit, several emission units which are represented as a flexible group, or the entire stationary source which is represented as a Source-Wide group. Special conditions are identified in Parts B, C, D and/or the appendices.

In accordance with Rule 213(2) (a), all underlying applicable requirements will be identified for each ROP term or condition. All terms and conditions that are included in a PTI, are streamlined or subsumed, or are state only enforceable will be noted as such.

In accordance with Section 5507 of Act 451, the permittee has included in the ROP application a compliance certification, a schedule of compliance, and a compliance plan. For applicable requirements with which the source is in compliance, the source will continue to comply with these requirements. For applicable requirements with which the source is not in compliance, the source will comply with the detailed schedule of compliance requirements that are incorporated as an appendix in this ROP. Furthermore, for any applicable requirements effective after the date of issuance of this ROP, the stationary source will meet the requirements on a timely basis, unless the underlying applicable requirement requires a more detailed schedule of compliance.

Issuance of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. (R 336.1213(5))
- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. (R 336.1213(5)(a), R 336.1214a(5))
- Those conditions that are hereby incorporated in federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. (R 336.1213(5)(b), R 336.1214a(3))

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. (R 336.1213(1)(a))
2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. (R 336.1213(1)(b))
3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. (R 336.1213(1)(c))
4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities (R 336.1213(1)(d)):
 - a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
 - c. Inspect, at reasonable times, any of the following:
 - i. Any stationary source.
 - ii. Any emission unit.
 - iii. Any equipment, including monitoring and air pollution control equipment.
 - iv. Any work practices or operations regulated or required under the ROP.
 - d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. (R 336.1213(1)(e))

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. (R 336.1213(1)(f))
7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. (R 336.1213(1)(g))
8. This ROP does not convey any property rights or any exclusive privilege. (R 336.1213(1)(h))

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). (R 336.1370)
10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. (R 336.1910)

Emission Limits

11. Except as provided in Subrules 2, 3, and 4 of Rule 301, states in part; "a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of Rule 301(1)(a) or (b) unless otherwise specified in this ROP." The grading of visible emissions shall be determined in accordance with Rule 303. (R 336.1301(1) in pertinent part):
 - a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
 - b. A limit specified by an applicable federal new source performance standard.
12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
 - a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.¹ (R 336.1901(a))
 - b. Unreasonable interference with the comfortable enjoyment of life and property.¹ (R 336.1901(b))

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1). (R 336.2001)
14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. (R 336.2001(2), R 336.2001(3), R 336.2003(1))
15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. (R 336.2001(4))

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate (R 336.1213(3)(b)):
 - a. The date, location, time, and method of sampling or measurements.
 - b. The dates the analyses of the samples were performed.
 - c. The company or entity that performed the analyses of the samples.
 - d. The analytical techniques or methods used.
 - e. The results of the analyses.

- f. The related process operating conditions or parameters that existed at the time of sampling or measurement.
17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. (R 336.1213(1)(e), R 336.1213(3)(b)(ii))

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (R 336.1213(3)(c))
19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. (R 336.1213(4)(c))
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. (R 336.1213(4)(c))
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. (R 336.1213(3)(c))
- For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
 - For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
 - For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.
22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following (R 336.1213(3)(c)):
- Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
 - Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete". The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.

23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. (R 336.1213(3)(c)(i))
24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. (R 336.1212(6))
25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA. (R 336.1912)

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. (R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))
 - a. The applicable requirements are included and are specifically identified in the ROP.
 - b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.
27. Nothing in this ROP shall alter or affect any of the following:
 - a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. (R 336.1213(6)(b)(i))
 - b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. (R 336.1213(6)(b)(ii))
 - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. (R 336.1213(6)(b)(iii))
 - d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. (R 336.1213(6)(b)(iv))
28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
 - a. Operational flexibility changes made pursuant to Rule 215. (R 336.1215(5))
 - b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). (R 336.1216(1)(b)(iii))
 - c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. (R 336.1216(1)(c)(iii))
 - d. Minor Permit Modifications made pursuant to Rule 216(2). (R 336.1216(2)(f))
 - e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. (R 336.1216(4)(e))

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29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. (R 336.1217(1)(c), R 336.1217(1)(a))

Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. (R 336.1215, R 336.1216)
31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). (R 336.1219(2))
32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. (R 336.1210(9))
33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. (R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))

Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
- If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. (R 336.1217(2)(a)(i))
 - If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. (R 336.1217(2)(a)(ii))
 - If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. (R 336.1217(2)(a)(iii))
 - If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. (R 336.1217(2)(a)(iv))

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. (R 336.1210(7))

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F.

37. If the permittee is subject to 40 CFR, Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR, Part 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR, Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).
39. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall comply with the requirements of 40 CFR, Part 68, no later than the latest of the following dates as provided in 40 CFR, Part 68.10(a):
- June 21, 1999,
 - Three years after the date on which a regulated substance is first listed under 40 CFR, Part 68.130, or
 - The date on which a regulated substance is first present above a threshold quantity in a process.
40. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR, Part 68.
41. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c). (40 CFR, Part 68)

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. (R 336.1213(12))

Permit To Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule. ² (R 336.1201(1))
44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA. ² (R 336.1201(8), Section 5510 of Act 451)
45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDEQ. ² (R 336.1219)

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46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months, or has been interrupted for 18 months, the applicable terms and conditions from that PTI shall become void unless otherwise authorized by the Department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, MDEQ, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI. ²(R 336.1201(4))

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

²This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

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B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

C. EMISSION UNIT CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/Modification Date	Flexible Group ID
EUCOATER1	Coating Line 1 applies a continuous layer of coating material across a portion of the web substrate using the hot stamp (HS) process with the Mayer Rod Coating Technology. Regenerative Thermal Oxidizer (RTO) in combination with the Capture System/ Permanent Total Enclosure.	1/1/1978	FGCOATING12456, FGCOATING-ALL
EUCOATER2	Coating Line 2 applies a continuous layer of coating material across a portion of the web substrate using the HS process with the Mayer Rod Coating Technology. RTO in combination with the Capture System/ Permanent Total Enclosure.	6/1/1981	FGCOATING12456, FGCOATING-ALL
EUCOATER3	Coating Line 3 applies a continuous layer of coating material across a portion of the web substrate using the HS process with the Mayer Rod Coating Technology. Solvent recovery system.	1/1/1985	FGCOATING-ALL
EUCOATER4	Coating Line 4 applies a continuous layer of coating material across a portion of the web substrate using the Thermal Transfer (TTR) process with the Gravure Technology. RTO in combination with the Capture System/ Permanent Total Enclosure.	6/23/1998	FGCOATING12456, FGCOATING-ALL
EUCOATER5	Coating Line 5 applies a continuous layer of coating material across a portion of the web substrate using the TTR process with the Gravure Technology. RTO in combination with the Capture System/ Permanent Total Enclosure.	11/1/1999	FGCOATING12456, FGCOATING-ALL

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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCOATER6	Coating Line 6 applies a continuous layer of coating material across a portion of the web substrate using the TTR process with the Gravure Technology. RTO in combination with the Capture System/ Permanent Total Enclosure.	7/6/2001	FGCOATING12456, FGCOATING-ALL

**EUCOATER3
 EMISSION UNIT CONDITIONS**

DESCRIPTION The emission unit, EUCOATER3, applies a continuous layer of coating material across a portion of the web substrate using the Hot Stamp process with the Mayer Rod Coating Technology

Flexible Group ID: FGCOATING-ALL

POLLUTION CONTROL EQUIPMENT Solvent Recovery System

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Organic HAPs	No more than 5% applied (95% reduction)	For each month.	EUCOATER3	V.1, VI.3, IX.1	40 CFR 63.3320 (b)(1))

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUCOATER3 unless the solvent recovery system is installed and operating properly.² (R 336.1702(a), R 336.1910)
2. At no time shall any purge operations take place on EUCOATER3 unless the Solvent Recovery System is installed and operating properly.² (R 336.1702(a), R 336.1910)
3. The permittee shall determine volatile matter recovered and conduct monthly liquid-liquid material balance. (40 CFR 63.3350(a)(2), 40 CFR 63.3360(b)(2))
4. The permittee shall calibrate, maintain, and operate according to the manufacturer's specification a micro motion meter that indicates the cumulative amount of volatile matter recovered by the solvent recovery device on a monthly basis. The micro motion meter must be certified by the manufacturer to be accurate to within plus or minus (+/-) 2 percent by mass. (40 CFR 63.3350(d)(2))

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee must determine the organic HAP mass fraction of each coating material as-purchased by following one of the following procedures. (40 CFR 63.3360(c)(1), (2) and (3))
 - a. *Method 311:* The permittee may test the coating material in accordance with Method 311 of appendix A 40 CFR, Part 63. The Method 311 determination may be performed by the manufacturer of the coating material and the results provided to the permittee. The organic HAP content must be calculated according to the following criteria and procedures.
 - (i) Include each organic HAP determined to be present at greater than or equal to 0.1 mass percent for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and greater than or equal to 1.0 mass percent for other organic HAP compounds.
 - (ii) Express the mass fraction of each organic HAP you include according to paragraph (c)(1)(i) of this section as a value truncated to four places after the decimal point (for example, 0.3791).
 - (iii) Calculate the total mass fraction of organic HAP in the tested material by summing the counted individual organic HAP mass fractions and truncating the result to three places after the decimal point (for example, 0.763).
 - b. *Method 2:* For coatings, determine the volatile organic content as mass fraction of nonaqueous volatile matter and use it as a substitute for organic HAP using Method 24 of 40 CFR, Part 60, Appendix A. The Method 24 determination may be performed by the manufacturer of the coating and the results provided to the permittee.
 - c. *Formulation data:* The permittee may use formulation data to determine the organic HAP mass fraction of a coating material. Formulation data may be provided to the permittee by the manufacturer of the material. In the event of an inconsistency between Method 311 (appendix A of 40 CFR, Part 63) test data and a permittee's formulation data, and the Method 311 test value is higher, the Method 311 data will govern. Formulation data may be used provided that the information represents all organic HAP present at a level equal to or greater than 0.1 percent for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and equal to or greater than 1.0 percent for other organic HAP compounds in any raw material used.

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee must maintain the following records on a monthly basis. (40 CFR 63.3410(a)(1)(iii) and (vi))
 - a. Records of all measurements needed to demonstrate compliance including:
 - (i) Organic HAP content data for the purpose of demonstrating compliance in accordance with the requirements of 40 CFR 63.3360(c);
 - (ii) Material usage, organic HAP usage, volatile matter usage, and coating solids usage and compliance demonstrations.
2. The permittee must maintain records of all liquid-liquid material balances performed in accordance with the requirements of 40 CFR 63.3370. The records must be maintained in accordance with the requirements of § 63.10(b). (40 CFR 63.3410(b))
3. The permittee must perform a monthly liquid-liquid material balance as specified in the paragraphs below and use the method in Appendix 7A, or an equivalent method approved by the District Supervisor, AQD, to convert the data. (40 CFR 63.3370 (i))
 - a. Determine the mass of each coating material applied on the web coating line during the month.
 - b. Determine the organic HAP content of each coating material as-applied during the month following the procedure in V TESTING/SAMPLING.
 - c. Determine and monitor the amount of volatile organic matter recovered for the month according to the procedures in III PROCESS/OPERATIONAL RESTRICTION(S).

4. The permittee must determine the monthly organic HAP emissions. The permittee must determine the amount of coating material applied at greater than or equal to 20 mass percent coating solids and the amount of coating material applied at less than 20 mass percent coating solids. The allowable organic HAP limit is then calculated based on coating material applied at greater than or equal to 20 mass percent coating solids complying with 0.2 kg organic HAP per kg coating solids and coating material applied at less than 20 mass percent coating solids complying with 4 mass percent organic HAP follows: **(40 CFR 63.3370(l))**
 - a. Determine the as-purchased mass of each coating material applied each month.
 - b. Determine the as-purchased coating solids content of each coating material applied each month in accordance with § 63.3360(d)(1).
 - c. Determine the as-purchased mass fraction of each coating material which was applied at 20 mass percent or greater coating solids content on an as-applied basis.
 - d. Determine the total mass of each solvent, diluent, thinner, or reducer added to coating materials which were applied at less than 20 mass percent coating solids content on an as-applied basis each month
 - e. Calculate the monthly allowable organic HAP emissions using Equation 13a found in 40 CFR 64.3370(l)(5).
5. The permittee shall utilize the P2 blower and liquid level on HE-4 (Heat Exchanger) on the Solvent Recovery System as indicators of the proper functioning of the Solvent Recovery System. The liquid level range on Heat Exchanger is 26-51 percent. **(40 CFR 64.6(c)(1)(i) and (ii), 40 CFR 64.6(c)2)**
6. The permittee shall monitor the P2 blower and liquid level on HE-4 (Heat Exchanger) on the-Solvent Recovery System. An excursion for VOC shall be the P2 and liquid level on Heat Exchanger outside of the range of 26-51 percent. **(40 CFR 64.6(c)(1)(iii))**
7. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities, the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that EUCOATER3 operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The permittee 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, in frequent, 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. The permittee shall utilize the P2 blower and liquid level on HE-4 (Heat Exchanger) as an indicator of the proper functioning of the Solvent Recovery System when EUCOATER3 is operating. Data recorded during monitoring malfunctions, repair activities and QA/QC operations shall not be used for 40 CFR, Part 64 compliance. **(40 CFR 64.6(c)(3), 64.7(c))**
8. Upon detecting an excursion or exceedance, the permittee shall restore operation of EUCOATER3 (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 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). **(40 CFR 64.7(d))**
9. The permittee shall properly maintain the monitoring system including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
10. The permittee shall operate the monitoring device during all periods that the emission unit is operating. Data recorded during 9-8-11 4 ROP Manual 4 F 6 monitoring malfunctions, repair activities, and QA/QC operations shall not be used to determine 40 CFR, Part 64 compliance. **(40 CFR 64.6(c)(3), 64.7(c))**

See Appendix 7A

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
2. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
3. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. (40 CFR, Part 60.7, R 336.2001, R 336.12001(3))
4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the AQD District Supervisor no less than 7 days prior to the anticipated test date. (R 336.2001(4))
5. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. (R 336.2001(5))
6. The permittee shall notify the AQD of a deviation for any averaging period for which the permittee does not have valid monitoring data and such data are required. (40 CFR 63.3350(e)(8))
7. The permittee must submit a semiannual compliance report in accordance to 40 CFR 63.3400(c). This semiannual report shall contain information outlined in 40 CFR 63.3400(2). This semiannual report may be submitted to the AQD with the semiannual report referenced in VII.2. (40 CFR 63.3400(c))
8. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. (40 CFR 64.9(a)(2)(i))
9. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. (40 CFR 64.9(a)(2)(ii))

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (Inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall demonstrate the overall organic HAP control efficiency is equal to 95 percent on a monthly basis when using multiple capture systems and control device. When using a solvent recovery device, the permittee shall show compliance by following the procedures in 40 CFR 63.3370(j). The permittee shall use Appendix 7F or an equivalent method approved by the District Supervisor, AQD. (40 CFR 63.3370(a)(4) and (5), 40 CFR 63.3370(i), 40 CFR 63.3370(k), 40 CFR 63.3370(p))
2. The permittee shall maintain a startup, shutdown, and malfunction abatement plan approved by the AQD. (R 336.1911, 40 CFR 63.3340, 40 CFR, Part 63, Subpart JJJJ, Table 2)
3. The permittee shall be in compliance with all applicable requirements of 40 CFR, Part 63, Subpart JJJJ, National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating. (40 CFR, Part 63, Subpart JJJJ)
4. The permittee shall promptly notify AQD for the need to modify the CAM Plan if the existing plan is found to be inadequate and shall submit a proposed modification to the ROP if necessary. (40 CFR 64.7(e))
5. The permittee shall comply with all applicable requirements of 40 CFR, Part 64. (40 CFR, Part 64)

See Appendix 7F

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

²This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

D. FLEXIBLE GROUP CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGCOATING12456	<p>The Emission Units apply a continuous layer of coating material across a portion of the web substrate.</p> <p>EUCOATER1 and EUCOATER2 utilize the Hot Stamp process with the Mayer Rod Coating Technology. EUCOATER4, EUCOATER5, and EUCOATER6 utilize the Thermal Transfer process with the Gravure Technology.</p> <p>These emissions units are controlled by the RTO in combination with the Capture System/Permanent Total Enclosure.</p>	EUCOATER1, EUCOATER2, EUCOATER4, EUCOATER5, EUCOATER6
FGCOATING-ALL	<p>The Emission Units apply a continuous layer of coating material across a portion of the web substrate.</p> <p>EUCOATER1, EUCOATER2, and EUCOATER3 utilize the Hot Stamp process with the Mayer Rod Coating Technology. EUCOATER4, EUCOATER5, and EUCOATER6 utilize the Thermal Transfer process with the Gravure Technology.</p> <p>EUCOATER1, EUCOATER2, EUCOATER4, EUCOATER5, EUCOATER6 are controlled by the RTO in combination with the Capture System/Permanent Total Enclosure. EUCOATER3 is controlled by the Solvent Recovery System (SRS).</p>	EUCOATER1, EUCOATER2, EUCOATER3, EUCOATER4, EUCOATER5, EUCOATER6
FG-COLD CLEANERS	<p>The Emission Units are used to clean machine parts and equipment.</p> <p><u>EUCOLDCLEANERA, EUCOLDCLEANERB are used in our Hot Stamp Processes. EUCOLDCLEANERC is used in our Thermal Transfer Processes.</u></p>	EUCOLDCLEANERA, EUCOLDCLEANERB, and EUCOLDCLEANERC,

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FGCOATING12456
FLEXIBLE GROUP CONDITIONS

DESCRIPTION The Emission Units apply a continuous layer of coating material across a portion of the web substrate. EUCOATER1 and EUCOATER2 utilize the Hot Stamp process with the Mayer Rod Coating Technology. EUCOATER4, EUCOATER5, and EUCOATER6 utilize the Thermal Transfer process, with the Gravure Technology.

Emission Units: EUCOATER1, EUCOATER2, EUCOATER4, EUCOATER5, EUCOATER6

POLLUTION CONTROL EQUIPMENT RTO in combination with the Capture System/Permanent Total Enclosure.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Organic HAPs	No more than 5 percent of the HAP applied (95 percent reduction)	For each month	FG COATING12456	V.2, V.3, VI.8	40 CFR 63.3320(b)(1)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not use release coat big mix coating X-43 on any of the coating lines in FGCOATING12456.² (R 336.1702(a))
2. The permittee shall not operate any of the coating lines in FGCOATING12456 unless the Capture System/Permanent Total Enclosure described in Appendix 9 is installed and operating properly.² (R 336.1702(a), R 336.1225)
3. The permittee shall not operate any of the coating lines in FGCOATING12456 unless the RTO is installed and operating properly.² (R 336.1702(a), R 336.1910)
4. At no time shall any clean-up operations take place on a line unless the RTO is installed and operating properly.² (R 336.1702(a), R 336.1910)
5. The VOC destruction efficiency of the RTO shall be at least 98 percent.² (R 336.1702(a), R 336.1225)
6. The operation temperature of the RTO shall be 16400 degrees Fahrenheit or higher.² (R 336.1702(a), R 336.1225)

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7. The permittee shall operate a continuous parameter monitoring system on the Capture System/Permanent Total Enclosure. (40 CFR 63.3350(a)(4))
8. The permittee shall demonstrate compliance with the emission limits if the Capture System/Permanent Total Enclosure is operated at minus three and a half inches (-3.5") Water Column on the RTO fan as established in accordance with testing, or as established in future testing. (40 CFR 63.3370(k)(3))
9. The permittee shall operate the Capture System/Permanent Total Enclosure in accordance to the monitoring plan approved by the AQD. (40 CFR 63.3321(a), 40 CFR 63.3350(f), 40 CFR, Part 63, Subpart JJJJ, Table 1(3))
10. The permittee shall operate a continuous parameter monitoring system on the RTO. (40 CFR 63.3350(a)(3))
11. The permittee shall demonstrate compliance with the emission limits if the RTO is operated such that the average temperature is greater than the temperature established during testing for each 3-hour period. (40 CFR 63.3370(k)(3))
12. The permittee shall operate the RTO as follows: (40 CFR 63.3321(a), 40 CFR, Part 63, Subpart JJJJ, Table 1(1))
 - a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established during the most recent performance testing. The combustion temperatures are identified in the RTO Startup Shutdown Malfunction Abatement Plan approved by the AQD.
 - (i) The permittee must collect the RTO combustion temperature data according to VI MONITORING/RECORDKEEPING.
 - (ii) The collected RTO combustion temperature data shall be reduced to 3-hour block averages.
 - (iii) The RTO combustion temperature shall be maintained with the 3-hour average combustion temperature at or above the temperature limit.

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See Appendix 9

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The RTO shall be equipped with a working continuous combustion temperature monitor.² (R 336.1702(a), R 336.1213(a))
2. The RTO shall be designed so the retention time of air contaminants in the RTO is 0.5 seconds or more.² R 336.1702(a))

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. All testing, sampling, analytical and calibration procedures shall be performed in accordance with 40 CFR, Part 60, and USEPA Reference Methods 18 and 24, or other acceptable methods approved by the AQD. (R 336.1213(3)(a)(i))
2. The permittee shall conduct performance tests on the RTO every five years to determine the destruction efficiency of the RTO. The testing shall be conducted per the requirements of 40 CFR 63.3360(e), or as approved by the AQD. (R 336.1213(3), 40 CFR 63.3360(a)(2), 40 CFR 63.3360(e))
3. The permittee shall conduct performance tests on the Capture System/Permanent Total Enclosure every five years to determine the capture efficiency of the Capture System/Permanent Total Enclosure. The testing shall be conducted per the requirements of 40 CFR 63.3360(f)(1), or as approved by the AQD. (40 CFR 63.3360(a)(2), R 336.1213(3))

4. The permittee may assume the capture efficiency equals 100 percent if the permittee's capture system is a permanent total enclosure (PTE). The permittee must confirm that the capture system is a permanent total enclosure by demonstrating that it meets the requirements of section 6 of EPA Method 204 of 40 CFR, Part 51 Appendix M, and that all exhaust gases from the enclosure are delivered to the RTO. (40 CFR 63.3360(f)(1))
5. The permittee must record process information to determine the conditions in existence at the time of the RTO performance test. Operations during periods of startup, shutdown, and malfunction will not constitute representative conditions for the purpose of a performance test. (40 CFR 63.3360(e)(2))
6. The permittee must establish the RTO operating limits during the performance test according to the following: (40 CFR 63.3360(e), 40 CFR 63.3360(e)(3)(i))
 - a. During the performance test, the permittee must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. The permittee must monitor the temperature in the firebox of the RTO or immediately downstream of the firebox before any substantial heat exchange occurs.
 - b. Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for the RTO.

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall monitor and record the temperature in the RTO on a continuous basis in a manner and with instrumentation acceptable to the AQD.² (R 336.1702(a), R 336.1213(3)(a))
2. The permittee shall develop a site-specific monitoring plan for the Capture System/Permanent Total Enclosure containing the following information. The permittee must make the monitoring plan available for inspection by the AQD upon request. (40 CFR 63.3350(f)(1),(2),(3),(4), and (5))
 - a. The monitoring plan must:
 - (i) Identify the minus three and a half inches (-3.5") Water Column on the RTO fan as the operating parameter to be monitored to ensure that the capture efficiency determined during the compliance test is maintained. The permittee may use an alternate operating parameter if it is approved by the AQD; and
 - (ii) Explain why this parameter is appropriate for demonstrating ongoing compliance; and
 - (iii) Identify the specific monitoring procedures.
 - (iv) Identify the pressure sensors on Coating lines 1,2,4,5, and 6 as an operating parameter to be monitored to ensure that the Coating heads meet the definition of a PTE and
 - (v) Explain why this parameter is appropriate for demonstrating ongoing compliance; and
 - (vi) Identify the specific monitoring procedures.
 - b. The monitoring plan must specify the operating parameter value or range of values that demonstrate compliance with the emission standards. The specified operating parameter value or range of values must represent the conditions present when the capture system is being properly operated and maintained.
 - c. The permittee must conduct all capture system monitoring in accordance with the site-specific monitoring plan.
 - d. Any deviation from the operating parameter value or range of values which are monitored according to the plan will be considered a deviation from the operating limit.
 - e. The permittee must review and update the capture system monitoring plan at least annually.

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3. The permittee must monitor the Capture System/Permanent Total Enclosure and conduct all capture system monitoring in accordance with the monitoring plan. (40 CFR 63.3350(f)(1) and (2))
4. Any deviation from the operating parameter value or range of values which are monitored according to the Capture System/Permanent Total Enclosure monitoring plan will be considered a deviation from the operating limit. (40 CFR 63.3350(f)(4))
5. The permittee must review and update the Capture System/Permanent Total Enclosure monitoring plan at least annually. (40 CFR 63.3350(f)(5))
6. The permittee shall comply with the following for the RTO. (40 CFR 63.3350(e)(9)(i) and (ii))
 - a. Install, calibrate, maintain, and operate temperature monitoring equipment according to the manufacturer's specifications. The calibration of the data logger and temperature indicator must be verified every 3 months or the data logger and temperature indicator must be replaced. The permittee must replace the equipment whether the permittee chooses not to perform the calibration or the equipment cannot be calibrated properly.
 - b. Install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device must have an accuracy of ± 1 percent of the temperature being monitored in degrees Celsius, or ± 1 degree Celsius, whichever is greater. The thermocouple or temperature sensor must be installed in the combustion chamber at a location in the combustion zone.
7. The permittee shall continuously monitor the operating parameters of the Capture System/Permanent Total Enclosure, and RTO, whenever a web coating line is operated. The parameters are established during testing. The testing is described in V. TESTING/SAMPLING. (40 CFR 63.3370(k)(1)(iii) and (3))
8. The permittee must demonstrate that the overall organic HAP control efficiency is equal to 95 percent. The permittee shall use Appendix 7F or an equivalent method approved by the District Supervisor, AQD. (40 CFR 63.3370(a)(5), R 336.1213(3))
9. The permittee shall operate the Capture System/Permanent Total Enclosure, and the RTO, and have always-controlled work stations to demonstrate that the overall organic HAP control efficiency is equal to 95 percent. (40 CFR 63.3370(p)(3))
10. The permittee must maintain the following records on a monthly basis. (40 CFR 63.3410(a)(1)(ii) and (v), 40 CFR 63.3410(a)(2))
 - a. Records of all measurements needed to demonstrate compliance including:
 - (i) Capture System/Permanent Total Enclosure, and RTO, operating parameter data.
 - (ii) Overall control efficiency determination using Capture System/Permanent Total Enclosure capture efficiency, and RTO destruction or removal efficiency test results.
 - b. Records specified in § 63.10(c) for each continuous parameter monitoring system.
11. The permittee must install, operate, and maintain each continuous parameter monitoring system on the Capture System/Permanent Total Enclosure, and RTO, as follows: (40 CFR 63.3350(e)(1-8))
 - a. Each continuous parameter monitoring system must complete a minimum of one cycle of operation for each successive 15-minute period. The permittee must have a minimum of four equally spaced successive cycles of continuous parameter monitoring system operation to have a valid hour of data.
 - b. The permittee must have valid data from at least 90 percent of the hours during which the process operated.
 - c. The permittee must determine the hourly average of all recorded readings according to the following:

- (i) To calculate a valid hourly value, the permittee must have at least three of four equally spaced data values from that hour from a continuous monitoring system that is not out-of-control.
 - (ii) Provided all of the readings recorded clearly demonstrate continuous compliance with the standards, then the permittee is not required to determine the hourly average of all recorded readings.
- d. The permittee must determine the rolling 3-hour average of all recorded readings for each operating period. To calculate the average for each 3-hour averaging period, the permittee must have at least two of three of the hourly averages for that period using only average values that are based on valid data (*i.e.*, not from out-of-control periods).
- e. The permittee must record the results of each inspection, calibration, and validation check of the continuous parameter monitoring system.
- f. At all times, the permittee must maintain the monitoring system in proper working order including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- g. Except for monitoring malfunctions, associated repairs, or required quality assurance or control activities (including calibration checks or required zero and span adjustments), the permittee must conduct all monitoring at all times that the Capture System/Permanent Total Enclosure and/or RTO is operating. Data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities shall not be used for purposes of calculating the emissions concentrations and percent reductions. The permittee must use all the valid data collected during all other periods in assessing compliance of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- h. Any averaging period for which there is not valid monitoring data and data are required constitutes a deviation, and the permittee shall notify the AQD in accordance with VII. Reporting.
12. The permittee shall utilize temperature as an indicator of the proper functioning of the RTO. The appropriate range of temperature defining proper function of the RTO is above 1400 degrees Fahrenheit. (40 CFR 64.6(c)(1)(i and ii))
13. The permittee shall continuously record the RTO temperature. (40 CFR 64.6(c)(1)(iii))
14. The permittee shall use the temperature to assure compliance with the VOC limit. An excursion for VOC shall be the RTO temperature less than 1400 degrees Fahrenheit. (40 CFR 64.6(c)(2))
15. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities, the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that FGCOATING12456 operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The permittee 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. The permittee shall utilize temperature as an indicator of the proper functioning of the RTO when FGCOATING12456 is operating. Data recorded during monitoring malfunctions, repair activities and QA/QC operations shall not be used for 40 CFR, Part 64 compliance. (40 CFR 64.6(c)(3), 64.7(c))
16. The permittee shall utilize static pressure as an indicator of the proper functioning of the permanent total enclosure. The proper function of the permanent total enclosure is -3.5 (or below) inches of water column. (40 CFR 64.6(c)(1)(i and ii))
17. The permittee shall use a vacuum sensor (transducer) that increases or decreases with fan speed to maintain the pressure of the permanent total enclosure. (40 CFR 64.6(c)(1)(iii))

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18. The permittee shall use the static pressure of the permanent total enclosure to assure compliance with the VOC limit. An excursion for VOC shall be defined as a reading of static pressure ~~above 3.5 inches water column less above than .007 inches H₂O psi.~~ (40 CFR 64.6(c)(2))

19. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities, the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that FGCOATING12456 operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The permittee 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, in frequent, 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. The permittee shall utilize pressure as an indicator of the proper functioning of the permanent total enclosure when FGCOATING12456 is operating. Data recorded during monitoring malfunctions, repair activities and AQ/QC operations shall not be used for 40 CFR, Part 64 compliance. (40 CFR 64.6(c)(3), 64.7(c))

20. Upon detecting an excursion or exceedance, the permittee shall restore operation of FGCOATING12456 (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 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). (40 CFR 64.7(d))

21. The permittee shall properly maintain the monitoring system including keeping necessary parts for routine repair of the monitoring equipment. (40 CFR 64.7(b))

22. The permittee shall operate the monitoring device during all periods that the emission unit is operating. Data recorded during 9-8-11 4 ROP Manual 4 F 6 monitoring malfunctions, repair activities, and QA/QC operations shall not be used to determine 40 CFR, Part 64 compliance. (40 CFR 64.6(c)(3), 64.7(c))

Appendix 7F

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. The permittee must submit to the AQD a semiannual compliance report in accordance with 40 CFR 63.3400(c). (40 CFR 63.3400(c))
5. The permittee shall submit to the AQD a semiannual startup, shutdown and malfunction report in accordance to 40 CFR 63.3400. (40 CFR 63.3400(g))
6. The permittee shall notify the AQD of a deviation for any averaging period for which the permittee does not have valid monitoring data and such data are required. (40 CFR 63.3350(e)(8))
7. The permittee shall submit a Notification of Performance Test and two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior

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to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. (R 336.12001(3), 40 CFR 60.7, 40 CFR 63.3400(d), (e), (f))

8. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. (R 336.2001(4))
9. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. (R 336.2001(5), 40 CFR 60.7, 40 CFR 63.3400(d), (e), (f))
10. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. (40 CFR 64.9(a)(2)(i))
11. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. (40 CFR 64.9(a)(2)(ii))

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVOXIDIZER	68 ¹	45 ¹	R 336.1225

IX. OTHER REQUIREMENT(S)

1. The permittee shall maintain a monitoring plan for the Capture System/Permanent Total Enclosure approved by the AQD. (40 CFR 63.3321(a), 40 CFR 63.3350(f), 40 CFR, Part 63, Subpart JJJJ, Table 1(3))
2. The permittee shall maintain a Startup, Shutdown, and Malfunction Abatement Plan for the RTO approved by the AQD. The Startup, Shutdown, and Malfunction Abatement Plan shall include the RTO combustion temperatures established during the most recent performance testing. (R 336.1911, 40 CFR 63.3340, 40 CFR, Part 63, Subpart JJJJ, Table 1(1))
3. The permittee shall be in compliance with all applicable requirements of 40 CFR, Part 63, Subpart JJJJ, of the National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating. (40 CFR, Part 63, Subpart JJJJ)
4. The permittee shall promptly notify AQD for the need to modify the CAM Plan if the existing plan is found to be inadequate and shall submit a proposed modification to the ROP if necessary. (40 CFR 64.7(e))

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5. The permittee shall comply with all applicable requirements of 40 CFR, Part 64. (40 CFR, Part 64)

See Appendix 7F

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

²This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FGCOATING - ALL
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION The Emission Units apply a continuous layer of coating material across a portion of the web substrate. EU COATER1, EU COATER2, and EU COATER3 utilize the Hot Stamp process with the Mayer Rod Coating Technology. EU COATER4, EU COATER5, and EU COATER6 utilize the Thermal Transfer process with the Mayer Rod Coating Technology.

Emission Unit: EU COATER1, EU COATER2, EU COATER3, EU COATER4, EU COATER5, EU COATER6.

POLLUTION CONTROL EQUIPMENT RTO in combination with the Capture System/Permanent Total Enclosure on EU COATER1, EU COATER2, EU COATER4, EU COATER5, and EU COATER6. Solvent Recovery System (SRS) on EU COATER3.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	47.8 pounds per hour ²		FGCOATING-ALL including cleanup and purge operations from all emission units combined	V.1, VI.8	R 336.1702(a), R 336.1225,
2. VOC	171.9 tons per year ²	Based on a 12 month rolling time period as determined at the end of each calendar month.	FGCOATING-ALL including cleanup and purge operations from all emission units combined	VI.1	R 336.1702(a), R 336.1225
3. VOC	4.79 pounds per gallon of solids applied. ^{2a}	Based upon a 24-hour averaging period.	EU COATER1, EU COATER2, EU COATER3, EU COATER4, EU COATER5, EU COATER6 (The limit applies to each individual Emission Unit)	V.2, V.3, VI.3, VI.4, VI.5, VI.6	R 336.1702(a), R 336.1225

a This is equivalent to using a coating comprised of not more than 2.9 pounds of VOC per gallon of coating (minus water) as applied, with a VOC density of 7.36 pounds per gallon, and with a mass transfer efficiency of 100 percent. Release coat big mix coating (X-43), in EU COATER 3, is exempt from this requirement. The permittee may comply with this requirement through emission averaging. Emission averaging allows for compliance with the pounds VOC per gallon of solids applied requirements to be demonstrated by averaging emissions over all six coating lines if the following provisions are met:

- The average VOC emissions from FGCOATING-ALL are less than 4.31 pounds VOC per gallon solids applied, determined on a calendar day basis; and

- The average VOC emissions from FGCOATING-ALL are calculated using the method given in Appendix 7B or an equivalent method approved by the District Supervisor, AQD.

See Appendix 7B

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall dispose of waste coatings and/or solvents in a manner, which minimizes the introduction of air contaminants to the outer air.² (R 336.1370)

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

- The combined total VOC pounds per hour emission rate from FGCOATING-ALL shall be tested every five years. All testing, sampling, analytical and calibration procedures shall be performed in accordance with 40 CFR, Part 60, and USEPA Reference Method 18 or other acceptable methods approved by the AQD. (R 336.1213(3)(a))
- The permittee shall test the VOC content of any non-waterborne coating, as applied, using Method 24 or other EPA approved reference method. Random testing of coatings will be conducted on a yearly basis with all coatings tested within a five-year period. (R 336.1213(3))
- The permittee shall test actual VOC emission rates in pounds VOC per gallon of solids applied for each coating used in EUCOATER 3 (not to include release coat big mix coating X-43). Random testing of coatings will be conducted on a yearly basis with all coatings tested within a five-year period. All testing, sampling, analytical and calibration procedures shall be performed in accordance with 40 CFR, Part 60, and USEPA Reference Methods 18 and 24, or other acceptable methods approved by the AQD. (R 336.1213(3)(a)(i))

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

- The permittee shall calculate the actual combined total VOC emission rate from all of the coating lines in FGCOATING-ALL and all clean-up and purge operations for each 12-month rolling time period, as determined at the end of each calendar month. This calculation shall be done using the method detailed in Appendix 7E or an equivalent method approved by the District Supervisor, AQD. This information shall be made available to the AQD upon request.² (R 336.1702(a), R 336.1213(3)(a))
- The permittee shall calculate the actual combined total VOC emission rate from the six coating lines in FGCOATING-ALL and all clean-up and purge operations for each calendar week, using the method detailed in Appendix 7C or an equivalent method approved by the District Supervisor, AQD. This information shall be made available to the AQD upon request.² (R 336.1702(a), R 336.1213(3)(a))
- The permittee shall calculate the actual VOC emission rates in pounds of VOC per gallon of solids applied from each coating line in FGCOATING-ALL, and also calculate the combined total average VOC emission rate in pounds of VOC per gallon of solids applied from FGCOATING-ALL, for each calendar day, using the method

detailed in Appendix 7B or an equivalent method approved by the District Supervisor, AQD. The release coat big mix coating (X-43) is not to be included in this calculation. This information shall be made available to the AQD upon request.² (R 336.1702(a), R 336.1213(3)(a), R 336.2206)

4. The permittee shall calculate the actual VOC emission rates in pounds of VOC per gallon of solids applied from EUCOATER3 for each calendar day, using the method detailed in Appendix 7A or an equivalent method approved by the District Supervisor, AQD. The release coat big mix coating X-43 is not to be included in this calculation. This information shall be kept on file and made available to the AQD upon request.² (R 336.1702(a), R 336.1213(3)(a))
5. The permittee shall calculate the actual VOC emission rates in pounds of VOC per gallon of solids applied from each EUCOATER1, EUCOATER2, EUCOATER4, EUCOATER5, and EUCOATER6 using the method detailed in Appendix 7A or an equivalent method approved by the District Supervisor, AQD.² (R 336.1702(a), R 336.1213(3)(a))
6. The permittee shall calculate the combined total average emission rate in pounds of VOC per gallon of solids applied from FGCOATING12456 for each calendar day, using the method detailed in Appendix 7B or an equivalent method approved by the District Supervisor, AQD.² (R 336.1702(a), R 336.1213(3)(a))
7. The permittee shall maintain separate daily records of coatings and solvent usage rates and VOC contents of each solvent and coating used on each coating line in FGCOATING-ALL, including materials used in clean-up and purge operations. These records shall be made available to the AQD upon request.² (R 336.1702(a), R 336.1213(3)(a))
8. The permittee shall use the calculation in Appendix 7D to show compliance with VOC pound per hour limit. (R 336.1213(3))

See Appendixes 7A, 7B, 7C, 7D, and 7E

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. (40 CFR, Part 60.7, R 336.2001, R 336.1201)
5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. (R 336.2001(4))
6. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. (R 336.2001(5))

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVOXIDIZER	68 ¹	45 ¹	R 336.1225

IX. OTHER REQUIREMENT(S)

1. The permittee shall label each web coating line.² (R 336.1201(3))
2. The permittee shall not conduct any clean up and/or purge operations on a line unless RTO or SRS are installed and operating properly.² (R 336.1702(a), R 336.1910)

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

²This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FG-COLD CLEANERS
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

Emission Unit: Cold Cleaners

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall not use cleaning solvents containing more than five percent by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof. (R 336.1213(2))

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. (R 336.1611(2)(b), R 336.1707(3)(b))
2. The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. (R 336.1213(3))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The cold cleaner must meet one of the following design requirements:
 - a. The air/vapor interface of the cold cleaner is no more than ten square feet. (R 336.1281(h))
 - b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. (R 336.1285(r)(iv))
2. The cold cleaner shall be equipped with a device for draining cleaned parts. (R 336.1611(2)(b), R 336.1707(3)(b))
3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. (R 336.1611(2)(a), R 336.1707(3)(a))
4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. (R 336.1707(3)(a))
5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees fahrenheit, then the cold cleaner must comply with at least one of the following provisions:

- a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. (R 336.1707(2)(a))
- b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. (R 336.1707(2)(b))
- c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. (R 336.1707(2)(c))

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. For each new cold cleaner in which the solvent is heated, the solvent temperature shall be monitored and recorded at least once each calendar week during routine operating conditions. (R 336.1213(3))
2. The permittee shall maintain the following information on file for each cold cleaner: (R 336.1213(3))
 - a. A serial number, model number, or other unique identifier for each cold cleaner.
 - b. The date the unit was installed, manufactured or that it commenced operation.
 - c. The air/vapor interface area for any unit claimed to be exempt under Rule 281(h).
 - d. The applicable Rule 201 exemption.
 - e. The Reid vapor pressure of each solvent used.
 - f. If applicable, the option chosen to comply with Rule 707(2).
3. The permittee shall maintain written operating procedures for each cold cleaner. These written procedures shall be posted in an accessible, conspicuous location near each cold cleaner. (R 336.1611(3), R 336.1707(4))
4. As noted in Rule 611(2)(c) and Rule 707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in non-closed containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20 percent, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis. (R 336.1213(3), R 336.1611(2)(c), R 336.1707(3)(c))

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. (R 336.12001(3))
5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. (R 336.2001(4))

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6. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. (R 336.2001(5))

See Appendix 8

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VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

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E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

APPENDICES

Appendix 1. Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

AQD	Air Quality Division	MM	Million
acfm	Actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	MW	Megawatts
BTU	British Thermal Unit	NA	Not Applicable
°C	Degrees Celsius	NAAQS	National Ambient Air Quality Standards
CAA	Federal Clean Air Act	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NMOC	Non-methane Organic Compounds
CEM	Continuous Emission Monitoring	NOx	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	Carbon Monoxide	NSR	New Source Review
COM	Continuous Opacity Monitoring	PM	Particulate Matter
department	Michigan Department of Environmental Quality	PM-10	Particulate Matter less than 10 microns in diameter
dscf	Dry standard cubic foot	pph	Pound per hour
dscm	Dry standard cubic meter	ppm	Parts per million
EPA	United States Environmental Protection Agency	ppmv	Parts per million by volume
EU	Emission Unit	ppmw	Parts per million by weight
°F	Degrees Fahrenheit	PS	Performance Specification
FG	Flexible Group	PSD	Prevention of Significant Deterioration
GACS	Gallon of Applied Coating Solids	psia	Pounds per square inch absolute
GC	General Condition	psig	Pounds per square inch gauge
gr	Grains	PeTE	Permanent Total Enclosure
HAP	Hazardous Air Pollutant	PTI	Permit to Install
Hg	Mercury	RACT	Reasonable Available Control Technology
hr	Hour	ROP	Renewable Operating Permit
HP	Horsepower	SC	Special Condition
H ₂ S	Hydrogen Sulfide	scf	Standard cubic feet
HVLP	High Volume Low Pressure *	sec	Seconds
ID	Identification (Number)	SCR	Selective Catalytic Reduction
IRSL	Initial Risk Screening Level	SO ₂	Sulfur Dioxide
ITSL	Initial Threshold Screening Level	SRN	State Registration Number
LAER	Lowest Achievable Emission Rate	TAC	Toxic Air Contaminant
lb	Pound	Temp	Temperature
m	Meter	THC	Total Hydrocarbons
MACT	Maximum Achievable Control Technology	tpy	Tons per year
MAERS	Michigan Air Emissions Reporting System	µg	Microgram
MAP	Malfunction Abatement Plan	VE	Visible Emissions
MDEQ	Michigan Department of Environmental Quality	VOC	Volatile Organic Compounds
mg	Milligram	yr	Year
mm	Millimeter		

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

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Appendix 2. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. (R 336.1213(4)(a), R 336.1119(a)(ii))

Appendix 3. Monitoring Requirements

Specific monitoring requirement procedures, methods or specifications are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 4. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 5. Testing Procedures

There are no specific testing requirement plans or procedures for this ROP. Therefore, this appendix is not applicable.

Appendix 6. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-B6175-2008. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-B6175-2008 is being reissued as Source-Wide PTI No. MI-PTI-B6175-2013

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	NA	NA	NA

Appendix 7A. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in EUCOATER3 and FGCOATING-ALL.

DAILY VOC EMISSION RATES IN POUNDS OF VOC PER GALLON OF SOLIDS APPLIED,
 EUCOATER _____ DAY _____

	A	B	C	D	$E = 1 - [(C \times D) / 10,000]$	$F = A \times B \times E$
COATING ID	GALLONS COATING USED AS APPLIED	LBS VOC PER GALLON OF COATING	VOC CAPTURE EFFICIENCY (PERCENT)	VOC CONTROL EFFICIENCY (PERCENT)	CONTROL FACTOR	EMISSIONS OF VOC
VOC EMISSIONS IN POUNDS PER DAY FOR THIS LINE, G =						
SUM OF F ----->						

	A	H	J	$K = [A \times H \times J / 100]$	N	$O = [N \times F]$
COATING ID	GALLONS COATING USED AS APPLIED	SOLIDS FRACTION OF COATING (% SOLIDS from coating formula)	ACTUAL SOLIDS TRANSFER EFFICIENCY (PERCENT)	GALLONS SOLIDS APPLIED TO SURFACE	HAP FRACTION OF COATING (% HAP from coating formula)	HAP Emissions
TOTAL GAL APPLIED SOLIDS, L = SUM OF K ----->						

TOTAL POUNDS VOC PER GALLON APPLIED SOLIDS, **M** = G / L ----->

Appendix 7B. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FGCOATINGALL.

AVERAGE POUNDS VOC PER GALLON APPLIED SOLIDS FROM EUCOATER 1-6 FOR EACH CALENDAR DAY

DATE	Actual POUNDS VOC PER GALLON APPLIED SOLIDS (see Appendix 7A at M) EUCOATER1	Actual POUNDS VOC PER GALLON APPLIED SOLIDS (see Appendix 7A at M) EUCOATER2	Actual POUNDS VOC PER GALLON APPLIED SOLIDS (see Appendix 7A at M) EUCOATER3	Actual POUNDS VOC PER GALLON APPLIED SOLIDS (see Appendix 7A at M) EUCOATER4	Actual POUNDS VOC PER GALLON APPLIED SOLIDS (see Appendix 7A at M) EUCOATER5	Actual POUNDS VOC PER GALLON APPLIED SOLIDS (see Appendix 7A at M) EUCOATER6	TOTAL POUNDS VOC PER GALLON APPLIED SOLIDS = (SUM OF EUCOATER 1-6)	AVERAGE POUNDS VOC PER GALLON APPLIED SOLIDS = (SUM OF EUCOATER 1-6)/6
								AVERAGE POUNDS VOC PER GALLON APPLIED SOLIDS = (SUM OF EUCOATER 1,2,4,5,6)/5

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Appendix 7C. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FGCOATING-ALL.

TOTAL ACTUAL COMBINED VOC EMISSIONS FROM EUCOATER 1-6 FOR CALENDAR WEEK _____ THROUGH _____

EUCOATER	POUNDS VOC (see Appendix 7A at G) SUNDAY	POUNDS VOC (see Appendix 7A at G) MONDAY	POUNDS VOC (see Appendix 7A at G) TUESDAY	POUNDS VOC (see Appendix 7A at G) WEDNESDAY	POUNDS VOC (see Appendix 7A at G) THURSDAY	POUNDS VOC (see Appendix 7A at G) FRIDAY	POUNDS VOC (see Appendix 7A at G) SATURDAY
EUCOATER 1							
EUCOATER 2							
EUCOATER 3							
EUCOATER 4							
EUCOATER 5							
EUCOATER 6							
TOTAL POUNDS VOC/DAY= SUM OF EUCOATER 1-6							

Appendix 7D. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FGCOATING-ALL.

VOC EMISSIONS in POUNDS PER HOUR FROM FGCOATINGALL Including Cleanup and Purge Operations							
EUCOATER	POUNDS VOC PER HOUR (see Appendix 7A at G/HOURS OPERATED) SUNDAY	POUNDS VOC PER HOUR (see Appendix 7A at G /HOURS OPERATED) MONDAY	POUNDS VOC PER HOUR (see Appendix 7A at G /HOURS OPERATED) TUESDAY	POUNDS VOC PER HOUR (see Appendix 7A at G /HOURS OPERATED) WEDNESDAY	POUNDS VOC PER HOUR (see Appendix 7A at G /HOURS OPERATED) THURSDAY	POUNDS VOC PER HOUR (see Appendix 7A at G /HOURS OPERATED) FRIDAY	POUNDS VOC PER HOUR (see Appendix 7A at G /HOURS OPERATED) SATURDAY
EUCOATER 1							
EUCOATER 2							
EUCOATER 3							
EUCOATER 4							
EUCOATER 5							
EUCOATER 6							
TOTAL POUNDS VOC PER HOUR from FGCOATINGALL = SUM OF EUCOATER 1-6							

Appendix 7E. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FGCOATING-ALL.

Total VOC for FGCOATING-All for calendar month and 12-month rolling time period

Month/year: _____

Day	Daily total VOC (pounds)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
TOTAL POUNDS /MONTH = sum of all above	
TOTAL TONS/MONTH = total pounds/2000	

Month	Total Tons
This month	
1 month ago	
2 months ago	
3 months ago	
4 months ago	
5 months ago	
6 months ago	
7 months ago	
8 months ago	
9 months ago	
10 months ago	
11 months ago	
TOTAL TONS PER MOST RECENT 12 MONTH ROLLING PERIOD = sum of all above	

Appendix 7F. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in EUCOATING3 and FGCOATER12456.

HAP REDUCTION FROM EUCOATERS 1-6 AND SOURCE WIDE FOR MONTH								
EUCOATER	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	TOTAL HAP EMISSIONS (PER EMISSION UNIT)	TOTAL HAP AS APPLIED (PER EMISSION UNIT)	HAP REDUCTION (PER EMISSION UNIT)
EUCOATER 1	Note A	Note A	Note A	Note A	Note A	(Sum of weeks 1 through 5)	Note B	(Total HAP emissions divided by the Total HAP as applied)*100
EUCOATER 2								
EUCOATER 3								
EUCOATER 4								
EUCOATER 5								
EUCOATER 6								
					SOURCE WIDE HAP EMISSIONS	(P=Sum of all Emission Units TOTAL HAP EMISSIONS)		
					SOURCE WIDE HAP APPLIED THIS MONTH	(Q=Sum of all Emission Units HAP as applied)		
					SOURCE WIDE HAP REDUCTION % (P/Q)*100			

Note A: Information is summed from Appendix 7A (Column O)

Note B: Information is summed from Appendix 7A (Column A x B x N)

Appendix 8. Reporting

Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the MDEQ Report Certification form (EQP 5736) and MDEQ Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

Appendix 9. Capture System/Permanent Total Enclosure

CRITERIA FOR ACHIEVING "TOTAL ENCLOSURE" AROUND A WEB COATING LINE

1. Access doors and windows in the total enclosure must be closed during routine operation of the process.
2. The interior of the total enclosure must operate at a lower pressure than its surroundings so that air flows into the enclosure at all natural draft openings (NDO) at all times. A NDO are defined as an opening that is not connected to a duct in which a fan or a blower is installed.
3. The average velocity through all NDO must be at least 3,600 meters/hour (200 feet/minute). This velocity will be calculated by dividing the difference between the rate of any forced make-up air and exhaust rate (cubic meters per hour) by the total cross-sectional area of all NDO (square meters). If the calculated average velocity is between 3600 and 9000 meters/hour (200-500 feet/minute) however, it will be necessary to verify that the flow through the NDO is continuously into the enclosure. Techniques for making this determination include observation of streamers attached to the perimeter of the NDO, smoke released from smoke tubes just inside NDO, or tracer gas analysis. An average velocity greater than 9000 meters/hour (500 feet/minute) will be considered adequate to ensure that the direction of air flow through the NDO is continuously inward unless there is obvious evidence to the contrary.
4. Any source of VOC emissions inside the total enclosure must be at least four equivalent diameters (4 times the opening area divided by the perimeter) from each NDO.
5. The total area of all NDO shall be less than 5 percent of the surface area of the total enclosure's four walls, floor, and ceiling.

Coding Products

Start-up, Shutdown, Malfunction Abatement Plan

I. Introduction and Purpose

- A. Coding Products (Coding) operates a coating operation in Kalkaska, Michigan. The source operates hot stamp marking (HS), thermal transfer (TTR), and hot melting lines (HMI). Coding is a Major Source as defined under the Clean Air Act and has the Potential to Emit greater than 100 tons of volatile organic compounds (VOCs) per year. The source is required to have a Renewable Operating Permit (ROP) and has an existing ROP.
- B. The source is subject to the Maximum Achievable Control Technology (MACT) standards, specifically Subpart A, General Provisions; and Subpart JJJJ, National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating. This Start-Up, Shutdown, Malfunction Abatement Plan (SSMAP or Plan) is intended to satisfy the requirements of the standard. The objectives of the Plan are designed to accomplish the following:
1. Maintain a safe and hazard-free work environment
 2. Minimize emissions to the environment
 3. Provide for the efficient and safe startup and shutdown of process equipment and pollution control equipment
 4. Prevent or minimize emissions during a malfunction of process equipment and direct personnel of actions to take in the event of a malfunction, which resulted in an emission limit exceedance.
 5. Protect process equipment from damage; and
 6. Fulfill the requirements of the MACT standards
(40 CFR 63.6(e)(3))
- C. The applicable requirement for each section of the SSMAP is identified at the conclusion of that section. **(40 CFR 63.6(e)(3)(i))**
- D. The SSMAP will ensure that at all times Coding will operate and maintain the source, including associated air pollution control and monitoring equipment, in a manner which satisfies the general duty to minimize emissions. **(40 CFR 63.6(e)(3)(i)(A))**

- E. The SSMAP ensures that Coding is prepared to correct malfunctions, as soon as practicable after their occurrence, in order to minimize excess emissions of hazardous air pollutants. (40 CFR 63.6(e)(3)(i)(B))
- F. The SSMAP reduces the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation). (40 CFR 63.6(e)(3)(i)(C))
- G. The purpose of this Startup, Shutdown, Malfunction Abatement Plan is to assure that at all times, the process equipment and air pollution control equipment are operated safely; in accordance with standard operating practices; best air pollution control practices; and to minimize emissions. The Plan serves as a guide to Coding staff, in the unlikely event that the source would malfunction and have an exceedance above permitted emission limitations. (40 CFR 63.6(e)(3)(i)(A))

II. Identification of Processes and Pollution Control Equipment Operation

- A. Coding Products operates six coating lines, Numbers 1-6 and produce a variety of coated products for the automotive, medical, packaging, credit card, pipe, cable, sign and other industries. Five of the six coaters are controlled by a Thermal Regenerative Oxider (RTO) and the sixth is coating line #3 which is controlled by a vapor recovery system. The coating lines and pollution controls are integrated by a computer operated system which acts both as a Data Acquisition System (DAS) and process monitoring system. The computer DAS acquires data for environmental compliance and reporting purposes. In addition, the process operations are linked to the compliance parameters, which are set in the computer to assure compliance with applicable permit conditions. The specific actions which result in process shutdown are described in more detail below in number IV, under Monitoring.
- B. Lines one, two, and three of the six coating lines utilize Hot Stamp Ribbon with the Mayer Rod coating technology. The process uses a roll of polyester film (web) that travels continuously through the coating header where excess coating is applied and is then removed by the Mayer Rod. The web then proceeds through to the oven for drying, where the solvents are flashed and emissions are then sent to the RTO or vapor recovery system. Once dried, the web is rolled and can be sent to the customers in a roll or can be cut in to various sizes to meet the needs of the customer.

- C. Lines four, five, and six utilize Thermal Transfer Ribbon with the Gravure Technology. The process uses the same polyester web which also travels through the coating head where coatings are applied. The difference between the two processes is that the Gravure Technology uses a smaller amount of coating that conforms to the amount needed to produce the required markings on the product. Similarly, the web then proceeds through the ovens to dry and flash the solvents prior to destruction in the RTO. Coating line #6 can be used as either a Gravure or Mayer Rod process. Similarly, once the web is dried, it is rolled and can be sent to the customers in a roll or can be cut in to various sizes to meet the needs of the customer.

- D. Regenerative Thermal Oxidizer. The RTO operates continuously when any coating line (except line #3) is in operation. Parameters for the RTO are monitored continuously by the DAS which controls both line and RTO operation. Specific parameters for determining compliance are further explained in the **Monitoring** section of the SSMAP. **(40 CFR 63.3350(e))**

- E. Solvent Recovery Unit. The solvent recovery unit operates continuously when coating line #3 is in operation. Similar to the RTO, the operation of the solvent recovery unit and coating line are controlled by the DAS. Set parameters, elaborated upon in the **Monitoring** section of the SSMAP are constantly monitored by the DAS to assure compliance with emission limits. A daily mass balance is performed to determine compliance. **(40 CFR 63.3350(d))**

III. Recordkeeping

- A. When actions taken by Coding during a startup or shutdown (and in the unlikely event startup or shutdown causes an exceedance of any applicable emission limitation in the relevant emission standards), or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in Coding's startup, shutdown, and malfunction plan, Coding will keep written records for that event which demonstrate that the procedures specified in the plan were followed. These records will be written in a narrative form. The narrative will include the following information:

- Date and time of the exceedance
- Duration of the exceedance
- Cause of the exceedance
- Identify the process equipment involved in the exceedance

Identify air pollution control equipment and its status during the exceedance
Personnel actions taken to resolve the malfunction resulting in the exceedance

These records will demonstrate compliance with the SSMAP and describe the actions taken for that event. In addition, Coding will keep written records of these events as specified in paragraph 63.10(b) of the MACT General Provisions, including records of the occurrence and duration of each startup or shutdown (if the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, Coding will confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the Coding's SSMAP in the semi-annual startup, shutdown, and malfunction report. **(40 CFR 63.6(e)(3)(iii))**

- B. If an action taken by Coding during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in Coding's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then Coding will record a written narrative of the actions taken for that event and verbally report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter to the regulatory agency within 7 working days after the end of the event. **(40 CFR 63.6(e)(3)(iv))**

IV. Monitoring

- A. Coding utilizes an RTO and a vapor recovery system to control emissions from the coating lines. Both controls are an integral part of the coating lines and are controlled by computer. Should either piece of control equipment malfunction or operate outside normal operating parameters, the computer shuts down the coating line(s) automatically.
- B. The monitored operating parameters for the RTO are: temperature, capture efficiency and, destruction efficiency. The RTO controls coating lines #1, #2, #4, #5, and #6. The minimum operating temperature specified in the ROP is 1400 degrees Fahrenheit. The computer monitors operating parameters continuously, and records them every 20 seconds. The readings are taken from two integrated

thermocouples. The temperature from each thermocouple is averaged and the data is logged by the computer. Should either thermocouple fail, the computer divides the reading from the remaining thermocouple in half and will automatically shut down the coating lines. Although, compliance with the ROP is based on a minimum operating temperature of 1400° F, the computer will shut down the coating line(s) should the temperature drop below 1450° F. **(40 CFR 63.3350(e)), (40 CFR 63.3350(f)(1)(i)), (40 CFR 63.3350(f)(1)(ii)), (40 CFR 63.3350(f)(1)(iii))**

- C. The RTO normally operates in the range 1600° F to 1650° F; well above the 1400° F required by the ROP for VOC destruction. The RTO is also computer controlled and is programmed to shut down coating lines #1, #2, #4, #5, and #6 if the temperature falls to 1450° F. This assures compliance with the ROP required operating parameter of a minimum of 1400° F. **(40 CFR 63.3350(e)), (40 CFR 63.3350(f)(2)),**

- D. Periodic testing is required by the ROP for capture and destruction efficiencies to demonstrate compliance. A 0.5 second minimum residence time in the RTO is also required by the ROP. This requirement was designed into the RTO and is determined by the induction (ID) fan size and speed and size of the combustion chamber. Pressure drop across the ID fan is also monitored and controlled by computer. The pressure drop across the fan to assure capture and residence time in the RTO is -3.5” of water. Should the ID fan pressure differential exceed 0.5” of water, either higher or lower, the computer automatically shuts down the line(s). The RTO has a control efficiency of 99.7% and adequately destroys VOCs to well below emission limits. **(40 CFR 63.3350(f)(1)(i)), (40 CFR 63.3350(f)(1)(ii)), (40 CFR 63.3350(f)(1)(iii))**

- E. Coating line #3 operates in an inert environment. The system cannot operate unless the line is bathed in a nitrogen blanket. Oxygen sensors are installed on the line and if oxygen is detected, the system automatically shuts down. This prevents any solvent leaks from the coating line. The line is also controlled by a solvent recovery system. This system is designed to capture and recover solvents to meet the emission limit in the ROP. This system is controlled by computer and continuously monitors the solvent level in the system. The system normally operates at a 50% fluid level in the system and is designed such that additional solvent is automatically maintained at approximately the 50% level. This level is regulated by a set point (generally set at 50%) and the solvent replacement rate is a function of the flow from the solvent recovery system. If flow drops below the set point, the flow from the solvent recovery system increases. Conversely, if the

flow increases beyond the set point return flow from the solvent recovery system will slow until the set point is reached. If the solvent level in the recovery system rises above 82%, which would indicate a malfunction or abnormal operating condition, the computer automatically shuts down the coating line. **(40 CFR 63.3350(d)), (40CFR 63.3350(d)), (40 CFR 63.3350(f)(1)(i)), (40 CFR 63.3350(f)(1)(ii)), (40 CFR 63.3350(f)(1)(iii))**

- F. The vapor recovery system is designed to provide compliance with a capture and removal efficiency of 95%. This is accomplished by a liquid to liquid material balance, which is calculated on a weekly basis. Capture efficiency and removal efficiency are tested once during the ROP 5-year permit cycle and the results from that testing are used in the calculation of emissions until the next test. Those emissions are averaged with the emissions from the other five coating lines and are averaged to calculate emissions for the entire facility. **(40 CFR 63.3350(f)(2))**
- G. Equipment maintenance is essential and an integral element in maintaining compliance. Quarterly maintenance is schedule using MicroMain software. Maintenance performed on control equipment to assure continuous and proper operation is documented using MicroMain software as well. Appendix A includes an example of the maintenance schedule. Appendix B includes an example of the Work Orders generated out of MicroMain listing the maintenance performed on the control equipment. **(40 CFR 63.3350(f)(2))**

V. Start-ups and Shutdowns

- A. Startups and shutdowns are both computer and manually controlled. Regardless, whether or not the startup or shutdown is computer or manually activated, the process equipment cannot operate outside the parameters programmed into the computer controls for the coating lines. Those parameters, described above must be met, before the lines can be operated. **(40 CFR 63.6(e)(i))**
- B. For coating lines #1, #2, #4, #5, and #6, startup procedures are as follows:
The RTO is started and once it reaches 1450° F, the computer controlling the coating lines allows the processes to begin. If the computer detects any temperature less than 1450° F, it shuts down the main damper, which takes all coating machines off line.
(40 CFR 63.6(e)(i))

- C. Coating line #3 operates under a nitrogen blanket and cannot begin operations until the oxygen sensors in the line detect oxygen levels of less than 3.5% and the vapor recovery system is operational. If the oxygen level exceeds 5% the system purges and shuts down. Again, these actions are sequenced by the computer and will not allow the process to operate outside the parameters and limits set in the DAS. Once the nitrogen blanket is in place; the vapor recovery system has started; the oxygen sensors detect the appropriate oxygen level; the computer allows the process to begin operation. **(40 CFR 63.6(e)(i))**

VI. Malfunctions

- A. The following are scenarios under which an applicable emission limit could be exceeded and applies to those coating lines controlled by the RTO; #1, #2, #4, #5, and #6. To exceed an applicable emission limit the RTO and computer's DAS would have to fail at the same time. Since the processes and RTO are controlled by the computer, if either a coating line or the RTO malfunction, the computer shuts down the coating line or in the case of an RTO failure, the computer shuts down all of the coating lines. Consequently, the only scenario where an emission limit could be exceeded would be, if the RTO and DAS failed simultaneously. In the unlikely event that the DAS and RTO should fail simultaneously, plant personnel would manually shut off each coating line, thus minimizing an emission limit exceedance. **(40 CFR 63.6(e)(i)(B))**
- B. The # 3 coating line is controlled by a vapor recovery system. Emissions from this line are calculated by liquid to liquid mass balance. Similarly to the other coating lines, a computer malfunction and vapor recovery system malfunction would have to occur simultaneously, in order for the #3 coating line to exceed the emission limit. Again, should that very unlikely scenario occur, plant personnel would manually shut down the line to prevent any extended emission limit exceedance. **(40 CFR 63.6(e)(i)(B))**

VII. Start-up, Shutdown, Malfunction Abatement Plan Updates

- A. The SS MAP will be reviewed annually and updated, as necessary. A log of updates and changes to the SS MAP will be maintained and made available to regulatory agencies upon request. **(40 CFR 63.3350(f)(5))**

Appendix A – Example Scheduling Letter

CODING PRODUCTS

111 W. Park Drive, Kalkaska, MI 49646

Inter Office Memorandum

To: Kathy, Kim, Lorrie, Terri, Todd, Sue,
Louie, Scott, and Ed

From: Lisa Surowitz

Date: November 17, 2014

Cc: Mike

Subject: Oxidizer Preventative
Maintenance Schedule

The following dates have been scheduled for Oxidizer Preventative Maintenance:

January 17 or 18, 2015 (3 month maintenance)
April 11 or 12, 2015 (Yearly, 6 month, and 3 month maintenance)
July 18 or 19, 2015 (3 month maintenance)
October 10 or 11, 2015 (6 and 3 month maintenance)

I understand that there may be circumstances where we will need to adjust the schedule (due to production demands or vacation schedule) and we will do that on an as needed basis. Our permit requires this maintenance. If any of these dates are a problem, please contact me as soon as possible. Hopefully, having the maintenance scheduled a year in advance will help us.

Appendix B – Example Work Order from MicroMain for the 3 Month Oxidizer Maintenance

	Coding Products 111 West Park Drive Kalkaska, MI 49646 Phone: 231-258-5521	DPLICATE Fax: 231-258-8911																																				
Cannot Locate Picture																																						
Work Order: 333																																						
Service 3 Month PM for Oxidizer, 1/12/2015 Property Kalkaska Shop Supervisor Account <none> Description	Issued 12/29/2014 10:12:20 AM Due 1/18/2015 Status Open Substatus	Std Hrs 0 Priority 2 Type Preventive Taken By																																				
<p>2-way Internal Pilot-Operated Solenoid Valve - All solenoid valves should be cleaned periodically. Clean valve strainer or filter when cleaning the valve. Burner - Filters - Examine and if necessary clean or replace air filter elements Burner - Flame-Supervision Equipment - Check the ability of the flame supervision system to function properly by simulating system failures. (1) Simulate burner flame-out by manually shutting off the gas (2) Trip out pressure switches and other limit interlocks (3) Try to light the burner Centrifugal Fan - Belt and Coupling - Check the V-belt for proper alignment and tension. If belts are wrong, replace as a set and match to within manufacture's tolerance or adjust using the motor slide base. Lubricate the coupling of the direct-drive units and check for alignment Centrifugal Fan - Motor Coupling - Inspect alignment and conditions of belt Centrifugal Fan - Vibration Analysis - Check also for build up of material which can cause unbalance resulting in vibration and bearing wear Centrifugal Fan - Wheel - Check the fan wheel for any wear or corrosion as either can cause catastrophic failures Flame Supervision Equipment - Check the area around the burner mounting flange for signs of overheating. Gasket or insulation replacement may be necessary. Check that case exterior and cover are clean on the differential pressure gauge. Poppet Valves - Inspect Seals on cylinders Check for leaks on the packing gland Replace air filter if dirty.</p>																																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Asset Oxidizer</td> <td>Department Support</td> </tr> <tr> <td>Description</td> <td></td> </tr> <tr> <td>Location</td> <td></td> </tr> <tr> <td>Building</td> <td>Requested 12/29/2014 7:08:50 AM</td> </tr> <tr> <td>Parent Outdoor/Grounds</td> <td>Requester</td> </tr> <tr> <td colspan="2"> <input type="checkbox"/> Shutdown <input type="checkbox"/> Lockout/Tagout <input type="checkbox"/> Safety <input type="checkbox"/> Warranty <input type="checkbox"/> Inspection </td> </tr> <tr> <td>Phone</td> <td></td> </tr> </table>			Asset Oxidizer	Department Support	Description		Location		Building	Requested 12/29/2014 7:08:50 AM	Parent Outdoor/Grounds	Requester	<input type="checkbox"/> Shutdown <input type="checkbox"/> Lockout/Tagout <input type="checkbox"/> Safety <input type="checkbox"/> Warranty <input type="checkbox"/> Inspection		Phone																							
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<p>Printed 12/30/2014 8:53:26 AM Work Order 333 Page 1 of 2</p>																																						

Coding Products

Monitoring Plan For the Capture System/Permanent Total Enclosures (CSPT)

Control Technology

EU-COATER 1, 2, 4, 5, and 6 – Thermal Oxidizer and Permanent Total Enclosures

I. MONITORING APPROACH

a. Indicators

Total Enclosure

- i. Doors must be closed during operation to maintain the average velocity through all natural draft openings of 200 ft/min
- ii. Static Pressure (flow sensor)
 - i. The indicator of flow has a process interlock that increases or decreases the fan speed to maintain the setting. Once the system reaches a negative 5 inches of water column or the fan reaches 500 Hertz the RTO automatically shuts down.
 - ii. The indicator of flow is also monitored by individual pressure sensors within each coater head. The measurement must be below .007 inches H₂O

Oxidizer

- i. Continuous record of the operating temperature of the oxidizer combustion zone
- ii. Preventative Maintenance
- iii. Periodic emissions performance tests
- iv. Documentation of valve timing system design at the time of the performance testing and documentation of any changes made to the design or operation of the system

b. Indicator Range

- i. An excursion is defined as a setting above -3.5 inches of water which is controlled by the oxidizer fan.
- ii. An excursion is defined as a reading above .007 inches H₂O for the 3 hour rolling average
- iii. An excursion is identified as any finding where the doors are opened for more than the time required for a necessary operation (i.e. replacement of meyer rod, equipment adjustment, and similar operations)
- iv. An excursion is defined as an oxidizer temperature less than 1400F while coating lines 1, 2, 4, 5, and/or 6 are in operation

II. PERFORMANCE CRITERIA

a. Data Representativeness

- i. Automatic system adjustment assures the required flow rate in the ductwork to maintain negative pressure.

- ii. Systems records individual pressure sensor readings

b. Verification of Operational Status

- i. Flow rate and pressure instrumentation is installed and calibrated according to the manufacturers' instructions.
- ii. Temperature and pressures are recorded on electronic media

c. QA/QC Practices and Criteria

- i. Annually verify that the static pressure instrument is reading accurately and calibrate if necessary.

d. Monitoring Frequency

- i. Static pressure is monitored continuously.
- ii. Oxidizer temperature monitored continuously.

e. Rationale for Selection of Performance Indicators

If the integrity of the enclosure and exhaust flow are maintained, the enclosure will maintain 100% capture efficiency. The selected parameters provide a reasonable assurance that the integrity of the enclosure is maintained and that the exhaust flow is maintained.

An indicator of static pressure in the main duct work will assure the airflow through the system is maintained at the minimum level necessary to meet permanent total enclosure. The system automatically adjusts fan speeds to maintain the static pressure.

Additional monitoring of pressure differential is maintained at the enclosure will maintain 100% capture efficiency of individual coater heads.

The oxidizer operating temperature was selected because it is indicative of the thermal oxidizer's operation. By maintaining the operating temperature at or above a minimum value, a desired level of control efficiency can be expected to be maintained. If the operating temperature decreases significantly, complete combustion may not occur.

To further ensure consistent VOC oxidization, preventative maintenance will be performed per the manufacturer's instructions. The design and operation of the chamber sequencing valves timing system will be documented during the performance test and verified during periodic inspections.

An emissions performance test on the oxidizer is conducted once every 5 years to demonstrate compliance with permit conditions.

f. Rationale for Selection of Indicator Ranges

The indicator setting/design requirement established for the permanent total enclosure flow is selected based upon the static pressure setting during the required capture system performance tests. This setting is automatically maintained by the control system that is part of the thermal oxidizer.

Pressure differential limit was set by USEPA Method 204

The selected indicator range for the oxidizer operating temperature is established based upon demonstrated performance during a performance test. The temperature controller is set to maintain a temperature at or above the established indicator range.

g. Performance test

In April 2017, a performance test was completed on the thermal oxidizer showing a destruction efficiency of 98.8%.

During the performance test all six coating lines were operational and the products running were recorded.

No changes have taken place that would affect the destruction efficiency or capture efficiencies. In addition, there have been no significant changes to the coating lines.

Coding Products – Compliance Air Monitoring (CAM) Plan

Thermal Oxidizer and Solvent Recovery System for VOC Control – Coding Products,
Kalkaska, MI

This facility produced hot stamp ribbons, and thermal transfer ribbons and is a major source for VOCs. VOCs are controlled.

I. BACKGROUND

a. Emission Unit

Description: Coater Lines 1-6

Identification: EUCOATER1, EUCOATER 2, EUCOATER3, EUCOATER4,
EUCOATER5, EUCOATER6

Facility: Coding Products
111 West Park Drive
Kalkaska, MI 49646

b. Applicable Regulation, Emission Limit, Monitoring Requirements

Permit No. MI-PTI-B6175-2013

Emission Limits:

VOCs	4.79 pounds per gallon of solids applied, based upon 24-hour averaging, Rule 336.1702(a), 336.1225, 336.2206
Monitoring requirements	Calculation of the actual VOC emission rates for each calendar day, oxidizer temperature
Setting/Design Requirement	Static pressure during total enclosure testing was set at -3.5 inches of water column controlled by the thermal oxidizer fan, PTE differential pressure

Coding Products

111 West Park Drive
Kalkaska, MI 49646
United States of America
Phone +1 231 258 5521
www.itwsf.com

c. Control Technology

EUCOATER3 – Solvent Recovery System

EUCOATER1,2,4,5, and 6 – Thermal Oxidizer and Permanent Total Enclosures

- d.** Pre-control potential emissions of VOC more than 100 tons annually
Post-control emissions of VOC are less than 100 tons annually
Efficiency rated at 98.8% based on performance testing (Thermal Oxidizer).

II. MONITORING APPROACH

a. Indicators

Static Pressure (flow sensor)

- a. The indicator of flow has a process interlock that increases or decreases the fan speed to maintain the setting.

Total Enclosure

- a. Doors must be closed during operation
b. PTE differential pressure continuously monitored

Oxidizer

- a. Continuous record of the operating temperature of the oxidizer combustion zone
b. Preventative Maintenance
c. Periodic emissions performance tests
d. Documentation of valve timing system design at the time of the performance testing and documentation of any changes made to the design or operation of the system

Pounds per gallon of solids applied based upon 24-hour averaging will be calculated by collecting the following (a x g x h/100):

- a. Gallons of Coating Used as applied
b. Lbs VOC per gallon of coating
c. VOC capture efficiency (percent)
d. VOC control efficiency (percent)
e. Control Factor $(1 - ((c \times d) / 10000))$
f. Emissions of VOC (a x b x e)
g. Solids fraction of coating (% solids of coating)
h. Actual solids transfer efficiency (percent)

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b. Indicator Range

- a. An excursion is defined as a setting above -3.5 inches of water which controls the oxidizer fan.
- b. An excursion is identified as any finding where the doors are opened for more than the time required for a necessary operation (i.e. replacement of meyer rod, equipment adjustment, and similar operations)
- c. An excursion is defined as an oxidizer temperature less than 1600F while coating lines 1,2,4,5, and/or 6 are in operation
- d. An excursion is defined as a result over 4.79 pounds per gallon of solids applied based upon a 24-hour averaging
- e. An excursion is defined as a measured PTE differential pressure above .007 in. H²O

III. PERFORMANCE CRITERIA

a. Data Representativeness

- i. Automatic system adjustment assures the required flow rate in the ductwork to maintain negative pressure.
- ii. Calculations are based on test data
- iii. Thermocouples measure oxidizer temperature. Thermocouples have an accuracy of +/- 1 degree

b. Verification of Operational Status

- i. Flow rate instrumentation and pressure sensors are installed and calibrated according to the manufacturers' instructions.
- ii. Temperature and pressure readings recorded on electronic media

c. QA/QC Practices and Criteria

- i. Annually verify that the static pressure instrument is reading accurately and calibrate if necessary.
- ii. Calculations are completed by the computer system based on the criteria above (II.a)

d. Monitoring Frequency

- i. Static pressure is monitored continuously
- ii. Report is generated weekly and reviewed
- iii. Oxidizer temperature monitored continuously

e. Averaging Period

- i. N/A for interlock; excursions will be documented
- ii. 24 hour (calendar day)
- iii. NA

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f. Reporting

- i. Number, duration, cause of any excursion and the corrective action taken
(Maintain for a period of 5 years)

IV. JUSTIFICATION

a. Rationale for Selection of Performance Indicators

If the integrity of the enclosure and exhaust flow are maintained, the enclosure will maintain 100% capture efficiency. The selected parameters provide a reasonable assurance that the integrity of the enclosure is maintained and that the exhaust flow is maintained.

An indicator of static pressure in the main duct work will assure the airflow through the system is maintained at the minimum level necessary to meet permanent total enclosure. The system automatically adjusts fan speeds to maintain the static pressure.

Additional pressure sensors at the coating heads verify necessary differential pressure to meet permanent total enclosure definition.

The oxidizer operating temperature was selected because it is indicative of the thermal oxidizer's operation. By maintaining the operating temperature at or above a minimum value, a desired level of control efficiency can be expected to be maintained. If the operating temperature decreases significantly, complete combustion may not occur.

To further ensure consistent VOC oxidization, preventative maintenance will be performed per the manufacturer's instructions. The design and operation of the chamber sequencing valves timing system will be documented during the performance test and verified during periodic inspections.

An emissions performance test on the oxidizer is conducted once every 5 years to demonstrate compliance with permit conditions.

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b. Rationale for Selection of Indicator Ranges

The indicator setting/design requirement established for the permanent total enclosure flow is selected based upon the static pressure setting during the required capture system performance tests. This setting is automatically maintained by the control system that is part of the thermal oxidizer.

The selected indicator range for the oxidizer operating temperature is established based upon demonstrated performance during a performance test. The temperature controller is set to maintain a temperature at or above the established indicator range.

Differential pressure was set per USEPA Method 204

c. Performance test

In April 2017, a performance test was completed on the thermal oxidizer showing a destruction efficiency of 98.8%.

During the performance test all six coating lines were operational and the products running were recorded.

No changes have taken place that would affect the destruction efficiency or capture efficiencies. In addition, there have been no significant changes to the coating lines.

V. BACKGROUND

e. Emission Unit

Description: Coater Lines 3

Identification: EUCOATER3

Facility: Coding Products
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f. Applicable Regulation, Emission Limit, Monitoring Requirements

Permit No. MI-PTI-B6175-2013

Emission Limits:

VOC

4.79 lbs per gallon of solids applied, based upon 24-hour averaging (see above for calculations)

Monitoring requirements Solvent recovered is quantified and a liquid-liquid balance is conducted

Setting/Design requirement N/A

g. Control Technology

EUCOATER3 – Solvent Recovery System

Pre-control potential emissions of VOC more than 100 tons annually

Post-control emissions of VOC are less than 100 tons annually

VI. MONITORING APPROACH

c. Indicators

The solvent recovered is quantified and a liquid-liquid material balance is conducted.

d. Indicator Range

N/A

VII. PERFORMANCE CRITERIA

a. Data Representativeness

i. A liquid-liquid material balance is completed at a minimum of monthly (currently being performed weekly).

b. Verification of Operational Status

i. N/A

c. QA/QC Practices and Criteria

i. Calibration for the micromotion meter is complete at factory. Characterization is only required if either the sensor or transmitter is replaced. The sensor or transmitter has not been replaced since original installation.

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d. Monitoring Frequency

i. Monthly

e. Averaging Period

i. N/A

f. Reporting

i. Number, duration, cause of any excursion and the corrective action taken
(Maintain for a period of 5 years)

VIII. JUSTIFICATION

a. Rationale for Selection of Performance Indicators

Use of the liquid-liquid material balance is an acceptable compliance determination method for determining VOC and HAP emissions from solvent recovery systems.

b. Rationale for Selection of Indicator Ranges

N/A

See Appendix A for summary

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