From: Brian P. Greenwald <BGreenwald@barr.com>
Sent: Wednesday, December 18, 2019 2:06 PM
To: EGLE-ROP
Cc: 'Thomas Wharton (thomas.wharton@basf.com)'; Lisa K. Schalm
Subject: M4777 - ROP Renewal Application
Attachments: M4777_Sec_1_Renewal_Forms.pdf; M4777_Sec_2_Renewal_Forms.pdf; M4777_Sec_3_Renewal_Forms.pdf; M4777 Final 01-30-18_Redline 121219 - No Formatting.pdf; M4777 Final 01-30-18_Redline 121219.docx; 88-17.pdf; 2019_02_08_ETPU RTO MAP_Final.pdf; Plastic Plant_BM4777_Emis Inv_121219.pdf

Please find the files attached associated with the ROP renewal application for M4777, BASF Corporation Plastics Plant. Please contact me if you have any questions.

Brian P. Greenwald, PE

Senior Chemical Engineer
Grand Rapids, MI office: 616.512.7012
cell: 616.723.1377
BGreenwald@barr.com
www.barr.com

EGLE

RENEWABLE OPERATING PERMIT
RENEWAL APPLICATION FORM

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	SIC Code	NAICS Code	Existing ROP Number	Section Number (if applicable)
M4777	3087	325991	MI-ROP-M4777-2015a	1 (EPC Operations)

Source Name: BASF Corporation – Plastics Plant

Street Address: 1609 Biddle Avenue

City	State	ZIP Code	County
Wyandotte	MI	48192-3729	Wayne

Section/Town/Range (if address not available):

Source Description: BASF Corporation (BASF) is located in Wyandotte, Michigan on the east side of Biddle Avenue along the Detroit River. The Plastics Plant comprises the Engineering Plastics Compounding (EPC) plants, Cellasto plant, and the Expanded Thermoplastic Polyurethane (ETPU) plant.

☒ 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	Section Number (if applicable)
BASF Corporation	1 (EPC Operations)

Mailing address (☐ check if same as source address): 100 Park Avenue

City	State	ZIP Code	County	Country
Florham Park	NJ	07932	Morris	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.

SRN: M4777	Section Number (if applicable): 1

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			Title	
Bryan Hughes			EHS Team Leader	
Company Name & Mailing address (☒ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number (734) 324-6523		E-mail address bryan.hughes@basf.com		

Contact 2 Name (optional)		Title		
Company Name & Mailing address (☐ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name		Title		
Greg Pflum		Vice President and General Manager		
Company Name & Mailing address (☒ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number (734) 324-6161		E-mail address greg.pflum@basf.com		

Responsible Official 2 Name (optional)		Title		
Company Name & Mailing address (☐ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

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

SRN: M4777	Section Number (if applicable): 1

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.	
☒ Completed ROP Renewal Application Form (and any AI-001 Forms) (required)	☐ Compliance Plan/Schedule of Compliance
☒ Mark-up copy of existing ROP using official version from the AQD website (required)	☐ Stack information
☐ Copies of all Permit(s) to Install (PTIs) that have not been incorporated into existing ROP (required)	☐ Acid Rain Permit Initial/Renewal Application
☒ Criteria Pollutant/Hazardous Air Pollutant (HAP) Potential to Emit Calculations	☐ Cross-State Air Pollution Rule (CSAPR) Information
☐ MAERS Forms (to report emissions not previously submitted)	☐ Confidential Information
☐ Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP	☒ Paper copy of all documentation provided (required)
☐ Compliance Assurance Monitoring (CAM) Plan	☒ Electronic documents provided (optional)
☐ Other Plans (e.g., Malfunction Abatement, Fugitive Dust, Operation and Maintenance, etc.)	☐ 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)

Greg Pflum, Vice President and General 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	**Date** December 13, 2019

SRN: M4777	Section Number (if applicable): 1

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.	☐ Yes ☒ No
C2.	Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)	☒ Yes ☐ 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)	☐ Yes ☒ No
	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?	☐ Yes ☐ No
C4.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NOx, PM10, PM2.5, SO_2, VOC, lead) emissions? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers, or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. If No, criteria pollutant potential emission calculations do not need to be included.	☒ Yes ☐ No
C5.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the PTE for hazardous air pollutants (HAPs) regulated by Section 112 of the federal Clean Air Act? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. Fugitive emissions must be included in HAP emission calculations. If No, HAP potential emission calculations do not need to be included.	☐ Yes ☒ No
C6.	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.	☐ Yes ☒ No
C7.	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.	☐ Yes ☒ No
	Is an Acid Rain Permit Renewal Application included with this application?	☐ Yes ☐ No
C8.	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. If the CAM Plan has been updated, include an updated copy.	☐ Yes ☒ No
	Is a CAM plan included with this application?	☐ Yes ☒ No
	If a CAM Plan is included, check the type of proposed monitoring included in the Plan: 1. Monitoring proposed by the source based on performance of the control device, or	☐
	2. Presumptively Acceptable Monitoring, if eligible	☐
C9.	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.	☐ Yes ☒ No
C10.	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.	☐ Yes ☒ No
☒	Check here if an AI-001 Form is attached to provide more information for Part C. Enter AI-001 Form ID: **AI-**PTE	

SRN: M4777	Section Number (if applicable): 1

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 212(4) Citation** [e.g. Rule 212(4)(c)]	**Rule 201 Exemption Rule Citation** [e.g. Rule 282(2)(b)(i)]

Comments:

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

SRN: M4777	Section Number (if applicable): 1

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.

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.	☐ Yes ☒ No
E2. For each emission unit(s) identified in the existing ROP, all 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 not reported in the most recent MAERS reporting year? If Yes, identity the stack(s) that was/were not reported on applicable MAERS form(s).	☐ Yes ☒ No
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.	☐ Yes ☒ No
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.	☒ Yes ☐ No

Comments:

EUEPCCOLDCLEANER dismantle date: 08/01/2019

☐ 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.

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. If No, go to Part G. ☐ Yes ☒ No

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

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. ☐ Yes ☐ No

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. ☐ Yes ☐ No

F4. Are there any stacks with applicable requirements for emission unit(s) identified in the PTIs listed above that were not reported in MAERS for the most recent emissions reporting year? If Yes, identity the stack(s) that were not reported on the applicable MAERS form(s). ☐ Yes ☐ No

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. ☐ Yes ☐ No

Comments:

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

SRN: M4777	Section Number (if applicable): 1

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**
☐ Rule 281(2)(h) or 285(2)(r)(iv) cleaning operation		
☐ Rule 287(2)(c) surface coating line		
☐ 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-**

SRN: M4777	Section Number (if applicable): 1

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.	☐ Yes ☒ 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.	☐ Yes ☐ 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.	☐ Yes ☐ 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 each 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.	☐ Yes ☐ 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.	☐ Yes ☐ 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.	☐ Yes ☐ 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.	☐ Yes ☐ No

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

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.	☐ Yes ☐ No
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.	☐ Yes ☐ No
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.	☐ Yes ☐ No
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.	☐ Yes ☐ No
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.	☐ Yes ☐ No
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.	☐ Yes ☐ No
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.	☐ Yes ☐ No

SRN: M4777	Section Number (if applicable): 1

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.	☐ Yes ☐ 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.	☐ Yes ☐ 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.	☐ Yes ☐ No
☐ Check here if an AI-001 Form is attached to provide more information for Part H. Enter AI-001 Form ID: **AI-**	

EGLE

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: M4777	Section Number (if applicable): 1

1. Additional Information ID
AI-PTE

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

Please see the attached Potential to Emit (PTE) calculations which include the PTE for criteria pollutants for the entire Plastics Plant Facility.

EGLE

RENEWABLE OPERATING PERMIT RENEWAL APPLICATION FORM

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	SIC Code	NAICS Code	Existing ROP Number	Section Number (if applicable)
M4777	3087	325991	MI-ROP-M4777-2015a	2 (ELA Operations)

Source Name: BASF Corporation – Plastics Plant

Street Address: 1609 Biddle Avenue

City	State	ZIP Code	County
Wyandotte	MI	48192-3729	Wayne

Section/Town/Range (if address not available):

Source Description: BASF Corporation (BASF) is located in Wyandotte, Michigan on the east side of Biddle Avenue along the Detroit River. The Plastics Plant comprises the Engineering Plastics Compounding (EPC) plants, Cellasto plant, and the Expanded Thermoplastic Polyurethane (ETPU) plant.

☒ 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	Section Number (if applicable)
BASF Corporation	2 (ELA Operations)

Mailing address (☐ check if same as source address): 100 Park Avenue

City	State	ZIP Code	County	Country
Florham Park	NJ	07932	Morris	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.

SRN: M4777	Section Number (if applicable): 2

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			Title	
Bryan Hughes			EHS Team Leader	
Company Name & Mailing address (☒ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		
(734) 324-6523		bryan.hughes@basf.com		

Contact 2 Name (optional)			Title	
Company Name & Mailing address (☐ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name			Title	
Greg Pflum			Vice President and General Manager	
Company Name & Mailing address (☒ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		
(734) 324-6161		greg.pflum@basf.com		

Responsible Official 2 Name (optional)			Title	
Company Name & Mailing address (☐ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

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

SRN: M4777	Section Number (if applicable): 2

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.	
☒ Completed ROP Renewal Application Form (and any AI-001 Forms) (required)	☐ Compliance Plan/Schedule of Compliance
☒ Mark-up copy of existing ROP using official version from the AQD website (required)	☐ Stack information
☐ Copies of all Permit(s) to Install (PTIs) that have not been incorporated into existing ROP (required)	☐ Acid Rain Permit Initial/Renewal Application
☒ Criteria Pollutant/Hazardous Air Pollutant (HAP) Potential to Emit Calculations	☐ Cross-State Air Pollution Rule (CSAPR) Information
☐ MAERS Forms (to report emissions not previously submitted)	☐ Confidential Information
☐ Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP	☒ Paper copy of all documentation provided (required)
☐ Compliance Assurance Monitoring (CAM) Plan	☒ Electronic documents provided (optional)
☐ Other Plans (e.g., Malfunction Abatement, Fugitive Dust, Operation and Maintenance, etc.)	☐ 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)

Greg Pflum, Vice President and General 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.

Greg Pflum — **Signature of Responsible Official**

December 13, 2019 — **Date**

SRN: M4777	Section Number (if applicable): 2

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.	☐ Yes ☒ No
C2.	Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)	☒ Yes ☐ 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?	☐ Yes ☒ No ☐ Yes ☐ No
C4.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NOx, PM10, PM2.5, SO_2, VOC, lead) emissions? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers, or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. If No, criteria pollutant potential emission calculations do not need to be included.	☒ Yes ☐ No
C5.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the PTE for hazardous air pollutants (HAPs) regulated by Section 112 of the federal Clean Air Act? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. Fugitive emissions must be included in HAP emission calculations. If No, HAP potential emission calculations do not need to be included.	☐ Yes ☒ No
C6.	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.	☐ Yes ☒ No
C7.	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?	☐ Yes ☒ No ☐ Yes ☐ No
C8.	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. If the CAM Plan has been updated, include an updated copy. Is a CAM plan included with this application? If a CAM Plan is included, check the type of proposed monitoring included in the Plan: 1. Monitoring proposed by the source based on performance of the control device, or 2. Presumptively Acceptable Monitoring, if eligible	☐ Yes ☒ No ☐ Yes ☒ No ☐ ☐
C9.	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.	☐ Yes ☒ No
C10.	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.	☐ Yes ☒ No
☒	Check here if an AI-001 Form is attached to provide more information for Part C. Enter AI-001 Form ID: **AI-**PTE	

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 212(4) Citation** [e.g. Rule 212(4)(c)]	**Rule 201 Exemption Rule Citation** [e.g. Rule 282(2)(b)(i)]
EUELATK-101	6,000 gallon tank dedicated to storing liquid having a TVP less than 1.5 psia	Rule 212(4)(d)	Rule 284(2)(i)
EUELATK-102	12,000 gallon tank dedicated to storing liquid having a TVP less than 1.5 psia	Rule 212(4)(d)	Rule 284(2)(i)
EUELATK-111	3,000 gallon tank dedicated to storing liquid having a TVP less than 1.5 psia	Rule 212(4)(d)	Rule 284(2)(i)
EUELATK-112	3,000 gallon tank dedicated to storing liquid having a TVP less than 1.5 psia	Rule 212(4)(d)	Rule 284(2)(i)
EUELATK-210	300 gallon tank dedicated to storing liquid having a TVP less than 1.5 psia	Rule 212(4)(d)	Rule 284(2)(i)
EUELATK-310A	375 gallon tank dedicated to storing liquid having a TVP less than 1.5 psia	Rule 212(4)(d)	Rule 284(2)(i)
EUELATK-103	25,000 gallon tank dedicated to storing liquid having a TVP less than 1.5 psia	Rule 212(4)(d)	Rule 284(2)(i)
EUELAD-202	250 gallon tank dedicated to storing liquid having a TVP less than 1.5 psia	Rule 212(4)(d)	Rule 284(2)(i)
EUELAD-203	75 gallon tank dedicated to storing liquid having a TVP less than 1.5 psia	Rule 212(4)(d)	Rule 284(2)(i)

Comments:

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

SRN: M4777	Section Number (if applicable): 2

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.

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.	☐ Yes ☒ No
E2. For each emission unit(s) identified in the existing ROP, all 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 not reported in the most recent MAERS reporting year? If Yes, identity the stack(s) that was/were not reported on applicable MAERS form(s).	☐ Yes ☒ No
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.	☐ Yes ☒ No
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.	☐ Yes ☒ No
Comments:	

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

SRN: M4777	Section Number (if applicable): 2

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.

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. If No, go to Part G. ☐ Yes ☒ No

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

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. ☐ Yes ☐ No

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. ☐ Yes ☐ No

F4. Are there any stacks with applicable requirements for emission unit(s) identified in the PTIs listed above that were not reported in MAERS for the most recent emissions reporting year? If Yes, identity the stack(s) that were not reported on the applicable MAERS form(s). ☐ Yes ☐ No

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. ☐ Yes ☐ No

Comments:

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

SRN: M4777	Section Number (if applicable): 2

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**
☐ Rule 281(2)(h) or 285(2)(r)(iv) cleaning operation		
☐ Rule 287(2)(c) surface coating line		
☒ Rule 290 process with limited emissions	EUELAOVEN110 EUELAOVEN111 EUELAOVEN112 Description (same for each unit): "An oven for curing polyurethane parts controlled by a mist eliminator."	4/30/2018 3/23/2018 3/23/2018

Comments:

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

SRN: M4777	Section Number (if applicable): 2

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.	☐ Yes	☒ 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.	☐ Yes	☐ 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.	☐ Yes	☐ 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 each 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.	☐ Yes	☐ 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.	☐ Yes	☐ 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.	☐ Yes	☐ 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.	☐ Yes	☐ No

SRN: M4777	Section Number (if applicable): 2

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

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.	☐ Yes ☐ No
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.	☐ Yes ☐ No
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.	☐ Yes ☐ No
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.	☐ Yes ☐ No
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.	☐ Yes ☐ No
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.	☐ Yes ☐ No
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.	☐ Yes ☐ No

SRN: M4777	Section Number (if applicable): 2

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.	☐ Yes ☐ 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.	☐ Yes ☐ 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.	☐ Yes ☐ No
☐ Check here if an AI-001 Form is attached to provide more information for Part H. Enter AI-001 Form ID: **AI-**	

EGLE

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: M4777	Section Number (if applicable): 2

1. Additional Information ID
AI-PTE

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

Please see the attached Potential to Emit (PTE) calculations which include the PTE for criteria pollutants for the entire Plastics Plant Facility.

EGLE

RENEWABLE OPERATING PERMIT RENEWAL APPLICATION FORM

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	SIC Code	NAICS Code	Existing ROP Number	Section Number (if applicable)
M4777	3087	325991	MI-ROP-M4777-2015a	3 (E-TPU Operations)

Source Name: BASF Corporation – Plastics Plant

Street Address: 1609 Biddle Avenue

City	State	ZIP Code	County
Wyandotte	MI	48192-3729	Wayne

Section/Town/Range (if address not available):

Source Description: BASF Corporation (BASF) is located in Wyandotte, Michigan on the east side of Biddle Avenue along the Detroit River. The Plastics Plant comprises the Engineering Plastics Compounding (EPC) plants, Cellasto plant, and the Expanded Thermoplastic Polyurethane (ETPU) plant.

☒ 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	Section Number (if applicable)
BASF Corporation	3 (E-TPU Operations)

Mailing address (☐ check if same as source address): 100 Park Avenue

City	State	ZIP Code	County	Country
Florham Park	NJ	07932	Morris	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.

SRN: M4777	Section Number (if applicable): 3

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				Title
Bryan Hughes				EHS Team Leader
Company Name & Mailing address (☒ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		
(734) 324-6523		bryan.hughes@basf.com		

Contact 2 Name (optional)				Title
Company Name & Mailing address (☐ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name				Title
Greg Pflum				Vice President and General Manager
Company Name & Mailing address (☒ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		
(734) 324-6161		greg.pflum@basf.com		

Responsible Official 2 Name (optional)				Title
Company Name & Mailing address (☐ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

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

SRN: M4777	Section Number (if applicable): 3

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.

☒ Completed ROP Renewal Application Form (and any AI-001 Forms) (required)	☐ Compliance Plan/Schedule of Compliance
☒ Mark-up copy of existing ROP using official version from the AQD website (required)	☐ Stack information
☒ Copies of all Permit(s) to Install (PTIs) that have not been incorporated into existing ROP (required)	☐ Acid Rain Permit Initial/Renewal Application
☒ Criteria Pollutant/Hazardous Air Pollutant (HAP) Potential to Emit Calculations	☐ Cross-State Air Pollution Rule (CSAPR) Information
☐ MAERS Forms (to report emissions not previously submitted)	☐ Confidential Information
☐ Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP	☒ Paper copy of all documentation provided (required)
☐ Compliance Assurance Monitoring (CAM) Plan	☒ Electronic documents provided (optional)
☒ Other Plans (e.g., Malfunction Abatement, Fugitive Dust, Operation and Maintenance, etc.)	☐ 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)

Greg Pflum, Vice President and General 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 — Date: December 13, 2019

SRN: M4777	Section Number (if applicable): 3

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.	☐ Yes ☒ No
C2.	Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)	☒ Yes ☐ 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)	☐ Yes ☒ No
	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?	☐ Yes ☐ No
C4.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NOx, PM10, PM2.5, SO_2, VOC, lead) emissions? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers, or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. If No, criteria pollutant potential emission calculations do not need to be included.	☒ Yes ☐ No
C5.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the PTE for hazardous air pollutants (HAPs) regulated by Section 112 of the federal Clean Air Act? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. Fugitive emissions must be included in HAP emission calculations. If No, HAP potential emission calculations do not need to be included.	☐ Yes ☒ No
C6.	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.	☐ Yes ☒ No
C7.	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.	☐ Yes ☒ No
	Is an Acid Rain Permit Renewal Application included with this application?	☐ Yes ☐ No
C8.	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. If the CAM Plan has been updated, include an updated copy.	☐ Yes ☒ No
	Is a CAM plan included with this application?	☐ Yes ☒ No
	If a CAM Plan is included, check the type of proposed monitoring included in the Plan: 1. Monitoring proposed by the source based on performance of the control device, or	☐
	2. Presumptively Acceptable Monitoring, if eligible	☐
C9.	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.	☒ Yes ☐ No
C10.	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.	☐ Yes ☒ No
☒	Check here if an AI-001 Form is attached to provide more information for Part C. Enter AI-001 Form ID: **AI**-PTE	

SRN: M4777	Section Number (if applicable): 3

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 212(4) Citation** [e.g. Rule 212(4)(c)]	**Rule 201 Exemption Rule Citation** [e.g. Rule 282(2)(b)(i)]

Comments:

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

SRN: M4777	Section Number (if applicable): 3

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.

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.	☒ Yes ☐ No
E2. For each emission unit(s) identified in the existing ROP, all 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 not reported in the most recent MAERS reporting year? If Yes, identity the stack(s) that was/were not reported on applicable MAERS form(s).	☐ Yes ☒ No
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.	☒ Yes ☐ No
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.	☐ Yes ☒ No
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.

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. If No, go to Part G. ☒ Yes ☐ No

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
88-17	FGETPU (EUs within FGETPU per PTI 88-17)	*Please refer to the attached PTI 88-17 and redlined version of the ROP for new emission unit and flexible group information	12/14/2018

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. ☒ Yes ☐ No

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. ☐ Yes ☒ No

F4. Are there any stacks with applicable requirements for emission unit(s) identified in the PTIs listed above that were not reported in MAERS for the most recent emissions reporting year? If Yes, identity the stack(s) that were not reported on the applicable MAERS form(s). ☐ Yes ☒ No

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. ☐ Yes ☒ No

Comments:
Changes within the ROP related to PTI 88-17 are within FGETPU. Please refer to the ROP redline for changes in emission unit descriptions and permit conditions.

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

SRN: M4777	Section Number (if applicable): 3

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**
☐ Rule 281(2)(h) or 285(2)(r)(iv) cleaning operation		
☐ Rule 287(2)(c) surface coating line		
☐ 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.	☐ Yes	☒ 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.	☐ Yes	☐ 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.	☐ Yes	☐ 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 each 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.	☐ Yes	☐ 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.	☐ Yes	☐ 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.	☐ Yes	☐ 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.	☐ Yes	☐ No

SRN: M4777	Section Number (if applicable): 3

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

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.	☐ Yes ☐ No
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.	☐ Yes ☐ No
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.	☐ Yes ☐ No
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.	☐ Yes ☐ No
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.	☐ Yes ☐ No
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.	☐ Yes ☐ No
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.	☐ Yes ☐ No

SRN: M4777	Section Number (if applicable): 3

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.	☐ Yes ☐ 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.	☐ Yes ☐ 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.	☐ Yes ☐ No
☐ Check here if an AI-001 Form is attached to provide more information for Part H. Enter AI-001 Form ID: **AI-**	

EGLE

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: M4777	Section Number (if applicable): 1

1. Additional Information ID
AI-PTE

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

Please see the attached Potential to Emit (PTE) calculations which include the PTE for criteria pollutants for the entire Plastics Plant Facility.

Please see the attached Malfunction Abatement Plan (MAP) for the regenerative thermal oxidizer (RTO) associated with FGETPU.

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

EFFECTIVE DATE: JULY 22, 2015

REVISION DATE: JANUARY 30, 2018

ISSUED TO

BASF CORPORATION – PLASTICS PLANTS

State Registration Number (SRN): M4777

LOCATED AT

1609 Biddle Avenue, Wyandotte, Michigan 48192-3729

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-M4777-2020

Expiration Date: July 22, 2020

Administratively Complete ROP Renewal Application Due Between
January 22, 2019 and January 22, 2020

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-M4777-2020

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

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Wilhemina McLemore, Detroit 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 are identified for each ROP term or condition. All terms and conditions that are included in a PTI, are streamlined, subsumed and/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.

This permit does not relieve the permittee from any responsibilities or obligations imposed on the permittee, at this source, under Consent Order Number 47-2014, entered on October 2, 2014 between the MDEQ and the permittee.

STATE OF MICHIGAN
RENEWABLE OPERATING PERMIT

SECTION 1

BASF CORPORATION – PLASTICS PLANTS
ENGINEERING PLASTICS COMPOUNDING (EPC) OPERATIONS

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 a 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).[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. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in subrules 2, 3, and 4 of this rule, 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 the following:" [2] **(R 336.1301(1))**
    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.

    The grading of visible emissions shall be determined in accordance with Rule 303.

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).[2] **(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(5))**

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))**
    a. 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).
    b. 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.
    c. 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))**:
    a. 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.
    b. 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.[2] **(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))**

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(10))**

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:
    a. 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))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
    c. 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))**
    d. 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(8))**

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 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
    c. 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)**

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 of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, 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:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

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.

SOURCE-WIDE CONDITIONS

For the purpose of the contiguous site being a synthetic minor for HAPs, certain Source-Wide Terms and Conditions encompass all process equipment at the site, including equipment covered by other permits, grand-fathered equipment and exempt equipment. For these Conditions the term Source-Wide comprises three stationary sources: the Chemical Production Plants (SRN B4359); Plastics Plants (SRN M4777); and the Labs and Application Centers (SRN M4808).

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Each individual HAP	Less than 10.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.1 & SC VI.2	**R 336.1205(1)**
2. Total HAPs	Less than 25.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.1 & SC VI.2	**R 336.1205(1)**
For the purpose of the limits at SC I.1 and I.2, SOURCE-WIDE comprises the total and individual HAP emissions from the BASF Corporation M4777, M4808, and B4359 contiguous sites.					

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

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))**

NA

See Appendix 5-1

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 complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting, or notification special condition.[2] **(R336.1205(1))**

2. The permittee shall keep in a satisfactory manner, monthly and previous 12-month emissions calculation records for individual HAPs and total HAPs from SOURCE-WIDE. For the purpose of this condition SOURCE-WIDE comprises the total and individual HAPs emissions from the BASF Corporation M4777, M4808, and B4359 contiguous sites.[2] **(R336.1205(1))**

See Appendices 3-1, 4-1, and 7-1

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A, inclusive of deviations from SC I.1, I.2, VI.1, or VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A, inclusive of deviations from SC I.1, I.2, VI.1, or VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. 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, inclusive of certification for SC I.1, I.2, VI.1, and VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. 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))**

See Appendix 8-1

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. Each responsible official shall certify annually the compliance status of the stationary source with all stationary source-wide conditions. This certification shall be included as part of the annual certification of compliance as required in the General Conditions in Part A and Rule 213(4)(c). **(R 336.1213(4)(c))**

2. The company shall submit to the AQD an administratively complete application, not more than eighteen (18) months, but not less than six (6) months, before the ROP expiration date, as specified in Part 55 Section 324.5506(5) and Rule 210(8).[2] **(Paragraph 9(b)(1) of Consent Order AQD No 47-2014)**

3. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the Chief of the AQD. **(R 336.1213(3))**

Footnotes:

[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

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
EUEPCFILLERHNDLG	Equipment used to blend various materials with plastic resin pellets prior to being compounded at the extruders. Baghouses, vent filters, and scrubbers are installed as pollution control devices. This emission unit is comprised of 11 stacks associated with ventilation and exhaust fans.	10/1/2008	FGEPCRULE290
EUEPCOVEN	Pyrolysis furnace for cleaning plastic material from extruder parts. The furnace is equipped with an afterburner.	10/1/2009	FGEPCRULE290

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
FGEPCRULE290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.	EUEPCFILLERHNDLG, EUEPCOVEN

FGEPCRULE 290
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.

Emission Units: EUEPCFILLERHNDLG, EUEPCOVEN

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(i))**

2. Each emission unit that the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(a)(ii))**

   a. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(ii)(A))**

   b. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 microgram per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(B))**

   c. For carcinogenic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(C))**

   d. The emission unit shall not emit any air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(a)(ii)(D))**

3. Each emission unit that emits only noncarcinogenic particulate air contaminants and other air contaminants that are exempted under Rule 290(a)(i) and/or Rule 290(a)(ii), if all of the following provisions are met: **(R 336.1290(a)(iii))**

   a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have an exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(a)(iii)(A))**

b. The visible emissions from the emission unit are not more than five percent opacity in accordance with the methods contained in Rule 303. **(R 336.1290(a)(iii)(B))**

c. The initial threshold screening level for each particulate air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(a)(iii)(C))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The provisions of Rule 290 apply to each emission unit that is operating pursuant to Rule 290. **(R 336.1290)**

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))**

NA

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 maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DEQ, AQD Rule 290, Permit to Install Exemption Record form (EQP 3558) or in a format that is acceptable to the AQD District Supervisor. **(R 336.1213(3))**

   a. Records identifying each air contaminant that is emitted. **(R 336.1213(3))**

   b. Records identifying if each air contaminant is controlled or uncontrolled. **(R 336.1213(3))**

   c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic. **(R 336.1213(3))**

   d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(a)(ii) and (iii). **(R 336.1213(3))**

   e. Material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in sufficient detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. **(R 336.1213(3), R 336.1290(c))**

2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information. **(R 336.1213(3))**

   a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit. **(R 336.1290(b), R 336.1213(3))**

   b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate**. (R 336.1213(3))**

3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating

conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

See Appendix 4-1

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))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that the requirements identified in the table below are not applicable to the specified emission unit(s) and/or flexible group(s). This determination is incorporated into the permit shield provisions set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii). If the permittee makes a change that affects the basis of the non-applicability determination, the permit shield established as a result of that non-applicability decision is no longer valid for that emission unit or flexible group.

Emission Unit/Flexible Group ID	Non-Applicable Requirement	Justification
FGEPCRULE290	40 CFR Part 63, Subpart F, National Emissions Standards for Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry	The materials produced by the EPC Plant are not synthetic organic chemicals as listed in Table 1 of 40 CFR Part 63, Subpart F.
FGEPCRULE290	40 CFR Part 63, Subpart G, National Emissions Standards for Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater	The materials produced by the EPC Plant are not synthetic organic chemicals as listed in Table 1 of 40 CFR Part 63, Subpart F.
FGEPCRULE290	40 CFR Part 63, Subpart U, National Emissions Standards for Hazardous Air Pollutants: Group I Polymers and Resins	The materials produced by the EPC Plant are not elastomers.
FGEPCRULE290	40 CFR Part 63, Subpart W, National Emissions Standards for Hazardous Air Pollutants for Epoxy Resins Production and Non-Nylon Polyamides Production	The materials produced by the EPC Plant do not include basic liquid epoxy resins or wet strength resins as defined by 40 CFR 63.522.
FGEPCRULE290	40 CFR Part 63, Subpart III, National Emissions Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production	The EPC Plant does not produce flexible polyurethane foam.
FGEPCRULE290	40 CFR Part 63, Subpart JJJ, National Emissions Standards for Hazardous Air Pollutants: Group IV Polymers and Resins	The materials produced by the EPC Plant do not include thermoplastic resins as defined by 40 CFR 63.1312.
FGEPCRULE290	40 CFR Part 63, Subpart PPP, National Emissions Standards for Hazardous Air Pollutants for Polyether Polyols Production	The EPC Plant does not produce polyether polyols.

APPENDICES

Appendix 1-1. 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_2S	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).

Appendix 2-1. 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 3-1. 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 4-1. 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 5-1. Testing Procedures

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

Appendix 6-1. 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-M4777-2009. 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-M4777-2015a is being reissued as Source-Wide PTI No. MI-PTI-M4777-2020.

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 7-1. Emission Calculations

Specific emission calculations to be used with monitoring, testing or recordkeeping data are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible group Special Conditions. Therefore, this appendix is not applicable.

Appendix 8-1. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the MDEQ, AQD, Report Certification form (EQP 5736) and MDEQ, AQD, 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.

B. Other Reporting

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

STATE OF MICHIGAN
RENEWABLE OPERATING PERMIT

SECTION 2

BASF CORPORATION – PLASTICS PLANTS
CELLASTO OPERATIONS

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 a 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).[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. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in subrules 2, 3, and 4 of this rule, 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 the following:" [2] **(R 336.1301(1))**
    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.

    The grading of visible emissions shall be determined in accordance with Rule 303.

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).[2] **(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(5))**

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))**
    a. 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).
    b. 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.
    c. 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))**:
    a. 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.

b. 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.[2] **(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))**

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(10))**

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:
    a. 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))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
    c. 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))**
    d. 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(8))**

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 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
    c. 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)**

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 of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, 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:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

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.

SOURCE-WIDE CONDITIONS

For the purpose of the contiguous site being a synthetic minor for HAPs, certain Source-Wide Terms and Conditions encompass all process equipment at the site, including equipment covered by other permits, grand-fathered equipment and exempt equipment. For these Conditions the term Source-Wide comprises three stationary sources: the Chemical Production Plants (SRN B4359); Plastics Plants (SRN M4777); and the Labs and Application Centers (SRN M4808).

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Each individual HAP	Less than 10.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.1 & SC VI.2	**R 336.1205(1)**
2. Total HAPs	Less than 25.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.1 & SC VI.2	**R 336.1205(1)**
For the purpose of the limits at SC I.1 and I.2, SOURCE-WIDE comprises the total and individual HAP emissions from the BASF Corporation M4777, M4808, and B4359 contiguous sites.					

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

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))**

NA

See Appendix 5-2

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 complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting, or notification special condition.[2] **(R336.1205(1))**

2. The permittee shall keep in a satisfactory manner, monthly and previous 12-month emissions calculation records for individual HAPs and total HAPs from SOURCE-WIDE. For the purpose of this condition SOURCE-WIDE

comprises the total and individual HAPs emissions from the BASF Corporation M4777, M4808, and B4359 contiguous sites.[2] **(R336.1205(1))**

See Appendices 3-2, 4-2, and 7-2

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A, inclusive of deviations from SC I.1, I.2, VI.1, or VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A, inclusive of deviations from SC I.1, I.2, VI.1, or VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. 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, inclusive of certification for SC I.1, I.2, VI.1, and VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. 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))**

See Appendix 8-2

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. Each responsible official shall certify annually the compliance status of the stationary source with all stationary source-wide conditions. This certification shall be included as part of the annual certification of compliance as required in the General Conditions in Part A and Rule 213(4)(c). **(R 336.1213(4)(c))**

2. The company shall submit to the AQD an administratively complete application, not more than eighteen (18) months, but not less than six (6) months, before the ROP expiration date, as specified in Part 55 Section 324.5506(5) and Rule 210(8).[2] **(Paragraph 9(b)(1) of Consent Order AQD No 47-2014)**

3. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the Chief of the AQD. **(R 336.1213(3))**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

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
EUELAOVEN101	An oven for curing polyurethane parts controlled by a mist eliminator.	10/1/1987	FGELAMACTS, FGELARULE290
EUELAOVEN102	An oven for curing polyurethane parts controlled by a mist eliminator.	10/1/1987	FGELAMACTS, FGELARULE290
EUELAOVEN103	An oven for curing polyurethane parts controlled by a mist eliminator.	10/1/1987	FGELAMACTS, FGELARULE290
EUELAOVEN104	An oven for curing polyurethane parts controlled by a mist eliminator.	10/1/1987	FGELAMACTS, FGELARULE290
EUELAOVEN105	An oven for curing polyurethane parts controlled by a mist eliminator.	10/1/1987	FGELAMACTS, FGELARULE290
EUELAOVEN106	An oven for curing polyurethane parts controlled by a mist eliminator.	10/1/1987	FGELAMACTS, FGELARULE290
EUELAOVEN107	An oven for curing polyurethane parts controlled by a mist eliminator.	1/1/2002	FGELAMACTS, FGELARULE290
EUELAOVEN108	An oven for curing polyurethane parts controlled by a mist eliminator.	1/1/2002	FGELAMACTS, FGELARULE290
EUELAOVEN109	An oven for curing polyurethane parts controlled by a mist eliminator.	1/1/2002	FGELAMACTS, FGELARULE290
EUELAOVEN110	An oven for curing polyurethane parts controlled by a mist eliminator.	4/30/2018	FGELAMACTS, FGELARULE290
EUELAOVEN111	An oven for curing polyurethane parts controlled by a mist eliminator.	3/23/2018	FGELAMACTS, FGELARULE290
EUELAOVEN112	An oven for curing polyurethane parts controlled by a mist eliminator.	3/23/2018	FGELAMACTS, FGELARULE290
EUELAREACTOR210	Production of prepolymer for use in the polyurethane molding operations. Carbon adsorbers are installed for volatile organic compound control. The emission unit includes pre-polymer reactor and associated equipment (storage and feed tanks, flake hopper, piping, pumps, and dosing tanks).	10/1/1995	FGELAREACTOR, FGELAMACTS, FGELARULE290

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUELAREACTOR220	Production of prepolymer for use in the polyurethane molding operations. Carbon adsorbers are installed for volatile organic compound control. The emission unit includes pre-polymer reactor and associated equipment (storage and feed tanks, flake hopper, piping, pumps, and dosing tanks).	10/1/1995	FGELAREACTOR, FGELAMACTS, FGELARULE290
EUELAREACTOR230	Production of prepolymer for use in the polyurethane molding operations. Carbon adsorbers are installed for volatile organic compound control. The emission unit includes pre-polymer reactor and associated equipment (storage and feed tanks, flake hopper, piping, pumps, and dosing tanks).	10/1/1995	FGELAREACTOR, FGELAMACTS, FGELARULE290
EUELAREACTOR240	Production of prepolymer for use in the polyurethane molding operations. Carbon adsorbers are installed for volatile organic compound control. The emission unit includes pre-polymer reactor and associated equipment (storage and feed tanks, flake hopper, piping, pumps, and dosing tanks).	11/1/2000	FGELAREACTOR, FGELAMACTS, FGELARULE290
EUELAREACTOR250	Production of prepolymer for use in the polyurethane molding operations. Carbon adsorbers are installed for volatile organic compound control. The emission unit includes pre-polymer reactor and associated equipment (storage and feed tanks, flake hopper, piping, pumps, and dosing tanks).	11/1/2000	FGELAREACTOR, FGELAMACTS, FGELARULE290
EUELADEBURRING	Equipment used to remove burrs and flash from polyurethane parts. Filter socks are installed for particulate control.	1/1/2003 5/1/2018	FGELAMACTS, FGELARULE290
EUELAMOLDING	Equipment for the reaction injection molding of polyurethane parts.	11/1/2013	FGELAMACTS, FGELARULE290

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
FGELAREACTOR	Equipment, in aggregate, employed for the production of prepolymer for use in the polyurethane molding operations. Carbon adsorbers are installed for volatile organic compound control. The flexible group includes pre-polymer reactors and associated equipment (storage and feed tanks, flake hopper, piping, pumps, and dosing tanks).	EUELAREACTOR210, EUELAREACTOR220, EUELAREACTOR230, EUELAREACTOR240, EUELAREACTOR250
FGELAMACTS	The flexible polyurethane foam process defined at 40 CFR 63.1292 as “the equipment used to produce a flexible polyurethane foam product”, inclusive of “raw material storage; production equipment and associated piping, ductwork, etc.; and curing and storage areas.” All permitted, exempt, and grandfathered equipment within the flexible polyurethane foam process constitute the emission unit.	EUELAREACTOR210, EUELAREACTOR220, EUELAREACTOR230, EUELAREACTOR240, EUELAREACTOR250, EUELAOVEN101, EUELAOVEN102, EUELAOVEN103, EUELAOVEN104, EUELAOVEN105, EUELAOVEN106, EUELAOVEN107, EUELAOVEN108, EUELAOVEN109, EUELAOVEN110, EUELAOVEN111, EUELAOVEN112, EUELADEBURRING, EUELAMOLDING

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGELARULE290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.	EUELAREACTOR210, EUELAREACTOR220, EUELAREACTOR230, EUELAREACTOR240, EUELAREACTOR250, EUELAOVEN101, EUELAOVEN102, EUELAOVEN103, EUELAOVEN104, EUELAOVEN105, EUELAOVEN106, EUELAOVEN107, EUELAOVEN108, EUELAOVEN109, EUELAOVEN110, EUELAOVEN111, EUELAOVEN112, EUELADEBURRING, EUELAMOLDING

FGELAREACTOR
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Equipment, in aggregate, employed for the production of prepolymer for use in the polyurethane molding operations. Carbon adsorbers are installed for volatile organic compound control.

Emission Units: EUELAREACTOR210, EUELAREACTOR220, EUELAREACTOR230, EUELAREACTOR240, EUELAREACTOR250

POLLUTION CONTROL EQUIPMENT

Carbon adsorption units.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	0.5 pounds per 1000 pounds of completed organic resin produced	Each batch of completed organic resin pursuant to the procedures at R 336.2060(a)	Applied to each existing production train (inclusive of reactors, blending tanks, and finishing tanks) producing discrete batches of organic resin in FGELAREACTOR	SC VI.1	**R 336.1631(3)(b), R 336.1631(5), R 336.2060(a)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate any reactor, blending tank, or finishing tank of FGELAREACTOR unless the production train (inclusive of reactors, blending tanks, and finishing tanks producing discrete batches of organic resin) associated with the reactor, blending tank, or finishing tank is operated in compliance with the VOC emission limit at SC I.1. **(R 336.1631(3)(b))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The carbon adsorption units at FGELAREACTOR shall be installed, operated, and maintained in a satisfactory manner and in accordance with the air pollution control rules and existing law. **(R 336.1910)**

V. TESTING/SAMPLING

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

NA

See Appendix 5-2

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 obtain current information and keep records necessary for a determination of compliance with the provisions of R 336.1631. This information may include any of the following information: (a) emissions test data; (b) material balance calculations; (c) process production rates; (d) control equipment specifications and operating parameters. **(R 336.1631(6))**

See Appendices 3-2, 4-2, and 7-2

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))**

See Appendix 8-2

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)

NA

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGELAMACTS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

The flexible polyurethane foam process defined at 40 CFR 63.1292 as "the equipment used to produce a flexible polyurethane foam product", inclusive of "raw material storage; production equipment and associated piping, ductwork, etc.; and curing and storage areas." All permitted, exempt, and grandfathered equipment within the flexible polyurethane foam process constitute the emission unit.

Emission Units: EUELAREACTOR210, EUELAREACTOR220, EUELAREACTOR230, EUELAREACTOR240, EUELAREACTOR250, EUELAOVEN101, EUELAOVEN102, EUELAOVEN103, EUELAOVEN104, EUELAOVEN105, EUELAOVEN106, EUELAOVEN107, EUELAOVEN108, EUELAOVEN109, EUELAOVEN110, EUELAOVEN111, EUELAOVEN112, EUELADEBURRING, EUELAMOLDING

POLLUTION CONTROL EQUIPMENT

Mist eliminators on curing ovens, filter socks or knock out box on the deburring operations, carbon adsorbers on the reactors.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. A HAP or HAP-based material shall not be used as an equipment cleaner to flush the mixhead, nor shall it be used elsewhere as an equipment cleaner in a molded flexible polyurethane foam process, as defined at 40 CFR 63.1292, with the following exception. Diisocyanates may be used to flush the mixhead and associated piping during periods of startup or maintenance, provided that the diisocyanate compounds are contained in a closed-loop system and are re-used in production. **(40 CFR 63.1300(a))**

2. A HAP-based mold release agent shall not be used in a molded flexible polyurethane foam source process, as defined at 40 CFR 63.1292. **(40 CFR 63.1300(b))**

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))**

NA

See Appendix 5-2

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 maintain a product data sheet for each compound other than diisocyanates used to flush the mixhead and associated piping during periods of startup or maintenance, which includes the HAP content, in kg of HAP/kg solids (lb HAP/lb solids), of each solvent other than diisocyanates used to flush the mixhead and associated piping during periods of startup or maintenance. **(40 CFR 63.1307(g), 40 CFR 63.1308(a)(1))**

2. The permittee shall maintain a product data sheet for each mold release agent used that includes the HAP content, in kg of HAP/kg solids (lb HAP/lb solids), of each mold release agent. **(40 CFR 63.1307(h), 40 CFR 63.1308(a)(1))**

See Appendices 3-2, 4-2, and 7-2

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. Under 40 CFR 63.1306(g), the permittee shall annually submit a certification of compliance with the applicable provisions at 40 CFR Part 63 Subparts A and III, based on information consistent with that contained in 40 CFR 63.1308. The certification of compliance shall be signed by the responsible official. The annual compliance certification required pursuant to SC VII.3 may be used to satisfy the requirements of 40 CFR 63.1306(g) provided the information is consistent with that contained at 40 CFR 63.1308. **(40 CFR 63.1306(e), 40 CFR 63.1308(a)(2))**

See Appendix 8-2

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. Permittee shall comply with all applicable provisions of 40 CFR 63, Subparts A and III, National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production. **(40 CFR 63.1, 40 CFR 63.1290(a) and (b))**

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGELARULE290
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.

Emission Units: EUELAREACTOR210, EUELAREACTOR220, EUELAREACTOR230, EUELAREACTOR240, EUELAREACTOR250, EUELAOVEN101, EUELAOVEN102, EUELAOVEN103, EUELAOVEN104, EUELAOVEN105, EUELAOVEN106, EUELAOVEN107, EUELAOVEN108, EUELAOVEN109, EUELAOVEN110, EUELAOVEN111, EUELAOVEN112, EUELADEBURRING, EUELAMOLDING

POLLUTION CONTROL EQUIPMENT

Mist eliminators on each oven; sock filters on each deburring machine; carbon canisters on reactors.

I. EMISSION LIMIT(S)

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(i))**

2. Each emission unit that the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(a)(ii))**

   a. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(ii)(A))**

   b. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 microgram per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(B))**

   c. For carcinogenic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(C))**

   d. The emission unit shall not emit any air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(a)(ii)(D))**

3. Each emission unit that emits only noncarcinogenic particulate air contaminants and other air contaminants that are exempted under Rule 290(a)(i) and/or Rule 290(a)(ii), if all of the following provisions are met: **(R 336.1290(a)(iii))**

   a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than

or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have an exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(a)(iii)(A))**

b. The visible emissions from the emission unit are not more than five percent opacity in accordance with the methods contained in Rule 303. **(R 336.1290(a)(iii)(B))**

c. The initial threshold screening level for each particulate air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(a)(iii)(C))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The provisions of Rule 290 apply to each emission unit that is operating pursuant to Rule 290. **(R 336.1290)**

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))**

NA

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 maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DEQ, AQD Rule 290, Permit to Install Exemption Record form (EQP 3558) or in a format that is acceptable to the AQD District Supervisor. **(R 336.1213(3))**

   a. Records identifying each air contaminant that is emitted. **(R 336.1213(3))**

   b. Records identifying if each air contaminant is controlled or uncontrolled. **(R 336.1213(3))**

   c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic. **(R 336.1213(3))**

   d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(a)(ii) and (iii). **(R 336.1213(3))**

   e. Material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in sufficient detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. **(R 336.1213(3), R 336.1290(c))**

2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information. **(R 336.1213(3))**

   a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit. **(R 336.1290(b), R 336.1213(3))**

   b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate**. (R 336.1213(3))**

3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

See Appendix 4-2

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))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that the requirements identified in the table below are not applicable to the specified emission unit(s) and/or flexible group(s). This determination is incorporated into the permit shield provisions set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii). If the permittee makes a change that affects the basis of the non-applicability determination, the permit shield established as a result of that non-applicability decision is no longer valid for that emission unit or flexible group.

Emission Unit/Flexible Group ID	Non-Applicable Requirement	Justification
FGELARULE290	40 CFR Part 63, Subpart F, National Emissions Standards for Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry	The materials produced by the Cellasto Plant are not synthetic organic chemicals as listed in Table 1 of 40 CFR Part 63, Subpart F.
FGELARULE290	40 CFR Part 63, Subpart G, National Emissions Standards for Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater	The materials produced by the Cellasto Plant are not synthetic organic chemicals as listed in Table 1 of 40 CFR Part 63, Subpart F.
FGELARULE290	40 CFR Part 63, Subpart I, National Emissions Standards for Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks	The materials produced by the Cellasto Plant do not include the materials at 40 CFR 63.190(b).
FGELARULE290	40 CFR Part 63, Subpart U, National Emissions Standards for Hazardous Air Pollutants: Group I Polymers and Resins	The materials produced by the Cellasto Plant are not elastomers.
FGELARULE290	40 CFR Part 63, Subpart W, National Emissions Standards for Hazardous Air Pollutants for Epoxy Resins Production and Non-Nylon Polyamides Production	The materials produced by the Cellasto Plant do not include basic liquid epoxy resins or wet strength resins as defined by 40 CFR 63.522.
FGELARULE290	40 CFR Part 63, Subpart JJJ, National Emissions Standards for Hazardous Air Pollutants: Group IV Polymers and Resins	The materials produced by the Cellasto Plant do not include thermoplastic resins as defined by 40 CFR 63.1312.
FGELARULE290	40 CFR Part 63, Subpart PPP, National Emissions Standards for Hazardous Air Pollutants for Polyether Polyols Production	The Cellasto Plant does not produce polyether polyols.
FGELAMACTS	40 CFR Part 63, Subpart OOOOOO, National Emissions Standards for Hazardous Air Pollutants: Flexible Polyurethane Foam Production and Fabrication Area Sources.	FGELAMACTS is subject to 40 CFR Part 63, Subpart III Flexible Polyurethane Foam Production as a major source and therefore not subject to the requirements of foam production of the area source rule. Future installations or modifications may be subject to the flexible polyurethane foam fabrication requirements under 40 CFR Part 63, Subpart OOOOOO.

APPENDICES

Appendix 1-2. 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_2S	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).

Appendix 2-2. 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 3-2. 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 4-2. 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 5-2. Testing Procedures

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 6-2. 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-M4777-20015a. 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-M4777-20015a is being reissued as Source-Wide PTI No. MI-PTI-M4777-2020.

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 7-2. Emission Calculations

Specific emission calculations to be used with monitoring, testing or recordkeeping data are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible group Special Conditions. Therefore, this appendix is not applicable.

Appendix 8-2. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the MDEQ, AQD, Report Certification form (EQP 5736) and MDEQ, AQD, 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.

B. Other Reporting

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

STATE OF MICHIGAN
RENEWABLE OPERATING PERMIT

SECTION 3

BASF CORPORATION – PLASTICS PLANTS
ETPU OPERATIONS

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 a 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).[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. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in subrules 2, 3, and 4 of this rule, 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 the following:" [2] **(R 336.1301(1))**
    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.

    The grading of visible emissions shall be determined in accordance with Rule 303.

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).[2] **(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(5))**

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))**
    a. 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).
    b. 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.
    c. 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))**:
    a. 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.
    b. 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.[2] **(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))**

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(10))**

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:
    a. 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))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
    c. 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))**
    d. 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(8))**

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 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
    c. 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)**

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 of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, 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:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

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.

SOURCE-WIDE CONDITIONS

For the purpose of the contiguous site being a synthetic minor for HAPs, certain Source-Wide Terms and Conditions encompass all process equipment at the site, including equipment covered by other permits, grand-fathered equipment and exempt equipment. For these Conditions the term Source-Wide comprises three stationary sources: the Chemical Production Plants (SRN B4359); Plastics Plants (SRN M4777); and the Labs and Application Centers (SRN M4808).

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Each individual HAP	Less than 10.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.1 & SC VI.2	**R 336.1205(1)**
2. Total HAPs	Less than 25.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.1 & SC VI.2	**R 336.1205(1)**
For the purpose of the limits at SC I.1 and I.2, SOURCE-WIDE comprises the total and individual HAP emissions from the BASF Corporation M4777, M4808, and B4359 contiguous sites.					

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

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))**

NA

See Appendix 5-3

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 complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting, or notification special condition.[2] **(R336.1205(1))**

2. The permittee shall keep in a satisfactory manner, monthly and previous 12-month emissions calculation records for individual HAPs and total HAPs from SOURCE-WIDE. For the purpose of this condition SOURCE-WIDE

comprises the total and individual HAPs emissions from the BASF Corporation M4777, M4808, and B4359 contiguous sites.[2] **(R336.1205(1))**

See Appendices 3-3, 4-3, and 7-3

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A, inclusive of deviations from SC I.1, I.2, VI.1, or VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A, inclusive of deviations from SC I.1, I.2, VI.1, or VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. 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, inclusive of certification for SC I.1, I.2, VI.1, and VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. 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))**

See Appendix 8-3

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. Each responsible official shall certify annually the compliance status of the stationary source with all stationary source-wide conditions. This certification shall be included as part of the annual certification of compliance as required in the General Conditions in Part A and Rule 213(4)(c). **(R 336.1213(4)(c))**

2. The company shall submit to the AQD an administratively complete application, not more than eighteen (18) months, but not less than six (6) months, before the ROP expiration date, as specified in Part 55 Section 324.5506(5) and Rule 210(8).[2] **(Paragraph 9(b)(1) of Consent Order AQD No 47-2014)**

3. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the Chief of the AQD. **(R 336.1213(3))**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

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
EUETPUI	All process equipment used to expand thermoplastic polyurethane pellets in the ETPUI production line which is controlled by dust collector F-780. Equipment in EUETPUI includes a butane collection system that captures butane and stores it in Tank 780 until it is condensed by a nitrogen condenser system and returned for re-use in the ETPUI process. The equipment in EUETPUI includes, but is not limited to the following: One (1) plastic pellet impregnation vessel; One (1) product rundown vessel; One (1) flash dryer; One (1) spin dryer; One (1) off-gas holding tank; Four (4) batch off gas silos; Miscellaneous fabric filter devices; Miscellaneous product transfer and holding equipment	2/5/1988, 2/23/2006 12/14/2018	FGETPU

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUETPUII	All process equipment used to expand thermoplastic polyurethane pellets in the ETPUII production line which is controlled by dust collector F-880. The equipment includes a butane collection system that captures butane and stores it in Tank 880 until it is condensed by a nitrogen condenser system and returned for re-use in the ETPUII process. Equipment in EUETPUII includes, but is not limited to the following: One (1) plastic pellet impregnation vessel; One (1) product rundown vessel; One (1) flash dryer; One (1) spin dryer; One (1) off-gas holding tank; Four (4) batch off gas silos; Miscellaneous fabric filter devices Miscellaneous product transfer and holding equipment	1/23/1994, 2/23/2006 12/14/2018	FGETPU
EUETPURAWMATERIAL	Raw material storage equipment common to EUETPUI and EUETPUII and controlled by dust collector, F-841.	2/5/1988 12/14/2018	FGETPU
EUETPUBULKSTORAGE	Finished product bulk loading facility and storage equipment common to EUETPUI and EUETPUII. EUETPUBULKSTORAGE consists of equipment dedicated to the bulk storage and product evaluation of expanded thermoplastic polyurethane. The equipment includes, but not limited to, the following: Four (4) material pneumatic transfer blowers; One (1) railcar loading cyclone	1/1/1993 12/14/2018	FGETPU
EUETPUCOLDCLEANER	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.	NA	FGETPUCOLDCLEANER

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
FGETPU	Expanded thermoplastic polyurethane (ETPU) production lines I and II, raw material storage, finished product storage and loading, and condensation system.	EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE
FGETPUCOLDCLEANER	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.	EUETPUCOLDCLEANER

FGETPU
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Expanded thermoplastic polyurethane (ETPU) production lines I and II, raw material storage, finished product storage and loading, and condensation system.

Emission Units: EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE.

POLLUTION CONTROL EQUIPMENT

Fabric filter dust collectors (F-780 and F-880, F-841); Butane condensation system, regenerative thermal oxidizer (RTO)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	70 TPY	12-month rolling time period as determined at the end of each calendar month	Emissions from the warehouse super sacks, the drying lines, and fugitives from both ETPU production lines combined.	V.1 VI.11	**R 336.1205** **R 336.1225,** **R 336.1702(a)**
2. VOC	82 TPY	12-month rolling time period as determined at the end of each calendar month	Point source and fugitive emissions from both ETPU production lines combined.	V.1 VI.11	**R 336.1205** **R 336.1225,** **R 336.1702(a)**

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fresh butane * used in EUETPUI and EUETPUII	875 TPY	12-month rolling time period as determined at the end of each calendar month	ETPU production lines I and II combined	VI.10	**R 336.1205** **R 336.1225,** **R 336.1702(a)**
* In these conditions, “butane” refers to a hydrocarbon mixture consisting of n-butane, isobutane, and propane that is used as an expansion agent in EUETPUI and EUETPUII. The primary component of “butane” is n-butane. “Fresh” butane refers to butane obtained from outside FGETPU for use in EUETPUI and EUETPUII, as distinct from butane recovered via the condensation system for re-use in FGETPU.					

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUETPUI, EUETPUII or EUETPURAWMATERIAL unless the dust collector operating procedures are implemented and maintained. The procedures shall be kept on site and made available to the Department upon request. **(R 336.1331)**

2. The permittee shall not operate EUETPUI or EUETPUII unless the butane collection system operating procedures are implemented and maintained. The procedures shall be kept on site and made available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

3. The permittee shall not operate EUETPUI or EUETPUII unless the condensation system operating procedures, or an alternate plan approved by the AQD District Supervisor, are implemented and maintained. If changes are made to the condensation system, the plan shall be revised to reflect the changes. The permittee shall keep the plan on site and make it available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

4. The permittee shall not operate EUETPUI or EUETPUII unless the RTO operating procedures, or an alternate plan approved by the AQD District Supervisor, are implemented and maintained. If changes are made to the RTO, the plan shall be revised to reflect the changes. The permittee shall keep the plan on site and make it available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

5. The permittee shall not operate EUETPUI or EUETPUII unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the RTO, has been submitted within 60 days of RTO, installation. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP to the AQD District Supervisor for review and approval. For any amendments to the MAP relating to requirements of Rule 911(2), the permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUETPUI, EUETPUII or EUETPURAWMATERIAL unless the corresponding dust collector, F-780, F880 or F-841, respectively, is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes installing a pressure drop monitoring device on each of the dust collectors and maintaining the pressure drop at proper operating levels as specified in the dust collector operating procedures. **(R 336.1331)**

2. The permittee shall not operate EUETPUI or EUETPUII unless the corresponding butane collection and hold tank, Tank 780 or Tank 880, respectively, is installed, maintained and operated in a satisfactory manner. Satisfactory operation includes installing and maintaining a monitoring device on each tank that allows the permittee to ensure that each tank has adequate capacity to receive butane from each production batch it serves before beginning to process the batch. These and all other operations relating to the proper operation of the butane collection and hold tanks shall be specified in the butane collection system operating procedures. **(R 336.1205, R 336.1225, R 336.1702(a))**

3. The permittee shall not operate EUETPUI or EUETPUII unless the condensation system is installed, maintained and operated in a satisfactory manner. Satisfactory operation includes maintaining a column temperature with a maximum temperature of -184 F over a 3-hour block average when feeding and recovering butane through the condensation system and having a system in place that will shut off the flow of butane to the condensation system if the system malfunctions, as specified in the condensation system operating procedures. **(R 336.1205, R 336.1225, R 336.1702(a))**

4. The permittee shall not operate EUETPUI or EUETPUII unless the RTO is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the regenerative thermal oxidizer includes a minimum VOC destruction efficiency of 98 percent (by weight), and maintaining a minimum temperature of 1300 °F and a minimum retention time of 0.5 seconds. The permittee shall also have a system in place that will shut off the flow of butane to the regenerative thermal oxidizer if the regenerative thermal oxidizer malfunctions, as specified in the regenerative thermal oxidizer system operating procedures. **(R 336.1205, R 336.1225, R 336.1702(a), R336.1910)**

5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to continuously monitor and record the combustion chamber temperature of the RTO. Satisfactory manner includes measuring the temperature to within 1 percent (relative to degrees Celsius) or ±0.5 °C (±0.9 °F), whichever is greater. Continuous monitoring means at least one measurement every fifteen minutes. **(R 336.1205, R 336.1225, R 336.1702(a), R336.1910)**

6. The permittee shall not install bypass valves that could divert a vent stream from the RTO, except as allowed by SC IV.7 when the vent stream goes to the emergency vent stack of the RTO. **(R 336.1205, R 336.1225, R 336.1702(a), R336.1910)**

7. During periods of shutdown of the RTO for maintenance, offline inspections, or malfunctions, the permittee may vent the off-gassing silos to atmosphere by way of an RTO emergency vent stack. During RTO shutdowns, the permittee shall minimize uncontrolled emissions by shutting down FGETPU production processes so that emissions occurring during these events are limited to the losses from the off-gassing silos. During RTO shutdowns, the permittee shall not transfer any material into the off-gassing silos. Emergency venting procedures shall be outlined in the RTO operating procedures and MAP for the RTO. **(R 336.1205, R 336.1225, 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. Within 180 days after commencement of trial operation, the permittee shall verify VOC destruction efficiency and VOC emission rates from the RTO by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix~~

~~A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.~~ **~~(R 336.1205, R 336.1225, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004~~)**

See Appendix 5-3

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 complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1225, R 336.1702(a))**

2. The permittee shall monitor in a satisfactory manner, the temperature in the combustion chamber of the RTO, on a continuous basis, during operation of FGETPU. Monitoring of data "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes. **(R 336.1205, R 336.1225, R 336.1702(a), R336.1910)**

3. The permittee shall conduct regular inspections, as outlined below, of the RTO for the purpose of determining the operating condition of the RTO.
   a. Regular inspections of the RTO shall be conducted during scheduled outages or downtime, but not less frequently than every 12-months.
   b. The operational condition, and if necessary, reasons for the failure or malfunction of the different components of the RTO shall be determined during the inspection.
   c. Any maintenance activities, repairs and corrective actions, needed to address the causes of malfunction or failure shall be performed within one hour. If the problem is not corrected within one hour, the facility shall promptly discontinue the source of emissions to the RTO until any repairs and corrective actions needed to address the causes of malfunction or failure is performed. **(R 336.1205, R 336.1225, R 336.1702(a))**

4. The permittee shall keep up-to-date, readily-accessible records of the following information measured during each performance test, and shall include the following information in the report of the initial performance test in addition to the written results of such performance tests. The same information specified in this condition shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a combustion device or the outlet concentration of VOC (minus methane and ethane) is determined.
   a. The average combustion chamber temperature of the RTO measured at least every 15 minutes and averaged over the performance test period,
   b. The percent reduction of VOC (minus methane and ethane) achieved by the RTO,
   c. A description of the location at which the vent stream is introduced into the RTO, and
   d. All periods when the RTO device is not operating. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

5. The permittee shall maintain a demonstration that the minimum retention time of 0.5 seconds is obtained for the RTO. If such a demonstration cannot be shown through engineering calculations of maximum possible gas flow, based on the size of the ductwork, the size of the combustion chamber, and the size of the fan, or some alternative method acceptable to the AQD, then the permittee shall provide monitoring on a daily basis, acceptable to the AQD, for the RTO which will allow for the assurance that the 0.5 second retention time is maintained. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

6. The permittee shall monitor the pressure drop across each dust collector, on a daily basis, during operation. **(R 336.1331)**

7. The permittee shall keep, in a satisfactory manner, records of the monitored temperature in the thermal oxidizer on a continuous basis. "On a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes. The permittee may record average values (rolling or block) for 15 minute or shorter periods

calculated from all measured data values during each period. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

8. Permittee shall keep, in a satisfactory manner, records of the daily pressure drop readings for each of the dust collectors. All records shall be made available to the Department upon request. **(R 336.1331)**

9. The permittee shall keep for at least 5 years, up-to-date, readily accessible continuous records of periods of operation during which the parameter boundaries established during the most recent performance test on the RTO are exceeded. Periods of operation during which the parameter boundaries established during the most recent performance test are exceeded is defined as all 3–hour periods of operation during which the average combustion temperature was more than 28 °C (50 °F) below the average combustion temperature during the most recent performance test at which compliance was demonstrated. **(R 336.1205, R 336.1225, R 336.1702(a))**

10. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of both of the following:
    a. the amount of fresh butane used in FGETPU, and
    b. number of product batches produced in FGETPU
    All records shall be made available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

11. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period VOC emission calculation records for FGETPU, using butane usage records and all of the following equations:
    a.

Equation 1: Fugitive Emissions from Plant

$$\sum\left[\begin{pmatrix}Number\ of\\ Emission\\ Points\ by\ Type\end{pmatrix}\times\begin{pmatrix}Emission\\ Factor\\ by\ Type\end{pmatrix}\times\begin{pmatrix}Operating\\ Days\ in\\ Month\end{pmatrix}\times\begin{pmatrix}24\ hours\\ per\ Day\end{pmatrix}\right]=\begin{pmatrix}Fugitive\\ Emissions\\ per\ Month\end{pmatrix}$$

Equation 2: Drying Line Emissions from Plant

$$\left[\begin{pmatrix}Number\ of\\ Batches\\ Produced\\ per\ Month\end{pmatrix}\times\begin{pmatrix}Drying\ Line\\ Butane\\ Emissions\\ per\ Batch\end{pmatrix}\right]=\begin{pmatrix}Drying\ Line\\ Emissions\\ per\ Month\end{pmatrix}$$

Equation 3: Warehouse Super-Sack Degassing Emissions

$$\left[\begin{pmatrix}Number\ of\\ Batches\\ Produced\\ per\ Month\end{pmatrix}\times\begin{pmatrix}SuperSack\\ Emissions\\ per\ Batch\end{pmatrix}\right]=\begin{pmatrix}Warehouse\\ Degassing\\ Emissions\\ per\ Month\end{pmatrix}$$

Equation 4: Regenerative Thermal Oxidizer Emissions

$$\left[\begin{pmatrix}\text{Monthly}\\\text{Butane}\\\text{Consumption}\end{pmatrix}-\begin{pmatrix}\text{Fugitive}\\\text{Emissions}\\\text{per Month}\end{pmatrix}-\begin{pmatrix}\text{Drying Line}\\\text{Emissions}\\\text{per Month}\end{pmatrix}-\begin{pmatrix}\text{Warehouse}\\\text{Degassing}\\\text{Emissions}\\\text{per Month}\end{pmatrix}\right]\times(2\%)=\begin{pmatrix}\text{RTO}\\\text{Emissions}\\\text{per month}\end{pmatrix}$$

Butane emissions from both the drying line and super sack shall be defined in the malfunction abatement plan. Emissions from the warehouse super sacks, the drying lines, and fugitives from both ETPU production lines equals the summation of equations 1, 2, 3 listed above. Total VOC emissions in pounds per month equals the summation of equations 1, 2, 3, and 4 listed above. All records shall be made available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

12. The permittee shall monitor and record, in a satisfactory manner, the condensation column temperature on a continuous basis. Monitoring and recording of data "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes. The permittee may record average values (rolling or block) for 15 minute or shorter periods calculated from all measured data values during each period. **(R 336.1205, R 336.1225, R 336.1910)**

13. The permittee shall keep, in a satisfactory manner, monthly records for FGETPU of all instances where the butane collection and hold tank or the condensation system fails to capture butane as designed, whether due to malfunction, operator error, or any other cause. The record for each instance shall include an estimate of the amount of butane that would have been recovered if the failure had not occurred. The permittee shall make all records available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1910)**

See Appendices 3-3, 4-3, and 7-3

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))**

See Appendix 8-3

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)

NA

Footnotes:

[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGETPUCOLDCLEANER
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: EUETPUCOLDCLEANER

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

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

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))**

See Appendix 8-3

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that the requirements identified in the table below are not applicable to the specified emission unit(s) and/or flexible group(s). This determination is incorporated into the permit shield provisions set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii). If the permittee makes a change that affects the basis of the non-applicability determination, the permit shield established as a result of that non-applicability decision is no longer valid for that emission unit or flexible group.

Emission Unit/Flexible Group ID	Non-Applicable Requirement	Justification
EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE	40 CFR 63, Subpart F- National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry	The materials produced by the ETPU Plant are not synthetic organic chemicals as listed in Table 1 of 40 CFR 60, Subpart F.
EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE	40 CFR 63, Subpart G- National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater	The materials produced by the ETPU Plant are not synthetic organic chemicals as listed in Table 1 of 40 CFR 60, Subpart F.
EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE	40 CFR 63, Subpart U- National Emission Standards for Hazardous Air Pollutants Emissions: Group I Polymers and Resins	The materials produced by the ETPU Plant are not elastomers.
EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE	40 CFR 63, Subpart W- National Emission Standards for Hazardous Air Pollutants for Epoxy Resins Production and Non-Nylon polyamides Production	The materials produced by the ETPU Plant do not include basic liquid epoxy resins or wet strength resins as defined by 40 CFR 63.522.
EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE	40 CFR 63, Subpart JJJ- National Emission Standards for Hazardous Air Pollutants Emissions: Group IV Polymers and Resins	The materials produced by the ETPU Plant do not include thermoplastic resins as defined by 40 CFR 63.1312.
EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE	40 CFR 63, Subpart III- National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production	The ETPU Plant does not produce flexible polyurethane foam.
EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE	40 CFR 63, Subpart PPP- National Emission Standards for Hazardous Air Pollutants for Polyether Polyols Production	The ETPU Plant does not produce polyether polyols.

APPENDICES

Appendix 1-3. 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_2S	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).

Appendix 2-3. 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 3-3. 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 4-3. 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 5-3. Testing Procedures

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 6-3. Permits to Install

At the time of permit issuance, no Permits to Install have been issued to this facility. Therefore, this appendix is not applicable.

Appendix 7-3. Emission Calculations

Specific emission calculations to be used with monitoring, testing or recordkeeping data are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible group Special Conditions. Therefore, this appendix is not applicable.

Appendix 8-3. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the MDEQ, AQD, Report Certification form (EQP 5736) and MDEQ, AQD, 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.

B. Other Reporting

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

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

EFFECTIVE DATE: JULY 22, 2015

REVISION DATE: JANUARY 30, 2018

ISSUED TO

BASF CORPORATION – PLASTICS PLANTS

State Registration Number (SRN): M4777

LOCATED AT

1609 Biddle Avenue, Wyandotte, Michigan 48192-3729

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-M4777-2020~~15a~~

Expiration Date: July 22, 2020

Administratively Complete ROP Renewal Application Due Between
January 22, 2019 and January 22, 2020

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-M4777-~~2015a~~2020

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

_____
Wilhemina McLemore, Detroit 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 are identified for each ROP term or condition. All terms and conditions that are included in a PTI, are streamlined, subsumed and/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.

This permit does not relieve the permittee from any responsibilities or obligations imposed on the permittee, at this source, under Consent Order Number 47-2014, entered on October 2, 2014 between the MDEQ and the permittee.

STATE OF MICHIGAN
RENEWABLE OPERATING PERMIT

SECTION 1

BASF CORPORATION – PLASTICS PLANTS
ENGINEERING PLASTICS COMPOUNDING (EPC) OPERATIONS

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 a 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).[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. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in subrules 2, 3, and 4 of this rule, 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 the following:" [2] **(R 336.1301(1))**
    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.

    The grading of visible emissions shall be determined in accordance with Rule 303.

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).[2] **(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(5))**

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))**
    a. 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).
    b. 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.
    c. 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))**:
    a. 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.
    b. 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.[2] **(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))**

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(10))**

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:
    a. 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))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
    c. 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))**

d. 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(8))**

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 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
    c. 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)**

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 of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, 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:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

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.

SOURCE-WIDE CONDITIONS

For the purpose of the contiguous site being a synthetic minor for HAPs, certain Source-Wide Terms and Conditions encompass all process equipment at the site, including equipment covered by other permits, grand-fathered equipment and exempt equipment. For these Conditions the term Source-Wide comprises three stationary sources: the Chemical Production Plants (SRN B4359); Plastics Plants (SRN M4777); and the Labs and Application Centers (SRN M4808).

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Each individual HAP	Less than 10.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.1 & SC VI.2	**R 336.1205(1)**
2. Total HAPs	Less than 25.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.1 & SC VI.2	**R 336.1205(1)**
For the purpose of the limits at SC I.1 and I.2, SOURCE-WIDE comprises the total and individual HAP emissions from the BASF Corporation M4777, M4808, and B4359 contiguous sites.					

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

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))**

NA

See Appendix 5-1

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 complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting, or notification special condition.[2] **(R336.1205(1))**

2. The permittee shall keep in a satisfactory manner, monthly and previous 12-month emissions calculation records for individual HAPs and total HAPs from SOURCE-WIDE. For the purpose of this condition SOURCE-WIDE comprises the total and individual HAPs emissions from the BASF Corporation M4777, M4808, and B4359 contiguous sites.[2] **(R336.1205(1))**

See Appendices 3-1, 4-1, and 7-1

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A, inclusive of deviations from SC I.1, I.2, VI.1, or VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A, inclusive of deviations from SC I.1, I.2, VI.1, or VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. 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, inclusive of certification for SC I.1, I.2, VI.1, and VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. 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))**

See Appendix 8-1

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. Each responsible official shall certify annually the compliance status of the stationary source with all stationary source-wide conditions. This certification shall be included as part of the annual certification of compliance as required in the General Conditions in Part A and Rule 213(4)(c). **(R 336.1213(4)(c))**

2. The company shall submit to the AQD an administratively complete application, not more than eighteen (18) months, but not less than six (6) months, before the ROP expiration date, as specified in Part 55 Section 324.5506(5) and Rule 210(8).[2] **(Paragraph 9(b)(1) of Consent Order AQD No 47-2014)**

3. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the Chief of the AQD. **(R 336.1213(3))**

Footnotes:

[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

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
~~EUEPCCOLDCLEANER~~	~~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.~~	~~NA~~	~~FGEPCCOLDCLEANER~~
EUEPCFILLERHNDLG	Equipment used to blend various materials with plastic resin pellets prior to being compounded at the extruders. Baghouses, vent filters, and scrubbers are installed as pollution control devices. This emission unit is comprised of 11 stacks associated with ventilation and exhaust fans.	10/1/2008	FGEPCRULE290
EUEPCOVEN	Pyrolysis furnace for cleaning plastic material from extruder parts. The furnace is equipped with an afterburner.	10/1/2009	FGEPCRULE290

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
~~FGEPCCOLDCLEANER~~	~~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.~~	~~EUEPCCOLDCLEANER~~
FGEPCRULE290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.	EUEPCFILLERHNDLG, EUEPCOVEN

FGEPCCOLDCLEANERS
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: EUEPCCOLDCLEANER

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

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

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))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGEPCRULE 290
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.

Emission Units: EUEPCFILLERHNDLG, EUEPCOVEN

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(i))**

2. Each emission unit that the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(a)(ii))**

   a. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(ii)(A))**

   b. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 microgram per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(B))**

   c. For carcinogenic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(C))**

   d. The emission unit shall not emit any air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(a)(ii)(D))**

3. Each emission unit that emits only noncarcinogenic particulate air contaminants and other air contaminants that are exempted under Rule 290(a)(i) and/or Rule 290(a)(ii), if all of the following provisions are met: **(R 336.1290(a)(iii))**

   a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have an exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(a)(iii)(A))**

b. The visible emissions from the emission unit are not more than five percent opacity in accordance with the methods contained in Rule 303. **(R 336.1290(a)(iii)(B))**

c. The initial threshold screening level for each particulate air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(a)(iii)(C))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The provisions of Rule 290 apply to each emission unit that is operating pursuant to Rule 290. **(R 336.1290)**

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))**

NA

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 maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DEQ, AQD Rule 290, Permit to Install Exemption Record form (EQP 3558) or in a format that is acceptable to the AQD District Supervisor. **(R 336.1213(3))**

   a. Records identifying each air contaminant that is emitted. **(R 336.1213(3))**

   b. Records identifying if each air contaminant is controlled or uncontrolled. **(R 336.1213(3))**

   c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic. **(R 336.1213(3))**

   d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(a)(ii) and (iii). **(R 336.1213(3))**

   e. Material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in sufficient detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. **(R 336.1213(3), R 336.1290(c))**

2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information. **(R 336.1213(3))**

   a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit. **(R 336.1290(b), R 336.1213(3))**

   b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate**. (R 336.1213(3))**

3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

See Appendix 4-1

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))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that the requirements identified in the table below are not applicable to the specified emission unit(s) and/or flexible group(s). This determination is incorporated into the permit shield provisions set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii). If the permittee makes a change that affects the basis of the non-applicability determination, the permit shield established as a result of that non-applicability decision is no longer valid for that emission unit or flexible group.

Emission Unit/Flexible Group ID	Non-Applicable Requirement	Justification
FGEPCRULE290	40 CFR Part 63, Subpart F, National Emissions Standards for Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry	The materials produced by the EPC Plant are not synthetic organic chemicals as listed in Table 1 of 40 CFR Part 63, Subpart F.
FGEPCRULE290	40 CFR Part 63, Subpart G, National Emissions Standards for Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater	The materials produced by the EPC Plant are not synthetic organic chemicals as listed in Table 1 of 40 CFR Part 63, Subpart F.
FGEPCRULE290	40 CFR Part 63, Subpart U, National Emissions Standards for Hazardous Air Pollutants: Group I Polymers and Resins	The materials produced by the EPC Plant are not elastomers.
FGEPCRULE290	40 CFR Part 63, Subpart W, National Emissions Standards for Hazardous Air Pollutants for Epoxy Resins Production and Non-Nylon Polyamides Production	The materials produced by the EPC Plant do not include basic liquid epoxy resins or wet strength resins as defined by 40 CFR 63.522.
FGEPCRULE290	40 CFR Part 63, Subpart III, National Emissions Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production	The EPC Plant does not produce flexible polyurethane foam.
FGEPCRULE290	40 CFR Part 63, Subpart JJJ, National Emissions Standards for Hazardous Air Pollutants: Group IV Polymers and Resins	The materials produced by the EPC Plant do not include thermoplastic resins as defined by 40 CFR 63.1312.
FGEPCRULE290	40 CFR Part 63, Subpart PPP, National Emissions Standards for Hazardous Air Pollutants for Polyether Polyols Production	The EPC Plant does not produce polyether polyols.

APPENDICES

Appendix 1-1. 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_2S	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).

Appendix 2-1. 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 3-1. 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 4-1. 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 5-1. Testing Procedures

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

Appendix 6-1. 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-M4777-2009. 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-M4777-2015a09 is being reissued as Source-Wide PTI No. MI-PTI-M4777-202015.

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 7-1. Emission Calculations

Specific emission calculations to be used with monitoring, testing or recordkeeping data are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible group Special Conditions. Therefore, this appendix is not applicable.

Appendix 8-1. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the MDEQ, AQD, Report Certification form (EQP 5736) and MDEQ, AQD, 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.

B. Other Reporting

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

STATE OF MICHIGAN
RENEWABLE OPERATING PERMIT

SECTION 2

BASF CORPORATION – PLASTICS PLANTS
CELLASTO OPERATIONS

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 a 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).[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. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in subrules 2, 3, and 4 of this rule, 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 the following:" [2] **(R 336.1301(1))**
    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.

    The grading of visible emissions shall be determined in accordance with Rule 303.

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).[2] **(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(5))**

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))**
    a. 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).
    b. 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.
    c. 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))**:

a. 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.
b. 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.[2] **(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))**

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(10))**

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:
    a. 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))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
    c. 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))**
    d. 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(8))**

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 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
    c. 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)**

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 of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, 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:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

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.

SOURCE-WIDE CONDITIONS

For the purpose of the contiguous site being a synthetic minor for HAPs, certain Source-Wide Terms and Conditions encompass all process equipment at the site, including equipment covered by other permits, grand-fathered equipment and exempt equipment. For these Conditions the term Source-Wide comprises three stationary sources: the Chemical Production Plants (SRN B4359); Plastics Plants (SRN M4777); and the Labs and Application Centers (SRN M4808).

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Each individual HAP	Less than 10.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.1 & SC VI.2	**R 336.1205(1)**
2. Total HAPs	Less than 25.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.1 & SC VI.2	**R 336.1205(1)**
For the purpose of the limits at SC I.1 and I.2, SOURCE-WIDE comprises the total and individual HAP emissions from the BASF Corporation M4777, M4808, and B4359 contiguous sites.					

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

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))**

NA

See Appendix 5-2

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 complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting, or notification special condition.[2] **(R336.1205(1))**

2. The permittee shall keep in a satisfactory manner, monthly and previous 12-month emissions calculation records for individual HAPs and total HAPs from SOURCE-WIDE. For the purpose of this condition SOURCE-WIDE comprises the total and individual HAPs emissions from the BASF Corporation M4777, M4808, and B4359 contiguous sites.[2] **(R336.1205(1))**

See Appendices 3-2, 4-2, and 7-2

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A, inclusive of deviations from SC I.1, I.2, VI.1, or VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A, inclusive of deviations from SC I.1, I.2, VI.1, or VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. 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, inclusive of certification for SC I.1, I.2, VI.1, and VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. 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))**

See Appendix 8-2

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. Each responsible official shall certify annually the compliance status of the stationary source with all stationary source-wide conditions. This certification shall be included as part of the annual certification of compliance as required in the General Conditions in Part A and Rule 213(4)(c). **(R 336.1213(4)(c))**

2. The company shall submit to the AQD an administratively complete application, not more than eighteen (18) months, but not less than six (6) months, before the ROP expiration date, as specified in Part 55 Section 324.5506(5) and Rule 210(8).[2] **(Paragraph 9(b)(1) of Consent Order AQD No 47-2014)**

3. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the Chief of the AQD. **(R 336.1213(3))**

Footnotes:

[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

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
~~EUELACOLDCLEANER~~	~~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.~~	~~NA~~	~~FGELACOLDCLEANER~~
EUELAOVEN101	An oven for curing polyurethane parts controlled by a mist eliminator.	10/1/1987	FGELAMACTS, FGELARULE290
EUELAOVEN102	An oven for curing polyurethane parts controlled by a mist eliminator.	10/1/1987	FGELAMACTS, FGELARULE290
EUELAOVEN103	An oven for curing polyurethane parts controlled by a mist eliminator.	10/1/1987	FGELAMACTS, FGELARULE290
EUELAOVEN104	An oven for curing polyurethane parts controlled by a mist eliminator.	10/1/1987	FGELAMACTS, FGELARULE290
EUELAOVEN105	An oven for curing polyurethane parts controlled by a mist eliminator.	10/1/1987	FGELAMACTS, FGELARULE290
EUELAOVEN106	An oven for curing polyurethane parts controlled by a mist eliminator.	10/1/1987	FGELAMACTS, FGELARULE290
EUELAOVEN107	An oven for curing polyurethane parts controlled by a mist eliminator.	1/1/2002	FGELAMACTS, FGELARULE290
EUELAOVEN108	An oven for curing polyurethane parts controlled by a mist eliminator.	1/1/2002	FGELAMACTS, FGELARULE290
EUELAOVEN109	An oven for curing polyurethane parts controlled by a mist eliminator.	1/1/2002	FGELAMACTS, FGELARULE290
EUELAOVEN110	An oven for curing polyurethane parts controlled by a mist eliminator.	4/30/2018	FGELAMACTS, FGELARULE290
EUELAOVEN111	An oven for curing polyurethane parts controlled by a mist eliminator.	3/23/2018	FGELAMACTS, FGELARULE290
EUELAOVEN112	An oven for curing polyurethane parts controlled by a mist eliminator.	3/23/2018	FGELAMACTS, FGELARULE290

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUELAREACTOR210	Production of prepolymer for use in the polyurethane molding operations. Carbon adsorbers are installed for volatile organic compound control. The emission unit includes pre-polymer reactor and associated equipment (storage and feed tanks, flake hopper, piping, pumps, and dosing tanks).	10/1/1995	FGELAREACTOR, FGELAMACTS, FGELARULE290
EUELAREACTOR220	Production of prepolymer for use in the polyurethane molding operations. Carbon adsorbers are installed for volatile organic compound control. The emission unit includes pre-polymer reactor and associated equipment (storage and feed tanks, flake hopper, piping, pumps, and dosing tanks).	10/1/1995	FGELAREACTOR, FGELAMACTS, FGELARULE290
EUELAREACTOR230	Production of prepolymer for use in the polyurethane molding operations. Carbon adsorbers are installed for volatile organic compound control. The emission unit includes pre-polymer reactor and associated equipment (storage and feed tanks, flake hopper, piping, pumps, and dosing tanks).	10/1/1995	FGELAREACTOR, FGELAMACTS, FGELARULE290
EUELAREACTOR240	Production of prepolymer for use in the polyurethane molding operations. Carbon adsorbers are installed for volatile organic compound control. The emission unit includes pre-polymer reactor and associated equipment (storage and feed tanks, flake hopper, piping, pumps, and dosing tanks).	11/1/2000	FGELAREACTOR, FGELAMACTS, FGELARULE290
EUELAREACTOR250	Production of prepolymer for use in the polyurethane molding operations. Carbon adsorbers are installed for volatile organic compound control. The emission unit includes pre-polymer reactor and associated equipment (storage and feed tanks, flake hopper, piping, pumps, and dosing tanks).	11/1/2000	FGELAREACTOR, FGELAMACTS, FGELARULE290
EUELADEBURRING	Equipment used to remove burrs and flash from polyurethane parts. Filter socks are installed for particulate control.	1/1/2003 5/1/2018	FGELAMACTS, FGELARULE290
EUELAMOLDING	Equipment for the reaction injection molding of polyurethane parts.	11/1/2013	FGELAMACTS, FGELARULE290

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
FGELAREACTOR	Equipment, in aggregate, employed for the production of prepolymer for use in the polyurethane molding operations. Carbon adsorbers are installed for volatile organic compound control. The flexible group includes pre-polymer reactors and associated equipment (storage and feed tanks, flake hopper, piping, pumps, and dosing tanks).	EUELAREACTOR210, EUELAREACTOR220, EUELAREACTOR230, EUELAREACTOR240, EUELAREACTOR250
FGELAMACTS	The flexible polyurethane foam process defined at 40 CFR 63.1292 as "the equipment used to produce a flexible polyurethane foam product", inclusive of "raw material storage; production equipment and associated piping, ductwork, etc.; and curing and storage areas." All permitted, exempt, and grandfathered equipment within the flexible polyurethane foam process constitute the emission unit.	EUELAREACTOR210, EUELAREACTOR220, EUELAREACTOR230, EUELAREACTOR240, EUELAREACTOR250, EUELAOVEN101, EUELAOVEN102, EUELAOVEN103, EUELAOVEN104, EUELAOVEN105, EUELAOVEN106, EUELAOVEN107, EUELAOVEN108, EUELAOVEN109, EUELAOVEN110, EUELAOVEN111, EUELAOVEN112, EUELADEBURRING, EUELAMOLDING
~~FGELACOLDCLEANER~~	~~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.~~	~~EUELACOLDCLEANER~~

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGELARULE290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.	EUELAREACTOR210, EUELAREACTOR220, EUELAREACTOR230, EUELAREACTOR240, EUELAREACTOR250, EUELAOVEN101, EUELAOVEN102, EUELAOVEN103, EUELAOVEN104, EUELAOVEN105, EUELAOVEN106, EUELAOVEN107, EUELAOVEN108, EUELAOVEN109, EUELAOVEN110, EUELAOVEN111, EUELAOVEN112, EUELADEBURRING, EUELAMOLDING

FGELAREACTOR
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Equipment, in aggregate, employed for the production of prepolymer for use in the polyurethane molding operations. Carbon adsorbers are installed for volatile organic compound control.

Emission Units: EUELAREACTOR210, EUELAREACTOR220, EUELAREACTOR230, EUELAREACTOR240, EUELAREACTOR250

POLLUTION CONTROL EQUIPMENT

Carbon adsorption units.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	0.5 pounds per 1000 pounds of completed organic resin produced	Each batch of completed organic resin pursuant to the procedures at R 336.2060(a)	Applied to each existing production train (inclusive of reactors, blending tanks, and finishing tanks) producing discrete batches of organic resin in FGELAREACTOR	SC VI.1	**R 336.1631(3)(b), R 336.1631(5), R 336.2060(a)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate any reactor, blending tank, or finishing tank of FGELAREACTOR unless the production train (inclusive of reactors, blending tanks, and finishing tanks producing discrete batches of organic resin) associated with the reactor, blending tank, or finishing tank is operated in compliance with the VOC emission limit at SC I.1. **(R 336.1631(3)(b))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The carbon adsorption units at FGELAREACTOR shall be installed, operated, and maintained in a satisfactory manner and in accordance with the air pollution control rules and existing law. **(R 336.1910)**

V. TESTING/SAMPLING

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

NA

See Appendix 5-2

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 obtain current information and keep records necessary for a determination of compliance with the provisions of R 336.1631. This information may include any of the following information: (a) emissions test data; (b) material balance calculations; (c) process production rates; (d) control equipment specifications and operating parameters. **(R 336.1631(6))**

See Appendices 3-2, 4-2, and 7-2

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))**

See Appendix 8-2

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)

NA

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGELAMACTS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

The flexible polyurethane foam process defined at 40 CFR 63.1292 as "the equipment used to produce a flexible polyurethane foam product", inclusive of "raw material storage; production equipment and associated piping, ductwork, etc.; and curing and storage areas." All permitted, exempt, and grandfathered equipment within the flexible polyurethane foam process constitute the emission unit.

Emission Units: EUELAREACTOR210, EUELAREACTOR220, EUELAREACTOR230, EUELAREACTOR240, EUELAREACTOR250, EUELAOVEN101, EUELAOVEN102, EUELAOVEN103, EUELAOVEN104, EUELAOVEN105, EUELAOVEN106, EUELAOVEN107, EUELAOVEN108, EUELAOVEN109, EUELAOVEN110, EUELAOVEN111, EUELAOVEN112, EUELADEBURRING, EUELAMOLDING

POLLUTION CONTROL EQUIPMENT

Mist eliminators on curing ovens, filter socks or knock out box on the deburring operations, carbon adsorbers on the reactors.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. A HAP or HAP-based material shall not be used as an equipment cleaner to flush the mixhead, nor shall it be used elsewhere as an equipment cleaner in a molded flexible polyurethane foam process, as defined at 40 CFR 63.1292, with the following exception. Diisocyanates may be used to flush the mixhead and associated piping during periods of startup or maintenance, provided that the diisocyanate compounds are contained in a closed-loop system and are re-used in production. **(40 CFR 63.1300(a))**

2. A HAP-based mold release agent shall not be used in a molded flexible polyurethane foam source process, as defined at 40 CFR 63.1292. **(40 CFR 63.1300(b))**

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))**

NA

See Appendix 5-2

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 maintain a product data sheet for each compound other than diisocyanates used to flush the mixhead and associated piping during periods of startup or maintenance, which includes the HAP content, in kg of HAP/kg solids (lb HAP/lb solids), of each solvent other than diisocyanates used to flush the mixhead and associated piping during periods of startup or maintenance. **(40 CFR 63.1307(g), 40 CFR 63.1308(a)(1))**

2. The permittee shall maintain a product data sheet for each mold release agent used that includes the HAP content, in kg of HAP/kg solids (lb HAP/lb solids), of each mold release agent. **(40 CFR 63.1307(h), 40 CFR 63.1308(a)(1))**

See Appendices 3-2, 4-2, and 7-2

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. Under 40 CFR 63.1306(g), the permittee shall annually submit a certification of compliance with the applicable provisions at 40 CFR Part 63 Subparts A and III, based on information consistent with that contained in 40 CFR 63.1308. The certification of compliance shall be signed by the responsible official. The annual compliance certification required pursuant to SC VII.3 may be used to satisfy the requirements of 40 CFR 63.1306(g) provided the information is consistent with that contained at 40 CFR 63.1308. **(40 CFR 63.1306(e), 40 CFR 63.1308(a)(2))**

See Appendix 8-2

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. Permittee shall comply with all applicable provisions of 40 CFR 63, Subparts A and III, National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production. **(40 CFR 63.1, 40 CFR 63.1290(a) and (b))**

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGELACOLDCLEANERS
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: EUELACOLDCLEANER

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

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

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))**~~

~~**See Appendix 8-2**~~

~~VIII. STACK/VENT RESTRICTION(S)~~

~~NA~~

~~IX. OTHER REQUIREMENT(S)~~

~~NA~~

~~Footnotes~~:
[1]~~This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).~~
[2]~~This condition is federally enforceable and was established pursuant to Rule 201(1)(a).~~

FGELARULE290
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.

Emission Units: EUELAREACTOR210, EUELAREACTOR220, EUELAREACTOR230, EUELAREACTOR240, EUELAREACTOR250, EUELAOVEN101, EUELAOVEN102, EUELAOVEN103, EUELAOVEN104, EUELAOVEN105, EUELAOVEN106, EUELAOVEN107, EUELAOVEN108, EUELAOVEN109, EUELAOVEN110, EUELAOVEN111, EUELAOVEN112, EUELADEBURRING, EUELAMOLDING

POLLUTION CONTROL EQUIPMENT

Mist eliminators on each oven; sock filters on each deburring machine; carbon canisters on reactors.

I. EMISSION LIMIT(S)

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(i))**

2. Each emission unit that the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(a)(ii))**

   a. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(ii)(A))**

   b. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 microgram per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(B))**

   c. For carcinogenic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(C))**

   d. The emission unit shall not emit any air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(a)(ii)(D))**

3. Each emission unit that emits only noncarcinogenic particulate air contaminants and other air contaminants that are exempted under Rule 290(a)(i) and/or Rule 290(a)(ii), if all of the following provisions are met: **(R 336.1290(a)(iii))**

a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have an exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(a)(iii)(A))**

b. The visible emissions from the emission unit are not more than five percent opacity in accordance with the methods contained in Rule 303. **(R 336.1290(a)(iii)(B))**

c. The initial threshold screening level for each particulate air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(a)(iii)(C))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The provisions of Rule 290 apply to each emission unit that is operating pursuant to Rule 290. **(R 336.1290)**

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))**

NA

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 maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DEQ, AQD Rule 290, Permit to Install Exemption Record form (EQP 3558) or in a format that is acceptable to the AQD District Supervisor. **(R 336.1213(3))**

   a. Records identifying each air contaminant that is emitted. **(R 336.1213(3))**

   b. Records identifying if each air contaminant is controlled or uncontrolled. **(R 336.1213(3))**

   c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic. **(R 336.1213(3))**

   d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(a)(ii) and (iii). **(R 336.1213(3))**

   e. Material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in sufficient detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. **(R 336.1213(3), R 336.1290(c))**

2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information. **(R 336.1213(3))**

   a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit. **(R 336.1290(b), R 336.1213(3))**

b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate**. (R 336.1213(3))**

3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

See Appendix 4-2

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))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that the requirements identified in the table below are not applicable to the specified emission unit(s) and/or flexible group(s). This determination is incorporated into the permit shield provisions set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii). If the permittee makes a change that affects the basis of the non-applicability determination, the permit shield established as a result of that non-applicability decision is no longer valid for that emission unit or flexible group.

Emission Unit/Flexible Group ID	Non-Applicable Requirement	Justification
FGELARULE290	40 CFR Part 63, Subpart F, National Emissions Standards for Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry	The materials produced by the Cellasto Plant are not synthetic organic chemicals as listed in Table 1 of 40 CFR Part 63, Subpart F.
FGELARULE290	40 CFR Part 63, Subpart G, National Emissions Standards for Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater	The materials produced by the Cellasto Plant are not synthetic organic chemicals as listed in Table 1 of 40 CFR Part 63, Subpart F.
FGELARULE290	40 CFR Part 63, Subpart I, National Emissions Standards for Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks	The materials produced by the Cellasto Plant do not include the materials at 40 CFR 63.190(b).
FGELARULE290	40 CFR Part 63, Subpart U, National Emissions Standards for Hazardous Air Pollutants: Group I Polymers and Resins	The materials produced by the Cellasto Plant are not elastomers.
FGELARULE290	40 CFR Part 63, Subpart W, National Emissions Standards for Hazardous Air Pollutants for Epoxy Resins Production and Non-Nylon Polyamides Production	The materials produced by the Cellasto Plant do not include basic liquid epoxy resins or wet strength resins as defined by 40 CFR 63.522.
FGELARULE290	40 CFR Part 63, Subpart JJJ, National Emissions Standards for Hazardous Air Pollutants: Group IV Polymers and Resins	The materials produced by the Cellasto Plant do not include thermoplastic resins as defined by 40 CFR 63.1312.
FGELARULE290	40 CFR Part 63, Subpart PPP, National Emissions Standards for Hazardous Air Pollutants for Polyether Polyols Production	The Cellasto Plant does not produce polyether polyols.
FGELAMACTS	40 CFR Part 63, Subpart OOOOOO, National Emissions Standards for Hazardous Air Pollutants: Flexible Polyurethane Foam Production and Fabrication Area Sources.	FGELAMACTS is subject to 40 CFR Part 63, Subpart III Flexible Polyurethane Foam Production as a major source and therefore not subject to the requirements of foam production of the area source rule. Future installations or modifications may be subject to the flexible polyurethane foam fabrication requirements under 40 CFR Part 63, Subpart OOOOOO.

APPENDICES

Appendix 1-2. 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_2S	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).

Appendix 2-2. 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 3-2. 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 4-2. 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 5-2. Testing Procedures

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 6-2. 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-M4777-200015a9. 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-M4777-200015a9 is being reissued as Source-Wide PTI No. MI-PTI-M4777-202015.

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 7-2. Emission Calculations

Specific emission calculations to be used with monitoring, testing or recordkeeping data are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible group Special Conditions. Therefore, this appendix is not applicable.

Appendix 8-2. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the MDEQ, AQD, Report Certification form (EQP 5736) and MDEQ, AQD, 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.

B. Other Reporting

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

STATE OF MICHIGAN
RENEWABLE OPERATING PERMIT

SECTION 3

BASF CORPORATION – PLASTICS PLANTS
ETPU OPERATIONS

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 a 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).[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. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in subrules 2, 3, and 4 of this rule, 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 the following:" [2] **(R 336.1301(1))**
    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.

    The grading of visible emissions shall be determined in accordance with Rule 303.

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).[2] **(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(5))**

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))**
    a. 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).
    b. 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.
    c. 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))**:
    a. 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.
    b. 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.[2] **(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))**

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(10))**

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:
    a. 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))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
    c. 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))**

d. 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(8))**

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 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
    c. 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)**

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 of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, 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:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

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.

SOURCE-WIDE CONDITIONS

For the purpose of the contiguous site being a synthetic minor for HAPs, certain Source-Wide Terms and Conditions encompass all process equipment at the site, including equipment covered by other permits, grand-fathered equipment and exempt equipment. For these Conditions the term Source-Wide comprises three stationary sources: the Chemical Production Plants (SRN B4359); Plastics Plants (SRN M4777); and the Labs and Application Centers (SRN M4808).

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Each individual HAP	Less than 10.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.1 & SC VI.2	**R 336.1205(1)**
2. Total HAPs	Less than 25.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.1 & SC VI.2	**R 336.1205(1)**
For the purpose of the limits at SC I.1 and I.2, SOURCE-WIDE comprises the total and individual HAP emissions from the BASF Corporation M4777, M4808, and B4359 contiguous sites.					

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

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))**

NA

See Appendix 5-3

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 complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting, or notification special condition.[2] **(R336.1205(1))**

2. The permittee shall keep in a satisfactory manner, monthly and previous 12-month emissions calculation records for individual HAPs and total HAPs from SOURCE-WIDE. For the purpose of this condition SOURCE-WIDE comprises the total and individual HAPs emissions from the BASF Corporation M4777, M4808, and B4359 contiguous sites.[2] **(R336.1205(1))**

See Appendices 3-3, 4-3, and 7-3

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A, inclusive of deviations from SC I.1, I.2, VI.1, or VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A, inclusive of deviations from SC I.1, I.2, VI.1, or VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. 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, inclusive of certification for SC I.1, I.2, VI.1, and VI.2 wherein SOURCE-WIDE comprises the Chemical Production Plants (SRN B4359), Plastics Plants (SRN M4777) and Labs and Application Centers (SRN M4808) stationary sources. 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))**

See Appendix 8-3

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. Each responsible official shall certify annually the compliance status of the stationary source with all stationary source-wide conditions. This certification shall be included as part of the annual certification of compliance as required in the General Conditions in Part A and Rule 213(4)(c). **(R 336.1213(4)(c))**

2. The company shall submit to the AQD an administratively complete application, not more than eighteen (18) months, but not less than six (6) months, before the ROP expiration date, as specified in Part 55 Section 324.5506(5) and Rule 210(8).[2] **(Paragraph 9(b)(1) of Consent Order AQD No 47-2014)**

3. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the Chief of the AQD. **(R 336.1213(3))**

Footnotes:

[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

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
EUETPUI	All process equipment used to expand ~~polyolefin~~ thermoplastic polyurethane pellets in the ETPUI production line which is controlled by dust collector F-780. Equipment in EUETPUI includes a butane collection system that captures butane and stores it in Tank 780 until it is condensed by a nitrogen condenser system and returned for re-use in the ETPUI process. The equipment in EUETPUI includes, but is not limited to the following: One (1) plastic pellet impregnation vessel; One (1) product rundown vessel; One (1) flash dryer; One (1) spin dryer; One (1) off-gas holding tank; Four (4) batch off gas silos; Miscellaneous fabric filter devices; Miscellaneous product transfer and holding equipment	2/5/1988, 2/23/2006 12/14/2018	FGETPU

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUETPUII	All process equipment used to expand ~~polyolefin~~ thermoplastic polyurethane pellets in the ETPUII production line which is controlled by dust collector F-880. The equipment includes a butane collection system that captures butane and stores it in Tank 880 until it is condensed by a nitrogen condenser system and returned for re-use in the ETPUII process. Equipment in EUETPUII includes, but is not limited to the following: One (1) plastic pellet impregnation vessel; One (1) product rundown vessel; One (1) flash dryer; One (1) spin dryer; One (1) off-gas holding tank; Four (4) batch off gas silos; Miscellaneous fabric filter devices Miscellaneous product transfer and holding equipment	1/23/1994, 2/23/2006 12/14/2018	FGETPU
EUETPURAWMATERIAL	Raw material storage equipment common to EUETPUI and EUETPUII and controlled by dust collector, F-841.	2/5/1988 12/14/2018	FGETPU
EUETPUBULKSTORAGE	Finished product bulk loading facility and storage equipment common to EUETPUI and EUETPUII. EUETPUBULKSTORAGE consists of equipment dedicated to the bulk storage and product evaluation of expanded thermoplastic polyurethane~~polyolefin~~. The equipment includes, but not limited to, the following: Four (4) material pneumatic transfer blowers; One (1) railcar loading cyclone	1/1/1993 12/14/2018	FGETPU
~~EUETPURULE290~~	~~Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.~~	~~NA~~	~~FGETPURULE290~~
EUETPUCOLDCLEANER	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.	NA	FGETPUCOLDCLEANER

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
FGETPU	Expanded t~~T~~hermoplastic polyu~~U~~rethane (ETPU) production lines I and II, raw material storage, finished product storage and loading, and condensation system.	EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE
~~FGETPURULE290~~	~~Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290~~	~~EUETPURULE290~~
FGETPUCOLDCLEANER	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.	EUETPUCOLDCLEANER

FGETPU
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Expanded thermoplastic polyurethane (ETPU) production lines I and II, raw material storage, finished product storage and loading, and condensation system.

Emission Units: EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE.

POLLUTION CONTROL EQUIPMENT

Fabric filter dust collectors (F-780 and F-880, F-841); Butane condensation system, regenerative thermal oxidizer (RTO)Fabric filter dust collectors (F-780 and F-880, F-841); Butane condensation system.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC1. VOC	129 70 TPY[2]	12-month rolling time period as determined at the end of each calendar month12-rolling time period as determined at the end of each calendar month	Emissions from the warehouse super sacks, the drying lines, and fugitives from both ETPU production lines combined.Point source and fugitive emissions from both ETPU production lines	II.1V.1 VI.11	**R 336.1205 R 336.1225, R 336.1702(a)R 336.1225, R 336.1702(a)**
2. VOC	82 TPY	12-month rolling time period as determined at the end of each calendar month	Point source and fugitive emissions from both ETPU production lines combined.	V.1 VI.11	**R 336.1205 R 336.1225, R 336.1702(a)**

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fresh butane * used in EUETPUI and EUETPUII1. Fresh butane * used in EUETPUI and EUETPUII	875 TPY129 TPY[2]	12-month rolling time period as determined at the end of each calendar month12-month rolling time period as determined at the end of each calendar month	ETPU production lines I and II combinedETPU production lines I and II	VI.10VI.3	**R 336.1205 R 336.1225, R 336.1702(a)R 336.1225, R 336.1702(a)**
* In these conditions, “butane” refers to a hydrocarbon mixture consisting of n-butane, isobutane, and propane that is used as an expansion agent in EUETPUI and EUETPUII. The primary component of “butane” is n-butane. “Fresh” butane refers to butane obtained from outside FGETPU for use in EUETPUI and EUETPUII, as distinct from butane recovered via the condensation system for re-use in FGETPU.* In these conditions, “butane” refers to a hydrocarbon mixture consisting of n-butane, isobutane, and propane that is used as an expansion agent in EUETPUI and EUETPUII. The primary component of “butane” is n-butane. “Fresh” butane refers to butane obtained from outside FGETPU for use in EUETPUI and EUETPUII, as distinct from butane recovered via the condensation system for re-use in FGETPU.					

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUETPUI, EUETPUII or EUETPURAWMATERIAL unless the dust collector operating procedures are implemented and maintained. The procedures shall be kept on site and made available to the Department upon request. **(R 336.1331)**~~Permittee shall not operate EUETPUI, EUETPUII or EUETPURAWMATERIAL unless the dust collector operating procedures are implemented and maintained. The procedures shall be kept on site and made available to the Department upon request.[2] **(R 336.1331)**~~

~~2. The permittee shall not operate EUETPUI or EUETPUII unless the butane collection system operating procedures are implemented and maintained. The procedures shall be kept on site and made available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**~~~~Permittee shall not operate EUETPUI or EUETPUII unless the butane collection system operating procedures are implemented and maintained. The procedures shall be kept on site and made available to the Department upon request.[2] **(R 336.1225, R 336.1702(a))**~~

2. The permittee shall not operate EUETPUI or EUETPUII unless the butane collection system operating procedures are implemented and maintained. The procedures shall be kept on site and made available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

3. ~~3.~~ The permittee shall not operate EUETPUI or EUETPUII unless the condensation system operating procedures, or an alternate plan approved by the AQD District Supervisor, are implemented and maintained. If changes are made to the condensation system, the plan shall be revised to reflect the changes. The permittee shall keep the plan on site and make it available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

4. The permittee shall not operate EUETPUI or EUETPUII unless the RTO operating procedures, or an alternate plan approved by the AQD District Supervisor, are implemented and maintained. If changes are made to the RTO, the plan shall be revised to reflect the changes. The permittee shall keep the plan on site and make it available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

5. The permittee shall not operate EUETPUI or EUETPUII unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the RTO, has been submitted within 60 days of RTO, installation. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP to the AQD District Supervisor for review and approval. For any amendments to the MAP relating to requirements of Rule 911(2), the permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, 40 CFR 52.21(c) & (d))**~~Permittee shall not operate EUETPUI or EUETPUII unless the condensation system operating procedures, or an alternate plan approved by the AQD District Supervisor, are implemented and maintained. If changes are made to the condensation system, the plan shall be revised to reflect the changes. The permittee shall keep the plan on site and make it available to the Department upon request.[2] **(R 336.1225, R 336.1702(a))**~~

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUETPUI, EUETPUII or EUETPURAWMATERIAL unless the corresponding dust collector, F-780, F880 or F-841, respectively, is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes installing a pressure drop monitoring device on each of the dust collectors and maintaining the pressure drop at proper operating levels as specified in the dust collector operating procedures. **(R 336.1331)** ~~Permittee shall not operate EUETPUI, EUETPUII or EUETPURAWMATERIAL unless the corresponding dust collector, F-780, F880 or F-841, respectively, is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes installing a pressure drop monitoring device on each of the dust collectors and maintaining the pressure drop at proper operating levels as specified in the dust collector operating procedures.[2] **(R 336.1331)**~~

2. The permittee shall not operate EUETPUI or EUETPUII unless the corresponding butane collection and hold tank, Tank 780 or Tank 880, respectively, is installed, maintained and operated in a satisfactory manner. Satisfactory operation includes installing and maintaining a monitoring device on each tank that allows the permittee to ensure that each tank has adequate capacity to receive butane from each production batch it serves before beginning to process the batch. These and all other operations relating to the proper operation of the butane collection and hold tanks shall be specified in the butane collection system operating procedures. **(R 336.1205, R 336.1225, R 336.1702(a))** ~~Permittee shall not operate EUETPUI or EUETPUII unless the corresponding butane collection and hold tank, Tank 780 or Tank 880, respectively, is installed, maintained and operated in a satisfactory manner. Satisfactory operation includes installing and maintaining a monitoring device on each tank that allows the permittee to ensure that each tank has adequate capacity to receive butane from each production batch it serves before beginning to process the batch. These and all other operations relating to the proper operation of the butane collection and hold tanks shall be specified in the butane collection system operating procedures.[2] **(R 336.1225, R 336.1702(a))**~~

3. ~~3.~~ The permittee shall not operate EUETPUI or EUETPUII unless the condensation system is installed, maintained and operated in a satisfactory manner. Satisfactory operation includes maintaining a column temperature with a maximum temperature of -184 F over a 3-hour block average when feeding and recovering butane through the condensation system and having a system in place that will shut off the flow of butane to the condensation system if the system malfunctions, as specified in the condensation system operating procedures. **(R 336.1205, R 336.1225, R 336.1702(a))** ~~Permittee shall not operate EUETPUI or EUETPUII unless the condensation system is installed, maintained and operated in a satisfactory manner. Satisfactory operation includes having a system in place that will shut off the flow of butane to the condensation system if the system malfunctions, as specified in the condensation system operating procedures.[2] **(R 336.1225, R 336.1702(a))**~~

4. The permittee shall not operate EUETPUI or EUETPUII unless the RTO is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the regenerative thermal oxidizer includes a minimum VOC destruction efficiency of 98 percent (by weight), and maintaining a minimum temperature of 1300 °F and a minimum retention time of 0.5 seconds. The permittee shall also have a system in place that will shut off the flow of butane to the regenerative thermal oxidizer if the regenerative thermal oxidizer malfunctions, as specified in the regenerative thermal oxidizer system operating procedures. **(R 336.1205, R 336.1225, R 336.1702(a), R336.1910)**

5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to continuously monitor and record the combustion chamber temperature of the RTO. Satisfactory manner includes measuring the temperature to within 1 percent (relative to degrees Celsius) or ±0.5 °C (±0.9 °F), whichever is greater. Continuous monitoring means at least one measurement every fifteen minutes. **(R 336.1205, R 336.1225, R 336.1702(a), R336.1910)**

6. The permittee shall not install bypass valves that could divert a vent stream from the RTO, except as allowed by SC IV.7 when the vent stream goes to the emergency vent stack of the RTO. **(R 336.1205, R 336.1225, R 336.1702(a), R336.1910)**

7. During periods of shutdown of the RTO for maintenance, offline inspections, or malfunctions, the permittee may vent the off-gassing silos to atmosphere by way of an RTO emergency vent stack. During RTO shutdowns, the permittee shall minimize uncontrolled emissions by shutting down FGETPU production processes so that emissions occurring during these events are limited to the losses from the off-gassing silos. During RTO shutdowns, the permittee shall not transfer any material into the off-gassing silos. Emergency venting procedures shall be outlined in the RTO operating procedures and MAP for the RTO. **(R 336.1205, R 336.1225, 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. Within 180 days after commencement of trial operation, the permittee shall verify VOC destruction efficiency and VOC emission rates from the RTO by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004)**NA~~

See Appendix 5-3

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 complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1225, R 336.1702(a))**~~Permittee shall monitor the pressure drop across each dust collector, on a daily basis, during operation.[2] **(R 336.1331)**~~

2. The permittee shall monitor in a satisfactory manner, the temperature in the combustion chamber of the RTO, on a continuous basis, during operation of FGETPU. Monitoring of data "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes. **(R 336.1205, R 336.1225, R 336.1702(a), R336.1910)**~~Permittee shall keep, in a satisfactory manner, records of the daily pressure drop readings for each of the dust collectors. All records shall be made available to the Department upon request.[2] **(R 336.1331)**~~

3. The permittee shall conduct regular inspections, as outlined below, of the RTO for the purpose of determining the operating condition of the RTO.
   a. Regular inspections of the RTO shall be conducted during scheduled outages or downtime, but not less frequently than every 12-months.
   b. The operational condition, and if necessary, reasons for the failure or malfunction of the different components of the RTO shall be determined during the inspection.
   c. Any maintenance activities, repairs and corrective actions, needed to address the causes of malfunction or failure shall be performed within one hour. If the problem is not corrected within one hour, the facility shall promptly discontinue the source of emissions to the RTO until any repairs and corrective actions needed to address the causes of malfunction or failure is performed. **(R 336.1205, R 336.1225, R 336.1702(a))**~~Permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the amount of fresh butane used in FGETPU. All records shall be made available to the Department upon request.[2] **(R 336.1225, R 336.1702(a))**~~

4. The permittee shall keep up-to-date, readily-accessible records of the following information measured during each performance test, and shall include the following information in the report of the initial performance test in addition to the written results of such performance tests. The same information specified in this condition shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a combustion device or the outlet concentration of VOC (minus methane and ethane) is determined.
   a. The average combustion chamber temperature of the RTO measured at least every 15 minutes and averaged over the performance test period,
   b. The percent reduction of VOC (minus methane and ethane) achieved by the RTO,
   c. A description of the location at which the vent stream is introduced into the RTO, and
   d. All periods when the RTO device is not operating. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

5. The permittee shall maintain a demonstration that the minimum retention time of 0.5 seconds is obtained for the RTO. If such a demonstration cannot be shown through engineering calculations of maximum possible gas flow, based on the size of the ductwork, the size of the combustion chamber, and the size of the fan, or some alternative method acceptable to the AQD, then the permittee shall provide monitoring on a daily basis, acceptable to the AQD, for the RTO which will allow for the assurance that the 0.5 second retention time is maintained. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

6. The permittee shall monitor the pressure drop across each dust collector, on a daily basis, during operation. **(R 336.1331)**

7. The permittee shall keep, in a satisfactory manner, records of the monitored temperature in the thermal oxidizer on a continuous basis. "On a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes. The permittee may record average values (rolling or block) for 15 minute or shorter periods calculated from all measured data values during each period. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

8. Permittee shall keep, in a satisfactory manner, records of the daily pressure drop readings for each of the dust collectors. All records shall be made available to the Department upon request. **(R 336.1331)**

9. The permittee shall keep for at least 5 years, up-to-date, readily accessible continuous records of periods of operation during which the parameter boundaries established during the most recent performance test on the RTO are exceeded. Periods of operation during which the parameter boundaries established during the most recent performance test are exceeded is defined as all 3–hour periods of operation during which the average combustion temperature was more than 28 °C (50 °F) below the average combustion temperature during the most recent performance test at which compliance was demonstrated. **(R 336.1205, R 336.1225, R 336.1702(a))**

10. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of both of the following:
    a. the amount of fresh butane used in FGETPU, and
    b. number of product batches produced in FGETPU
    All records shall be made available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

11. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period VOC emission calculation records for FGETPU, using butane usage records and all of the following equations:
    a.

Equation 1: Fugitive Emissions from Plant

$$\sum\left[\left(\begin{matrix}\text{Number of}\\ \text{Emission}\\ \text{Points by Type}\end{matrix}\right)\times\left(\begin{matrix}\text{Emission}\\ \text{Factor}\\ \text{by Type}\end{matrix}\right)\times\left(\begin{matrix}\text{Operating}\\ \text{Days in}\\ \text{Month}\end{matrix}\right)\times\left(\begin{matrix}\text{24 hours}\\ \text{per Day}\end{matrix}\right)\right]=\left(\begin{matrix}\text{Fugitive}\\ \text{Emissions}\\ \text{per Month}\end{matrix}\right)$$

Equation 2: Drying Line Emissions from Plant

$$\left[\begin{pmatrix}\text{Number of}\\ \text{Batches}\\ \text{Produced}\\ \text{per Month}\end{pmatrix}\times\begin{pmatrix}\text{Drying Line}\\ \text{Butane}\\ \text{Emissions}\\ \text{per Batch}\end{pmatrix}\right]=\begin{pmatrix}\text{Drying Line}\\ \text{Emissions}\\ \text{per Month}\end{pmatrix}$$

Equation 3: Warehouse Super-Sack Degassing Emissions

$$\left[\begin{pmatrix}\text{Number of}\\ \text{Batches}\\ \text{Produced}\\ \text{per Month}\end{pmatrix}\times\begin{pmatrix}\text{SuperSack}\\ \text{Emissions}\\ \text{per Batch}\end{pmatrix}\right]=\begin{pmatrix}\text{Warehouse}\\ \text{Degassing}\\ \text{Emissions}\\ \text{per Month}\end{pmatrix}$$

Equation 4: Regenerative Thermal Oxidizer Emissions

$$\left[\begin{pmatrix}\text{Monthly}\\ \text{Butane}\\ \text{Consumption}\end{pmatrix}-\begin{pmatrix}\text{Fugitive}\\ \text{Emissions}\\ \text{per Month}\end{pmatrix}-\begin{pmatrix}\text{Drying Line}\\ \text{Emissions}\\ \text{per Month}\end{pmatrix}-\begin{pmatrix}\text{Warehouse}\\ \text{Degassing}\\ \text{Emissions}\\ \text{per Month}\end{pmatrix}\right]\times(2\%)=\begin{pmatrix}\text{RTO}\\ \text{Emissions}\\ \text{per month}\end{pmatrix}$$

~~4. The permittee shall keep, in a satisfactory manner, monthly records for FGETPU of all instances where butane collection and hold tank or the condensation system fails to capture butane as designed, whether due to malfunction, operator error, or any other cause. The record for each instance shall include an estimate of the amount of butane that would have been recovered if the failure had not occurred. The permittee shall make all records available to the Department upon request.[2] **(R 336.1225, R 336.1910)**~~

Butane emissions from both the drying line and super sack shall be defined in the malfunction abatement plan. Emissions from the warehouse super sacks, the drying lines, and fugitives from both ETPU production lines equals the summation of equations 1, 2, 3 listed above. Total VOC emissions in pounds per month equals the summation of equations 1, 2, 3, and 4 listed above. All records shall be made available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

12. The permittee shall monitor and record, in a satisfactory manner, the condensation column temperature on a continuous basis. Monitoring and recording of data "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes. The permittee may record average values (rolling or block) for 15 minute or shorter periods calculated from all measured data values during each period. **(R 336.1205, R 336.1225, R 336.1910)**

13. The permittee shall keep, in a satisfactory manner, monthly records for FGETPU of all instances where the butane collection and hold tank or the condensation system fails to capture butane as designed, whether due to malfunction, operator error, or any other cause. The record for each instance shall include an estimate of the amount of butane that would have been recovered if the failure had not occurred. The permittee shall make all records available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1910)**

See Appendices 3-3, 4-3, and 7-3

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))**

See Appendix 8-3

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)

NA

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGETPURULE290
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.

Emission Unit: EUETPURULE290.

POLLUTION CONTROL EQUIPMENT

I. EMISSION LIMIT(S)

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(i))**

2. Each emission unit that the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(a)(ii))**

   a. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(ii)(A))**

   b. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 microgram per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(B))**

   c. For carcinogenic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(C))**

   d. The emission unit shall not emit any air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(a)(ii)(D))**

3. Each emission unit that emits only noncarcinogenic particulate air contaminants and other air contaminants that are exempted under Rule 290(a)(i) and/or Rule 290(a)(ii), if all of the following provisions are met: **(R 336.1290(a)(iii))**

   a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have an exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(a)(iii)(A))**

b. The visible emissions from the emission unit are not more than 5 percent opacity in accordance with the methods contained in Rule 303. **(R 336.1290(a)(iii)(B))**

c. The initial threshold screening level for each particulate air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(a)(iii)(C))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

2. The provisions of Rule 290 apply to each emission unit that is operating pursuant to Rule 290. **(R 336.1290)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

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. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DEQ, AQD Rule 290, Permit to Install Exemption Record form (EQP 3558) or an alternative format that is approved by the AQD District Supervisor. **(R 336.1213(3))**

   a. Records identifying each air contaminant that is emitted. **(R 336.1213(3))**

   b. Records identifying if each air contaminant is controlled or uncontrolled. **(R 336.1213(3))**

   c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic. **(R 336.1213(3))**

   d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(a)(ii) and (iii). **(R 336.1213(3))**

   e. Material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in sufficient detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. **(R 336.1213(3), R 336.1290(c))**

2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information. **(R 336.1213(3))**

   a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit. **(R 336.1290(b), R 336.1213(3))**

   b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate. **(R 336.1213(3))**

3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating

conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

See Appendix 4-3

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))**

See Appendix 8-3

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee may construct, reconstruct, modify, install or commence operation of any new or existing emission units under FGETPURULE290 without modifying the ROP providing that it is not defined as a minor or significant modification to the ROP, as defined by R 336.1216(2) and R 336.1216(3), respectively, and the activity is not excluded from exemption by any provision of R 336.1278 and the Permittee meets the requirements of R 336.1278a for the activity. **(R 336.1278, R 336.1278a)**

FGETPUCOLDCLEANER
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: EUETPUCOLDCLEANER

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

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

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))**

See Appendix 8-3

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that the requirements identified in the table below are not applicable to the specified emission unit(s) and/or flexible group(s). This determination is incorporated into the permit shield provisions set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii). If the permittee makes a change that affects the basis of the non-applicability determination, the permit shield established as a result of that non-applicability decision is no longer valid for that emission unit or flexible group.

Emission Unit/Flexible Group ID	Non-Applicable Requirement	Justification
EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE	40 CFR 63, Subpart F- National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry	The materials produced by the ETPU Plant are not synthetic organic chemicals as listed in Table 1 of 40 CFR 60, Subpart F.
EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE	40 CFR 63, Subpart G- National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater	The materials produced by the ETPU Plant are not synthetic organic chemicals as listed in Table 1 of 40 CFR 60, Subpart F.
EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE	40 CFR 63, Subpart U- National Emission Standards for Hazardous Air Pollutants Emissions: Group I Polymers and Resins	The materials produced by the ETPU Plant are not elastomers.
EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE	40 CFR 63, Subpart W- National Emission Standards for Hazardous Air Pollutants for Epoxy Resins Production and Non-Nylon polyamides Production	The materials produced by the ETPU Plant do not include basic liquid epoxy resins or wet strength resins as defined by 40 CFR 63.522.
EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE	40 CFR 63, Subpart JJJ- National Emission Standards for Hazardous Air Pollutants Emissions: Group IV Polymers and Resins	The materials produced by the ETPU Plant do not include thermoplastic resins as defined by 40 CFR 63.1312.
EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE	40 CFR 63, Subpart III- National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production	The ETPU Plant does not produce flexible polyurethane foam.
EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE	40 CFR 63, Subpart PPP- National Emission Standards for Hazardous Air Pollutants for Polyether Polyols Production	The ETPU Plant does not produce polyether polyols.

APPENDICES

Appendix 1-3. 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_2S	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).

Appendix 2-3. 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 3-3. 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 4-3. 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 5-3. Testing Procedures

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 6-3. Permits to Install

At the time of permit issuance, no Permits to Install have been issued to this facility. Therefore, this appendix is not applicable.

Appendix 7-3. Emission Calculations

Specific emission calculations to be used with monitoring, testing or recordkeeping data are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible group Special Conditions. Therefore, this appendix is not applicable.

Appendix 8-3. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the MDEQ, AQD, Report Certification form (EQP 5736) and MDEQ, AQD, 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.

B. Other Reporting

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

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

September 29, 2017

PERMIT TO INSTALL
88-17

ISSUED TO
BASF Corporation – Plastics Plants

LOCATED AT
1609 Biddle Avenue
Wyandotte, Michigan

IN THE COUNTY OF
Wayne

STATE REGISTRATION NUMBER
M4777

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **June 2, 2017**	
DATE PERMIT TO INSTALL APPROVED: **September 29, 2017**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO_2e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
		gr	Grains
EU	Emission Unit	HAP	Hazardous Air Pollutant
FG	Flexible Group	Hg	Mercury
GACS	Gallons of Applied Coating Solids	hr	Hour
GC	General Condition	HP	Horsepower
GHGs	Greenhouse Gases	H_2S	Hydrogen Sulfide
HVLP	High Volume Low Pressure*	kW	Kilowatt
ID	Identification	lb	Pound
IRSL	Initial Risk Screening Level	m	Meter
ITSL	Initial Threshold Screening Level	mg	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunction Abatement Plan	NMOC	Non-methane Organic Compounds
MDEQ	Michigan Department of Environmental Quality	NO_x	Oxides of Nitrogen
		ng	Nanogram
MSDS	Material Safety Data Sheet	PM	Particulate Matter
NA	Not Applicable	PM10	Particulate Matter equal to or less than 10 microns in diameter
NAAQS	National Ambient Air Quality Standards		
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonable Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO_2	Sulfur Dioxide
SCR	Selective Catalytic Reduction	TAC	Toxic Air Contaminant
SNCR	Selective Non-Catalytic Reduction	Temp	Temperature
SRN	State Registration Number	THC	Total Hydrocarbons
TEQ	Toxicity Equivalence Quotient	tpy	Tons per year
USEPA/EPA	United States Environmental Protection Agency	µg	Microgram
		µm	Micrometer or Micron
VE	Visible Emissions	VOC	Volatile Organic Compounds
		yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install 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 this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit 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 R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. 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 Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department 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 condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

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

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. 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 R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUETPUI	All process equipment used to expand thermoplastic polyurethane pellets in the ETPUI production line which is controlled by dust collector F-780. Equipment in EUETPUI includes a butane collection system that captures butane and stores it in Tank 780 until it is condensed by a nitrogen condenser system and returned for re-use in the ETPUI process. The equipment in EUETPUI includes, but is not limited to the following: One (1) plastic pellet impregnation vessel; One (1) product rundown vessel; One (1) flash dryer; One (1) spin dryer; One (1) off-gas holding tank; Four (4) batch off gas silos; Miscellaneous fabric filter devices; Miscellaneous product transfer and holding equipment	2/5/1988, 2/23/2006	FGETPU
EUETPUII	All process equipment used to expand thermoplastic polyurethane pellets in the ETPUII production line which is controlled by dust collector F-880. The equipment includes a butane collection system that captures butane and stores it in Tank 880 until it is condensed by a nitrogen condenser system and returned for re-use in the ETPUII process. Equipment in EUETPUII includes, but is not limited to the following: One (1) plastic pellet impregnation vessel; One (1) product rundown vessel; One (1) flash dryer; One (1) spin dryer; One (1) off-gas holding tank; Four (4) batch off gas silos; Miscellaneous fabric filter devices Miscellaneous product transfer and holding equipment	1/23/1994, 2/23/2006	FGETPU
EUETPURAWMATERIAL	Raw material storage equipment common to EUETPUI and EUETPUII and controlled by dust collector, F-841.	2/5/1988	FGETPU

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUETPUBULKSTORAGE	Finished product bulk loading facility and storage equipment common to EUETPUI and EUETPUII. EUETPUBULKSTORAGE consists of equipment dedicated to the bulk storage and product evaluation of expanded thermoplastic polyurethane. The equipment includes, but not limited to, the following: Four (4) material pneumatic transfer blowers; One (1) railcar loading cyclone	1/1/1993	FGETPU
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

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
FGETPU	Expanded thermoplastic polyurethane (ETPU) production lines I and II, raw material storage, finished product storage and loading, and condensation system..	EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE

The following conditions apply to: FGETPU

DESCRIPTION: Expanded thermoplastic polyurethane (ETPU) production lines I and II, raw material storage, finished product storage and loading, and condensation system.

Emission Units: EUETPUI, EUETPUII, EUETPURAWMATERIAL, EUETPUBULKSTORAGE.

POLLUTION CONTROL EQUIPMENT: Fabric filter dust collectors (F-780 and F-880, F-841); Butane condensation system, regenerative thermal oxidizer (RTO)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	70 TPY*	12-rolling time period as determined at the end of each calendar month	Emissions from the warehouse super sacks, the drying lines, and fugitives from both ETPU production lines combined.	V.1 VI.11	R 336.1205 R 336.1225, R 336.1702(a)
2. VOC	82 TPY*	12-rolling time period as determined at the end of each calendar month	Point source and fugitive emissions from both ETPU production lines combined.	V.1 VI.11	R 336.1205 R 336.1225, R 336.1702(a)

* These VOC emission limitations shall be implemented upon start-up of the RTO. The permittee shall submit to the agency 150 days after issuance of this Permit, a schedule for specification, procurement, installation and start-up of the RTO. This condition will become applicable only after the completion of all ETPU operations upgrades and the installation and operation of all emission capture and control systems, including the RTO. Prior to this time, operation of FGETPU will be consistent with the existing conditions within MI-ROP-N7238-2011.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fresh butane * used in EUETPUI and EUETPUII	875 TPY	12-month rolling time period as determined at the end of each calendar month	ETPU production lines I and II combined	VI.10	R 336.1205 R 336.1225, R 336.1702(a)

* In these conditions, “butane” refers to a hydrocarbon mixture consisting of n-butane, isobutane, and propane that is used as an expansion agent in EUETPUI and EUETPUII. The primary component of “butane” is n-butane. “Fresh” butane refers to butane obtained from outside FGETPU for use in EUETPUI and EUETPUII, as distinct from butane recovered via the condensation system for re-use in FGETPU.

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUETPUI, EUETPUII or EUETPURAWMATERIAL unless the dust collector operating procedures are implemented and maintained. The procedures shall be kept on site and made available to the Department upon request. **(R 336.1331)**

2. The permittee shall not operate EUETPUI or EUETPUII unless the butane collection system operating procedures are implemented and maintained. The procedures shall be kept on site and made available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

3. The permittee shall not operate EUETPUI or EUETPUII unless the condensation system operating procedures, or an alternate plan approved by the AQD District Supervisor, are implemented and maintained. If changes are made to the condensation system, the plan shall be revised to reflect the changes. The permittee shall keep the plan on site and make it available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

4. The permittee shall not operate EUETPUI or EUETPUII unless the RTO operating procedures, or an alternate plan approved by the AQD District Supervisor, are implemented and maintained. If changes are made to the RTO, the plan shall be revised to reflect the changes. The permittee shall keep the plan on site and make it available to the Department upon request. [1] **(R 336.1205, R 336.1225, R 336.1702(a))**

5. The permittee shall not operate EUETPUI or EUETPUII unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the RTO, has been submitted within 60 days of RTO, installation. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP to the AQD District Supervisor for review and approval. For any amendments to the MAP relating to requirements of Rule 911(2), the permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUETPUI, EUETPUII or EUETPURAWMATERIAL unless the corresponding dust collector, F-780, F880 or F-841, respectively, is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes installing a pressure drop monitoring device on each of the dust collectors and maintaining the pressure drop at proper operating levels as specified in the dust collector operating procedures. **(R 336.1331)**

2. The permittee shall not operate EUETPUI or EUETPUII unless the corresponding butane collection and hold tank, Tank 780 or Tank 880, respectively, is installed, maintained and operated in a satisfactory manner. Satisfactory operation includes installing and maintaining a monitoring device on each tank that allows the permittee to ensure that each tank has adequate capacity to receive butane from each production batch it serves before beginning to process the batch. These and all other operations relating to the proper operation of the butane collection and hold tanks shall be specified in the butane collection system operating procedures. **(R 336.1205, R 336.1225, R 336.1702(a))**

3. The permittee shall not operate EUETPUI or EUETPUII unless the condensation system is installed, maintained and operated in a satisfactory manner. Satisfactory operation includes maintaining a column temperature with a maximum temperature of -184 F over a 3-hour block average when feeding and recovering butane through the condensation system and having a system in place that will shut off the flow of butane to the condensation system if the system malfunctions, as specified in the condensation system operating procedures. **(R 336.1205, R 336.1225, R 336.1702(a))**

4. The permittee shall not operate EUETPUI or EUETPUII unless the RTO is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the regenerative thermal oxidizer includes a minimum VOC destruction efficiency of 98 percent (by weight), and maintaining a minimum temperature of 1300 °F and a minimum retention time of 0.5 seconds. The permittee shall also have a system in place that will shut off the flow of butane to the regenerative thermal oxidizer if the regenerative thermal oxidizer malfunctions, as specified in the regenerative thermal oxidizer system operating procedures. [1] **(R 336.1205, R 336.1225, R 336.1702(a), R336.1910)**

5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to continuously monitor and record the combustion chamber temperature of the RTO. Satisfactory manner includes measuring the temperature to within 1 percent (relative to degrees Celsius) or ±0.5 °C (±0.9 °F), whichever is greater. Continuous monitoring means at least one measurement every fifteen minutes. [1] **(R 336.1205, R 336.1225, R 336.1702(a), R336.1910)**

6. The permittee shall not install bypass valves that could divert a vent stream from the RTO, except as allowed by SC IV.7 when the vent stream goes to the emergency vent stack of the RTO. [1] **(R 336.1205, R 336.1225, R 336.1702(a), R336.1910)**

7. During periods of shutdown of the RTO for maintenance, offline inspections, or malfunctions, the permittee may vent the off-gassing silos to atmosphere by way of an RTO emergency vent stack. During RTO shutdowns, the permittee shall minimize uncontrolled emissions by shutting down FGETPU production processes so that emissions occurring during these events are limited to the losses from the off-gassing silos. During RTO shutdowns, the permittee shall not transfer any material into the off-gassing silos. Emergency venting procedures shall be outlined in the RTO operating procedures and MAP for the RTO. [1] **(R 336.1205, R 336.1225, R 336.1702(a))**

V. TESTING/SAMPLING

1. Within 180 days after commencement of trial operation, the permittee shall verify VOC destruction efficiency and VOC emission rates from the RTO by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1225, R 336.1702(a))**

2. The permittee shall monitor in a satisfactory manner, the temperature in the combustion chamber of the RTO, on a continuous basis, during operation of FGETPU. Monitoring of data "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes.[1] **(R 336.1205, R 336.1225, R 336.1702(a), R336.1910)**

3. The permittee shall conduct regular inspections, as outlined below, of the RTO for the purpose of determining the operating condition of the RTO.
   a. Regular inspections of the RTO shall be conducted during scheduled outages or downtime, but not less frequently than every 12-months.
   b. The operational condition, and if necessary, reasons for the failure or malfunction of the different components of the RTO shall be determined during the inspection.
   c. Any maintenance activities, repairs and corrective actions, needed to address the causes of malfunction or failure shall be performed within one hour. If the problem is not corrected within one hour, the facility shall promptly discontinue the source of emissions to the RTO until any repairs and corrective actions needed to address the causes of malfunction or failure is performed. [1]

   (R 336.1205, R 336.1225, R 336.1702(a))

4. The permittee shall keep up-to-date, readily-accessible records of the following information measured during each performance test, and shall include the following information in the report of the initial performance test in addition to the written results of such performance tests. The same information specified in this condition shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a combustion device or the outlet concentration of VOC (minus methane and ethane) is determined.
   a. The average combustion chamber temperature of the RTO measured at least every 15 minutes and averaged over the performance test period,
   b. The percent reduction of VOC (minus methane and ethane) achieved by the RTO,
   c. A description of the location at which the vent stream is introduced into the RTO, and
   d. All periods when the RTO device is not operating. [1]

   (R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)

5. The permittee shall maintain a demonstration that the minimum retention time of 0.5 seconds is obtained for the RTO. If such a demonstration cannot be shown through engineering calculations of maximum possible gas flow, based on the size of the ductwork, the size of the combustion chamber, and the size of the fan, or some alternative method acceptable to the AQD, then the permittee shall provide monitoring on a daily basis, acceptable to the AQD, for the RTO which will allow for the assurance that the 0.5 second retention time is maintained. [1] **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

6. The permittee shall monitor the pressure drop across each dust collector, on a daily basis, during operation. **(R 336.1331)**

7. The permittee shall keep, in a satisfactory manner, records of the monitored temperature in the thermal oxidizer on a continuous basis. "On a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes. The permittee may record average values (rolling or block) for 15 minute or shorter periods calculated from all measured data values during each period. The permittee shall keep all records on file and make them available to the Department upon request.[1] **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

8. Permittee shall keep, in a satisfactory manner, records of the daily pressure drop readings for each of the dust collectors. All records shall be made available to the Department upon request. **(R 336.1331)**

9. The permittee shall keep for at least 5 years, up-to-date, readily accessible continuous records of periods of operation during which the parameter boundaries established during the most recent performance test on the RTO are exceeded. Periods of operation during which the parameter boundaries established during the most recent performance test are exceeded is defined as all 3–hour periods of operation during which the average combustion temperature was more than 28 °C (50 °F) below the average combustion temperature during the most recent performance test at which compliance was demonstrated.[1] **(R 336.1205, R 336.1225, R 336.1702(a))**

10. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of both of the following:
    a. the amount of fresh butane used in FGETPU, and
    b. number of product batches produced in FGETPU

    All records shall be made available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

11. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period VOC emission calculation records for FGETPU, using butane usage records and all of the following equations:
    a.

Equation 1: Fugitive Emissions from Plant

$$\sum\left[\begin{pmatrix}Number\ of\\ Emission\\ Points\ by\ Type\end{pmatrix}\times\begin{pmatrix}Emission\\ Factor\\ by\ Type\end{pmatrix}\times\begin{pmatrix}Operating\\ Days\ in\\ Month\end{pmatrix}\times\begin{pmatrix}24\ hours\\ per\ Day\end{pmatrix}\right]=\begin{pmatrix}Fugitive\\ Emissions\\ per\ Month\end{pmatrix}$$

Equation 2: Drying Line Emissions from Plant

$$\left[\begin{pmatrix}Number\ of\\ Batches\\ Produced\\ per\ Month\end{pmatrix}\times\begin{pmatrix}Drying\ Line\\ Butane\\ Emissions\\ per\ Batch\end{pmatrix}\right]=\begin{pmatrix}Drying\ Line\\ Emissions\\ per\ Month\end{pmatrix}$$

Equation 3: Warehouse Super-Sack Degassing Emissions

$$\left[\begin{pmatrix}Number\ of\\ Batches\\ Produced\\ per\ Month\end{pmatrix}\times\begin{pmatrix}SuperSack\\ Emissions\\ per\ Batch\end{pmatrix}\right]=\begin{pmatrix}Warehouse\\ Degassing\\ Emissions\\ per\ Month\end{pmatrix}$$

Equation 4: Regenerative Thermal Oxidizer Emissions

$$\left[\begin{pmatrix}Monthly\\ Butane\\ Consumption\end{pmatrix}-\begin{pmatrix}Fugitive\\ Emissions\\ per\ Month\end{pmatrix}-\begin{pmatrix}Drying\ Line\\ Emissions\\ per\ Month\end{pmatrix}-\begin{pmatrix}Warehouse\\ Degassing\\ Emissions\\ per\ Month\end{pmatrix}\right]\times\ (2\%)=\begin{pmatrix}RTO\\ Emissions\\ per\ month\end{pmatrix}$$

Butane emissions from both the drying line and super sack shall be defined in the malfunction abatement plan. Emissions from the warehouse super sacks, the drying lines, and fugitives from both ETPU production lines equals the summation of equations 1, 2, 3 listed above. Total VOC emissions in pounds per month equals the summation of equations 1, 2, 3, and 4 listed above. All records shall be made available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

12. The permittee shall monitor and record, in a satisfactory manner, the condensation column temperature on a continuous basis. Monitoring and recording of data "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes. The permittee may record average values (rolling or block) for 15 minute or shorter periods calculated from all measured data values during each period. [1] **(R 336.1205, R 336.1225, R 336.1910)**

13. The permittee shall keep, in a satisfactory manner, monthly records for FGETPU of all instances where the butane collection and hold tank or the condensation system fails to capture butane as designed, whether due to malfunction, operator error, or any other cause. The record for each instance shall include an estimate of the amount of butane that would have been recovered if the failure had not occurred. The permittee shall make all records available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1910)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. If the RTO is not installed and operating by December 31, 2018, this permit, No. 88-17 will become void. **(R 336.1205, R 336.1225, R 336.1702(a))**

Footnote:

[1]This condition will become applicable only after the completion of all ETPU operations upgrades and the installation and operation of all emission capture and control systems, including the RTO. Prior to this time, operation of FGETPU will be consistent with the existing conditions within MI-ROP-N7238-2011.

BASF

We create chemistry

CERTIFIED MAIL – RETURN RECEIPT REQUESTED
7017 3380 0000 8274 0590

February 8, 2019

Wilhemina McLemore, District Supervisor
Michigan DEQ - Air Quality Division
Cadillac Place
3058 West Grand Boulevard, Suite 2-300
Detroit, Michigan 48202-6058

Re: BASF Corporation, Wyandotte, MI – Malfunction Abatement Plan, E-TPU Plant, SRN M4777

Dear Ms. McLemore:

Enclosed is the Malfunction Abatement Plan for the E-TPU Plant located at the BASF Corporation Wyandotte Site. Submittal of this plan is required per Condition III.5 of Permit to Install No. 88-17, which was approved by the MDEQ on September 29, 2017.

Also included in this submission is the MDEQ-AQD ROP Form: *Report Certification (EQP 5736).*

If you have any concerns or questions regarding the information contained in this submittal, please contact me at 734-324-5042.

Sincerely,

Tom Wharton
EHS Specialist

Enclosures (2)

BASF Corporation
1609 Biddle Avenue
Wyandotte, MI 48192-3729
Tel: (734) 324-6000
www.basf.com/usa

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

RENEWABLE OPERATING PERMIT REPORT CERTIFICATION

Authorized by 1994 P.A. 451, as amended. Failure to provide this information may result in civil and/or criminal penalties.

Reports submitted pursuant to R 336.1213 (Rule 213), subrules (3)(c) and/or (4)(c), of Michigan's Renewable Operating Permit (ROP) program must be certified by a responsible official. Additional information regarding the reports and documentation listed below must be kept on file for at least 5 years, as specified in Rule 213(3)(b)(ii), and be made available to the Department of Environmental Quality, Air Quality Division upon request.

Source Name: BASF Corporation - Plastics Plant | County: Wayne

Source Address: 1609 Biddle Avenue | City: Wyandotte

AQD Source ID (SRN): M4777 | ROP No.: MI-ROP-M4777-2015a | ROP Section No.: NA

Please check the appropriate box(es):

☐ **Annual Compliance Certification (Pursuant to Rule 213(4)(c))**

Reporting period (provide inclusive dates): From _____ To _____

☐ 1. During the entire reporting period, this source was in compliance with **ALL** terms and conditions contained in the ROP, each term and condition of which is identified and included by this reference. The method(s) used to determine compliance is/are the method(s) specified in the ROP.

☐ 2. During the entire reporting period this source was in compliance with all terms and conditions contained in the ROP, each term and condition of which is identified and included by this reference, **EXCEPT** for the deviations identified on the enclosed deviation report(s). The method used to determine compliance for each term and condition is the method specified in the ROP, unless otherwise indicated and described on the enclosed deviation report(s).

☐ **Semi-Annual (or More Frequent) Report Certification (Pursuant to Rule 213(3)(c))**

Reporting period (provide inclusive dates): From _____ To _____

☐ 1. During the entire reporting period, **ALL** monitoring and associated recordkeeping requirements in the ROP were met and no deviations from these requirements or any other terms or conditions occurred.

☐ 2. During the entire reporting period, all monitoring and associated recordkeeping requirements in the ROP were met and no deviations from these requirements or any other terms or conditions occurred, **EXCEPT** for the deviations identified on the enclosed deviation report(s).

☒ **Other Report Certification**

Reporting period (provide inclusive dates): From NA To NA

Additional monitoring reports or other applicable documents required by the ROP are attached as described:

Malfunction Abatement Plan required pursuant to Condition III.5 of PTI No. 88-17

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this report and the supporting enclosures are true, accurate and complete

Greg Pflum	Vice President	734-324-6161
Name of Responsible Official (print or type)	Title	Phone Number

Signature of Responsible Official — February 7, 2019 — Date

* Photocopy this form as needed.

EQP 5736 (Rev 11-04)

MALFUNCTION ABATEMENT PLAN/PREVENTATIVE MAINTENANCE PROGRAM
E-TPU OPERATION REGENERATIVE THERMAL OXIDIZER

BASF CORPORATION, WYANDOTTE, MICHIGAN

Permit to Install No. 88-17

1.0 INTRODUCTION

1.1 REQUIREMENTS

This Malfunction Abatement Plan/Preventive Maintenance Program (MAP) is developed pursuant to the requirement set forth in the facility's Permit to Install No. 88-17 (the "PTI"). The MAP describes the method by which potential/anticipated malfunction situations associated with the expanded thermoplastic polyurethane (E-TPU) operation's regenerative thermal oxidizer (RTO) at BASF Corporation's (BASF's) facility located in Wyandotte, Michigan, will be avoided, minimized, and/or managed by the owner or operator of the facility.

1.2 PURPOSE OF THE MAP

The purpose of the MAP is to describe the procedures to be used to avoid, abate, or minimize potential abnormal conditions that may occur with the RTO associated with the E-TPU operations at the facility resulting in an exceedance of emission limitations established in the PTI. The MAP consists of two parts: 1) the preventive maintenance program, and; 2) the malfunction abatement and equipment monitoring program. The Plant Manager (or designee) is responsible for implementing the MAP.

The preventive maintenance program includes the following elements:

- Items or equipment that are to be inspected
- Frequency of inspection
- Method of inspection
- Personnel responsible for overseeing the inspection
- Major replacement parts that are to be kept in inventory

The malfunction abatement and equipment monitoring program includes the following elements:

- Equipment operating variables that are to be monitored to detect any malfunction or failure
- Normal operating range of these variables
- Description of the method of monitoring
- Personnel responsible for monitoring
- Frequency of monitoring

- Description of the corrective procedures or operational changes aimed at abating a malfunction or equipment failure situation

2.0 FACILITY BACKGROUND

BASF intends to operate two E-TPU production lines at their Wyandotte, Michigan facility under PTI No. 88-17. E-TPU production at the facility converts TPU solids into expanded foam particles utilizing butane gas as an expansion agent. This process generates several gas streams within the process. The RTO has been installed as part of the overall emissions control system to minimize butane emissions from the E-TPU operation.

A natural gas-fired emergency generator has been included as supporting equipment to the RTO. In the event of a general power outage, the emergency generator will be automatically activated to provide power to the RTO systems, allowing continued control operations and an orderly shutdown of the production operation, if required.

The two process emission units covered under the malfunction abatement plan are served by the following shared and individual air pollution controls:

Emission Units	Air Pollution Control
EUETPUI	Regenerative Thermal Oxidizer Control System (RTO), Butane Condensation System and Fabric Filter SVRTO, Dust Collector F-780
EUETPUII	Regenerative Thermal Oxidizer Control System (RTO), Butane Condensation System and Fabric Filter Dust Collector F-880

In addition, limited fugitive emissions of VOC will continue to emit from the E-TPU manufacturing process drying operations and final bulk storage, as noted within the PTI. These butane emissions will continue to vent into the general building air space, and ultimately vent to atmosphere via the building ventilation systems.

3.0 MAP - PREVENTIVE MAINTENANCE PROGRAM

This program is designed to minimize equipment malfunctions by establishing an inspection schedule for all equipment and accessories associated with the RTO. In general, BASF will follow the preventative maintenance recommended by the RTO manufacturer, Durr Systems, as outlined in the RTO's specific Operations and Maintenance Manual.

Table 1 provides a tabular summary of the inspection and maintenance program, and lists the items to be inspected, the frequency of inspection, the person responsible for overseeing the inspection, and the replacement parts kept in inventory. This program will help identify ahead of time any

malfunction that may arise, and by conducting an effective maintenance program, equipment malfunctions will be kept to a minimum. During inspection, the following information checklist will be used:

- Date of inspection
- Inspector's name
- List of checks to be made
- Comments

Attachment B contains a list of spare parts for the RTO system that will be maintained within inventory at the site to support operations of the RTO and to make repairs in the event that the inspection and maintenance program activities indicate that a required component needs to be replaced to prevent or mitigate a control malfunction.

4.0 MAP - MALFUNCTION ABATEMENT AND EQUIPMENT MONITORING PROGRAM

This program is intended to identify any abnormal conditions or equipment malfunctions associated with the RTO. In general, BASF will follow the operations and monitoring recommendations from Durr Systems, as outlined in both the RTO's specific Operations and Maintenance Manual and Sequence of Operations documentation.

Table 2 provides a tabular summary of the equipment monitoring program, and lists the equipment that are anticipated to cause an exceedance of the emission limitations due to improper operation, the operating variables to be monitored, the normal operating range, the method of monitoring, the frequency of monitoring, the person monitoring the equipment, and the corrective actions to be taken to achieve compliance during a malfunction or failure of the equipment. This program will help to detect any malfunctions and will be utilized to initiate the required corrective actions to achieve compliance in a timely manner.

If a malfunction event occurs, personnel will act in accordance with the directions provided in the Malfunction Abatement Contingency Plan included in **Attachment A.** The plan is structured as a decision tree that leads personnel to enact proper actions based on the status of the malfunction event and the requirements of Rule 912 of the Michigan Air Rules. The Malfunction Abatement Contingency Plan provides the following information that is used to determine what actions should be taken:

- The condition of the malfunction event
- A question regarding the malfunction event that requires a decision
- The response to the question
- Conditions to the response
- The action(s) to take based on the response

During a malfunction event, the following information will be recorded in the electronic Malfunction Abatement Log included within the E-TPU plant's operational files:

- Equipment identification
- The date the malfunction was detected
- A description of the malfunction
- A description of the required repair
- The initials of the person conducting the repair

In the rare instance of the need to fully shutdown the RTO system, the production operations will be halted as quickly as possible, and the vapor collection system flow will be maintained and directed to a RTO bypass vent until the emissions from the off-gas silos are mitigated. BASF will follow the RTO manufacturer's specifications and recommendations to implement the shutdown in a safe and efficient manner, while minimizing any emissions residual from the halted production operations. The vapor collection system will be discontinued only following emission unit operations shutdown, off-gas silos emissions curtailment, and in conjunction with the total shutdown of the RTO.

TABLE 1

PREVENTATIVE MAINTENANCE PROGRAM

ITEMS INSPECTED	FREQUENCY	RESPONSIBILITY	RECORDKEEPING	REPLACEMENT PARTS KEPT IN INVENTORY (1)
Regenerative Thermal Oxidizer System (RTO)	**Weekly Inspection:** Visually inspect thermal oxidizers for any signs of damage.	E-TPU Plant Operations will complete weekly inspection of the equipment. Monthly inspections, quarterly inspections, and maintenance will be completed by the E-TPU Maintenance Department. Annual inspection and maintenance tasks will be completed via contract to Durr in conjunction with the E-TPU Maintenance Department.	Records will be maintained within SAP for Maintenance Operations and designated contractor. Weekly checklists for Operations staff will retained at the Plant.	
	Monthly Inspection: Inspect gas train for leaks.			
	Monthly Inspection: Inspect safety shutoff valves on gas train for proper operation.			
	Monthly Inspection: Re-lubricate fan bearings and damper bearings. (Follow manufacturer's recommendations for specific intervals and lubricants).			
	Monthly Inspection: Insure proper damper, actuator and cylinder operation. (Check for proper closure, binding, seizing, etc.)			
	Monthly Inspection: Re-lubricate ECOPURE® RL Diverter Valve Spur Gears. Coat liberally with Kop-Flex KSG lubricant. Clean up excessive grease; increase frequency for extremely dirty or corrosive ambient conditions.			
	Monthly Inspection: Check all pressure sensing lines for damage or blockage from process particulates or condensables.			
	Quarterly Inspection: Check fan drives/couplings for proper belt tension and alignment. Adjust as required.			
	Quarterly Inspection: Check fan drive belts for wear. Replace as necessary.			
	Quarterly Inspection: Check coupling lubrication. Lubricate as required.			
	Quarterly Inspection: Inspect fan wheel, inlet cone and housing for wear and corrosion.			
	Quarterly Inspection: Inspect fan foundation bolts, bearing and wheel bolts, and set screws for proper tightness.			
	Quarterly Inspection: Check all safeties (Safety shut-off valves, pressure switches, hi-limits, etc.) for proper operation. Also refer to NFPA 86 Annex B (2015 Edition) for an example of an Operational and Maintenance Checklist.			
	Quarterly Inspection: Calibrate all temperature control instruments.			
	Quarterly Inspection: Clean U/V scanner sight lens.			
	Annual Inspection: Check all 460V terminal connections on motors, motor starters and circuit breakers for tightness.			
	Annual Inspection: Check all relays and contactors for wear.			
	Annual Inspection: Check burner mounting plate and tile assembly for cracks. Replace.			
	Annual Inspection: Inspect castable refractory at all opportunities for flaking, large cracks, exposed anchors, and general appearances. Inspect fiber modules for loose or missing material or exposed anchors.			
	Annual Inspection: Inspect diverter valve interior for proper integrity.			
	Annual Inspection: Inspect and confirm vertical movement of valve by lowering lift air pressure noting current setting. Check thrust bearing carrier movement and exposed surface condition. Check guide set screw (install hand tight, back off 1-1/2 turns and tighten jam nut.) Reset lift air pressure to proper value.			
	Annual Inspection: Check rotor/stator bushings for wear.			
	At a Minimum of Every 6 Months: Re-test all safety circuitry.			
	At a Minimum of Every 6 Months or Whenever New Process Conditions are Initiated: Re-test the ventilation rate and VOC concentrations.			
	Quarterly Inspection: Inspect ECOPURE® RL Diverter Valve Thrust Bearing, Thrust Bearing Carrier and Housing for wear and corrosion.			
	Quarterly Inspection: Re-lubricate thrust bearing carrier and housing interface with a high quality nickel anti-seize. Apply an even coating to both the bearing housing internal bore and the bearing carrier outside surface to ensure complete coverage upon re-assembly.			
	Quarterly Inspection: Check drive motor gearbox for oil level and quality. Refill as required with Mobil SHC 630 oil.			
	Quarterly Inspection: Re-lubricate Thrust Bearing.			
	Quarterly Inspection: Inspect Drive and Pinion gear teeth for excessive wear.			

Notes: (1) See full spare parts list in Attachment B.

(2) Following initiation of operations of the RTO system, BASF may propose to modify the period of inspection for some equipment based upon operational history and inspection results.

TABLE 2

EQUIPMENT MONITORING PROGRAM

Equipment ID	Operating Variables Monitored	Normal Operating Range	Method of Monitoring	Frequency of Monitoring	Person Monitoring	Corrective Procedure or Operational change in the Event of a Malfunction or Failure to Achieve Compliance
Regenerative Thermal Oxidizer System (RTO)	Temperature	Minimum of 1300 degrees Fahrenheit.	Continuous Temperature Monitor that measures the temperature to within 1 percent (relative to degrees Celsius) or ±0.5 °C (±0.9 °F), whichever is greater.	Continuous. Recorded locally at the PLC with a SD card and also recorded as a backup via historian on the DCS.	Instrumentation is monitored locally by the RTO PLC. This signal is communicated in real time to the Plant DCS, which is continuously monitored by the Operations staff.	Do not operate the associated process equipment unless the thermal oxidizer units are installed, maintained, and operating properly. In the event of a malfunction causing an exceedance of permit limitations, follow the procedures described in Attachment A.
						In the event of a malfunction, the off-gassing silos will be vented to atmosphere by way of an RTO emergency vent stack.
						If the regenerative thermal oxidizer malfunctions, flow of butane to the regenerative thermal oxidizer will be shut off as specified in the regenerative thermal oxidizer system operating procedures.

ATTACHMENT A

MALFUNCTION ABATEMENT CONTINGENCY PLAN

Condition	Decision	Response	Condition to response	Action
1. Malfunction discovered	Can floor personnel repair the malfunction?	Yes	Repairs can be completed within one hour	Complete repairs; notify supervisor; review PM/MAP.
			Repairs cannot be completed within one hour	Inform maintenance and supervisor of malfunction immediately. Proceed to condition #2.
		No		Inform maintenance and supervisor of malfunction immediately. Proceed to condition #2.
2. Maintenance informed of malfunction	Can maintenance repair the malfunction?	Yes	Repairs can be completed within one hour	Complete repairs; notify supervisor; review PM/MAP.
			Repairs cannot be completed within one hour	Inform management personnel immediately. Proceed to condition #3.
		No		Inform management personnel immediately. Proceed to condition #3.
3. Management informed of malfunction **Engineering to estimate the malfunction's effect on capture/destruction of HAPs and VOCs.**	Is the malfunction likely to result in emissions that will exceed permit limits? Note: Actions required are cummulative, and therefore add to those in the prior action as the malfunction timeline continues.	Yes	Repairs can be completed within one hour	Proceed with repairs; monitor time to complete repairs. If repairs continue for > 1 hour, proceed to condition #4.
			Repairs will be <2 hours, but > 1 hour.	Management must take immediate action to minimize the potential to exceed permit emission limitations. Consider discontinuing the emissions source to the RTO until any repairs and corrective actions needed to address the causes of the malfunctionor failure is performed. Proceed to condition #4.
			Repairs will exceed 2 hours.	Management must take immediate action to minimize the potential to exceed permit emission limitations. Discontinue the emissions source to the RTO until any repairs and corrective actions needed to address the causes of malfunctior or failure is performed. Proceed to condition #4.
		No		Proceed with repairs; continue to monitor emission estimates. If emissions are likely to exceed permit limits, proceed to #4.
4. Reduction of potential to exceed permit emission limits. **Management must take corrective measures to ensure that emission levels do not exceed permit conditions:** **a) Reduce production** **b) Shutdown production**	Were permit emission limitations exceeded? Note: Actions required are cummulative, and therefore add to those in the prior action as the malfunction timeline continues.	Yes	Emission limits were exceeded for < 1 hour.	Review/modify PM/MAP program to prevent any reoccurrence of the malfunction within 45 days of the occurance and submit the MAP to the AQD
			Emission limits were exceeded for < 2 hours, but > 1 hour.	Provide notification of the malfunction to the MDEQ-AQD within 2 business days Review/modify PM/MAP program to prevent any reoccurrence of the malfunction within 45 days of the occurance and submit the MAP to the AQD
			Emission limits were exceeded for > 2 hours.	Provide a written report to the MDEQ-AQD within 10 days after the malfunction has been corrected or within 30 days of discovering the the malfunction, whicever comes first. Review PM/MAP program to prevent any reoccurrence of the malfunction.
		No		Review/modify PM/MAP program to prevent any reoccurrence of the malfunction within 45 days of the occurance and submit the MAP to the AQD

Notes:
- Any period for which a monitoring system is out of control and data is not available will be considered a deviation from the monitoring requirements, per Permit to Install No. 88-17.

ATTACHMENT B

SPARE PARTS LIST FOR RTO

Parts List RL50 BASF Wyandotte, MI

					Process Critical on Stock											
7	A1E810	ZS00	K90	4Q060R009	in	Temperature controller	Limit Controller; Electro Mechanical Relay (5 Amp Form C); E-M Relay (5 Amp Form C) Plus Alarm 1 (5 Amp Form C Relay)	1	PCS	1	HONEYWELL	DC2500-EE-0L00-200-10000-00-0			
8	A1E810	ZS00	P100	100372416	in	Recorder	Data manager, color graphic, paperless. 4x universal 120Vac, digital input. Ethernet RJ45 + USB; SD card industrial grade, 1GB	1	PCS	1	ENDRESS & HAUSER	RSG35-B1AC1			
62	E1R1L1	AP191	B02	4Q0121759	in	Differential pressure switch	Differential pressure switch, range 0.15-0.50" w.c., inlet to chamber	1	PCS	1	DWYER	1950-0-2F	243.56	243.56	14
63	E1R1L1	AP191	B12	4Q0121759	in	Differential pressure switch	Differential pressure switch, range 0.15-0.50" w.c., chamber to outlet	1	PCS	0	DWYER	1950-0-2F			
64	E1R1L1	AP191	T22	100602683	in	Differ. pressure transmitter	Press transmitter, high pressure connection, Nominal width 1 : 1/4"-18, Nominal width 2: 1/2", polytetrafluorethylene (PTFE), aluminum, calibrated range -25" to 25" w.c.	1	PCS	1	ENDRESS & HAUSER	PMD75-6CPA8/0	2928.11	2928.11	14
80	E1R1L1	KA163	PDT-B02	100602683	in	Differential press transmitter	Press transmitter, high pressure connection, Nominal width 1 : 1/4"-18, Nominal width 2: 1/2", polytetrafluorethylene (PTFE), aluminum, calibrated range -25" to 25" w.c.	1	PCS	0	ENDRESS & HAUSER	PMD75-6CPA8/0			
81	E1R1L1	KA163	B04A/B	100595469	in	Gas detector	Drager Polytron 8700 LEL Sensor, gas detector	2	PCS	1	DRÄGER	8344602	4590.83	4590.83	21
82	E1R1L1	KA163	B5	100602710	in	Temperature sensor	Temperature sensor,calibrated -50 - 250 F, Analog output 4 - 20 mA, resistance variation	1	PCS	1	ENDRESS & HAUSER	TH11-B8FCKJ1BK1	1644.24	1644.24	21
83	E1R1L1	KA163	PDT-B12	100602683	in	Differential press transmitter	Press transmitter, high pressure connection, Nominal width 1 : 1/4"-18, Nominal width 2: 1/2", polytetrafluorethylene (PTFE), aluminum, calibrated range -25" to 25" w.c.	1	PCS	0	ENDRESS & HAUSER	PMD75-6CPA8/0			
84	E1R1L1	KA163	B14A/B	100595469	in	Gas detector	Drager Polytron 8700 LEL Sensor, gas detector	2	PCS	1	DRÄGER	8344602	4590.93	4590.93	21
85	E1R1L1	KA163	B15	100602710	in	Temperature sensor	Temperature sensor,calibrated -50 - 250 F, Analog output 4 - 20 mA, resistance variation	1	PCS	1	ENDRESS & HAUSER	TH11-B8FCKJ1BK1			
88	E1R1L1	KA163	W200	4R02DR075	in	Inlet Isolation Actuator - SPARE	Inlet Isolation Actuator spring return, fail closed - SPARE	1	PCS	1	RADIUS	AS-030	762.58	762.58	14
90	E1R1L1	KA163	W200	100073603	in	Inlet Isolation limit switch box - SPARE	Limit switch 250.0 V, supply pressure: 80PSI	1	PCS	1	RADIUS	ES-900	142.31	142.31	7
93	E1R1L1	KA163	W201	4R02DR070	in	Fresh Air Actuator - SPARE	Fresh Air Actuator spring return, fail closed - SPARE	1	PCS	1	RADIUS	AS-012	509.36	509.36	14
94	E1R1L1	KA163	W201	100110270	in	Fresh Air Positioner - SPARE	Fresh Air 4-20MA Positoner w/ Limit Switches - SPARE	1	PCS	1	RADIUS	RX1000-2LS	1467.63	1467.63	7
96	E1R1L1	KA163	W201	4R02DR103	in	Fresh Air Actuator drive coupling - SPARE	Fresh Air Actuator Drive Coupling	1	PCS	0	RADIUS	AS020-16			
111	E1R1L1	KA163	PDI301	4Q0121758	in	Differential press transmitter	MAGNEHELIC 0-6" wc, 1/8 in NPT Pressure Gauge D575215	1	PCS	1	DWYER	2006-SF	141.64	141.64	7
132	E1R1L1	KB166	W200	4R02DR075	in	Bypass Isolation Actuator - SPARE	Bypass Isolation Actuator spring return, fail open - SPARE	1	PCS	0	RADIUS	AS-030			
133	E1R1L1	KB166	W200	n/a	in	Bypass Isolation Actuator Drive Coupling -SPARE	Bypass Isolation Actuator Drive Coupling	1	PCS	0	RADIUS	AS030-24			
134	E1R1L1	KA163	W200	100073603	in	Inlet Isolation limit switch box - SPARE	Limit switch 250.0 V, supply pressure: 80PSI	1	PCS	0	RADIUS	ES-900			
176	E1R1L1	MD107	B12	100136487	in	Pressure sensor	Pressure Range: 0 - 30 inHg, 0 to 145 PSI • Pressure Range: PSIG, Bar, inHg, mmHg, kPa, kfg.cm3 • Output Type: (1) PNP with (1) 4-20mA	1	PCS	0	PARKER	MPS-P34N-PCIK			
197	E1R1L1	MG151	B2	4Q0130101	in	Differential pressure switch	Type DG500T; 40-200"wc; SPDT, 120V	1	PCS	1	KROMSCHRÖDER	84447842	141.49	141.49	Stock
199	E1R1L1	MG151	Q6	4R01AB012	in	Solenoid valve	Normally closed, for 120VAC operation Threaded shut off valve	1	PCS	1	MAXON	150SMA11-AA11-BB22A0L	2530.05	2530.05	21
200	E1R1L1	MG151	Q7	100596420	in	Solenoid valve 3/4"	Operating temperature 125 °F, Solenoid gas valve	1	PCS	1	ASCO	8214G038C	1198.58	1198.58	21
201	E1R1L1	MG151	B12	4Q0130101	in	Differential pressure switch	Type DG500T; 40-200"wc; SPDT, 120V	1	PCS	0	KROMSCHRÖDER	84447842			
203	E1R1L1	MG151	Q16	4R01AB013	in	Solenoid valve DN40 (1 1/2")	Maxon 5000 Gas Safety Shutoff Valves. ... Maxon 5000 Series Normally Closed Automatic Gas Shutoff Valve.	1	PCS	0	MAXON	150SMA11-AA11-BB22A0R			
206	E1R1L1	MG151	Q26	4M02B1002	in	Actuating drive	120V, 2 auxiliary switches, 60 Hz, NEMA3	1	PCS	1	HONEYWELL	M7284Q1009	855.72	855.72	Stock
217	E1R1L1	MG151	B300	4Q0231101	in	Pressure gauge	0-15psi, Dial Size: 2 1/2 inch, Pipe Connection: 1/4" NPT	1	PCS	1	FIVES NORTH AMERICAN	8735-15P	73.14	73.14	21
223	E1R1L1	VN113	M1	100592305	in	Emergency air fan motor	Electric Motor, 40Hp, 1780 rpm, fan cooling / foot-mounted version / silicone free / totally enclosed / with shaft grounding ring	1	PCS	0	MARATHON	324TTFS6526			
225	E1R1L1	VN113	101	4ZSL00730	in	Emergency air fan - Spare	Emergency air fan - FAN SHEAVES	1	PCS	0	NEW YORK BLOWER	Fan accessories			
226	E1R1L1	VN113	101	4ZSL00730	in	Emergency air fan - Spare	Emergency air fan - FAN BELTS	1	PCS	1	NEW YORK BLOWER	Fan accessories			
227	E1R1L1	VN113	101	4ZSL00730	in	Emergency air fan - Spare	Emergency air fan - FAN BEARINGS	2	PCS	2	NEW YORK BLOWER	Fan accessories			
228	E1R1L1	VN113	101	4ZSL00730	in	Emergency air fan - Spare	Emergency air fan - FAN AUTOLUBERS / GREASE TYPE	2	PCS	2	NEW YORK BLOWER	Fan accessories			
232	E1R1L1	VP111	M01	4M0111024	in	Process air fan motor	Electrical motor 125 hp, 1,800 rpm, fan cooling / foot-mounted version / silicone free / totally enclosed / with shaft grounding ring, with space heater 115 V	1	PCS	0	MARATHON MOTORS	E629+M2+M6+M22+M8+M8A (444TTFN16560)			
238	E1R1L1	VP111	101	4ZSL00730	in	Process air - Spare	Process air - FAN BELTS	1	PCS	1	NEW YORK BLOWER	Fan accessories			
239	E1R1L1	VP111	101	4ZSL00730	in	Process air - Spare	Process air - FAN BEARINGS	2	PCS	2	NEW YORK BLOWER	Fan accessories			
249	E1R1L1	VV141	B02	4Q0140001	in	Pressure switch	Type DG150T; 12 - 60 "wc; SPDT, 120V	1	PCS	1	KROMSCHRÖDER	84447832	142.99	142.99	Stock
266	E1R1L1	WG153	E9	100067592	in	Ignition electrode	Ignition electrode, 1/2", external thread NPT	1	PCS	1	FIVES NORTH AMERICAN	4-31738-1	285.7	285.7	21
274	E1R1L1	WG153	B900	4Q2604001	in	UV sensor	Dynamic Self-Check Ultraviolet Flame Detector; NEMA 4 enclosure; Brad Harrison connector	1	PCS	2	HONEYWELL	C7061A1038	988.09	1976.18	Stock

BASF Corporation - Wyandotte Plastics Plants (SRN: M4777)
Potential Emission Inventory

Summary Revised: 12/12/2019

Pollutant		PTE (ton/yr)
NOx		2
CO		1
VOC		164
PM10		90
PM2.5		90
SO2		0.01
Lead		8.89E-06
HAP (individual)		10
HAP (total)		25

Notes:

(1) PM2.5 PTE conservatively assumed equivalent to PM10 PTE.

(2) HAP PTE is consistent with the federally-enforceable limits for the facility within the Plastic Plants ROP, Source-Wide Conditions.

BASF Corporation - Wyandotte Plastics Plants (SRN: M4777)
Potential Emission Inventory

Categorically Exempt and Permitted Emission Units

Revised: 12/12/2019

Description	EU Designation	Install/Modify Date	Applicable PTI	Note	Emission Limit or PTE?		NOx Emiss Limit or PTE (ton/yr)	CO Emiss Limit or PTE (ton/yr)	VOC Emiss Limit or PTE (ton/yr)	PM10 Emiss Limit or PTE (ton/yr)	SO2 Emiss Limit or PTE (ton/yr)
EUEPCEXTRUSION											
Nylon compounding and extrusion in EPC process	EUEPCEXTRUSION	1/1/1994	NA, exempt	1	PTE		-	-	4.1	2.8	-
ETPU											
ETPU production lines, raw material storage and finished product storage EUETPUI/EUETPUII/EUETPURAWMATERIAL/EUETPUBULKSTORAGE	FGETPU	Multiple Units	ROP, PTI 88-17	2	Emiss		-	-	82	-	-
				TOTAL			**0.0**	**0.0**	**86.1**	**2.8**	**0.0**

Notes:

(1) This emission unit is exempt under Rule 286(2)(a) does not have an emission limit in permit. The presented value is a calculated PTE based on 8,760 annual operating hours and emission factors derived from 2013 stack test data.

(2) VOC PTE based upon PTI 88-17 VOC limit for point source and fugitive emissions from both ETPU production lines combined.

(3) Exempt from PTI under Rule 284(i).

BASF Corporation - Wyandotte Plastics Plants (SRN: M4777)
Potential Emission Inventory

Rule 284(2)(i) Exempt Emission Units - VOC

Revised: 12/12/2019

Description	EU Designation	Notes	Maximum Throughput Throughput (lb/yr)	Density (lb/gal)	Vapor pressure Pressure (mmHg)	Molecular weight (lb/lbmol) Weight (lb/lbmol)		VOC Emissions (lb/yr)	VOC Emissions (ton/yr)
ELA Storage Tanks									
Storage tank for white oil	EUELAD-203	1	27,315	7.34	77.57	24.00		3.39	1.70E-03
Storage tank for clean and recyled N-methyl Pyrrolidone (NMP)	EUELAD-202	1	108,461	8.60	0.24	99.13		0.15	7.35E-05
Storage tank for poylol	EUELATK-101	1	2,301,529	9.10	0.21	2,000		51.28	0.03
Storage tank for poylol	EUELATK-102	1	2,542,973	9.10	0.21	2,000		56.66	0.03
Storage tank for poylol	EUELATK-103	1	5,104,122	9.10	0.21	2,000		113.73	0.06
Storage tank for clean and recyled N-methyl Pyrrolidone (NMP)	EUELATK-111	1	415,338	8.60	0.24	99.13		0.56	2.82E-04
Storage tank for clean N-methyl Pyrrolidone (NMP)	EUELATK-112	1	25,787	8.60	0.24	99.13		0.03	1.75E-05
Storage tank for Diphenylmethane Diisocyanate (MDI)	EUELATK-210	1	655,935	10.01	5.17E-04	250.27		4.15E-03	2.077E-06
Holding tank for aqueous spill waste (periodic flow/negligible emissions)	EUELATK-310A		-	-	-	-		-	-
			TOTAL:						**0.11**

Notes:

(1) Emissions were estimated by using the equation below derived from Raoult's law:

$$\text{lb VOC/yr} = \frac{W}{D} * \frac{1\,\text{ft}^3}{7.481\,\text{gal}} * \frac{MW}{359\,\text{ft}^3/\text{lbmol}} * \frac{VP}{760\,\text{mmHg}}$$

Where:

W = actual annual usage (lb/yr of polyol or MDI precursor)
D = material density (lb/gal)
VP = material vapor pressure (mmHg)
MW = material molecular weight (lb/lb-mol)

BASF Corporation - Wyandotte Plastics Plants (SRN: M4777)
Potential Emission Inventory

Rule 290 Exempt Emission Units - VOC

Revised: 12/12/2019

Description	EU Designation	Install/Modify Date	Notes		VOC Emissions (lb/mo)	VOC Emissions (ton/yr)
FGEPCRULE 290						
Pyrolysis furnance for cleaning plastic material from extruder parts	EUEPCOVEN	10/1/2009			1000	6
FGELARULE290						
An oven for curing polyurethane parts	EUELAOVEN101	10/1/1987	1		500	3
An oven for curing polyurethane parts	EUELAOVEN102	10/1/1987	1		500	3
An oven for curing polyurethane parts	EUELAOVEN103	10/1/1987	1		500	3
An oven for curing polyurethane parts	EUELAOVEN104	10/1/1987	1		500	3
An oven for curing polyurethane parts	EUELAOVEN105	10/1/1987	1		500	3
An oven for curing polyurethane parts	EUELAOVEN106	10/1/1987	1		500	3
An oven for curing polyurethane parts	EUELAOVEN107	1/1/2002	1		500	3
An oven for curing polyurethane parts	EUELAOVEN108	1/1/2002	1		500	3
An oven for curing polyurethane parts	EUELAOVEN109	1/1/2002	1		500	3
An oven for curing polyurethane parts	EUELAOVEN110	4/30/2018	1		500	3
An oven for curing polyurethane parts	EUELAOVEN111	3/23/2018	1		500	3
An oven for curing polyurethane parts	EUELAOVEN112	3/23/2018	1		500	3
Production of prepolymer for use in the polyurethane molding operations	EUELAREACTOR210	10/1/1995			1000	6
Production of prepolymer for use in the polyurethane molding operations	EUELAREACTOR220	10/1/1995			1000	6
Production of prepolymer for use in the polyurethane molding operations	EUELAREACTOR230	10/1/1995			1000	6
Production of prepolymer for use in the polyurethane molding operations	EUELAREACTOR240	11/1/2000			1000	6
Production of prepolymer for use in the polyurethane molding operations	EUELAREACTOR250	11/1/2000			1000	6
Equipment for the reaction injection molding of polyurethane parts	EUELAMOLDING	11/1/2013			1000	6
		TOTAL:				**78**

Notes:

(1) VOC emissions are controlled by mist eliminators

BASF Corporation - Wyandotte Plastics Plants (SRN: M4777)
Potential Emission Inventory

Rule 290 Exempt Emission Units - PM10

Revised: 12/12/2019

Emission Unit	EU Designation	Install/Modify Date	Notes		PM10 Emissions (lb/mo)	PM10 Emissions (ton/yr)
FGEPCRULE290						
Equipment used to blend materials with resin pellets, prior to extrusion	EUEPCFILLERHNDLG	10/1/2008	1		500	3
Pyrolysis furnance for cleaning plastic material from extruder parts	EUEPCOVEN	10/1/2009			1000	6
FGELARULE290						
An oven for curing polyurethane parts	EUELAOVEN101	10/1/1987	2		500	3
An oven for curing polyurethane parts	EUELAOVEN102	10/1/1987	2		500	3
An oven for curing polyurethane parts	EUELAOVEN103	10/1/1987	2		500	3
An oven for curing polyurethane parts	EUELAOVEN104	10/1/1987	2		500	3
An oven for curing polyurethane parts	EUELAOVEN105	10/1/1987	2		500	3
An oven for curing polyurethane parts	EUELAOVEN106	10/1/1987	2		500	3
An oven for curing polyurethane parts	EUELAOVEN107	1/1/2002	2		500	3
An oven for curing polyurethane parts	EUELAOVEN108	1/1/2002	2		500	3
An oven for curing polyurethane parts	EUELAOVEN109	1/1/2002	2		500	3
An oven for curing polyurethane parts	EUELAOVEN110	4/30/2018	2		500	3
An oven for curing polyurethane parts	EUELAOVEN111	3/23/2018	2		500	3
An oven for curing polyurethane parts	EUELAOVEN112	3/23/2018	2		500	3
Production of prepolymer for use in the polyurethane molding operations	EUELAREACTOR210	10/1/1995			1000	6
Production of prepolymer for use in the polyurethane molding operations	EUELAREACTOR220	10/1/1995			1000	6
Production of prepolymer for use in the polyurethane molding operations	EUELAREACTOR230	10/1/1995			1000	6
Production of prepolymer for use in the polyurethane molding operations	EUELAREACTOR240	11/1/2000			1000	6
Production of prepolymer for use in the polyurethane molding operations	EUELAREACTOR250	11/1/2000			1000	6
Equipment used to remove burrs and flash from polyurethane parts	EUELADEBURRING	1/1/2003, 5/1/2018			1000	6
Equipment for the reaction injection molding of polyurethane parts	EUELAMOLDING	11/1/2013			1000	6
	TOTAL					**87**

Notes:

(1) PM emissions are controlled by baghouses, vent filters, and scrubbers

(2) PM emissions are controlled by mist eliminators

BASF Corporation - Wyandotte Plastics Plants (SRN: M4777)
Potential Emission Inventory

Other Combustion Sources (Ovens, Thermal Oxidizers, Heaters, Etc.)

Revised: 12/12/2019

Description	EU Designation	Maximum Heat Input (MMBtu/hr)	Fuel Usage	Max Operation (hr/yr)	Notes		NOx Emissions (ton/yr)	CO Emissions (ton/yr)	VOC Emissions (ton/yr)	PM10 Emissions (ton/yr)	SO2 Emissions (ton/yr)	Lead Emissions (ton/yr)
EPC Pyrolysis Oven Burner												
1 primary burner and 1 afterburner @0.27 MMBtu/hr	EUEPCOVEN	0.27	Natural Gas	6,390	1		0.08	0.07	-	-	5.07E-04	4.23E-07
ETPU RTO Burner												
Primary burner @4.0 MMBtu/hr	EUETPURTO	4.00	Natural Gas	8,640	2		1.69	1.42	0.09	0.13	0.01	8.47E-06
					TOTAL		**1.8**	**1.5**	**0.09**	**0.13**	**0.011**	**8.89E-06**

AP-42 Emission Factor - Small Boiler, Natural Gas, Uncontrolled		Value	Units
NOx for small boilers (<10 MMBtu/hr)		100	lb/mmscf
CO for small boilers (<10 MMBtu/hr)		84	lb/mmscf
VOC		5.5	lb/mmscf
PM10		7.6	lb/mmscf
SO2		0.6	lb/mmscf
Lead		0.0005	lb/mmscf

Notes:
(1) Total VOC and PM10 emissions for direct-fired EPC Pyrolosis Oven are presented as a Rule 290 EU limits.
(2) Since the ETPU RTO is not exempt under Rule 290, its PM10 and VOC PTE are estimate using AP-42 emission factors.

(3) EUEPCOVEN can only operate a maximum of 6,390 hours/year since the EPC Plant is shutdown for preventative maintenance for 10 days/year and the oven runs on a 6-hour cycle and must cool down for 2 hours before parts and be removed and re-loaded
(4) EUETPURTO can only operate a maximum of 8,640 hours/year since it will be shut down for maintenance and holidays for 5 days/year