



Corteva Agriscience LLC
701 Washington Street
Midland, MI 48667

February 9, 2021

CERTIFIED MAIL
7020 1810 0001 7156 7943

Caryn Owens
EGLE Air Quality Division
120 W Chapin Street
Cadillac, MI 49601-2158

cc: Chris Hare, EGLE Saginaw Bay District Office, 401 Ketchum Street Suite B, Bay City, MI 48708

CORTEVA AGRISCIENCE LLC (CORTEVA) RULE 216(2) CHANGE NOTIFICATION: EU12B

Please find attached the notification forms required by Rule 216(2) for changes to The Dow Chemical Company's Renewable Operating Permit (ROP) number MI-ROP-A4033, Section 1.

The 948 Bldg 2,4D production facility has received revised special conditions associated with permit to install application 108-19A. Corteva requests that these special conditions be included in the renewable operating permit table EU12b-S1. This process is represented by table EU12b in permit number MI-ROP-A4033-2017b. An ROP significant modification application was submitted on 3/1/2019 to make the Dow AgroSciences assets in Section 1 of the ROP its own permit. On 5/23/19, notification was received from EGLE that the SRN number of P1028 has been assigned to Dow AgroSciences, LLC. Also note that per the 1/11/21 notification letter, the Dow AgroSciences LLC company name has been changed to Corteva Agriscience LLC, effective 1/1/21.

Attached are the M-001, AI-001 and C-001 forms and marked up ROP conditions with detailed information associated with this change. Corteva will consider this change effective upon receipt of these forms.

If you have questions regarding this submittal, please contact Patty Worden at patricia.worden@corteva.com or 989-898-5129.

A handwritten signature in black ink, appearing to read "Steve Gregory".

Steve Gregory
Michigan Hub EHS&S Leader
3100 James Savage
Midland, MI 48642
(989) 486-2479

Attachments



Michigan Department of Environment, Great Lakes, and Energy - Air Quality Division

RENEWABLE OPERATING PERMIT APPLICATION C-001: CERTIFICATION

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 provide this information may result in civil and/or criminal penalties. Please type or print clearly.

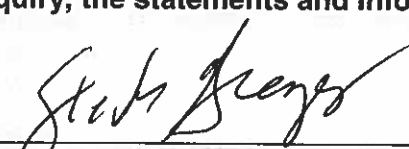
This form is completed and included as part of Renewable Operating Permit (ROP) initial and renewal applications, notifications of change, amendments, modifications, and additional information.

Form Type C-001	SRN P1028
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Stationary Source Name Corteva Agriscience LLC	
City Midland	County Midland

SUBMITTAL CERTIFICATION INFORMATION	
1. Type of Submittal <i>Check only one box.</i>	
<input type="checkbox"/> Initial Application (Rule 210)	<input checked="" type="checkbox"/> Notification / Administrative Amendment / Modification (Rules 215/216)
<input type="checkbox"/> Renewal (Rule 210)	<input type="checkbox"/> Other, describe on AI-001
2. If this ROP has more than one Section, list the Section(s) that this Certification applies to <u>Section 1</u>	
3. Submittal Media <input type="checkbox"/> E-mail <input type="checkbox"/> FTP <input type="checkbox"/> Disk <input checked="" type="checkbox"/> Paper	
4. Operator's Additional Information ID - Create an Additional Information (AI) ID that is used to provide supplemental information on AI-001 regarding a submittal. AI -EU12b	

CONTACT INFORMATION	
Contact Name Patty Worden	Title Environmental Specialist
Phone number 989-898-5129	E-mail address patricia.worden@corteva.com

This form must be signed and dated by a Responsible Official.				
Responsible Official Name Steve Gregory			Title EHS&S Leader	
Mailing address 3100 James Savage				
City Midland	State MI	ZIP Code 48642	County Midland	Country Midland
As a Responsible Official, I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate and complete.				
 _____ Signature of Responsible Official			2/9/2021 _____ Date	

**RENEWABLE OPERATING PERMIT
M-001: RULE 215 CHANGE NOTIFICATION
RULE 216 AMENDMENT/MODIFICATION APPLICATION**

This information is required by Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, 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.

1. SRN P1028	2. ROP Number MI-ROP A4033	3. County Midland
4. Stationary Source Name Corteva Agriscience LLC, Michigan Operations		
5. Location Address 701 Washington Street		6. City Midland
7. Submittal Type - <i>The submittal must meet the criteria for the box checked below. Check only one box. Attach a mark-up of the affected ROP pages for applications for Rule 216 changes.</i> <input type="checkbox"/> Rule 215(1) Notification of change. <i>Complete Items 8 – 10 and 14</i> <input type="checkbox"/> Rule 215(2) Notification of change. <i>Complete Items 8 – 10 and 14</i> <input type="checkbox"/> Rule 215(3) Notification of change. <i>Complete Items 8 – 11 and 14</i> <input type="checkbox"/> Rule 215(5) Notification of change. <i>Complete Items 8 – 10 and 14</i> <input type="checkbox"/> Rule 216(1)(a)(i)-(iv) Administrative Amendment. <i>Complete Items 8 – 10 and 14</i> <input type="checkbox"/> Rule 216(1)(a)(v) Administrative Amendment. <i>Complete Items 8 – 14. Results of testing, monitoring & recordkeeping must be submitted. See detailed instructions.</i> <input checked="" type="checkbox"/> Rule 216(2) Minor Modification. <i>Complete Items 8 – 12 and 14</i> <input type="checkbox"/> Rule 216(3) Significant Modification. <i>Complete Items 8 – 12 and 14, and provide any additional information needed on ROP application forms. See detailed instructions.</i> <input type="checkbox"/> Rule 216(4) State-Only Modification. <i>Complete Items 8 – 12 and 14</i>		
8. Effective date of the change. (MM/DD/YYYY) <i>See detailed instructions.</i> <u>2/9/2021</u>		9. Change in emissions? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
10. Description of Change - <i>Describe any changes or additions to the ROP, including any changes in emissions and/or pollutants that will occur. If additional space is needed, complete an Additional Information form (AI-001).</i> The 948 Bldg 2,4D production facility has received revised special conditions associated with permit to install application 108-19A to allow venting to the carbon beds for 31 days/RTM. Corteva requests that these special conditions be included in the renewable operating permit table EU12b-S1.		
11. New Source Review Permit(s) to Install (PTI) associated with this application?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes, enter the PTI Number(s) <u>108-19A</u> - - - - -		
12. Compliance Status - <i>A narrative compliance plan, including a schedule for compliance, must be submitted using an AI-001 if any of the following are checked No.</i>		
a. Is the change identified above in compliance with the associated applicable requirement(s)?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b. Will the change identified above continue to be in compliance with the associated applicable requirement(s)?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c. If the change includes a future applicable requirement(s), will timely compliance be achieved?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
13. Operator's Additional Information ID - <i>Create an Additional Information (AI) ID for the associated AI-001 form used to provide supplemental information.</i>		AI
14. Contact Name	Telephone No.	E-mail Address
Patty Worden	989-898-5129	patricia.worden@corteva.com
15. This submittal also updates the ROP renewal application submitted on ___/___/___		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
<i>(If yes, a mark-up of the affected pages of the ROP must be attached.)</i>		

NOTE: A CERTIFICATION FORM (C-001) SIGNED BY A RESPONSIBLE OFFICIAL MUST ACCOMPANY ALL SUBMITTALS

For Assistance
Contact: 800-662-9278

www.michigan.gov/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: P1028

Section Number (if applicable):

1. Additional Information ID

AI-EU12b

Additional Information

2. Is This Information Confidential?

 Yes No

Corteva Agriscience LLC requests the changes shown in the attached marked up permit conditions be rolled into the ROP, per approval of PTI 108-19A.

EMISSION UNIT 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 (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EU12b-S1	<p>The EU12b 2,4-D process unit is a phenoxy herbicide manufacturing plant. Equipment includes: reactors, distillation/fractionation columns, separators, storage tanks/silos and related equipment. Manufacturing equipment is located in 948 Building. Process vents are treated by the VS-1011/T-1010 scrubbing system and then by either the THROX located in 963 building or the 948 carbon adsorber system. The 948 carbon adsorber system is also used as a backup control device for the 2,4-D salt herbicide process located in 959 Building (EU03).</p> <p>This emission unit is subject to the requirements of 40 CFR Part 63, Subparts A, EEEE, and MMM. In addition, processes subject to MMM are also subject to the equipment leak provisions of 40 CFR Part 63, Subpart H (National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks) as specified in Section 63.1363(b), as applicable.</p> <p>This emission unit was permitted in PTI 108-19A.</p>	<p>9/14/90 5/2/07 9/17/14 12/18/19/ <u>PTI Date</u></p>	<p>FG963THROX-S1 (SRN P1027), FGPESTICIDES-S1, FGHONFUGITIVES-S1, FGOLDMACT-S1</p>

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 336.1291.

EU12b-S1 EMISSION UNIT CONDITIONS

DESCRIPTION

The EU12b 2,4-D process unit is a phenoxy herbicide manufacturing plant. Equipment includes: reactors, distillation/fractionation columns, separators, storage tanks/silos and related equipment. Manufacturing equipment is located in 948 Building. Process vents are treated by the VS-1011/T-1010 scrubbing system and then by either the THROX located in 963 building or the 948 carbon adsorber system. The 948 carbon adsorber system is also used as a backup control device for the 2,4-D salt herbicide process located in 959 Building (EU03).

This emission unit is subject to the requirements of 40 CFR Part 63, Subparts A, EEEE, and MMM. In addition, processes subject to MMM are also subject to the equipment leak provisions of 40 CFR Part 63, Subpart H (National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks) as specified in Section 63.1363(b), as applicable.

This emission unit was permitted in PTI 108-19A.

Flexible Group ID: FG963THROX-S1 (SRN P1027), FGPESTICIDES-S1, FGHONFUGITIVES-S1, FGOLDMACT-S1

POLLUTION CONTROL EQUIPMENT

- Caustic scrubber system consisting of VS-1011 and T-1010, a two-stage scrubber system consisting of a venturi scrubber and a packed tower scrubber in series. The caustic scrubber system is part of a device train that typically vents to the 963 THROX (SRN P1027). When the TTU is not available, this scrubber is used to comply with HCl/Cl₂ emission requirements of 40 CFR Part 63, Subpart MMM, and the device train vents to the carbon adsorber system.
- Afterburner (THROX – thermal heat recovery oxidation unit located in 963 Building followed by a quench and scrubber).
- Carbon adsorber system located near 948 Building, for a maximum of 3120 days (744480 hours) per year when the THROX is not available.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	10 lb/yr ^A	12-month rolling time period as determined at the end of each calendar month	EU12b-S1	SC VI.3	R 336.1702(a)
^A This limit does not include fugitive emissions (i.e., emissions from leaking valves, flanges, etc.) from the emission unit.					

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall replace the carbon in the carbon adsorber system as needed in order to maintain a minimum organic hazardous air pollutants control efficiency of 98% and to comply with the requirements of 40 CFR Part 63, Subpart MMM. Compliance with this condition shall be determined according to the requirements of FGPESTICIDES-S1. (40 CFR Part 63, Subpart MMM)

Dow Agrosiences, LLC (P1028)
Permit No. 108-19A

DRAFT

~~12/10/2020~~ January 6, 2021

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2. The permittee shall not start unloading perchloroethylene from any tank truck unless the afterburner (THROX) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the THROX shall be determined according to the requirements of FG963THROX-S1 (SRN P1027) and FGPESTICIDES-S1. If the THROX goes off-line after a perchloroethylene unload has started, the unload may proceed provided the emissions generated by the unload are stored and vented to the THROX when the control device resumes normal operation as defined in FG963THROX-S1 (SRN P1027). (R 336.1910)
3. The permittee shall not exhaust emissions from EU12b-S1 to the carbon adsorber system for more than ~~744480~~ hours per year, based on a 12-month rolling time period as determined at the end of each calendar month. (R 336.1225, R 336.1702(a))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain the caustic scrubber system (VS-1011 and T-1010) with liquid flow indication devices in a configuration that allows the determination of the liquid flow to each stage of the caustic scrubber system. (R 336.1910)
2. The permittee shall not operate equipment that causes emissions from EU12b-S1 unless the caustic scrubber system (VS-1011 and T-1010) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the caustic scrubber system shall include maintaining the minimum flow rate through each stage of the scrubber system that complies with the operating parameters established for the scrubber system under 40 CFR Part 63, Subpart MMM. The equipment and emissions listed below are not subject to this requirement. (R 336.1224, R 336.1910, 40 CFR Part 63 Subpart MMM)
 - a) Emissions from the water recycle tanks (V-905, V-4305E, and V-4305W).
 - b) Emissions from V-1010 liquid neutralization.
3. The permittee shall not operate equipment that causes emissions from the process vents in EU12b-S1 unless either the afterburner (THROX) or the carbon adsorber system is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the THROX shall be determined according to the requirements of FG963THROX-S1 (SRN P1027) and FGPESTICIDES-S1 and includes attaining at least 99.9 percent destruction of organic compounds exhausted to the device. Satisfactory operation of the carbon adsorber system shall be determined according to the requirements of FGPESTICIDES-S1 and includes attaining at least 98 percent removal of organic compounds exhausted to the device. (R 336.1225, R 336.1702(a), R 336.1910, 40 CFR Part 63 Subpart MMM)

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor and record, on a continuous basis, the liquid flow rate for each stage of the caustic scrubber system (VS-1011 and T-1010) in accordance with the requirements of FGPESTICIDES-S1. Unless otherwise noted in this permit, the permittee is not required to monitor and record operational parameter data during periods of non-operation of the device resulting in cessation of the emissions to which the monitoring applies. (R 336.1910, 40 CFR Part 63, Subpart MMM)
2. The permittee shall monitor and record, on a continuous basis, the flow indicators at the entrance to any bypass line that could divert the vent stream from the afterburner closed vent line to the carbon adsorption system. The flow indicator used to comply with this provision will be the bypass vent valve position. For the purpose of this condition, "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes. (R 336.1910)

3. Within 30 days following the end of each calendar month, the permittee shall calculate and record emissions from EU12b-S1 for the previous calendar month to demonstrate compliance with the emission limit specified in SC I.1. The permittee shall keep these records on file at the facility and make them available to the AQD upon request. (R 336.1702(a))
4. Within 30 days following the end of each calendar month, the permittee shall record, in a satisfactory manner, the monthly and 12-month rolling time period number of hours that process vents from EU12b-S1 exhausted to the carbon adsorber system. The permittee shall keep all records on file at the facility and make them available to the Department upon request. (R 336.1225, R 336.1702(a))
5. ~~Within 60 days after issuance of PTI No. 108-19, the~~ permittee shall ~~submit~~ implement and maintain a plan ~~to the AQD District Supervisor~~ identifying the operating parameters for FG963THROX-S1 that shall be obtained from the operator or owner of FG963THROX-S1. All operating parameter data in the plan for FG963THROX-S1 shall be obtained within 30 days of the end of the month to which it pertains. If the plan fails to provide adequate information to demonstrate 99.9% destruction of organic compounds, the permittee shall amend the plan. The permittee shall also amend the plan within 45 days after receiving notification from the AQD District Supervisor that the plan does not provide adequate information to demonstrate 99.9% destruction of organic compounds. The permittee shall keep the plan and recorded parameter data on file at the facility and make them available to the Department upon request. (R 336.1910)

VII. REPORTING

NA

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 Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV12005 (carbon system atmospheric vent)	4	20	R 336.1225 40 CFR 52.21 (c) & (d)
2. SV963THROX ^A	18	80	R 336.1225 40 CFR 52.21 (c) & (d)

^A This stack's requirements also appear in the conditions for FG963THROX-S1 (SRN P1027).

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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