

Iowa Department of Natural Resources

Draft Title V Operating Permit Fact Sheet

This document has been prepared to fulfill the public participation requirements of 40 CFR Part 70 and 567 Iowa Administrative Code (IAC) 24.107(6). 40 CFR Part 70 contains operating permit regulations pursuant to Title V of the Clean Air Act.

The Iowa Department of Natural Resources (DNR) finds that:

1. John Deere Ottumwa Works, located at 928 East Vine Street, Ottumwa, IA 52501 has applied to renew their Title V Operating Permit. The designated responsible official of this facility is David Will.
2. John Deere Ottumwa is a farm machinery and equipment manufacturing facility. This facility consists of 29 emission units with potential emissions of:

Pollutant	Abbreviation	Potential Emissions (Tons per Year)
Particulate Matter ($\leq 2.5 \mu\text{m}$)	PM _{2.5}	132.38
Particulate Matter ($\leq 10 \mu\text{m}$)	PM ₁₀	132.38
Particulate Matter	PM	133.07
Sulfur Dioxide	SO ₂	0.45
Nitrogen Oxides	NO _x	75.49
Volatile Organic Compounds	VOC	224.29
Carbon Monoxide	CO	63.25
Lead	Lead	0.03
Hazardous Air Pollutants ⁽¹⁾	HAP	18.65

⁽¹⁾ May include the following: Formaldehyde, Hexane, and Manganese Compounds. Single HAP PTE of 7.65tpy.

3. John Deere Ottumwa Works submitted a Title V Operating Permit renewal application on January 29, 2024. Based on the information provided in these documents, DNR has made an initial determination that the facility meets all the applicable criteria for the issuance of an operating permit specified in 567 IAC 24.107.
 4. DNR has complied with the procedures set forth in 567 IAC 24.107, including those regarding public notice, opportunity for public hearing, and notification of EPA and surrounding state and local air pollution programs.
-

DNR procedures for reaching a final decision on the draft permit:

1. The public comment period for the draft permit will run from January 30, 2025 through March 1, 2025. During the public comment period, anyone may submit written comments on the permit. Mail signed comments to Derek Wedemeier at the DNR address shown below. The beginning date of this public comment period also serves as the beginning of the U.S. Environmental Protection Agency's (EPA) 45-day review period, provided the EPA does not seek a separate review period.
2. Written requests for a public hearing concerning the permit may also be submitted during the comment period. Any hearing request must state the person's interest in the subject matter, and the nature of the issues proposed to be raised at the hearing. DNR will hold a public hearing upon finding, on the basis of requests, a significant degree of relevant public interest in a draft permit. Mail hearing requests to Derek Wedemeier at the DNR address shown below.
3. DNR will keep a record of the issues raised during the public participation process, and will prepare written responses to all comments received. The comments and responses will be compiled into a responsiveness summary document. After the close of the public comment period, DNR will make a final decision on the renewal application. The responsiveness summary and the final permit will be available to the public upon request.

Derek Wedemeier
Iowa Department of Natural Resources - Air Quality Bureau
6200 Park Ave
Ste #200
Des Moines, Iowa 50321
Phone: (515) 725-9520
E-mail: Derek.Wedemeier@dnr.iowa.gov

DNR concludes that:

1. DNR has authority under 455B.133 Code of Iowa to promulgate rules contained in 567 IAC Chapters 21-33, including, but not limited to, rules containing emission limits, providing for compliance schedules, compliance determination methods and issuance of permits.
2. DNR has the authority to issue operating permits for air contaminant sources and to include conditions in such permits under 455B.134 Code of Iowa.
3. The emission limits included in this permit are authorized by 455B.133 Code of Iowa and 567 IAC Chapters 21-33.
4. DNR is required to comply with 567 IAC Chapter 24 in conjunction with issuing a Title V Operating Permit.
5. The issuance of this permit does not preclude the DNR from pursuing enforcement action for any violation.

Title V Permit Renewal 4 Review Notes

Facility Name:	John Deere Ottumwa Works
City:	Ottumwa
County:	Wapello
Facility #:	90-01-003
EIQ #:	92-1316
Permit #:	03-TV-028R4
Reviewer:	Derek Wedemeier
Date:	**DATE**

Background:

John Deere Ottumwa Works has applied for a renewal of their Title V Operating Permit for their agricultural manufacturing facility located in Ottumwa. The facility submitted their Title V renewal application on 1/29/2024. The facility currently consists of twenty-nine (29) significant emission units and seventeen (17) insignificant emission units.

Title V Applicability

Pollutant	Major for Title V?
PM ₁₀	<input checked="" type="checkbox"/>
SO ₂	<input type="checkbox"/>
NO _x	<input type="checkbox"/>
VOC	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>
Lead	<input type="checkbox"/>
Individual HAP	<input type="checkbox"/>
Total HAPs	<input type="checkbox"/>

Program Applicability

- PSD: The facility is a Synthetic Minor for PSD for VOC. VOCs are limited to 220.0 tons per daily rolling 365-day period for all production surface coating and RIM processes. Facility also requested limits to remain an area source for HAPs for all production surface coating processes (6.5 tpy SHAP; 17.0 tpy THAP).
- Major Source of HAPs: No
- Part 61 NESHAP: Yes, This facility is subject only to the Subpart M NESHAP for the demolition and renovation of asbestos containing structures identified in 40 CFR 61.145.
- Part 60 NSPS: Yes
 - 40 CFR 60 Subpart A – General Provisions
 - 40 CFR 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (F EGEN)
- Part 63 NESHAP: Yes

- 40 CFR 63 Subpart A, National Emission Standards for Hazardous Air Pollutants for Source Category: General Provisions
- 40 CFR 63 Subpart CCCCC, National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities
- 40 CFR 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)
- Acid Rain: No.
- Stratospheric Ozone Protection: No.
- Prevention of Accidental Releases: No.

Emission Estimations

The potential emissions calculations were based off of construction permit limits, AP-42 emission factors, stack test data, mass balance and engineering estimates provided by the facility. The 500ppmv allowable SO₂ SIP limit overestimates the potential emissions. The AP-42 emission factors for SO₂, if available, were used instead and provide a more realistic potential value when compared to the previous year’s emissions inventory.

Emission Values

PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Lead	Total HAPs*
Potential Emissions								
133.07	132.39	132.38	0.45	75.49	224.29	63.25	0.03	18.65
Actual Emissions 2022*								
7.02	2.86	2.62	0.03	5.40	106.30	4.55	0.00	3.81

* Xylenes (mixed isomers) was the single HAP with the greatest PTE and reported emissions. Neither exceed the 10tpy major source threshold.

Reclassified as Insignificant Activities

Facility has requested the following emission units to be reclassified as insignificant activities. The PTE for these EUs meet the definition of Insignificant Activities defined in 567 IAC 22.103(2)(a).

- LASERS – Laser Cutting Facility-Wide
 - 3D PRINT – 3D Printers
- Additionally, the previously version associated VOC and HAP limits for a subset of equipment at the facility called “Production surface coating”. 3D PRINT is NOT of this category.

General Changes

- Permit number updated to 03-TV-028R4
- General Conditions were updated.
- New Responsible Official

Rescinded & Removed Equipment

Emission Point	Description	Construction Permit	Rescission Date
RRHA	RIM Holding Area	02-A-148-S6	8/28/2024
RIM MOLD/ WAX 1	RIM Mold/Wax 1	02-A-151-S9	8/28/2024
SC	Storage Cabinet	02-A-272-S3	8/28/2024
RIM OVEN	RIM OVEN	02-A-149-S2	8/28/2024
C3PS3B	RIM Adhesive Booth	87-A-029-S7	8/28/2024
RIM ISO TANK	RIM Isocyanate Tank	NA	7/24/2024
Insignificant Activities			
C3 CT	C3 Cooling Tower	NA	7/24/2024
L3 CT	L3 Cooling Tower	NA	7/24/2024
RIM POLY TANK	RIM Polyol Tank	NA	7/24/2024
RIM RINSE	RIM Rinse Tank	NA	7/24/2024
RIM WASH	RIM Wash Tank	NA	7/24/2024
C3SB	C3 Shot Blast	NA	7/24/2024
E3 CT	E3 Cooling Tower	NA	7/24/2024

*Email 7/24/2024. The facility identified that all RIM process equipment was in the process of being decommissioned and removed during the facility courtesy review period.

General Comments

C12TU

Operational conditions have been updated to include Production Surface Coating Operations requirements.

C12BO

This unit is subject to the facility-wide natural gas usage limit of 1,500,000,000 standard cubic feet (1500 MMcf) per 12-month rolling period. Utilized AP-42 Tables 1.4-2 and 1.4-3 for PTE calculations (Natural Gas Combustion). Hexane is the highest single HAP at 1.35 tpy and total HAP of 1.41 (Hexane and Formaldehyde) was reported by the facility.

CAP for Spray Booths and Booth Heaters

This CAP was issued in 2021 to update rated capacities, updated control device IDs, emission limits, amend operating limits and add pre-control PM emission limit. An update was issued in December 2024 to remove references to the former RIM process.

Emission units of the source type regulated by the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources of HAPs (40 CFR 63 Subpart HHHHHH; 567 IAC 23.1(4)"eh") To be subject to this standard the unit would have to use coatings that contain the target HAPs identified in the standard. Based on the information provided in the application, the coatings proposed to be used in this unit do not contain these target HAPs. Therefore, at this time, this unit is not subject to this standard. If the material used changes, these units may become subject to this standard. See periodic monitoring guidance section for additional discussion.

E2 – Wash & Oven

The construction permit was updated since the previous renewals which included decreasing PM limit and updating operating conditions.

E3PD – E3 Paint Dip Tank

The construction permit was updated since the previous renewal to include CAP operating limit for the Production surface coating and RIM outlined in Project 20-235.

E4 Oven – Stack characteristics corrected to vertical, obstructed.

WPR – Welding Operations. No changes.

EGEN & C EGEN

These engine are natural gas fired emergency generator engines. These units are part of the Production Surface Coating. Emission units are covered under the facility-wide natural gas usage limit and are subject to NESHAP ZZZZ.

F EGEN

This is a diesel emergency fire pump engine for F Building. It is subject to NESHAP ZZZZ and NSPS III.

GHG - The water heaters are not subject to NESHAP Subpart JJJJJ because they are natural gas-fired, but the units are subject to the facility-wide natural gas limit. Note that these natural gas-fired units could not be enumerated since the facility does not keep track of them individually because there is no requirement to do so.

Periodic Monitoring Guidance

CAP for Spray Booths and Booth Heaters have a pre-control PM limit for Paint Booths of 94.0 tons per daily rolling 365-day period to stay below the major source threshold and avoid CAM applicability. Operating Requirements and Associated Recordkeeping section of relevant construction permits contains specific requirements and frequency of pre-control PM recordkeeping to show compliance with pre-control emission limits. Agency O & M plans are required for these Paint Booths and are located in Appendix B of the Permit. The Agency O&M plan has been updated to specify inspection of equipment is not required on weeks (Sunday-Saturday) when the equipment does not operate. The facility is required to document this downtime.

C3PS-3-B and C12TU demonstrate a major uncontrolled PTE source for PM/PM10 but maximum potential sprayed, maximum solids content and transfer efficiency prevents reaching CAM applicability. An Agency O & M is in place for the control equipment. The Agency O&M plan has been updated to specify inspections of equipment is not required on weeks (Sunday-Saturday) when the equipment does not operate. The facility is required to document this downtime.

O&M Plan/CAM/Stack Testing Summary Table

EP	Construction Permit	Control Equipment	Type of O&M Plan	Stack Testing
C12TU	12-A-588-S4	CE C12TU: Cartridge Filter	Agency	No
C4PS1 – 4	See Permit	CE C4D1 Sheet Filters followed by CE C4D2: Bag Filters	Agency	No
C9RPS-1	12-A-403-S3	CE C9RPS-1: Dry Filters	Agency	No
C9RPS-2	12-A-404-S3	CE C9RPS-2: Dry Filters	Agency	No
C12PS1-B – 4-B	See Permit	CE C12PSW: Water Wall Scrubber	Agency	No
E3PS1-B – 4-B	See Permit	CE C3PS1-4: Dry Filters	Agency	No
L4PS	See Permit	CE L4PS: Dry Filters	Agency	No