

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) 22.107(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 Des Moines Works, located at 825 SW Irvinedale Drive, Ankeny, IA 50023 has applied for a significant modification to their Title V Operating Permit. The designated responsible official of this facility is Rosalind Fox.
2. John Deere Des Moines Works is a farm machinery and equipment manufacturer. This facility consists of 97 emission units with potential emissions of:

Pollutant	Abbreviation	Potential Emissions (Tons per Year)
Particulate Matter ($\leq 2.5 \mu\text{m}$)	PM _{2.5}	23.18
Particulate Matter ($\leq 10 \mu\text{m}$)	PM ₁₀	40.62
Particulate Matter	PM	41.89
Sulfur Dioxide	SO ₂	2.31
Nitrogen Oxides	NO _x	104.10
Volatile Organic Compounds	VOC	227.58
Carbon Monoxide	CO	70.25
Lead	Lead	0.01
Hazardous Air Pollutants ⁽¹⁾	HAP	15.26

⁽¹⁾ May include the following: acetaldehyde, acrolein, chromium compounds, cobalt compounds, cumene, ethyl benzene, formaldehyde, glycol ethers, hexane, manganese compounds, methanol, methyl isobutyl ketone, naphthalene, nickel, propionaldehyde, toluene, and xylenes.

3. John Deere Des Moines Works submitted nine modifications to their Title V Operating Permit on the following dates:
 - 7/21/2021
 - 5/16/2022
 - 11/14/2022
 - 1/25/2023
 - 8/25/2023
 - 11/21/2023
 - 2/2/2024
 - 4/19/2024
 - 8/21/2024

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 22.107.

4. DNR has complied with the procedures set forth in 567 IAC 22.107, including those regarding public notice, opportunity for public hearing, and notification of EPA and surrounding state and local air pollution programs.
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DNR procedures for reaching a final decision on the draft permit:

1. The public comment period for the draft permit will run from November 14, 2024 through December 13, 2024. During the public comment period, anyone may submit written comments on the permit. Mail signed comments to Riley Plagge at the Polk County 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 Riley Plagge 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.

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DNR concludes that:

1. DNR has authority under 455B.133 Code of Iowa to promulgate rules contained in 567 IAC Chapters 20-35, 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 20-35.

4. DNR is required to comply with 567 IAC Chapter 22 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 Application Review Notes R2-M001

Applicant:	John Deere Des Moines Works
SIC Code:	3523
City:	Des Moines
County:	Polk
EIQ#:	92-6800
Facility#:	77-01-035
Permit #:	04-TV-017R2-M001
Reviewer:	Riley Plagge
Date:	9/17/2024

Facility Identification

Facility Name:	John Deere Des Moines Works
Facility Location:	825 SW Irvinedale Drive
Responsible Official:	Rosalind Fox
Phone:	(515) 289-3001

The Part 70 Title V Operating Permit for John Deere Des Moines Works. The facility is a farm machinery and equipment manufacturer. The facility currently consists of 97 significant emission units and 21 insignificant emission units.

John Deere Des Moines Works has submitted nine modification applications, which were received on the following dates:

- 7/21/2021
- 5/16/2022
- 11/14/2022
- 1/25/2023
- 8/25/2023
- 11/21/2023
- 2/2/2024
- 4/19/2024
- 8/21/2024

This is a significant Title V modification according to 567 IAC 24.113(455B). This significant modification incorporates the nine modification applications identified above, and reflects the changes in construction permits including equipment, emission limits, operating requirements, and monitoring parameters.

The following amendments have been made to the Title V permit:

1. TV Permit number has been updated to 04-TV-017R2-M001 (pp. 1, 4, 10, 16 and footer).
2. Table of Contents page numbers updated (p. 2).
3. Facility Description and Equipment List updated (pp. 4-9).
4. The following Polk County Construction Permit modifications were incorporated:

- 1830 Modified #2 (pp. 4, 37-38)
- 2334 Modified (pp. 4, 39-40)
- 2919 Modified (pp. 5, 41-42)
- 1816 Modified (pp. 5, 46-47)
- 2122 Modified #11 (pp. 5-6, 57-60)
- 2069 Modified #11 (pp. 6-7, 61-62)
- 2233 Modified #8 (pp. 7-8, 12-14, 63-69)
- 2868 Modified (pp. 8, 77-80)
- 3547 (pp. 8, 81-87)
- 3788* (pp. 8, 88-90)

*Note: the correct emission standard for indirect fired sources was placed in the Title V permit, as the standard in the construction permit is incorrect.

5. The following Polk County Construction Permits were removed from the Title V:

- 0432
- 0890 Modified #3
- 2528
- 0902
- 1740 Modified
- 0807 Modified #2
- 0808
- 1829
- 2123
- 2087

6. The following insignificant units were removed from the Title V:

- 02-41

- 02-42
 - 02-43
 - 02-45
7. Insignificant unit 11-16 was added to the permit (p. 9).
 8. Plant-wide conditions updated to reflect current requirements (pp. 10-15).
 9. Operating limits for emission points 02-38, 02-39, and 03-02 were adjusted to reference plant-wide conditions for natural gas combustion (pp. 22-27).
Note: this change would not have normally been incorporated into this modification, as these emission points were not part of the modification applications. However, this was a change requested by the facility during facility review and agreed upon for consistency.
 10. General Conditions were updated (pp. 91-105).
 11. Appendix A (Web Links to Applicable Regulations) was updated (p. 106).
 12. Appendix B (Executive Order 10 (EO10) Rules Crosswalk) was added (p. 107).

Applicable Rules and Regulations

1. Plant-wide emission limits for coating operations consists of:
 - a. 220 TPY VOC
 - b. 6.0 TPY Single HAP
 - c. 15 TPY Total HAP
2. Facility Wide Opacity: Less than 20% opacity – Polk County Board of Health Rules and Regulations: Chapter V, Article IV, Section 5-9.
3. Title IV: Not applicable at this time.
4. Subject to 112(r) Prevention of Accidental Releases? No
5. PSD: Source is currently minor (PSD) for all pollutants and is not one of the 28 listed source categories.
6. NAAQS: Facility is located in an attainment area. Air modeling is not required at this time.
7. Stratospheric ozone: the only ozone depleting chemicals (regulated by 40 CFR 82) at the facility are those used for air conditioning. 40 CFR 82, Subpart F, applies to the disposal of appliances containing Class I or Class II substances (i.e. air conditioners).
8. CAM: A CAM plan remains in place for the D-20A North and South Paint Booths.
9. NESHAP: Yes
 - a. 40 CFR 63 Subpart ZZZZ: National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
 - b. 40 CFR 63 Subpart CCCCCC: National Emission Standards for Hazardous Air Pollutants for Source Categories: Gasoline Dispensing Facilities
 - c. Note: As of this modification, the facility has modified their permits to no longer be subject to 40 CFR 63 Subpart MMMM (National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products).
10. NSPS: Yes

- a. 40 CFR 60 Subpart Dc: Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
- b. 40 CFR 60 Subpart IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
- c. 40 CFR 60 Subpart JJJJ: Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

Periodic Monitoring and other Monitoring Considerations

All periodic monitoring requirements are in accordance with the Department's Periodic Monitoring Guidance Document. The following evaluations were done for equipment covered under this modification:

1. EU 11-09, Rotomold Oven, is an uncontrolled minor for all pollutants. Under DNR's Monitoring Guidance Policy, no additional monitoring is required.
2. EU 11-10, Rotational Engineering Model CH130, 700 lb/hr Rotomold Machine, is an uncontrolled minor for all pollutants. Under DNR's Monitoring Guidance Policy, no additional monitoring is required.
3. EU 11-13, Ovenpak LE Rotomold Machine Pre-cool and Cooling Chambers, is an uncontrolled minor for all pollutants. Under DNR's Monitoring Guidance Policy, no additional monitoring is required.
4. EU 11-15, Ovenpak LE Rotomold Machine oven, is an uncontrolled minor for all pollutants. Under DNR's Monitoring Guidance Policy, no additional monitoring is required.
5. EU 11-20, ALLtra Corporation Model Plasma Cutter, is an uncontrolled minor for all pollutants. Under DNR's Monitoring Guidance Policy, no additional monitoring is required.
6. EU 26-01, Wheelabrator Shot Blast, has a potential to emit that indicates it is uncontrolled significant for PM₁₀ (18.77 tons/yr) and controlled minor (1.88 tons/yr). Under DNR's Monitoring Guidance Policy, a Facility O&M Plan would typically be required, but in this case, the construction permit contains sufficient O&M requirements.
7. Grinding and Machining Operations (EU 02-G1, EU 02-G2A, EU 02-G2B, EU 02-G3B, EU 02-G3C, EU 02-G8, EU 02-G9, EU 02-G10, EU 02-G11, EU 02-G12, EU 02-G13, EU 02-G17, EU 02-G18, EU 02-G19, EU 02-G20, EU 02-G21, EU 02-G24, EU 02-G25, EU 02-G26, EU 02-G27, EU 02-G28, EU 02-G29, EU 02-G30, EU 02-G31, EU 02-G32, EU 02-G33, EU 02-G34, EU 02-G35, EU 02-G36, EU 02-G37, EU 12-G01, EU 12-G02, EU 12-G03, EU 12-G04, EU 12-G05, EU 12-G06): of the 36 units (all internally vented), the largest of the group is EU 02-G1 which has a potential to emit that indicates it is uncontrolled minor for PM₁₀ (8.8 tons/yr). Under DNR's Monitoring Guidance Policy, no additional monitoring is required.
8. Laser Cutters (EU 01-LC1, EU 01-LC2, EU 01-LC3, EU 01-LC4, EU 01-LC5, EU 01-LC6, EU 01-LC9, EU 01-LC10, EU 02-LC5, EU 26-LC6, EU 01-LC12, EU 01-LC13, EU 01-LC14, EU 01-LC15, EU 01-LC16, EU 01-LC17, EU 01-LC18, EU 01-LC19): of the 18 units (all internally vented), the largest of the group is EU 01-LC1 which has a potential to emit that indicates it is uncontrolled minor for PM₁₀ (8.8 tons/yr). Under DNR's Monitoring Guidance Policy, no additional monitoring is required.
9. A plant-wide VOC (220 tons/yr) and HAP (15 tons/yr) emission limits are in place for all spray coating operations (220 tons/yr). The individual units do not have VOC and HAP short term limits. Ongoing compliance with the bubble limit is determined by using the

recordkeeping stipulated in the construction permit. As such, there is no additional monitoring required in the Title V. These units are as follows:

- a. EU 01-TU, Vehicle Touch-up Paint Booth
 - b. EU 02-30, D-19 E-Coat Dip Tank
 - c. EU 03-03, D-20A Touch-up Paint Booth
 - d. EU 03-04, D-20A Black Paint Dip Tank
 - e. EU 03-21, D-20A North and South Paint Booths
 - f. EU 12-05, D-51 Maintenance Booth
10. EU 02-31, (5) 3.0 MMBtu Natural Gas Drying Burners, is an uncontrolled minor for all pollutants. Under DNR's Monitoring Guidance Policy, no additional monitoring is required.
 11. EU 03-25, 2.6 MMBtu Natural Gas Burner, is an uncontrolled minor for all pollutants. Under DNR's Monitoring Guidance Policy, no additional monitoring is required.
 12. EU 03-AMUN, 7.348 MMBtu Air Makeup Unit, is an uncontrolled minor for all pollutants. Under DNR's Monitoring Guidance Policy, no additional monitoring is required.
 13. EU 03-AMUS, 7.348 MMBtu Air Makeup Unit, is an uncontrolled minor for all pollutants. Under DNR's Monitoring Guidance Policy, no additional monitoring is required.
 14. EU 03-AMUV, 1.944 MMBtu Air Makeup Unit, is an uncontrolled minor for all pollutants. Under DNR's Monitoring Guidance Policy, no additional monitoring is required.
 15. EU 28-C1, Kubota Model 3800 Diesel Fired non-emergency Engine/Compressor, is an uncontrolled minor for all pollutants. Under DNR's Monitoring Guidance Policy, no additional monitoring is required.
 16. EU WH-01, Kohler Model REZXD Emergency Generator with Doosan Model D219L Natural Gas Engine, is an uncontrolled minor for all pollutants. Under DNR's Monitoring Guidance Policy, no additional monitoring is required.
 17. EU 03-05, Hurst Welding & boiler CO. Series 500 Natural Gas Boiler, is an uncontrolled minor for all pollutants. Under DNR's Monitoring Guidance Policy, no additional monitoring is required.