

# 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.

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

1. MTBT - Ottumwa, located at 600 S Iowa Ave has applied for a Title V Operating Permit. The designated responsible official of this facility is Shawn Rash.
2. MTBT - Ottumwa is an electric services facility. This facility consists of 1 emission unit with potential emissions of:

Pollutant	Abbreviation	Potential Emissions (Tons per Year)
Particulate Matter ( $\leq 2.5 \mu\text{m}$ )	PM <sub>2.5</sub>	0.53
Particulate Matter ( $\leq 10 \mu\text{m}$ )	PM <sub>10</sub>	0.53
Particulate Matter	PM	0.53
Sulfur Dioxide	SO <sub>2</sub>	2.50
Nitrogen Oxides	NO <sub>x</sub>	37.97
Volatile Organic Compounds	VOC	18.98
Carbon Monoxide	CO	94.92
Lead	Lead	0.00
Hazardous Air Pollutants <sup>(1)</sup>	HAP	3.79

<sup>(1)</sup> May include the following: Acetaldehyde, Acrolein, Benzene, Biphenyl, 1,3-Butadiene, Formaldehyde, Hexane, Methanol, Toluene, 2,2,4-Trimethylpentane, Xylene (mixed isomers).

This facility is not major on its own for Title V but major source status is determined by combining with JBS USA Pork, Facility ID #90-01-020 (not yet issued) as a single source. The potential to emit for NO<sub>x</sub>, VOC and CO from JBS USA Pork and MBTB – Ottumwa exceeds the major source threshold of 100tpy according to engineering evaluation for project 22-175.

3. MTBT - Ottumwa submitted a Title V Operating Permit application on Date and any additional information describing the facility on 6/18/2024. 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.

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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 January 16, 2025 through February 15, 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 permit 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 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 Initial Permit Review Notes

Applicant:	<b>MTBT - Ottumwa</b>
SIC Code:	4911 – Electric Services
City:	Ottumwa
County:	Wapello
EIQ#:	92-7005
Facility#:	90-01-070
Permit #:	25-TV-###
Reviewer:	Derek Wedemeier
Date:	**DATE**

### Facility Identification

Facility Name:	MTBT - Ottumwa
Facility Location:	600 South Iowa Avenue
Responsible Official:	Shawn Rash
Phone:	(830) 456-2241

### Background

MTBT – Ottumwa (MTBT) cogeneration system consists of one (1) new biogas-fired reciprocating internal combustion engine at the JBS Ottumwa Facility. The generator engine is powered entirely by biogas fuel produced at JBS USA (JBS) facility adjacent to the AES facility, providing power to JBS. The generator is owned and operated by MTBT. As such, the MTBT generator support for JBS and will be part of the same stationary source as the JBS Facility (and MTBT). The facility was required to apply for a Title V operating permit as the combined facility emissions are above Title V thresholds.

### Regulatory Status

#### **Title V Major Source by Pollutant**

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

This facility is not major on its own for Title V but major source status is determined by combining with JBS USA Pork (not yet issued). The potential to emit for NO<sub>x</sub>, VOC and CO from JBS USA Pork and MBTB – Ottumwa exceeds the major source threshold of 100tpy according to engineering evaluation for project 22-175.  
 Facility Wide – JBS and MTBT

Combined Emissions JBS and MTBT

Particulate Matter	PM	98.45
Particulate Matter ( $\leq 10 \mu\text{m}$ )	PM <sub>10</sub>	98.45
Particulate Matter ( $\leq 2.5 \mu\text{m}$ )	PM <sub>2.5</sub>	96.51
Sulfur Dioxide	SO <sub>2</sub>	65.03
Nitrogen Oxides	NO <sub>x</sub>	115.88
Volatile Organic Compounds	VOC	122.25
Carbon Monoxide	CO	155.53
Total Hazardous Air Pollutants	THAP	5.02

\*Established in engineering evaluation

**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 SO<sub>2</sub> SIP limit overestimates the potential emissions. The AP-42 emission factors for SO<sub>2</sub>, 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 <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Lead	Total HAPs
Potential Emissions								
0.53	0.53	0.53	2.50	37.97	18.98	94.92	0.00	3.79
Actual Emissions 2023								
0.17	0.17	0.17	0.04	5.66	0.09	9.38	0.00	1.18

\*Emission from MTBT only.

**Facility-wide limits.**

All combustion limits at JBS are limited to a combined 95.0 tpy on a rolling 12-month period.

**Applicability Requirements:**

- 40 CFR 60 Subpart A – General Provisions
- 40 CFR 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines - The affected unit is EU1.
- 40 CFR 63 Subpart A – General Provisions
- 40 CFR 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The affected units is EU1.

**General Comments:**

During facility review, the Permit Contact was changed to Troy Moran, Title: Ally Energy Solutions Executive VP, Mailing Address: 6923 S Owens St, Littleton, CO 80127, Phone #: (303) 500-1099.

## **Emission Points/Units**

### **EP1: Biogas Generator**

This generator is rated at 1966 bhp (20,120 cf/hr biogas consumption), and will be subject to NSPS Subpart JJJJ and NESHAP Subpart ZZZZ. As per NSPS Subpart JJJJ, the facility is required to conduct an initial stack test one year after engine startup. This test was completed on 10/12/2023 and passed. Subsequent testing is required every 8760 hrs or 3 years. The engine type is a non-certified, Landfill/Digester Gas unit with a horsepower greater than 500 hp.

Biogas generated by JBS will be treated by using a closed system scrubber to remove H<sub>2</sub>S from the system. Maximum expected H<sub>2</sub>S concentration has been used to determine SO<sub>2</sub> emissions from the generator conservatively assuming that all sulfur will be converted to SO<sub>2</sub>.

Operating condition have been updated to remove the initial 6 month sampling requirements. These four (4) sampling events have been completed and approved by the Department in email correspondence dated 3/12/2024. Annual sampling requirement of H<sub>2</sub>S remains. The operational start date for EP1 was on 6/19/2023 according to the MTBT – Ottumwa.