

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. JBS USA Pork, located at 600 South Iowa Avenue, Ottumwa, IA 52501 has applied for a Title V Operating Permit. The designated responsible official of this facility is Jonathan Hopkins.
2. JBS USA Pork is a meat packing plant. This facility consists of 24 emission units with potential emissions of:

Pollutant	Abbreviation	Potential Emissions (Tons per Year)
Particulate Matter ($\leq 2.5 \mu\text{m}$)	PM _{2.5}	62.55
Particulate Matter ($\leq 10 \mu\text{m}$)	PM ₁₀	62.55
Particulate Matter	PM	62.55
Sulfur Dioxide	SO ₂	54.84
Nitrogen Oxides	NO _x	95.00
Volatile Organic Compounds	VOC	31.85
Carbon Monoxide	CO	96.40
Lead	Lead	0.00
Hazardous Air Pollutants ⁽¹⁾	HAP	6.08

⁽¹⁾ May include the following: Formaldehyde and Hexane.

This facility is not major on its own for Title V but major source status is determined by combining with MTBT – Ottumwa, Facility ID #90-01-070 (not yet issued) as a single source. The potential to emit for NO_x, 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. JBS USA Pork submitted a Title V Operating Permit application on Date and any additional information describing the facility on June 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.

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

1. The public comment period for the draft permit will run from March 27, 2025 through April 26, 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:	JBS USA Pork
SIC Code:	2011 – Meat Packing Plants
City:	Ottumwa
County:	Wapello
EIQ#:	92-1628
Facility#:	90-01-020
Permit #:	24-TV-###
Reviewer:	D Wedemeier
Date:	**DATE**

Facility Identification

Facility Name:	JBS USA Pork
Facility Location:	600 South Iowa Avenue
Responsible Official:	Jonathan Hopkins
Phone:	641-683-4702

Background

JBS USA Pork is a hog processing and meat packing plant (SIC 2011). This facility, formerly Cargill Meat Solutions, was acquired by JBS in 2015. The facility consists of 16 emission points with 24 emission units and 9 insignificant units. The Title V application for an initial Title V permit was received on June 18, 2024.

Regulatory Status

Title V Major Source by Pollutant

Pollutant	Major for Title V?
PM ₁₀	<input type="checkbox"/>
SO ₂	<input type="checkbox"/>
NO _x	<input type="checkbox"/>
VOC	<input type="checkbox"/>
CO	<input 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 MTBT – Ottumwa, Facility ID #90-01-070 (not yet issued). The potential to emit for NO_x, 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

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

Applicability Requirements:

- 40 CFR 60 Subpart A – General Provisions
- 40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units – The affected unit is EP-30.
- 40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines - The affected units are EP-26, EP-27, EP-28, and EP-31.
- 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 are EP-26, EP-27, EP-28, EP-31, and EP-32.
- 40 CFR 63 Subpart JJJJJ - National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial and Institutional Boilers. The affected units are EP-2 and EP-3.

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								
62.55	62.55	62.55	54.84	95.00	31.85	96.40	0.00	6.08
Actual Emissions 2023								
13.68	13.68	13.68	25.88	28.65	6.57	20.33	0.00	0.45

Facility-wide limits.

All combustion units at JBS are limited to a combined 95.0 tpy of NO_x on a rolling 12-month period. This includes all emission points, excluding EP-20.

Emission Points/Units Specific Comments

EP-02 & EP-03:

Boilers 2 & 3 shall not exceed 688,786 gallons per 12-month rolling period of distillate oil and grease/tallow. Boiler 1 (removed, rescinded 12/20/2024) is referenced in the construction permits however this has been removed. The Title V does not reference Boiler 1. Allowable fuels for these boilers include natural gas, distillate oil, or grease/tallow. These engines are subject to NESHAP JJJJJ. Application documents list 6J is not applicable but that would only be true if natural gas and biogas were the only allowable fuels.

Periodic monitoring guidance recommends one (1) test for NO_x for each unit. The monthly NO_x recordkeeping satisfy the need for testing for these units during this permit period.

EP-10: Blood Dryer and Disc Cooker

This emission point is controlled by a venturi scrubber and packed bed scrubber (CE-10). These emission units are not subject to any NSPS or NESHAP. Operational conditions require PM and PM₁₀ emission calculations on a rolling 12-month total along with NO_x calculation tracking. Periodic monitoring guidance suggestions one (1) stack test for PM and PM₁₀. This will be required to be completed within 2 years of permit issuance. An Agency O&M plan is required for CE-10 and was provided following the facility review. CAM is not required for this unit because precontrol emission do not exceed the major source threshold on a per unit basis.

EP-12: Waste Bio Gas Flare

The flare and Boiler #4 are limited to 150.0 million cubic feet per rolling 12-month period. The construction permit references former Boiler #1 however this has been updated to Boiler #4 since Boiler #1 no longer exists. Periodic monitoring guidance suggests one (1) stack test for SO₂. Recordkeeping requirements in the permit will satisfy the testing requirement.

EP-14: Hog Singer #2

This emission point was modified in 2016 which required the issuance of construction permit 16-A-136. The emission point has PM, PM₁₀, SO₂, and NO_x emission limits. This unit is subject to the facility wide NO_x limit. EU-14 shall be fired by natural gas only.

EP-20: Rendering Room

This emission point is subject to PM, PM₁₀, VOC, and HAP limits. VOC and HAP emissions are from the scrubbing liquor additives only. The PM and PM₁₀ emissions are controlled by scrubber CE-20. Periodic monitoring guidance suggest one (1) stack test for PM and PM₁₀ and is required to be completed within 2 years of permit issuance. An Agency O&M plan is required for CE-20 for PM₁₀ and was provided following the facility review. CAM is not required for this unit because precontrol emission do not exceed the major source threshold on a per unit basis.

EP-23 & EP-24: Smokehouse #1 & #2

The smokehouse shall be heated by natural gas only. Generators from each emission point shall not be operated more than 5,450 hours per stack per year. Stack testing was completed at EP-24 for CO on 4/20/2020. Results were passing at 0.026 lb/lb of wood (limit: 0.54 lb/lb wood) & 1.5

lb/hr (limit: 3.25 lb/hr). No additional periodic monitoring is required for the control equipment CE-23 and CE-24, spray chambers/scrubbers. These spray chamber scrubbers offer 20% control for PM/PM10 and 40% for VOCs. CE-01 forms for CE23, CE24, and CE25 list incorrect control values. The correct control values are listed in CE-29 according to supporting documents of the application. CAM does not apply because precontrol emission do not exceed the major source threshold.

EP-25: Smokehouse #3

The smokehouse shall be heated by natural gas only and generators shall not be operated more than 5,450 hours per year, combined. Construction permit 14-A-073-S1 required CO stack testing at one of the three (3) smokehouses. As stated above, testing was completed at EP-24 in 2020. Similar to the other smoke houses, the spray chamber scrubber offer 20% control for PM/PM10 and 40% for VOCs. No additional periodic monitoring is recommended for the control equipment CE-25, spray chamber scrubber. CAM does not apply because precontrol emission do not exceed the major source threshold.

EP-26 & EP-27: Emergency Diesel Engines

These 909 bhp, diesel fueled, emergency engines are subject to NSPS IIII and NESHAP ZZZZ. Operational limits and Reporting/Record keeping requirement F has been updated to include 40 CFR 1090.305. The construction permit contains an outdated reference number.

EP-28: Bacon Generator

This 72.6bhp, diesel fueled, emergency engine is subject to NSPS IIII and NESHAP ZZZZ.

EP-29: Smokehouse #4

The smokehouse shall be heated by natural gas only and generators shall not be operated more than 5,450 hours per year, combined. The construction permit was modified to limit wood chip burning capacity in 2021. Similar to the other smoke houses, the spray chamber scrubber offer 20% control for PM/PM10 and 40% for VOCs. Construction permit 19-A-522 required initial stack testing for Opacity, PM, PM10, and CO. The first round of testing failed on 8/10/2020 for CO and rejected for PM and PM10. A second and third round of testing were completed along with a construction permit modification requiring CO testing every 3 years. The sampling due date of 11/10/2023 was not met with testing completed on 7/2/2024. Production data for the July 2024 test was submitted with the compliance report indicated the source was running at 30.66 lb/hr of wood chips, 51.1% of maximum capacity. Due to the low production rate during testing the CO lb/hr results are not acceptable as a compliance demonstration. The facility was required to submit a compliance plan by 10/5/2024. The plan was submitted on 10/4/2024 and called for retesting on 11/6-7/2025. Testing was completed on 11/6/2024 but failed due to testing below the maximum continuous output. JBS was required to submit a compliance plan by 1/10/2025 and scheduled to retest on 1/15 & 1/16/2025. Test results were reviewed by the Department. Results were passing with an average of approximately 92% of the emission limit.

Periodic monitoring guidance does not recommend additional monitoring for the control equipment CE-29, spray chamber scrubber. CAM does not apply because precontrol emission do not exceed the major source threshold of 100tpy.

EP-30: Boiler #4

Construction permit 19-A-521 was issued in 2019 to construct Boiler #4 which replaced EP-01 (Boiler #1). Boiler #4 is a new natural gas and biogas fired boiler with a rated capacity of 75.4 MMBtu/hr. EP-30 is subject to NSPS Dc. Construction permit 19-A-521 establishes operating limits for maximum fuel usage over a 12-month rolling period and is required to calculate and record rolling 12-month NOx emissions.

Boilers 4 is of the source category for Subpart National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial and Institutional Boilers [40 CFR Part 63 Subpart JJJJJ]. However, the boiler is exempt from the rule because the boiler is allowed to burn only natural gas or biogas as fuel.

Periodic monitoring suggests one (1) stack test for SO₂ and NOx. This test will be required within 2 years of permit issuance.

EP-31: Non-emergency Generator: 180 bhp diesel fueled engine is subject to NESHAP ZZZZ and NSPS III. Model year 2007, constructed 6/7/2027

EP-32: LP Emergency Generator: 148 bhp spark ignition emergency engine. Model year 1998 subject to NESHAP ZZZZ.

Insignificant Activities

13 – Construction date of November 2006

17 through 19 – These fugitive units have been in place since plant startup in 1975. These units meet the exemption in 567 IAC 24.103(2)"a" for PM_{2.5}.

Insignificant unit 17: Original application form 1.3 reports a PTE of 5420 lb/yr (2.71tpy) for PM, PM₁₀, and PM_{2.5}. This exceeds the insignificant unit threshold of 2.5tpy for PM₁₀. Following the facility review, JBS provided updated calculation with new emission factors better suited for meat and bone grinding. Based on these new values EU-17 meets the criteria for an insignificant unit.

Compliance Summary Table

Emission Point	Construction Permit	Control Equipment	Type of O&M Plan	Stack Test – Required by	NESHAP	NSPS
EP-02	75-A-208-S7	-	-	-	JJJJJ	-
EP-03	75-A-209-S7	-	-	-	JJJJJ	-
EP-10	97-A-294-S4	CE-10: Scrubber	Agency	Title V: PM & PM10	-	-
EP-12	01-A-1127-S3	-	-	NA - Recordkeeping	-	-
EP-14	16-A-136	-	-	-	-	-
EP-20	10-A-516-S2	CE-20: Scrubber	Agency	Title V: PM & PM10	-	-
EP-23	14-A-071-S1	CE-23: Spray Chamber	-	-	-	-
EP-24	14-A-072-S1	CE-24: Spray Chamber	-	-	-	-
EP-25	14-A-073-S1	CE-25: Spray Chamber	-	-	-	-
EP-26	14-A-406	-	-	-	<i>ZZZZ</i>	III
EP-27	14-A-407	-	-	-	<i>ZZZZ</i>	III
EP-28	NA	-	-	-	<i>ZZZZ</i>	III
EP-29	19-A-522-S1	CE-29: Spray Chamber	-	Con. Permit – CO	-	-
EP-30	19-A-521	-	-	Title V- SO ₂ & NO _x	-	Dc
EP-31	NA	-	-	-	<i>ZZZZ</i>	III
EP-32	NA	-	-	-	<i>ZZZZ</i>	-