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. Smithfield Fresh Meats Corporation, located at 800 Industrial Drive, Denison, IA 51442, has applied for a Title V Operating Permit. The designated responsible official of this facility is Darrin Walker.

2. Smithfield Fresh Meats Corporation is a meat smoking and packing facility. This facility consists of 24 emission units with potential emissions of:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Abbreviation</th>
<th>Potential Emissions (Tons per Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate Matter (≤ 2.5 µm)</td>
<td>PM&lt;sub&gt;2.5&lt;/sub&gt;</td>
<td>44.99</td>
</tr>
<tr>
<td>Particulate Matter (≤ 10 µm)</td>
<td>PM&lt;sub&gt;10&lt;/sub&gt;</td>
<td>44.99</td>
</tr>
<tr>
<td>Particulate Matter</td>
<td>PM</td>
<td>83.09</td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>SO&lt;sub&gt;2&lt;/sub&gt;</td>
<td>1.11</td>
</tr>
<tr>
<td>Nitrogen Oxides</td>
<td>NO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>75.76</td>
</tr>
<tr>
<td>Volatile Organic Compounds</td>
<td>VOC</td>
<td>48.65</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>CO</td>
<td>221.03</td>
</tr>
<tr>
<td>Lead</td>
<td>Lead</td>
<td>0.00</td>
</tr>
<tr>
<td>Hazardous Air Pollutants&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>HAP</td>
<td>6.31</td>
</tr>
</tbody>
</table>

<sup>(1)</sup> May include the following: Acetaldehyde, Acrolein, Arsenic, Benzene, Benzo(a)pyrene, Beryllium, 1,3-Butadiene, Cadmium, Chromium, Cobalt Compounds, Dichlorobenzene(p)1,4, Formaldehyde, Hexane, Manganese, Mercury, Methanol, Naphthalene, Nickel, Selenium compounds, Toluene and Xylene.

3. Smithfield Fresh Meats Corporation submitted a Title V Operating Permit application on October 10, 2019 and any additional information describing the facility on February 24, 2020. 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.
DNR procedures for reaching a final decision on the draft permit:

1. The public comment period for the draft permit will run from March 26, 2020 through April 25, 2020. During the public comment period, anyone may submit written comments on the permit. Mail signed comments to Rayeann Archibald 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 Rayeann Archibald 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 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 Permit Initial Review Notes

Facility Name: Smithfield Fresh Meats Corp.
City: Denison
County: Crawford
Facility #: 24-01-001
EIQ #: 92-1927
Initial Application Received: 10/10/2019
Reviewer: Rayeann Archibald

Background:
Smithfield Fresh Meats Corporation has applied for an initial Title V Operating Permit for their meat smoking/packing facility located in Denison. The facility currently consists of twenty-four (24) significant emission units and twenty (20) insignificant emission units. Application was received October 10, 2019.

Title V Applicability

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Major for Title V?</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM$_{10}$</td>
<td></td>
</tr>
<tr>
<td>SO$_2$</td>
<td></td>
</tr>
<tr>
<td>NO$_x$</td>
<td></td>
</tr>
<tr>
<td>VOC</td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>☒</td>
</tr>
<tr>
<td>Lead</td>
<td></td>
</tr>
<tr>
<td>Individual HAP</td>
<td></td>
</tr>
<tr>
<td>Total HAPs</td>
<td></td>
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</table>

Program Applicability

- PSD: Facility is a synthetic minor stationary source for PSD program. Facility is a major stationary source for purposes of Title V due to Carbon Monoxide emissions.
- Part 61 NESHAP: no
- NSPS: Yes
  - 40 CFR 60 Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
- Major Source of HAPs: No
- Part 63 NESHAP: Yes
Insignificant Activities
Gasoline Tank (500 gallons) is used for company maintenance trucks and gas-powered maintenance equipment. This tank is subject to 40 CFR 63 Subpart CCCCCC. Facility purchased 1,029 gallons in 2019 for an average of 102.9 gallons per month (Facility email 11/12/2019).

EU 43 – 54 – Assigned by DNR as not provided by the facility.

Rescinded Construction Permit
97-A-052-S2

The facility will be submitting a letter requesting to rescind Permit #78-A-104-S3.

General Comments
The average emission factors for meat smokehouses are shown in AP42 Tables 9.5.2-1 and 9.5.2-2. These emission factors are presented in units of mass of pollutant emitted per mass of wood used to generate smoke. Normally, emission factors are based on either units of raw material or units of product. In this industry, the amount of smoke flavor applied to the meats varies; consequently the emissions are dependent on the quantity of wood (or liquid smoke) used, rather than the quantity of meat processed. The emission factors presented in Tables 9.5.2-1 and 9.5.2-2 were developed using data from only two facilities and, consequently, may not be representative of the entire industry.

Per Construction Permit Project 18-302, Smokehouse #7 (EU-15) will be replaced with a "replacement-in-kind." As a result, Permit Number 78-A-104-S3 will require rescission when Smokehouse #7 (EU-15) is decommissioned.

Boilers #1-4, 6 are of the source category but not subject to 40 CFR Part 63, Subpart JJJJJJ (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources), because each of these units meets the definition of "gas-fired boiler" in §63.11237 of Subpart JJJJJJ.

Emission Units 9, 10, 11, 12, 13, 14, 15A – PTE calculations in spreadsheet represent Natural gas combustion (emission factors from AP-42).

PTE calculations: CO annual emissions for wood (Smokehouses) – subtracted the natural combustion CO emissions

CO emission factor for wood - The Department determined the upper level emission factor of the 95% confidence interval for the May 2019 stack test as 599.70 lb CO/ton wood.
**Periodic Monitoring Guidance**
Packed Bed Scrubber for EP-31 (Rendering Process) is for odor control.

EP-42 requires a Facility O & M plan for PM and PM$_{10}$. Operating Requirements with Associated Monitoring and Recordkeeping contain sufficient monitoring. Department waives O & M plan.

**Compliance Assurance Monitoring**
Not subject to CAM at this time. Uncontrolled emissions are below major threshold.