

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY  
NOTICE OF CONSTRUCTION

IN THE MATTER OF APPROVING )  
OPERATION FOR ) APPROVAL ORDER NO. 13AQ-E526  
TYSON FRESH MEATS, INC. )

TO: Mr. Brad Shafer, Complex Manager  
Tyson Fresh Meats, Inc.  
P.O. Box 4239  
Pasco, WA 99302

The Tyson Fresh Meats facility is located approximately 12 miles southeast of Pasco on U.S. Highway 12. The legal description for the general location is the NE¼, of the NE¼, of Section 34, Township 8N, and Range 31E of Willamette Meridian in Walla Walla County.

Equipment Evaluated for this approval order consists of the following:

1. ~~Decontamination Cabinets (4)~~
  - a. ~~Pasteurization (SPS)~~
  - b. ~~Post-pasteurization Acid~~
  - c. ~~Pre-evisceration Acid~~
  - d. ~~Carcass Wash Acid~~
  - e. ~~Head Wash~~
  - f. ~~Heart Wash~~
2. ~~Meat Cutting/Packing~~
3. Inedible By-product line with:
  - a. Cookers (9)
  - b. Perk Pans (No Emissions)
  - c. Grease Centrifuge (Tallow)
  - d. Strainer Screw (Solids) (No Emissions)
  - e. Dupps Presses (2)
  - f. Crax (Solids) Indoor Loadout (via Truck)
  - g. Hammermill
  - h. Inedible Rotex Screen
  - i. Crax Bin
  - J. Inedible Silo
  - k. Outdoor Shipping via rail or truck (Meat & Bone Meal) .

4. Edible By-Product Line with:
  - a. Duske Dryer
  - b. Rotex Screen (separates inedible Lo Pro and gel Bone)
  - c. Lo Pro Loadout (Indoor via Truck)
  - d. Forsberg Screen with Cyclone (Emissions accounted for in Edible Room Air)
  - e. Lo Pro Storage Bins (2)
  - f. Gel Bone Loadout (Outdoor via Truck)
5. Blood Processing Line with:
  - a. Coagulator/ Centrifuge
  - b. Blood Dryer
  - c. Disintegrator (part of Blood Dryer)
  - d. Blood Silo
  - e. Blood Loadout (Outdoor via Truck)
  - f. Raw Blood Tank
6. ~~Wastewater Flotation Rendering Line with:~~
  - ~~a. Flotation Cell Tank~~
  - ~~b. Centrifuges (2)~~
  - ~~c. Skim Tank~~
7. Hide Processing Line with:
  - a. Salter Raceway (No Emissions)
  - b. Cutting Area (No Emissions)
  - c. Fleshing Tank
8. ~~Utility Equipment~~
  - ~~a. Air Make-up Units and Building Heaters (30) Propane or Natural Gas total 23.24 mmBTU/hr~~
  - ~~b. Boilers (5)~~
    - ~~i. No. 1: CB 786-500, 20.92 mmBTU/hr~~
    - ~~ii. No. 2: CB 786-500, 20.02 mmBTU/hr~~
    - ~~iii. No. 3: CB 786-200, 8.38 mmBTU/hr~~
    - ~~iv. No. 4: Johnston 535 ACG, 31.5 mmBTU/hr~~
    - ~~v. No. 5: Johnston PFTA 750-4, 30.53 mmBTU/hr~~
  - ~~c. Miscellaneous Propane Heaters~~
    - ~~i. Salamanders (5) total 0.66 mmBTU/hr~~
    - ~~ii. Supply Room Heaters (3) total 0.325 mmBTU/hr~~
  - ~~ci. Diesel Driven Fire Pump, 222 hp~~
  - ~~cii. Jarvis Vacuum Pump - Vane Style~~

9. Pollution Control Equipment including:
  - a. Spray Chamber /Filter Scrubber (24,000 scfm)
  - b. Packed Bed Tower Scrubber (42,000 scfm)
  - c. Venturi Scrubber (14,000 scfm)
  - d. Packed Bed Tower Scrubber (75,000 scfm)
  - e. Venturi Scrubber (20,000 scfm)
  - f. Wet Cyclone (26,000 scfm)
  - g. Dry Cyclone (2,500 scfm)
10. ~~Other~~
  - a. ~~Salt Loadout via Rail~~
  - b. ~~9000 Gallon Diesel Tank~~
  - e. ~~1800 Gallon Gasoline Tank~~
  - d. ~~Paved Roads~~

## DETERMINATIONS

In relation to the above equipment and the evaluation outlined in the Technical Support Document associated with this Order, the Department of Ecology, State of Washington, pursuant to RCW 70.94.152, WAC 173-400-110, and ~~WAC 173-460-040~~, makes the following determinations:

1. The proposed new source of air contaminants, if operated as herein required, will be in accordance with applicable rules and regulations, as set forth in Chapter 173-400 WAC ~~and 173-460 WAC~~ and the operation thereof, at the location proposed, will not result in ambient air quality standards being exceeded.
2. The proposed modifications and changes, if operated as herein required, will provide all known, available, and reasonable methods of emission control.

**THEREFORE, IT IS ORDERED** that the project as described in the Notice of Construction application and more specifically detailed in plans, specifications, and other information submitted to Ecology is approved for construction and operation, provided the following conditions are satisfied:

## APPROVAL CONDITIONS

### 1. ADMINISTRATIVE

This Approval Order replaces and rescinds Approval Order Nos. 99AQ-EI 16, First Amendment, 01AQER-2077, 02AQER-5074 First Amendment, and 06AQ-EI 76.

2. Duske Dryer

- a. The Duske Dryer and Cyclone shall be limited to producing no more than 49,421 tons per year of finished product ~~and consumption of no more than 128 million cubic feet /of natural gas per year. Natural gas consumption records for the dryer shall be maintained for the most recent 24 month period and be available to Ecology for inspection. An increase in natural gas consumption that exceeds the above level may require a Notice of Construction.~~
- b. Venturi and Wet Scrubber: Differential pressure shall be monitored across the odorous and scrubbed exhaust streams. Scrubber liquid flow shall be monitored through portable flowrate meter testing of scrubber liquid flows.

3. ~~Boilers~~

- ~~a. The 5 boilers shall use natural gas exclusively.~~
- ~~b. The total natural gas usage for all 5 boilers shall not exceed 956.3 million standard cubic feet per year.~~
- ~~c. Boiler 5 exhaust shall not exceed the following mass emission limits:~~
  - ~~i. NOx: 0.035 lb/MMBtu, 1.07 lb/hr, (30 ppmv)~~
  - ~~ii. CO: 0.07 lb/MMBtu, 2.14 lb/hr, (60 ppmv)~~

4. Heater

- ~~a. Annual fuel consumption shall be limited to no more than 48.44 million cubic feet of natural gas per calendar year total for the 5.64 MMBtu heater.~~

5. Decontamination Units

- ~~a. Only USDA approved chemical solutions with a maximum acid concentration of 5.0 weight percent shall be used in the decontamination cabinets.~~
- ~~b. Consumption of acid solutions in the pre-evisceration cabinet shall be limited to 2 gallons per minute (rated capacity).~~
- ~~c. Consumption of acid solutions in the pasteurization/acid wash cabinet shall be limited to 15 gallons per minute (rated capacity).~~
- ~~d. Volatile Organic Compounds (VOC) shall not exceed 0.60 pounds per hour from the pasteurization/acid wash exhaust stack.~~

6. Process emission points

Rendering and blood drying operations will be limited by restricting finished product throughput and hours of operation as follows:

- a. The blood drying production rate (ten percent moisture product) shall not exceed 1,711 lbs/hr, or 5990 tons/yr.
- b. The edible rendering production rate (gel bone, edible Lo Pro) shall not exceed 13,200 lbs/hr, or 49,421 tons/yr.
- c. The inedible rendering production rate (crax and tallow and inedible Lo Pro) shall not exceed 7,300 lbs/hr or 22,891 tons/yr.

- d. Blood drying and rendering activities at this facility shall not exceed 7,488 hrs/yr.
- e. ~~Odor from Packed Bed Scrubbers 1 and 2 exhaust gases shall be controlled by using the NALCO chemical system or one of the following systems:~~
  - i. ~~A ten percent solution of sodium hypochlorite to oxidize odorants, maintaining a chlorine residual of greater than 25 ppmw with a 50 percent solution of sodium hydroxide (caustic) to maintain a pH of greater than eight, or~~
  - ii. ~~Chlorine dioxide to maintain a chlorine dioxide residual Oxidation Reduction Potential (ORP milivolts (mv)) as follows:~~
    - ~~Packed Bed Scrubber 1 (42,000 sefm): October-May  $\geq +325$  mv,~~  
~~June-September  $\geq +375$  mv.~~
    - ~~Packed Bed Scrubber 2 (75,000 sefm): October-May  $\geq +325$  mv,~~  
~~June-September  $\geq +375$  mv.~~
- f. The exhaust air stream temperature shall be maintained less than 120 °F in both packed bed scrubbers at all times.

#### 7. All Emission points

- a. The particulate matter (PM<sub>10</sub>) from all exhaust stacks on site shall be less than or equal to 0.010 grains of PM<sub>m</sub> per dry standard cubic foot.
- b. Visible emissions shall be no more than ten percent (10%) opacity as measured by 40 CFR 60 Appendix A, Method 9 from any process emission point at the facility.

#### 8. Source Testing Requirements

- a. Compliance with Condition 7.a. for the Packed Bed Scrubbers 1 and 2, shall be demonstrated by source testing Scrubber exhaust front and back half in accordance with Condition 9 (PM<sub>10</sub> per Title 40 CFR 60, Appendix A, Method 5 with 40 CFR 51, Appendix M, Method 202), within 90 days after issuance of this Order. After initial testing, source testing of the Packed Bed Scrubbers 1 and 2 will be required every 5 years.

#### 9. COMPLIANCE TESTING

Source testing under Washington Administration Code (WAC) 173-400-105(4) may be required at Ecology's discretion to verify emission limits are met as listed in the above Approval Conditions.

- a. Performance testing shall utilize the following test methods unless an alternative method is requested by the permittee and approved by Ecology in writing:
  - i. Visual determination of the opacity emissions from stationary sources per Title 40 Code of Federal Regulations, Part 60, Appendix A, Method 9. (referenced as Method 9)
  - ii. ~~PM per Title 40 CFR 60, Appendix A, Method 5.~~
  - iii. PM<sub>10</sub> per 40 CFR 60, Appendix A, Method 5 with 40 CFR 51, Appendix M, Method 202
  - iv. ~~NO<sub>x</sub> per 40 CFR 60, Appendix A, Method 7E~~

- v. ~~CO per 40 CFR 60, Appendix A, Method 10~~
- vi. ~~Plant surveys for the presence of opacity from control devices shall be performed using the techniques and procedures in 40 CFR 60, Appendix A, Method 22.~~
- b. Testing Logistics - The permittee shall provide testable emission points, sampling ports, safe access to sampling points and ports, and utilities for sampling and testing.
- c. Number of Test Runs - Performance or compliance testing of each piece of pollution control equipment shall consist of three separate runs of at least 60-minutes each.
- d. Throughput during Testing - During testing, the process shall be operated at a minimum of ninety percent (90%) of rated capacity for equipment with less than 12 months operating history, or 90 to 110% of the maximum process rate recorded during the preceding 12 month period for equipment operated for 12 months or more. Operation of the process during testing outside of the specified range may be proposed, but may result in an operational restriction that will be amended to this Approval Order.
- e. Submittal of Performance Test Plan - A written test protocol that includes a description of the equipment to be tested, the process and control device operating information to be collected during the test, and the sampling and analytical method(s) proposed, shall be submitted to Ecology at least 30 calendar days prior to the start of any performance test.
- f. Notification of Inability to Conduct Performance Test - If the permittee is unable to conduct any performance test as scheduled, Ecology shall be notified at least 24-hours before the test at the address under "Reporting", Condition 13, or via telephone at 509-329-3400.
- g. Plant Operator during Testing - The plant process equipment shall be operated and controlled by normal plant operators during the period when the performance testers are on-site to conduct testing and during actual testing.
- h. Performance or Compliance Testing Results - The results of all initial performance testing and all other periodic performance testing shall be sent to the address at APPROVAL CONDITION 13. One copy of the completed test report shall be submitted no later than 60-days after the last day of the testing.

## 10. MONITORING REQUIREMENTS

- a. The following parameter instrumentation shall be maintained for accuracy on the specified air pollution control equipment:
  - i. Packed Bed Scrubbers 1 and 2: Liquor flows (recirculation, blowdown), differential pressure, liquor temperature.
  - ii. ~~Packed Bed Scrubbers 1 and 2: pH when using sodium hypochlorite, and oxidation reduction potential (ORP) when using the NALCO chemical system, sodium hypochlorite or chloride dioxide.~~
  - iii. Venturi Scrubbers 1 and 2: Liquor flows (recirculation, blowdown), and differential pressure.

- iv. Spray Chamber Scrubber: Liquid flows (recirculation, blowdown), and differential pressure.
- v. Duske Dryer Wet Cyclone: Liquor flows (recirculation, blowdown), and differential pressure.
- b. ~~Periodic combustion analysis of the boilers 1-5 to maintain operational efficiency shall be performed.~~

## 11. RECORDKEEPING REQUIREMENTS

Specific records shall be kept on-site by Tyson Fresh Meats and made available for inspection by Ecology upon request. The records shall be organized in a readily accessible manner and cover a minimum of the most recent 60-month period. The records to be kept shall include the following:

- a. ~~For boiler 5, recordkeeping frequency as contained in 40 CFR 60.48c(g) has been reduced from daily to monthly because the boiler uses natural gas only. The amount of fuel used each month shall be recorded and retained by the operator for a period of at least two years as required in 60.48c(i).~~
- b. ~~For the boilers 1-5: Nitrogen oxide and carbon monoxide combustion analysis measurements, and operations rate in percentage during measurement, shall be recorded and submitted whenever Ecology requests it.~~
- c. Hourly and Annual production records to verify that operating rates remain at or below the restrictions contained in the Approval Conditions listed in this Approval Order.
- d. Air pollution control equipment operating parameters shall be recorded, including differential pressure and scrubber liquor flow rates as applicable for all air pollution control equipment contained in this approval order. These parameters shall be recorded at least twice per shift during plant operations.
- e. ~~Packed bed scrubber liquor parameters for both Packed Bed Scrubber 1 and 2 shall be continuously monitored. The scrubber liquor shall be monitored by temperature gauge, and the following parameters:~~
  - i. ~~Oxidation reduction potential (ORP) when using the NALCO chemical system;~~
  - ii. ~~Hydrogen ion activity (pH) probe, and ORP when using sodium hypochlorite;~~
  - iii. ~~ORP when oxidizing with chlorine dioxide.~~
- f. Nature and details of any upset condition or other situation (date/time, duration, cause, etc.) that results in the facility being operated while the air pollution control equipment or any other equipment was not functioning properly, including upsets in scrubber liquor parameters.
- g. All performance and emission testing results and reports.
- h. O&M manual and maintenance records.

## ~~12. OPERATION AND MAINTENANCE MANUALS~~

~~A site-specific O&M manual for the Duske Dryer and Cyclone, the boilers, the large heater, the decontamination cabinets, pollution control equipment and all other non-fugitive process emission points covered in this Order, shall be developed and followed. The manual shall be reviewed no less frequently than annually, and updated as necessary.~~

~~Manufacturers' operating instructions and design specifications for process equipment may be referenced.~~

~~The O&M manual shall be updated to reflect any modifications of the equipment or operating or maintenance or monitoring procedures. Emissions that result from failure to follow the operating procedures contained in the O&M manual or manufacturer's operating instructions may be considered proof that the equipment was not properly installed, operated, and/or maintained. The O&M manual shall at a minimum include:~~

- ~~a. Normal equipment operating parameters and design specifications.~~
- ~~b. Maintenance schedules.~~
- ~~c. Monitoring procedures and schedules.~~

## 13. SUBMITTALS

All notifications, reports, and other submittals shall be sent to:

Washington State Department of Ecology  
Air Quality Program  
4601 N. Momoe Street  
Spokane, WA 99205-1295

## 14. REPORTING

The following information will be submitted to the AQP at the address in Condition 13 above by January 30 of each calendar year.

- a. Annual summary of air contaminant emissions, hourly and annual production rates, boiler fuel consumption, and annual total hours of operation.
- b. The results of any emission testing shall be sent to the above address no later than 60 days following such testing.

## ~~15. GENERAL CONDITIONS~~

- a. **Visible Emissions** ~~No visible emissions shall be allowed beyond the property line, as determined by opacity readings.~~



- ~~b. Commencing/Discontinuing Construction and/or Operations: This approval shall become void if the construction or operation of this facility is discontinued for a period of eighteen (18) months, unless prior written notification is received by Ecology at the address in Condition 13 above.~~
- ~~e. Compliance Assurance Access: Access to the source by representatives of Ecology or the EPA shall be permitted upon request. Failure to allow such access is grounds for enforcement action under the federal Clean Air Act or the Washington State Clean Air Act, and may result in revocation of this Approval Order.~~
- ~~d. Availability of Order and O&M Manual: Legible copies of this Order and the O&M manual shall be available to employees in direct operation of facility equipment, and be available for review upon request by Ecology.~~
- ~~e. **Equipment Operation:** Operation of facility equipment shall be conducted in compliance with all data and specifications submitted as part of the NOC application and in accordance with the O&M manual, unless otherwise approved in writing by Ecology.~~
- ~~f. **Modifications:** Any modification to the project, contrary to information in the NOC application, shall be reported to Ecology at least 60 days before such modification. Such modification may require a new or amended NOC Approval Order.~~
- ~~g. Activities Inconsistent with the NOC Application and this Approval Order: Any activity undertaken by the permittee or others, in a manner that is inconsistent with the NOC application and this determination, shall be subject to Ecology enforcement under applicable regulations.~~
- ~~h. **Obligations under Other Laws or Regulations:** Nothing in this Approval Order shall be construed to relieve the permittee of its obligations under any local, state or federal laws or regulations.~~
- ~~i. **Fees:** Per WAC 173-400-116, this Preliminary Determination and related regulatory requirements have a fee associated for review and issuance.~~

~~All plans, specifications, and other information submitted to the Department of Ecology relative to this project and further documents and any authorizations or approvals or denials in relation thereto shall be kept at the Eastern Regional Office of the Department of Ecology in the "Air Quality Controlled Sources" files, and by such action shall be incorporated herein and made a part thereof.~~

~~Nothing in this approval shall be construed as obviating compliance with any requirement of law other than those imposed pursuant to the Washington Clean Air Act and rules and regulations thereunder.~~

~~A one-month testing and break-in period is allowed, after any part or portion of this project becomes operational, to make any changes or adjustments required to comply with applicable rules and regulations pertaining to air quality and conditions of operation imposed herein. Thereafter, any violation of such rules and regulations or of the terms of this approval shall be subject to the sanctions provided in Chapter 70.94RCW.~~

Authorization may be modified, suspended or revoked in whole or part for cause including, but not limited to the following:

- a. Violation of any terms or conditions of this authorization;
- b. Obtaining this authorization by misrepresentation or failure to disclose fully all relevant fact.

The provisions of this authorization are severable and, if any provision of this authorization, or application of any provisions of their circumstances, and the remainder of this authorization, shall not be affected thereby.

### **YOUR RIGHT TO APPEAL**

You have a right to appeal this Approval Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Approval Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of this Approval Order:

- File your appeal and a copy of this Approval Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Approval Order on Ecology in paper form – by mail or in person. (See addresses below.) E-mail is not accepted.


You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

### **ADDRESS AND LOCATION INFORMATION**


<b>Street Addresses</b>	<b>Mailing Addresses</b>
<b>Department of Ecology</b> Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	<b>Department of Ecology</b> Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
<b>Pollution Control Hearings Board</b> 111 Israel RD SW STE 301 Tumwater, WA 98501	<b>Pollution Control Hearings Board</b> PO Box 40903 Olympia, WA 98504-0903

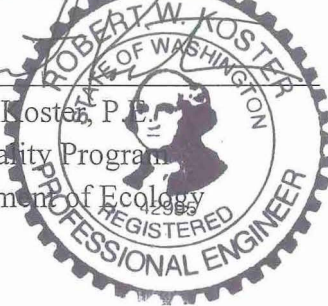
DATED at Spokane, Washington this 16<sup>th</sup> day of April, 2014.

PREPARED BY:


  
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