



Clean Air Act Compliance Inspection Report

United States Environmental Protection Agency
Region 10 – Seattle, WA

Full Compliance Evaluation

Washington Beef

Yakama Nation Reservation
Toppenish, WA

Inspection Dates: March 19-20, 2024

Report Author Signature

Date

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Attachment 1	Photo Log
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1. Basic Facility and Inspection Information

Facility Location: Washington Beef
Yakama Nation Reservation
201 Elmwood Road
Toppenish, WA 98948

AFS Number: WA00000053077T0048

Permit Number: Non-Title V Operating Permit #R10NT502600
EPA Region 10

Facility Contact: Craig Smith – Director of Facilities
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Yakama Nation Environmental Management Program

Inspection: March 19-20, 2024

Inspection Report: May 28, 2024

Inspection Notice: Unannounced

Disclaimer

This report is a summary of observations and information gathered from the facility at the time of the inspection. The information provided does not constitute a final decision regarding compliance with the Clean Air Act (CAA) and applicable regulations or permits, nor is it meant to be a comprehensive report of all activities and processes conducted at the facility.

2. Introduction

- a) This was a Clean Air Act (CAA) compliance inspection by the Environmental Protection Agency (EPA). Elizabeth Sanchey, the Program Manager for the Yakama Nation Environmental Management Program, was made aware of the inspection beforehand and Terry Ganuelas, Air Quality Technician, and Katie Swan, Air Quality Specialist, of Yakama Nation participated in the inspection.
- b) The purpose of this inspection was to conduct a full compliance evaluation (FCE) inspection of the facility. The inspection included a facility walk-through to gain basic familiarity with the facility equipment and processes, and to evaluate compliance with various applicable requirements of the CAA and permit, examination of industrial process and air pollution control equipment, review of various records, and discussions with facility staff, in addition to the observations of the inspectors.
- c) Advance notice of this inspection was not provided to the facility.

3. Inspection Elements and Field Observations – March 19, 2024

- a) The EPA inspectors arrived onsite at approximately 10:20 in the company of the Yakama Nation staff. We entered the office at the facility, and I introduced myself to the reception staff and presented my federal identification. Shortly thereafter, we were met in the reception area by Jeff Cromer (General Manager) and Craig Smith (Director of Facilities) of Washington Beef. After Inspector Conley and I presented our inspector credentials to Mr. Cromer and Mr. Smith, the group proceeded to a conference room and began the opening conference.
- b) Opening Conference
 - 1. I began the opening conference by explaining that we (EPA inspectors) were onsite to conduct an unannounced inspection under the Federal Clean Air Act (CAA), and that the Yakama Nation staff were accompanying us. The inspection will be a Full Compliance Evaluation (FCE), which means that in addition to a full walkthrough and examination of each main facility process and associated air pollution control equipment, the facility permit requirements would be reviewed and methods of compliance demonstration examined.
 - 2. A description of the process and general facility information occurred next, primarily led by Mr. Smith. The following information was provided:
 - a. The facility operates one shift per day, from 06:00 – 15:30. After the production shift, the processing area is cleaned daily, which takes approximately 8 hours.
 - b. The average kill rate is 1,525 per day. Production rate in terms of poundage is flat to declining in recent years. The facility produces only high end premium beef products.
 - c. The facility has approximately 1,100 employees and has 13 full time United States Department of Agriculture (USDA) inspectors onsite.
 - d. In 2003, AB Agrib Beef purchased the facility, and retained the Washington Beef name.

- e. The facility has replaced several burners and cooling towers in recent years, which has reduced emissions.
 - 3. Additional discussion of inspection scope and elements followed, including:
 - a. Scope of the inspection will include, but not be limited to: overall facility walk-through, return to each air pollution control device to examine in more detail, review of facility records.
 - b. Confidential business information (CBI) was discussed, and Mr. Smith stated that nothing related to air pollution would be considered CBI by the facility. The facility asked that we check in advance of taking photos within the processing areas. EPA forms regarding CBI were discussed, and I stated that I would provide these forms to Mr. Smith via email. The forms were emailed to Mr. Smith on March 20, 2024 (see Attachment 4).
 - c. Mr. Smith indicated that the facility would only be operating until about 14:30 that day, so Inspector Conley and I decided to skip lunch and proceed to the facility tour.
 - 4. Additional process discussions occurred just prior to proceeding with the facility tour. These included the following:
 - a. In the processing areas, air flow is from clean to dirty. This means that air is withdrawn from the building near the beginning of the process where the animals are killed. Building air is exhausted directly to atmosphere.
 - b. According to Mr. Smith, the building air doesn't have a significant odor as long as cleaning occurs daily.
 - c. The facility operates two wet scrubbers for air pollution control.
 - 1. The older "Anco Scrubber" controls emissions from the processing side of the plant, primarily the Rendering Process.
 - 2. The newer "Tech Scrubber" controls emissions from the Technical Tallow building, specifically including the Bone Dryer (WB-13). This equipment was installed last year and is currently still in a shakedown phase.
 - 5. The opening conference ended, and the group proceeded to begin the facility walk-through at approximately 12:15. The walk-through was led by Mr. Smith.
- c) Field Observations
- 1. The inspectors conducted a full facility process walk-through, beginning at the frozen end, where frozen beef products are packaged, and ending at the start of the process where we observed the killing of the animals. As indicated during the opening conference, Mr. Smith stated that building airflow followed our walk-through approach, with the exhaust points near the killing area. Additionally, a small number of exhaust points were observed where the carcasses are treated with an aqueous solution of peroxyacetic acid.
 - 2. Following the process walk-through, we briefly observed the Blood Dryer and Boilers 1 and 2. Mr. Smith stated that Boiler 1 can combust either natural gas, diesel, or biogas collected onsite from the facility lagoon.

3. The Rendering Area was briefly observed at approximately 13:40, where moisture is removed to produce tallow and meal products. Mr. Smith stated that both the building air and multiple process equipment vents from this area are collected and routed to the Anco Scrubber. According to Mr. Smith, the Anco Scrubber has a design capacity flow rate of 70,000 actual cubic feet per minute (acfm), but is currently only treating approximately 46,000 acfm.
4. We observed the Meal Dryer at approximately 13:50. This unit was installed in November 2023 in a new building, and is controlled by a baghouse. The exhaust from the baghouse is approximately 15,000 acfm and is routed to the Anco Scrubber.
5. At around 14:20 the group observed the newly installed Tech Scrubber. This scrubber controls emissions from the Technical Tallow process. Mr. Smith explained that “Technical Tallow” indicates that the products are inedible. The process is separated into the “wet side” and “dry side”, which are connected via conveyor. The Tech Scrubber controls emissions from the dry side. Products from the Technical Tallow process area include bone meal and “gel” bone tallow.
6. We observed fallout (liquid droplets) from the Tech Scrubber while in the area. Mr. Smith stated that he was aware of the issue, and had inspected the mist eliminator recently and found that all was in order and in good condition. Mr. Smith stated he was looking at options to increase the stack height in order to reduce droplet emissions and resulting fallout in the vicinity of the scrubber.
7. The walk-through was completed around 15:00 and the group returned to the office.

d) Biopond/Lagoon

1. At around 15:20, the EPA inspectors started a FLIR camera, specifically a FLIR model Gx620 gas imaging camera. Accompanied by Mr. Smith and the Yakama Nation staff, we drove to the facility biopond.
2. The biopond is located at the southern end of the site, and is covered by a black plastic material. The pond cover was installed in 2012. Gas produced within the biopond is collected under the cover and piped to be combusted onsite. Mr. Smith stated that the facility is currently flaring off all biogas collected (see photos 303-304, and video 305 in Attachment 1). In the past, the biogas was combusted in Boiler 1. The facility also had a storage dome that could store approximately 100,000 cubic feet of biogas, but this dome failed. Mr. Smith stated that the facility is planning to replace the storage dome.
3. Inspector Conley and I observed the biopond cover and gas extraction equipment using the FLIR camera. No leaks of biogas were observed from the biopond cover itself. A small leak of biogas was identified in the gas extraction gasket, and this leak was pointed out to Mr. Smith. A video of this leak was not recorded.

e) The inspectors departed the facility around 16:10.

4. Inspection Elements and Field Observations – March 20, 2024

a) Arrival and Office Discussions

1. Inspector Conley and I arrived at the facility around 09:00 and met the Yakama Nation staff in the parking lot. The group entered the facility offices and met Mr. Smith to discuss the plan for the day. The following items were discussed:
 - a. Mr. Smith informed us that he has to leave at 15:20. He also indicated that Marie Piper, a consultant to the facility, would like to meet with us to explain current permitting actions underway with Dan Meyer of EPA Region 10. This was expected to occur in the afternoon.
 - b. I explained that the inspection would proceed with more detailed examination of each of the two scrubbers, including observing which process areas specifically are controlled by each, and the parametric monitoring equipment in place.
 - c. Following the additional field observations, I explained that the inspection would include review of permit requirements.
 - d. Mr. Smith explained that each of the two scrubbers are now using non-contact cooling water from shell & tube heat exchangers at the oil heaters as part of their input/makeup water. This makeup water is around 90°F and the flow rate to each scrubber is approximately 5-7.5 gallons per minute. This was recently implemented as a water conservation measure.
 - e. Mr. Smith also stated that the facility has multiple baghouses onsite to control emissions from material handling.
2. The group completed these discussions and proceeded to the field just after 10:00.

b) Field Observations

1. Mr. Smith led the inspectors to the facility roof, where we observed the Grease Recovery Room vent (See Attachment 1, photo 306). Mr. Smith explained that this is one of the vents to atmosphere for building air from the processing area. I observed many other vents to atmosphere in this area of the roof, and experienced significant odors while on the roof generally. The Tallow Tanks, vented directly to atmosphere (see photo 307) were also observed.
2. Proceeding from south to north along a catwalk on the facility roof, the inspectors observed the ducting which collects emissions from the Rendering Process and routes the emissions to the Anco Scrubber, which is a packed bed, counter-current unit. Emissions collected directly from rendering process units are first routed through an upstream impingement/venturi scrubber. These process vents, ducting and scrubbers are shown in photos 308-323 and are further described in Attachment 1. The Mill Cooler baghouse exhaust duct was also observed, which is routed to the Anco Scrubber.
3. Parametric monitoring and water input & recirculation equipment on the Anco Scrubber was observed. A broken differential pressure line was identified, and Mr. Smith promptly notified maintenance personnel to initiate a repair. Differential pressure lines, water feed lines, and water recirculation and drain

lines for the Anco Scrubber and the upstream impingement/venturi scrubber are shown in photos 324-336.

4. Proceeding to the Anco Scrubber control shed, I observed the scrubber control panel (photos 337-338) and the data log sheets used by the operators (photos 339-340).
5. At approximately 11:30, the group walked to the Technical Tallow area of the facility and observed the Tech Scrubber. I entered the building and took photos 342-345 showing the ductwork. Next, I observed the Tech Scrubber recirculation liquid piping, pH meter, and upstream impingement/venturi scrubber, as shown in photos 346-353. At the time of the inspection, the pH of the scrubbing liquor was 3.95.
6. The group returned to the facility office around 12:15.

c) Office Discussions

1. Returning to the facility office, the group met with the following additional facility representatives, in addition to Mr. Smith:
 - a. Devlan Pool – Wastewater Manager
 - b. Conrad Altaro – Computerized Maintenance Management System
 - c. Rene Sanchez – Utilities Manager
2. Review of records required under the permit (see Attachment 3) was initiated, consulting with the facility representatives as described.
 - a. Conditions 3.2 and 3.3 establish various monitoring and recordkeeping requirements related to parameters and information/data necessary for calculating source-wide emissions. Facility representatives stated that a consultant (Steve Nelson) had created a spreadsheet that the facility uses to record and track each of these data elements. This spreadsheet is named “WA Beef Air Emissions Monitoring and Reporting 10 mep1BC.xlsm”. A copy of this spreadsheet was added to the records request for this inspection.
 - b. Additional records requested as part of the inspection were compiled, and the list coordinated with Mr. Pool. I agreed to set up a shared OneDrive folder with Mr. Smith and Mr. Pool to facilitate submittal of these records. Post inspection, these records were uploaded to the shared folder on March 22, 2024. In addition to the spreadsheet listed above, the requested records included the following:
 1. Two years of natural gas statements, January 2022 – present.
 2. Two years of diesel delivery statements, January 2022 – present.
 3. Two years of scrubber monitoring datasheets, January 2022 – present.
 - c. Condition 3.2.2 – total biogas generated each day is entered into the spreadsheet. The spreadsheet is reviewed monthly and the monthly total is calculated.
 - d. Calibration of instruments as required under Condition 3.2 was discussed. Biogas flow meter calibration was visually verified by reviewing the September 2023 invoice from Fox Thermal, the company that conducts the calibration. A document showing the calibration of the

- pH meter on the Anco Scrubber on 3/15/24 was reviewed visually. No records for calibration of the scrubber flow rate or differential pressure monitoring equipment could be identified by facility personnel.
- e. Condition 3.3 was reviewed, relating to diesel fuel sulfur content records. Facility personnel stated that diesel is not combusted in either boiler any longer, but that the facility plans to keep the option in the permit. Diesel purchase records were reviewed, and I noted that the documents do not list fuel sulfur content percentage. Additionally, Mr. Smith confirmed that to his knowledge the facility has never conducted their own fuel sulfur content testing as required under this permit condition.
 - f. Michael Jostovich, Instrument Technician, joined the group to discuss monitoring on the Anco Scrubber. To comply with Condition 3.2.4.3, the facility uses a non-resettable hour meter to keep track of the hours of operation where the plant is operating but the “Rendering Scrubber” (aka the Anco Scrubber) is not operating. This hour meter is manually turned on/off by facility staff whenever the plant is operating but the Anco Scrubber is not operating. Mr. Jostovich and the other facility representatives could not explain how the non-resettable hour meter gets turned on/off – specifically how this is documented or any procedure that is followed to ensure the hourly total accurately represents the time the process operated uncontrolled by the scrubber. Further discussion on this issue was provided by Mr. Jostovich via email post inspection (see Attachment 4).
 - g. Regarding the lack of calibration documentation for the scrubber flow rate and differential pressure, I asked Mr. Jostovich if he knew how these calibrations were done. He stated he did not, but that he would research the question.
- d) The inspectors completed the records review and discussion around 13:15 and took a short break for lunch until 14:00.
 - e) From 14:00 – 14:30, the facility connected their consultant, Marie Piper, by Microsoft Teams meeting. Ms. Piper presented a brief overview of current work with EPA Region 10 to revise the facility air permit.

5. Closing Conference – March 20, 2024

- a) The closing conference was held beginning around 14:30 in the facility conference room. I led the discussion, including providing an overview of the EPA Region 10 compliance process.
- b) Attendees:
 - 1. Washington Beef: Craig Smith, Devlan Pool, Marie Piper (via Microsoft Teams meeting), and Luis Rodriguez (Director of Operations)
 - 2. Yakama Nation: Katie Swan, Terry Ganuelas
 - 3. EPA: Sara Conley, Zach Hedgpeth

- c) The following issues were identified as potential compliance concerns under the CAA. I clarified that these items did not necessarily constitute violations and may not include any additional compliance concerns that are identified post-inspection.
 - 1. Condition 3.3 – lack of diesel fuel sulfur content data.
 - 2. Condition 3.2.4.3 – lack of explanation regarding how non-resettable hour meter is turned on/off when plant is operating without Anco Scrubber operating.
 - 3. Condition 3.2 – lack of explanation/documentation regarding scrubber flow rate and differential pressure monitoring equipment calibration.
 - 4. Generally the lack of any of the facility baghouses and fugitive emissions in the facility permit.
- d) The closing conference ended around 15:00, and the inspectors departed the facility.