



ENVIRONMENTAL PROTECTION DIVISION

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NARRATIVE

TO: Hamid Yavari

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Facility Name: **Tyson Farms, Inc. – River Valley Ingredients - Cuthbert**
AIRS No.: 243-00011
Location: Cuthbert, GA (Randolph County)
Application #: 28366
Date of Application: April 20, 2022

Background Information

Tyson Farms, Inc., River Valley Ingredients - Cuthbert is a poultry rendering facility located at 82 Georgia Feed Drive, Cuthbert, Georgia. The facility is classified as a synthetic minor source with respect to Title V. The facility is permitted to operate under Air Quality Permit Nos. 2077-243-0011-S-04-0 and 2077-243-0011-S-04-1 issued on December 26, 2018 and October 3, 2019, respectively. Permit Amendment 2077-243-0011-S-04-1 removed all reference of animal fat, vegetable oil, and propane from permit since the boiler stopped firing these fuels and fires natural gas only for the area source boiler MACT (40 CFR 63 Subpart 6J avoidance). In May 2019, a new cooker was added to the facility. In November 2019 a protein and feed blend operation was added to the facility.

This facility's total boiler heat capacity exceeds 250 MMBtu/hr, so it is one of the 28 specific industrial source categories listed in 40 CFR 52.21, which means the PSD major source threshold is 100 tpy for all criteria pollutants and that fugitive emissions must be accounted for when determining emissions. This facility has already accepted SM conditions limiting pollutants below the Title V major source and the PSD major source threshold of 100 tpy.

Purpose of Application

The company submitted Application No. 28366 on April 20, 2022, for the replacement of the currently permitted 86 MMBtu/hr natural gas boiler B8 with a 2000 HP natural gas-fired boiler rated at 81.4 MMBTU/hr. A public advisory was issued for the proposed boiler replacement.

Updated Equipment List

Other than the replacement of the currently permitted boiler B8 with a new lower rated gas-fired boiler B12 will be no other equipment changes at the facility.

Fuel Burning Equipment

Source Code	Input Heat Capacity (MMBtu/hr)	Description	Installation Date	Construction Date
B12	81.4	2000 HP Johnston Natural Gas fired boiler PFTS2500-3LG200S	2022	1999

Emissions Summary

The table below shows that that there will be no increase in emissions of any pollutant after the boiler replacement. Production from the facility will not change after the boiler replacement.

Facility-Wide Emissions (in tons per year)

Pollutant	Potential Emissions			Actual Emissions		
	Before Mod.	After Mod.	Emissions Change	Before Mod.	After Mod.	Emissions Change
PM/PM ₁₀ /PM _{2.5}	90/78/22	90/78/22	0	54/54/10	54/54/10	0
NO _x	<100	<100	0	65	65	0
SO ₂	1.9	1.9	0	0.6	0.6	0
CO	<100	<100	0	68	68	0
VOC	<100	<100	0	40	40	0
Max. Individual HAP						
Total HAP	3.0	3.0	0	1.5	1.5	0
Total GHG (if applicable)	202,163	199,218	(2945)	99,091	99,091	0

Regulatory Applicability

As the facility has greater than 250 MMBtu/hr of Fossil fuel-fired boilers and the boilers are integral to the rendering process, the facility is considered on the list of 28 Source Categories with a PSD Major Source Threshold limit of 100 tpy. Consequently, the facility has permit conditions limiting the actual emissions of VOC and NO_x to below PSD threshold of 100 tpy. Potential SO₂ emissions is less than 2 tons/year since all boilers and other process equipment are fired with natural gas. There is no need to set a PSD or Title V avoidance limit for SO₂ emissions.

The facility is exempt from the requirements of the area source boiler MACT 40 CFR 63 Subpart JJJJJ as the boilers are classified as natural gas boilers that will fire no. 2 distillate fuel oil only during natural gas curtailments, and for testing of the boilers on fuel oil that is limited to 48 hours/year per boiler. The permit has an area source boiler MACT avoidance condition. The new boiler B12 will also be exempt from the boiler MACT since it will fire natural gas only except during curtailment and testing on fuel oil that will also be limited to 48 hours/year.

The new boiler B12 will be subject to all applicable requirements of the boiler NSPS 40 CFR 60 Subpart Dc. The new boiler B12 will be subject to Georgia Rule (d) for PM emissions limit and opacity. Since the boiler is a gas-fired boiler it will easily comply with these limits.

Boiler B12 will also be subject to the sulfur content requirements of Georgia Rule (g)2. Since boiler B12 will fire natural gas compliance with Georgia Rule (g)2 is assured.

Permit Conditions

In this permit amendment all conditions with boiler B8 are amended and the new boiler B12 is added to the conditions.

Conditions 2.1, 2.2, 2.6, 2.9, 2.12, 5.2, 5.4, 5.6, 5.7, 7.11 and 7.12 are amended by removing boiler B8 and adding boiler B12. In Condition 2.12 the condition is further amended by adding the term for each boiler to the line that limits testing of the boilers on fuel oil to 48 hours/year by the area source boiler MACT/GACT avoidance condition.

Summary & Recommendations

I recommend that Air Quality Permit Amendment No. 2077-243-0011-S-04-2 be issued to Tyson Farms, Inc. – River Valley Ingredients – Cuthbert for replacement of the existing boiler B8 with the slightly lower rated boiler B12. The “new” Boiler B12 will be brought over from River Valley Ingredients’ Hanceville, Alabama Division. The “new” Boiler B12 will be de-rated at 81.4 MMBtu/hr and will primarily combust natural gas but will have the option of burning No. 2 fuel oil as a backup fuel source and for maintenance and testing purpose up to 48 hours/year. Boiler B12 was constructed in 1999 and will be subject to all applicable requirements of the boiler NSPS 40 CFR 60 Subpart Dc. The boiler will be natural gas-fired boiler and will fire No. 2 distillate fuel oil only during gas supply interruptions and during maintenance and testing on fuel oil for up to 48 hours/year. Boiler B12 will be exempt from the requirements of the area source boiler MACT/GACT 40 CFR 63 Subpart JJJJJ (6J).

Facility-wide potential emissions for certain pollutants (i.e., PM, SO₂, GHG) will be slightly less than that for current operations. The potential emissions for NO_x (and CO) as well as VOC will not be impacted by this change because of the Facility’s existing Permit limits on these pollutants. Potential emissions of NO_x, CO and VOC will not increase since the new boiler will have a lower rating than the existing boiler B8.

The public advisory issued for this application ended without comments. EPD’s Southwest District office in Albany will continue to be responsible for facility inspections and overall compliance oversight of this facility.