STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 052016-006

Project Number: 2016-03-015
Installation Number: 145-0065

Parent Company: Missouri Walnut, LLC

Parent Company Address: 11417 Oak Road, Neosho, MO 64850

Installation Name: Missouri Walnut, LLC

Installation Address: 11417 Oak Road, Neosho, MO 64850

Location Information: Newton County, S1, T24N, R33W

Application for Authority to Construct was made for:
Modifications to sawmill. This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required.*

☐ Standard Conditions (on reverse) are applicable to this permit.

☑ Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

Chad Stephenson

Prepared by
Chad Stephenson
New Source Review Unit

Kyra L Moore

Director or Designee
Department of Natural Resources

MAY 25 2016

Effective Date

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Department's Air Pollution Control Program of the anticipated date of start up of these air contaminant sources. The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources' regional office responsible for the area within which you are located within 15 days after the actual start up of these air contaminant sources.

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant sources(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

Missouri Walnut, LLC
Newton County, S1, T24N, R33W

1. Superseding Condition
   A. The conditions of this permit supersede all special conditions in the previously issued construction permit #082008-005 issued by the Air Pollution Control Program.

2. PM_{10} Emission Limitation
   A. Missouri Walnut, LLC shall emit less than 15.0 tons of PM_{10} in any consecutive 12-month period from the equipment installed or modified during 2015 and the equipment planned to be installed in 2016. This equipment is shown in the following table 1:

Table 1: 2015 and 2016 Installed Equipment

Emission Unit	Description
EP-1 and 2	Sawmill 3 - Log Sawing
EP-3	Saw Dust/ Chip Trailer
EP-4	Saw Dust/Chip Pile
EP-5	Propane Boiler
EP-6	Haul Road (3538 ft)
EP-7	Log Yard (500 ft)
EP-14	Wood Fired Boiler

   B. Missouri Walnut, LLC shall emit less than 15.0 tons of PM_{10} in any consecutive 12-month period from the equipment installed in 2008 and 2009. This equipment is shown in the follwingTable 2.

Table 2: 2008 and 2009 Installed Equipment

Emission Unit	Description
EP-8	Wood Fired Boiler
EP9	Wood Stove
EP11	KD Line Log Sawing
EP-12	Saw Dust/ Chip Pile
EP-13	Saw Dust/Chip Trailer

SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

C. Missouri Walnut, LLC shall maintain accurate records of PM_{10} emitted into the atmosphere. Attachment A and B or equivalent forms shall be used for this purpose. Missouri Walnut, LLC shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.

D. Missouri Walnut, LLC shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 2.C. indicate that the source exceeds the limitation of Special Condition Number 2.A and 2.B.

3. Haul Road Watering

A. Missouri Walnut, LLC shall water unpaved haul roads (EP-7) used for transferring log from the various operations whenever conditions exist which would cause visible fugitive emissions to enter the ambient air beyond the property boundary.

B. Watering may be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads.

4. Control Device Requirements – Cyclone Dust Collector

A. Missouri Walnut, LLC shall control emissions from the sawing activities (EP-1, EP-2, and EP-11) and the existing wood fired boiler (EP-8) using a cyclone dust collector.

B. The cyclone dust collector shall be operated and maintained in accordance with the manufacturer's specifications.

C. Missouri Walnut, LLC shall maintain an operating and maintenance log for the cyclone dust collector which shall include the following:

1) Incidents of malfunctions, with impacts on emissions, duration of events, probable causes, and corrective actions; and
2) Maintenance activities, with inspection schedules, repair actions, and replacements, etc.

5. Control Device – Sawdust and Chip Trailer

A. Missouri Walnut, LLC shall keep the two sawdust and chip trailers (EP-3 and EP-12) covered and enclosed at all times during loading.

SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

6. Control Device Requirement –Electrostatic Precipitator (ESP)
   A. Missouri Walnut, LLC shall control emissions from the new 28.26 MMBtu/hr

   B. boiler (EP-14) using an ESP as specified in the permit application.

   C. The ESP system shall be operated and maintained in accordance with the manufacturer's specifications.

   D. Missouri Walnut, LLC shall monitor and record the operating parameters specified by the manufacturer to ensure proper operation of the ESP system at least once every 24 hours. The operating parameters shall be maintained within the design conditions specified by the manufacturer's performance warranty. If the facility does not operate the boiler on that day, a "no operation" status should be noted on the log.

   E. Missouri Walnut, LLC shall maintain an operating and maintenance log for the ESP system which shall include the following:
      1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
      2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

7. Missouri Walnut, LLC shall only use the comfort wood stove (EP-9) from November 1st through March 31st.

8. Burn Material
   Missouri Walnut, LLC shall burn only untreated wood waste generated at the site in EP-8, EP-9 and EP-14.

9. Record Keeping and Reporting Requirements
   A. Missouri Walnut, LLC shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.

   B. Missouri Walnut, LLC shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which any record required by this permit show an exceedance of a limitation imposed by this permit.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (6) REVIEW
Project Number: 2016-03-015
Installation ID Number: 145-0065
Permit Number:

Installation Address:
Missouri Walnut, LLC
11417 Oak Road
Neosho, MO 64850

Parent Company:
Missouri Walnut, LLC
11417 Oak Road
Neosho, MO 64850

Newton County, S1, T24N, R33W

REVIEW SUMMARY

- Missouri Walnut, LLC has applied for authority to add a new saw line and a new waste wood boiler.

- The application was deemed complete on March 17, 2015.

- HAP emissions are expected in small amounts from the wood fired boiler

- New Source Performance Standards (NSPS), Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generation Units,* is applicable to the boilers EP-8 and EP-14

- 40 CFR 63 *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers* (MACT JJJJJJ) applies to the boilers EP-8 and EP-14.

- A cyclone collector is being used to control the particulate matter emissions from the log sawing and one wood fired boiler (EP-8). Undocumented haul road watering is being used to control the PM, PM_{10}, and $PM_{2.5}$ emissions from the haul road and the log yard roads. Sawdust trailer enclosures are being used to control the particulate matter emissions from the saw buildings. An electrostatic precipitator is being used to control particulate matter emissions from the new wood fired boiler (EP-14).

- This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM are above de minimis levels but below major source levels.

- This installation is located in Newton County, an attainment area for all criteria air pollutants.

- This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are

not counted toward major source applicability.

- Ambient air quality modeling was not performed since all potential emissions except PM of the application are below de minimis levels. There is no modeling standard for PM.

- Emissions testing is not required for the equipment.

- A Basic Operating Permit is required for this installation within 30 days of commencement of operations.

- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Missouri Walnut is an existing saw mill in Newton County. The facility is located at 11417 Oak Road, Neosho, Missouri. The existing facility was built in 2005 without obtaining a construction permit. They obtained a permit (#082008-05) as part of a remedial action required by the Air Pollution Control Program. The permit considered previously installed equipment as well as the installation of new equipment. In 2009, the facility added a KD Line without obtaining a construction permit. This permit is including the equipment installed in 2009 for the KD Line.

Large walnut logs are trucked to the facility from various locations from as far north as Iowa and as far south as Texas. Logs are unloaded and graded by size and quality. Larger, better quality logs are loaded directly into shipping containers. Smaller logs are staged in a large log yard for the saw mill.

Some of the logs go directly to a grading operation to assess the quality of the boards. Other logs go to a steamer prior to grading which extracts the sap from the boards and changes their color. Graded boards are loaded into containers for shipment to China. A 0.75 MMbtu/hr propane fired boiler (EP-5) supplies steam to the steamer. One small wood stove (EP-9) provides heat to the production buildings during cold weather. The facility previously had another small wood stove (EP-10) that has been removed.

In 2014, 5.7 million board feet of lumber was processed through the saw mill #3 (EP-1 & EP-2). Thirty three percent was processed by the Corley Bandmill (EP-1) and the remaining 67% by the Corley Tilted Bandsaw and Six Head Resaw (EP-2). An additional 14.59 million board feet was processed in 2014 by the KD Line (EP-11).

Emissions from the saws are captured inside the building and transferred to large storage piles behind the buildings. An air conveyor carries fine sawdust to one pile, and a belt conveyor carries coarse sawdust to another pile. The sawdust storage piles are infrequently moved.

There is a network of roads (EP-6 and EP-7) on site. They are used for trucks to haul in logs and to remove full containers for shipment. They are also used to transfer logs from the various operations, including log yard staging, sawing, grading, and containerizing. The facility practices undocumented haul road watering to control fugitive dust emissions from the unpaved portions

at the site.

PROJECT DESCRIPTION

Missouri Walnut, LLC has requested to upgrade the equipment at their facility. This permit is part of a remedial action required by the Air Pollution Control Program for recent upgrades the facility has made and for planned upgrades in the near future. This permit covers the equipment installed during 2008-2009 and the equipment that was installed in 2015 and that is planned to be installed in 2016. Missouri Walnut, LLC will have two separate 15.0 ton per year PM_{10} limits. One will apply to the equipment installed in 2008 and 2009 and the other will apply to the equipment installed in 2015 and that is planned to be installed in 2016. The year ranges were selected due to the close proximity of equipment installed during those timeframes. Table 3 lists when each emission unit was added or modified.

In 2015 upgrades to Sawmill #3 were completed. The existing two saw buildings previously contained 3 saws in building one, Sawmill #1, (EP-1) and 5 saws in building 2, Sawmill #2, (EP-2). The two buildings have been converted to a warehouse and (EP-1 and EP-2) are now in a different building, referred to as Sawmill #3. The equipment for EP-1 and EP-2 has changed. The new equipment contains a Corley 7' Bandmill (EP-1) and a Corley Tilted Bandsaw and Six Head Resaw (EP-2). The new and old equipment is listed in Table 1. Both EP-1 and EP-2 are controlled by separate cyclones. The sawdust generated in this building is conveyed to a sawdust chip trailer (EP-3) which is enclosed on 4 sides with a cover. The sawdust and chips are either moved to a storage pile (EP-4) or burned in a 28.26 MMbtu/hr Hurst model HYB-600-150 wood fired boiler (EP-8) equipped with a 65% efficient multi-cyclone PM_{10} collector. Approximately 25% of sawdust generated by the two buildings is moved to the storage pile. In 2014 Sawmill #3 processed 5.7 million board feet.

For 2016, Missouri Walnut, LLC plans to add an additional wood fired boiler (EP-14). The wood fired boiler is a 28.26 MMbtu/hr Hurst model HYB-600-150 that is identical to the existing wood fired boiler. However, the new wood fired boiler (EP-14 will be controlled by an electrostatic precipitator. The existing wood fired boiler (EP-8) is controlled by a cyclone.

In addition to the above upgrades, Missouri Walnut, LLC has also added a new KD Line (EP-11) consisting of a Corley Tilt Hoist & Trim Saw, a Mereen Johnson Ripsaw, and a Weima Grinder. This line was added in 2009, however it was never permitted. In 2014 the KD line processed 14.59 million board feet. Similar to Sawmill #3, the sawdust generated from the KD Line is conveyed to a to a separate sawdust chip trailer (EP-12) which is enclosed on 4 sides with a cover. The sawdust and chips are either moved to a storage pile (EP-13) or burned in the 28.26 MMbtu/hr Hurst model HYB-600-150 wood fired boiler (EP-8) equipped with a 65% efficient multi-cyclone PM_{10} collector. Approximately 25% of sawdust generated by the KD Line is moved to the storage pile.

The vehicular activity associated with EP-6 and EP-7 has been reevaluated for this project. Vehicular activity is a result of the increased processed board feet. Previously in permit 082008-005 the board feet processed at the site was 2.27 million board feet. The actual amount

processed in 2014 was 20.29 million board feet, which is the combined amount of the KD Line and the activity in Sawmill #3 (EP-1 and EP-2). The emissions from haul road EP-6 were evaluated in permit #082008-05 using emission factors obtained from the Environmental

Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 13.2.2 *Unpaved Roads* (11/06). EP-6 represents a network of roads on site. They are used for trucks to haul in loads and remove full containers for shipment. At the time the haul roads (EP-6) emissions were evaluated in permit #082008-05 they were unpaved. EP-6 is now paved. EP-7, which represents the vehicular activity for transferring logs from various operations, including log yard staging, sawing, grading and containerizing, remains unpaved.

Table 3 contains a summary of the emission points at this facility and the equipment that was evaluated for this permit. The maximum hourly design rates (MHDR) for the saws and saw dust piles (EP-1 - EP-4 and EP-11 –EP13) were determined using 2014 production data plus a 25% safety factor divided by the actual hours of operation. In permit #082008-05 MHDR for log sawing was determined assuming 1 board feet = 16 pounds. The MHDR for log sawing in this permit is being determined assuming 1 board feet = 4 pounds, which represents a more accurate estimate for Walnut.

Table 3: Facility Emissions Points

Point ID	Description	Year Installed or Modified	Previous Equipment	New Equipment	MHDR	Units	Control Device
EP-1 and 2	Sawmill 3 - Log Sawing	2015	Head Saw Band Saw Band Saw Band Saw Band Saw Band Saw Band Saw Band Saw Hog Grinder Edger	Corley 7; Bandmill Corley Tilted Bandsaw Six Head Resaw	7.33	Tons logs processed /hr	Cyclone
EP-3	Saw Dust/ Chip Trailer	2015	Covered Trailer	Covered Trailer	7.33	Tons logs processed /hr	Enclosed Trailer
EP-4	Saw Dust/Chip Pile	2015	Covered Trailer	Saw Dust/Chip Pile	1.83	Tons logs processed /hr	N/A
EP-5	Propane Boiler	2005	Hurst (5250-150-70M)	N/A	0.0109	1000 gallons/hr	N/A
EP-6	Haul Road (3538 ft)	2015	Unpaved	Paved	1.62	VMT/hr	N/A
EP-7	Log Yard (500 ft)	2015	N/A	N/A	1.26	VMT/hr	Undocumented Watering
EP-8	Wood Fired Boiler	2008	Hurst (HYB-600-150)	N/A	28.26	MMbtu/hr	Cyclone
EP9	Wood Stove	2005	Woodmaster	N/A	0.0102	Tons waste wood/hr	N/A
EP10	Wood Stove	2005	Woodmaster	Removed	N/A	Tons waste wood/hr	N/A
EP11	Log Sawing	2009	N/A	Corley Tilt Hoist & Trim Saw Weima Grinder Mereen Johnson	19.23	Tons logs processed / hr	Cyclone

				Ripsaw			
EP-12	Saw Dust/ Chip Pile	2009	N/A	Covered Trailer	19.23	Tons logs processed /hr	Enclosed Trailer
EP-13	Saw Dust/Chip Trailer	2009	N/A	Dust/Chip Pile	4.81	Tons logs processed /hr	N/A
EP-14	Wood Fired Boiler	2016	N/A	N/A	28.26	MMbtu/hr	Electrostatic Precipitator

N/A = Not Applicable

.The following New Source Review permits have been issued to Missouri Walnut, LLC from the Air Pollution Control Program.

Table 4: Permit History

Permit Number	Description
082008-005	Installation of a sawmill, containing several saws, a wood fired boiler and associated equipment

EMISSIONS/CONTROLS EVALUATION

The emission factors for particulate matter and particulate matter less than 10 microns in diameter (PM_{10}) were obtained from WebFire (Factor Information Retrieval System), EPA's online emission factor repository, for the Source Classification Codes (SCC) 3-07-008-02 and 3-07-008-03. These emission factors are for log sawing and saw dust pile handling. Emission factors for particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) were developed assuming that 50.0% of the PM_{10} generated from log sawing is $PM_{2.5}$. It was not assumed to equal PM_{10} because when the cyclone control efficiency is applied, $PM_{2.5}$ emissions would be greater than PM_{10} emissions.

Dust tubes are used to capture the particulate emissions from (EP-1, EP-2 and EP-11) and send them to cyclones. The $PM_{2.5}$, PM_{10} and PM control efficiencies used are 10%, 50% and 70%, respectively. These are considered conservative based on typical values seen in industry. The capture efficiency of the dust tubes used is 50%, which is also considered conservative.

The vehicular activity associated with EP-6 and EP-7 has been reevaluated for this project. Vehicular activity is a result of the increased processed board feet. Haul road and vehicular activity emission factors were obtained from the Environmental Protection Agency (EPA) document AP-42, Section 13.2.2 *Unpaved Roads* (11/06) and AP-42, Section 13.2.1 "Paved Roads" (January, 2011). Undocumented haul road watering is being used to control fugitive dust emissions on log yard roads (EP-7). A control efficiency of 50% for PM and PM_{10} was used and 22.2% for $PM_{2.5}$..

Sawdust trailers (EP-3 & EP-12) enclosed on four sides with covers are being used to control particulate matter emissions for the sawing operations (EP-1, EP-2 & EP-11). A 90% control efficiency was assigned in permit 082008-005 and was used for this project as well.

The emission factors used in the analysis of the wood fired boilers were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 1.6 *Wood Residue Combustion In Boilers* (9/03). Controlled emission factors were used to account for the cyclone on EP-8 and the electrostatic precipitator on EP-14.

The following tables provides an emissions summary for this project. Existing potential emissions were taken from permit #082008-005; however, some of the equipment from that permit is represented in emissions associated with the potential emissions in Table 5 and Table 6. Existing actual emissions were taken from the installation's 2014 EIQ. Potential emissions of the application in Table 1 represent the potential of the equipment installed during 2015 and planned to be installed during 2016, assuming continuous operation (8760 hours per year). Potential emissions of the application in Table 2 represent the potential of the equipment installed during 2008-2009, assuming continuous operation (8760 hours per year). The facility will have a limit of less than15.0 tons of PM_{10} for both sets of equipment.

Table 5: Emissions Summary Equipment Installed/Modified 2015 and 2016 (tons per year)

Pollutant	Regulatory *De Minimis* Levels	Existing Installation Potential Emissions	Existing Actual Emissions (2014 EIQ)	Potential Emissions of the Application	Conditioned Potential Emissions of the Application
PM	25.0	N/D	N/D	38.70	33.09
PM_{10}	15.0	<15.0	0.0018	17.55	<15.0
$PM_{2.5}$	10.0	N/D	0.0014	9.81	8.39
SOx	40.0	3.11	0.0001	3.09	N/A
NOx	40.0	27.59	0.0000	27.23	N/A
VOC	40.0	4.07	0.0000	2.10	N/A
CO	100.0	82.83	0.0017	74.27	N/A
HAPs	10.0/25.0	1.37	0.0000	1.34	N/A

N/A = Not Applicable; N/D = Not Determined

Table 6: Emissions Summary Equipment Installed/Modified 2008 and 2009 (tons per year)

Pollutant	Regulatory *De Minimis* Levels	Existing Installation Potential Emissions	Existing Actual Emissions (2014 EIQ)	Potential Emissions of the Application	Conditioned Potential Emissions of the Application
PM	25.0	N/D	N/D	79.62	20.45
PM_{10}	15.0	<15.0	0.0018	58.41	<15.0
$PM_{2.5}$	10.0	N/D	0.0014	34.60	8.89

SOx	40.0	3.11	0.0001	3.09	N/A
NOx	40.0	27.59	0.0000	27.23	N/A
VOC	40.0	4.07	0.0000	2.10	N/A
CO	100.0	82.83	0.0017	74.27	N/A
HAPs	10.0/25.0	1.37	0.0000	1.34	N/A

N/A = Not Applicable; N/D = Not Determined

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM are above de minimis levels but below major source levels

APPLICABLE REQUIREMENTS

Missouri Walnut, LLC shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information,* 10 CSR 10-6.110
    - Per 10 CSR 10-6.110(4)(B)2.B(II) and (4)(B)2.C(II) a full EIQ is required for the first full calendar year the equipment (or modifications) approved by this permit are in operation.

- *Operating Permits,* 10 CSR 10-6.065

- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin,* 10 CSR 10-6.170

- *Restriction of Emission of Visible Air Contaminants,* 10 CSR 10-6.220

- *Restriction of Emission of Odors,* 10 CSR 10-6.165

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400. The log sawing in sawmill #3 (EP-1 and EP-2) has a controlled potential to emit 1.67 pounds per hour. Using the process weight equation in 10 CSR 10-6.400(3)(A)1, EP-1 and EP-2 has an allowable emission rate of 15.57 pounds per hour. The log sawing for the KD line (EP-9) has a controlled potential to emit 4.38 pounds per hour. Using the process weight equation in 10 CSR 10-6.400(3)(A)1, EP-9 has an allowable emission rate of 29.72 pounds per hour.

- *New Source Performance Regulations, 10 CSR 10-6.070 – New Source Performance Standards (NSPS) for Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60, Subpart Dc* applies to the boilers EP-8 and EP-14.

- *MACT Regulations, 10 CSR 10-6.075 – National Emission Standards for Industrial, Commercial, and Institutional Boilers,* 40 CFR 63, Subpart JJJJJJ applies to the boilers EP-8 and EP-14.

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required,* it is recommended that this permit be granted with special conditions.

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated March 3, 2016, received March 7, 2016, designating Missouri Walnut, LLC as the owner and operator of the installation.
- The Application for Authority to Construct form, dated September 11, 2015, received September 21, 2015, designating Missouri Walnut, LLC as the owner and operator of the installation.
- Email from Elbert Johnson, CFO, received March 23, 2016, clarifying when equipment was installed

Attachment A – PM_{10} Compliance Worksheet

Missouri Walnut, LLC
Newton County, S1, T24N, R33W
Project Number: 2016-03-015
Installation ID Number: 145-0065
Permit Number: _____

This sheet covers the period from _____ to _____.
(month, year) (month, year)

Month/Year	Sawmill #3 Log Sawing EP1 & EP2			Wood Fired Boiler EP14 (controlled by electrostatic precipitator)			12 month Total PM_{10} Emissions	
C1	C2	C3	C4	C5	C6	C7	C8	C9
	EP1 Board Feet	EP1 EF (tons PM_{10}/BF)	EP1 PM_{10} Emissions (tons)[1]	Tons Waste Wood	EF (tons PM_{10}/tons waste fuel)	PM_{10} Emissions (tons)[1]	Month PM_{10} Emissions (tons)[2]	12 month Rolling Total PM_{10} Emissions (tons)[3]
Example	500,000	5.78E-07	0.289	500	0.000281	0.14	0.429	5.15
		5.78E-07			0.000281			
		5.78E-07			0.000281			
		5.78E-07			0.00281			
		5.78E-07			0.00281			
		5.78E-07			0.00281			
		5.78E-07			0.00281			
		5.78E-07			0.00281			
		5.78E-07			0.00281			

[1]C4 = C2 * C2, C7 = C5 * C6, C11 = C9 * C10, C14 = C12 * C13
[2]C8 = C4 + C7
[3]C9 = C8 + previous 11 months total. A value less than 15 tons is necessary for continued compliance.

Attachment B – PM_{10} Compliance Worksheet

Missouri Walnut, LLC
Newton County, S1, T24N, R33W
Project Number: 2016-03-015
Installation ID Number: 145-0065
Permit Number: _____

This sheet covers the period from _____ to _____.
(month, year) (month, year)

Month/Year	KD Line Log Sawing EP11			Wood Fired Boiler EP8 (controlled by a cyclone)			12 month Total PM_{10} Emissions	
C1	C2	C3	C4	C5	C6	C7	C8	C9
	EP11 Board Feet	EP11 EF (tons PM_{10}/BF)	EP11 PM_{10} Emissions (tons)[1]	Tons Waste Wood	EF (tons PM_{10}/tons waste fuel)	PM_{10} Emissions (tons)[1]	Month PM_{10} Emissions (tons)[2]	12 month Rolling Total PM_{10} Emissions (tons)[3]
Example	1,250,000	5.78E-07	0.72	450	0.00166	0.352	1.18	14.15
		5.78E-07			0.00166			
		5.78E-07			0.00166			
		5.78E-07			0.00166			
		5.78E-07			0.00166			
		5.78E-07			0.00166			
		5.78E-07			0.00166			
		5.78E-07			0.00166			
		5.78E-07			0.00166			

[1]C4 = C2 * C2, C7 = C5 * C6, C11 = C9 * C10, C14 = C12 * C13
[2]C8 = C4 + C7
[3]C9 = C8 + previous 11 months total. A value less than 15 tons is necessary for continued compliance.

APPENDIX A

Abbreviations and Acronyms

% ..... percent
ºF ..... degrees Fahrenheit
acfm ..... actual cubic feet per minute
BACT ..... Best Available Control Technology
BMPs ..... Best Management Practices
Btu..... British thermal unit
CAM ..... Compliance Assurance Monitoring
CAS..... Chemical Abstracts Service
CEMS ..... Continuous Emission Monitor System
CFR ..... Code of Federal Regulations
CO ..... carbon monoxide
CO_2..... carbon dioxide
CO_2e..... carbon dioxide equivalent
COMS..... Continuous Opacity Monitoring System
CSR..... Code of State Regulations
dscf ..... dry standard cubic feet
EIQ ..... Emission Inventory Questionnaire
EP..... Emission Point
EPA ..... Environmental Protection Agency
EU..... Emission Unit
fps ..... feet per second
ft ..... feet
GACT ..... Generally Available Control Technology
GHG ..... Greenhouse Gas
gpm..... gallons per minute
gr..... grains
GWP..... Global Warming Potential
HAP..... Hazardous Air Pollutant
hr..... hour
hp ..... horsepower
lb ..... pound
lbs/hr..... pounds per hour
MACT ..... Maximum Achievable Control Technology
$\mu g/m^3$..... micrograms per cubic meter
m/s ..... meters per second
Mgal ..... 1,000 gallons
MW ..... megawatt
MHDR..... maximum hourly design rate
MMBtu.... Million British thermal units
MMCF..... million cubic feet
MSDS ..... Material Safety Data Sheet
NAAQS... National Ambient Air Quality Standards
NESHAPs National Emissions Standards for Hazardous Air Pollutants
NO_x..... nitrogen oxides
NSPS..... New Source Performance Standards
NSR..... New Source Review
PM ..... particulate matter
$PM_{2.5}$..... particulate matter less than 2.5 microns in aerodynamic diameter
PM_{10}..... particulate matter less than 10 microns in aerodynamic diameter
ppm..... parts per million
PSD ..... Prevention of Significant Deterioration
PTE..... potential to emit
RACT..... Reasonable Available Control Technology
RAL ..... Risk Assessment Level
SCC..... Source Classification Code
scfm ..... standard cubic feet per minute
SDS ..... Safety Data Sheet
SIC..... Standard Industrial Classification
SIP..... State Implementation Plan
SMAL ..... Screening Model Action Levels
SO_x..... sulfur oxides
SO_2..... sulfur dioxide
tph..... tons per hour
tpy ..... tons per year
VMT..... vehicle miles traveled
VOC..... Volatile Organic Compound

Mr. Elbert Johnson
Chief Financial Officer
Missouri Walnut, LLC
11417 Oak Road
Neosho, MO 64850

RE: New Source Review Permit - Project Number: 2016-03-015

Dear Mr. Johnson:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your new source review permit application and with your amended operating permit is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission, whose contact information is: Administrative Hearing Commission, Truman State Office Building, Room 640, 301 W. High Street, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.oa.mo.gov/ahc.

If you have any questions regarding this permit, please do not hesitate to contact Chad Stephenson, at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp
New Source Review Unit Chief

SH:csj

Enclosures

c: Southwest Regional Office
PAMS File: 2016-03-015

Permit Number: