Public Notice

DEQ Requests Comments on Murphy Plywood's Proposed Modification to Air Quality Permit

DEQ invites the public to submit written comments on the conditions of Murphy Plywood's proposed air quality permit, known officially as a Standard Air Contaminant Discharge Permit.

Summary

The proposed modification is to the facility's existing air contaminant discharge permit. The proposed permit modification is for the replacement of the existing wet electrostatic precipitator with a dry electrostatic precipitator. The dry electrostatic precipitator controls the exhaust from the existing wood fired boiler. This will result in a reduction of particulate emissions.

How do I participate?

To submit your comments for the public record, send them by mail, fax or Email:

DEQ Western Region
Patty Hamman - Permit Coordinator
4026 Fairview Industrial Dr. SE
Salem, OR 97302

Fax: 503-378-4196
Email: hamman.patricia@deq.state.or.us

Written comments are due by 5 p.m. Dec. 5, 2016.

About the facility

Murphy Plywood operates a plywood manufacturing facility located at 5205 North River Road in Rogue River.

Air emissions from activities at this facility include particulate matter (PM), carbon monoxide (CO), nitrogen oxide (NOx), volatile organic compounds (VOC), and hazardous air pollutants (HAPs) to the air.

The proposed permit modifies an existing permit that was issued in December 2011.

What air pollutants would the permit regulate?

This permit regulates emissions of the pollutants listed in the table at the end of this document.

How does DEQ determine permit requirements?

DEQ evaluates types and amounts of pollutants and the facility's location, and determines permit requirements according to state and federal regulations.

What special conditions are in this permit?

This permit modification includes a requirement for source testing of the boiler emissions through the new DESP for PM, NOx, CO, and VOC emissions within 180 days of startup of the new emission control device.

How does DEQ monitor compliance with the permit requirements?

This permit requires the facility to monitor pollutants using federally-approved monitoring practices and standards.

The permittee is required to report the facility's actual emissions on both a monthly and annual basis.

Formulas to calculate emissions are contained within the permit. The permittee is required to calculate facility-wide emissions and submit an annual emissions report, which is reviewed for Plant Site Emissions Limits compliance. Onsite inspections will be conducted to observe the operation and to review recordkeeping documents as required by the permit.

What happens after the public comment period ends?

DEQ will consider and provide responses to all comments received by the close of the comment period. DEQ may modify the proposed permit based on the comments received, but DEQ can only modify conditions of the permit in accordance with the rules and statutes under the authority given to the DEQ. If the facility meets all legal requirements, DEQ will issue the facility's air quality permit.

State of Oregon
Department of Environmental Quality

Western Region
Air Quality Program
221 Stewart Ave., Suite 201
Medford, OR 97501
Phone: 541-776-6136
877-823-3216
Fax: 541-776-6262
Contact: Wayne Kauzlarich

www.oregon.gov/DEQ

Search for 'Oregon DEQ, Public Notices, Murphy Plywood'

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DEQ provides documents electronically whenever possible in order to conserve resources and reduce costs.

If you received a hard copy of this notice, please consider receiving updates via e-mail instead. Send your request to: subscriptions@deq.state.or.us

Please include your full name and mailing address so that we can remove you from our print mailing list.

Where can I get more information?

View the draft permit and related documents below, or online at DEQ's 'Public Notices' pages which is located at:

www.deq.state.or/news/publications/PN.asp.

View the draft permit and related documents in person at the DEQ office in Medford, or at the Rogue River Library at 412 E. Main Street. For a review appointment, call 541-776-6010.

Accessibility information

Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696; or email deqinfo@deq.state.or.us.

People with hearing impairments may call 711.

Emissions limits

Criteria Pollutants: Table 1 below presents maximum allowable emissions of criteria pollutants for the facility. The current emission limit reflects maximum emissions the facility can emit under the existing permit. The proposed emission limit reflects maximum emissions the facility would be able to emit under the proposed permit. Typically, a facility's actual emissions are less than maximum limits established in a permit; however, actual emissions are allowed up to the permitted limits.

Table 1

Criteria Pollutant	Current Limit (tons/yr)	Proposed Limit (tons/yr)
Particulate matter (PM)	24	24
Small particulate matter (PM_{10})	19	19
Sulfur dioxide (SO_2)	39	39
Nitrogen oxides (NO_x)	42.1	42.1
Carbon monoxide (CO)	99	99
Volatile organic compounds (VOC)	39	39

For more information about criteria pollutants, go to: www.epa.gov/criteria-air-pollutants

Hazardous air pollutants:

Murphy Plywood is not a major source of hazardous air pollutants (HAPs).

As of September 2016, current 12-month rolling actual HAP emissions from this facility have been calculated to be a total of 14.6 tons/year which includes the highest single HAP of 4.7 tons of methanol.

Table 2

Hazardous Air Pollutants	Allowed HAP Limits (tons/yr)	Current Actual Emissions (tons/yr)
Single HAP	9	4.7 (Methanol)
Combined HAPs	24	14.6 (all HAPs combined)

For more information about hazardous air pollutants, go to: www.epa.gov/ttn/atw/hlthef/hapindex.html

State of Oregon
Department of
Environmental
Quality

STANDARD
AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Western Region
4026 Fairview Industrial Dr. SE
Salem, Oregon 97302
503-378-8240

This permit is being issued in accordance with the provisions of ORS 468A.040 and based on the land use compatibility findings included in the permit record.

ISSUED TO:

Murphy Company
dba Murphy Plywood
2350 Prairie Road
Eugene, OR 97402

INFORMATION RELIED UPON:

Application No.: 28750 – R-04
Date Received: 08/12/2016

PLANT SITE LOCATION:

5205 North River Road
Rogue River, OR 97537

LAND USE COMPATIBILITY FINDING:

Approving Authority: City of Rogue River
Approval Date: 08/02/1995

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

_____ _____

Claudia Davis, Western Region Air Quality Manager Dated

Addendum Number 4
Moderate Technical Permit Modification

In accordance with OAR 340-216-0020, Standard Air Contaminant Discharge Permit 15-0014-ST-01 is revised by changing the following conditions to read as follows:

1.0 GENERAL EMISSION STANDARDS AND LIMITS

1.1. Visible Emissions

The permittee must comply with the following visible emission limits from air contaminant sources other than fugitive emission sources, as applicable.

a. Opacity must be measured as a six-minute block average using EPA Method 9, a continuous opacity monitoring system (COMS) installed and operated in accordance with the DEQ Continuous Monitoring Manual or 40 CFR part 60, or an alternative monitoring method approved by DEQ that is equivalent to EPA Method 9.

b. Emissions from any air contaminant source must not equal or exceed 20% opacity.

c. Emissions from any wood-fired boiler installed, constructed, or modified on or after June 1, 1970 but before April 16, 2015 must not equal or exceed 20% opacity with the exception that visible emissions may equal or exceed 20% opacity for up to two independent six-minute blocks in any hour, as long as the average opacity during each of these two six-minute blocks is less than 40%.

1.2. Particulate Matter Emissions

The permittee must comply with the following particulate matter emission limits, as applicable:

a. Particulate matter emissions from any fuel burning equipment must not exceed 0.10 grains per dry standard cubic foot, corrected to 12% CO_2 or 50% excess air.

b. Particulate matter emissions from any fuel burning equipment, except natural gas and liquefied petroleum gas fuel burning equipment, must not exceed:

i. 0.2 grains per dry standard cubic foot corrected to 12% CO_2 when using wood residue in equipment that existed before April 7, 1978; or

ii. 0.1 grains per dry standard cubic foot corrected to 12% CO_2 when using wood residue in equipment that did not exist before April 7, 1978.

c. Particulate matter emissions from any air contaminant source other than fuel burning equipment and fugitive emission sources must not exceed 0.10 grains per standard cubic foot.

1.3. Fugitive Emissions

The permittee must take reasonable precautions to prevent fugitive dust emissions, as measured by EPA method 22, by:

a. Using, where possible, water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;

b. Applying water or other suitable chemicals on unpaved roads, materials stockpiles, and other surfaces which can create airborne dusts;
c. Enclosing (full or partial) materials stockpiles in cases where application of water or other suitable chemicals are not sufficient to prevent particulate matter from becoming airborne;
d. Installing and using hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
e. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
f. Promptly removing earth or other material that does or may become airborne from paved streets; and
g. Developing a DEQ approved fugitive emission control plan upon request by DEQ if the above precautions are not adequate and implementing the plan whenever fugitive emissions leave the property for more than 18 seconds in a six-minute period.

1.4. Particulate Matter Fallout The permittee must not cause or permit the deposition of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person.

4.0 COMPLIANCE DEMONSTRATION AND SOURCE TESTING

4.1. Source Testing Requirements Within 180 days after installation and startup of the Dry Electrostatic Precipitator (DESP), the permittee must demonstrate the boiler is capable of operating at its normal maximum operating capacity to show compliance with Conditions 1.1 and 1.2 by conducting a source test for PM emissions. The permittee also must verify emission factors for PM, PM_{10}, $PM_{2.5}$, NO_x, CO, and VOC. Data supporting the normal maximum operating rate must be included within the source test results report.

a. The following procedures and test methods shall be used to ensure emission limits are being met, as well as to verify emission factors:

i. DEQ Method 5 shall be used to measure total PM emissions.

ii. EPA Method 7E (or other DEQ approved method) shall be used to measure NO_x emissions.

iii. EPA Method 10 (or other DEQ approved method) shall be used to measure CO emissions.

iv. EPA Method 25A, on an ‘as propane’ basis (or other DEQ approved method) shall be used to measure VOC emissions.

b. The following parameters must be monitored and recorded during the source test:

i. Visible emissions as measured by EPA Method 9 for a period of at least six minutes during or within 30 minutes before or after each test run.

ii. Process operating parameters – including steaming rate in lb/hr, steam pressure in PSI, pressure drop across the multi-clone, and fuel feed rate.

iii. Pollution control device operating parameters – including DESP inlet temperature, exhaust temperature, secondary voltage, secondary amperage, and rap rate.

iv. Physical fuel characteristics, including but not limited to, species type, size distribution, percent bark, and moisture content on a wet basis.

c. All tests must be conducted in accordance with DEQ's Source Sampling Manual and the approved pretest plan. The pretest plan must be submitted at least 30 days in advance and approved by the Regional Source Test Coordinator. Test data and results must be submitted for review to the Regional Source Test Coordinator within 60 days unless otherwise approved in the pretest plan.

d. Only regular operating staff may adjust the combustion system or production processes and emission control parameters during the source test and within two hours prior to the source test. Any operating adjustments made during the source test, which are a result of consultation with source testing personnel, equipment vendors or consultants, may render the source test invalid.

4.2. Monitoring Requirements The permittee must monitor the operation and maintenance of the plant and associated air contaminant control devices as follows:

d. *Highest and Best* is considered to be running the boiler emissions through the DESP and the veneer dryer emissions through the RCO.

6.0 RECORDKEEPING REQUIREMENTS

6.4. Retention of Records Unless otherwise specified, the permittee must retain all records for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application and make them available to DEQ upon request. The permittee must maintain the two (2) most recent years of records onsite.

7.0 REPORTING REQUIREMENTS

7.3. Annual Report

For each year this permit is in effect, the permittee must submit to DEQ by **February 15** two (2) copies of the following information for the previous calendar year:

Operating parameters:

a. Plant operating hours;

b. Boiler operating hours (hours/day x days/week x weeks/year);

c. Monthly and annual veneer dried. Including species – 3/8" basis (square feet);

d. Monthly and annual plywood production - 3/8" basis (square feet);

e. Monthly and annual throughput for material transfer system (BDT);

f. Monthly and annual hog fuel combusted within the wood-fired boiler (BDT);

g. Monthly and annual steam production (pounds);

h. Hourly, monthly and annual urea used within the wood-fired boiler (maximum gallons/hr) and (total gallons/year);

i. A summary of monthly and annual pollutant emissions determined each month in accordance with Condition 4.3;

j. Records of all planned and unplanned excess emissions events;

k. Summary of complaints relating to air quality received by permittee during the year;

l. List of any permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions;

m. List of any major maintenance performed on pollution control equipment.

8.0 ADMINISTRATIVE REQUIREMENTS

8.3. Permit Coordinator Address

The permittee must submit all notices and applications that do not include payment to the Western Region's Permit Coordinator:

DEQ – Salem office
4026 Fairview Industrial Dr. SE
Salem, OR 97302

9.0 FEES

9.4. Where to Submit Fees The permittee must submit payments for invoices, applications to modify the permit, and any other payments to DEQ's Business Office:

Department of Environmental Quality
Accounting / Revenue
700 NE Multnomah St., Suite 600
Portland, Oregon 97232

11.0 EMISSION FACTORS

Emissions device or activity	Pollutant	Emission Factor (EF)	EF units[1]	EF Reference
Wood-fired Boiler (exhausting to the DESP)	PM/PM_{10}	0.037*	lb/M lb-steam	Manufacturer
	SO_2	0.014	lb/M lb-steam	DEQ AQ-EF02
	NO_x	0.212	lb/M lb-steam	ST (4/2013)
	CO	0.797*	lb/M lb-steam	ST (9/1998)
	VOC	0.028*	lb/M lb-steam	DEQ Est.
Veneer Dryers (exhausting to the RCO)	PM_{10}	0.06	lb/M ft^2 3/8"	Source Test
	NO_x	0.009	lb/M ft^2 3/8"	Source Test
	CO	0.031	lb/M ft^2 3/8"	Source Test
	VOC	0.055**	lb/M ft^2 3/8"	DEQ
Presses (3)	PM/PM_{10}	0.02	lb/M ft^2 3/8"	ST (6/2008)
	VOC	0.22**	lb/M ft^2 3/8"	DEQ
Chip/Bark Bins	PM/PM_{10}	0.1	lb/BDT	DEQ AQ-EF02
Cyclones (2)	PM	0.5	lb/BDT	DEQ
	PM_{10}	0.25	lb/BDT	DEQ

[1] M = 1000

* - Emission factors will be further verified through required source testing

**- VOC emission factors expressed on an 'as VOC basis' as defined within DEQ guidance document AQ.00.011 *"Guidance for Evaluating VOC Emissions from Drying and Hot-Pressing Activities Common to the Wood Products Industry"*

STANDARD
AIR CONTAMINANT DISCHARGE PERMIT
REVIEW REPORT

Department of Environmental Quality
Western Region

Addendum Number 4
Moderate Technical Permit Modification

The Review Report for Standard Air Contaminant Discharge Permit, 15-0014-ST-01, is being revised by changing the following contents to read as follows:

PERMITTING

PERMITTING ACTION

1. The proposed Moderate Technical Permit Modification action is to the existing permit that was issued on December 1, 2009 and was scheduled to expire on October 1, 2014. However, the existing ACDP has been administratively extended and remains in effect until a new proposed permit is issued. In July2014, the permittee submitted a timely permit renewal application. It is anticipated that a new permit for the facility will be issued in 2017.

SOURCE DESCRIPTION

OVERVIEW

4. The proposed modification is to incorporate the monitoring, recordkeeping, compliance testing, and reporting requirements for the installation of a new *PPC* Model *11XH-12(2)-2S* dry modular electrostatic precipitator (DESP) to replace the existing *Kraftelekronik* wet electrostatic precipitator, which controls the emission from the *Wellons* wood-fired boiler . The installation of the DESP was approved on June 29, 2016, through the *Notice of Intent to Construct* application #28699. This modification updates the PM/PM_{10} boiler emission factor as provided by the DESP manufacturer, PPC. Source testing will be required to verify particulate matter, CO, NOx, and VOC emission factors used to calculate emissions from the DESP. This modification will result in an expected emission reduction of PM/PM_{10}; therefore, the PSEL is not being modified as part of this permitting action.

PROCESS AND CONTROL DEVICES

5. Existing air contaminant sources at the facility consist of the following:

   a. One *Wellons* boiler, wood-fired, with a multiclone, currently exhausting through a Wet ESP. The boiler has an identification of 'ST5611-84' and was manufactured in October1984.

   b. A Selective Non-Catalytic Reduction (SNCR) system was installed in 2013.

   c. One *Kraftelekronik* Wet ESP to control boiler emissions – installed in 1995. This ESP will be removed and replaced with the *PPC* Model *11XH-12(2)-2S* dry modular electrostatic precipitator

   d. One *GeoEnergy* Regenerative Catalytic Oxidizer (RCO) – installed in October 2011. RCO is used to control emissions from the veneer dryers.

   e. Two *Moore* steam heated veneer dryers exhausting through the RCO. One dryer was installed in 1993, the second dryer was installed in September 2004.

   f. Three plywood presses – installed in March 2005.

   g. 4 baghouses to handle and control wood-waste material.

   h. Chip/truck bin to handle wood-waste material.

COMPLIANCE

7. The facility was been inspected on 09/20/2013 and 08/03/2016 and found to be in compliance with its permit conditions.

8. DEQ received a complaint on April 9, 2014, regarding fugitive sawdust blowing from the chip bin onto a nearby property. In the fall of 2015, Murphy Plywood constructed a truck enclosure to prevent the fugitive sawdust material from blowing off the property.

9. No enforcement actions have been taken against this source since the last permit renewal.

ADDITIONAL REQUIREMENTS

NSPS APPLICABILITY

17. 40 CFR Part 60 Subpart Dc applies when a boiler has a maximum design heat input rating of 10 to 100 MMBtu/hr an d was constructed, modified, or reconstructed since June 9, 1989.

    40 CFR Part 60 Subpart Dc is not applicable to this facility because the Wellons wood-fired boiler was manufactured in 1984 and has not been modified or reconstructed.

NESHAP APPLICABILITY

18. 40 CFR Part 63 Subpart JJJJJJ (6J) is applicable to the facility because the *Wellons* wood-fired boiler has a design heat input capacity of greater than 10 MMBtu/hr.

TACT APPLICABILITY

20. The source is meeting the State's TACT/Highest and Best rules by conducting the following activities: exhausting the wood-fired boiler's emissions through the ESP and the veneer dryers' emissions through the RCO.

PROPOSED TESTING

22. The boiler/Dry ESP is scheduled to be tested for PM/PM_{10}/$PM_{2.5}$, NOx, CO, and VOC emissions within 180 days of startup of the new emission control device.

PUBLIC NOTICE

23. Pursuant to OAR 340-216-0066(4)(a)(A), issuance of Standard Air Contaminant Discharge Permits require public notice in accordance with OAR 340-209-0030(3)(b), which requires that the Department provide notice of the proposed permit action and a minimum of 30 days for interested persons to submit written comments. The public notice was mailed on November 4, 2016, and the comment period will end on December 5, 2016.

WK/bp
150014modrr2016

PLANT SITE EMISSIONS DETAIL SHEET
CURRENT EMISSIONS

(Dryers are controlled by a RCO and the boiler is to be controlled by a Dry ESP with SCNR)

This calculation sheet is used to provide a possible operating scenario, the production values can be adjusted,
SOURCE: Murphy Plywood Rogue River but the PSEL remains constant and can not be exceeded.
PERMIT#: 15-0014 **DATE:** 11/2/2016

Boiler Exhasting through the DESP -- (PM, NOx, CO, and VOC emissions will be verified with a required source test)

			Pollutant	Emission Factor	Reference	Emissions tons/yr
Operating Parameters:	240,000,000	lbs steam/yr	PM/PM_{10}	0.037 lb/1000 lb-steam	Manufacturer	4.44
			SO_2	0.014 lb/1000 lb-steam	DEQ AQ-EF02	1.68
			NO_x	0.212 lb/1000 lb-steam	ST(4/2013)	25.44
			CO	0.797 lb/1000 lb-steam	ST (9/1998)	95.64
			VOC	0.028 lb/1000 lb-steam	DEQ est.	3.36

Dryers Exhausting through the RCO -- approximately 95% DE at 850 °F with catalyst

Operating Parameters:	100,000	MSF/yr 3/8"	VOC	0.055 lb/1000 ft^2 3/8"	DEQ	2.75
			CO	0.031 lb/1000 ft^2 3/8"	Source Test	1.55
			NO_X	0.009 lb/1000 ft^2 3/8"	Source Test	0.45
			PM_{10}	0.06 lb/1000 ft^2 3/8"	Source Test	3.00
Presses						
	300,000,000	ft^2/yr ($^3/_8$")	Particulate/PM_{10}	0.02 lb/1000 ft^2($^3/_8$")	ST(6/2008)[a]	3.00
			VOC	0.22 lb/1000 ft^2(3/8")	DEQ	33.00
Material Handling						
Chip/Bark Bins:	24,000	BDT/yr	Particulate/PM_{10}	0.1 lb/BDT	DEQ AQ-EF02	1.20
Cyclones (2):	15,000	BDT/yr	Particulate	0.5 lb/BDT	DEQ	3.75
			PM_{10}	0.25 lb/BDT	DEQ	1.88

a - the emission factor for the press units utilizes an emission factor from a June 2008 source test conducted at the Sutherlin facility using the same resins and wood species.

	Netted Baseline Emissions		Pemitted PSEL			Calc Emissions from Production Example above	
*	**PM**	**53.0**	**PM**	**24.0**		**PM**	**15.4**
	PM_{10}	**42.0**	**PM_{10}**	**19.0**		**PM_{10}**	**13.5**
	SO_2	**0.1**	**SO_2**	**39.0**		**SO_2**	**1.7**
	NO_x	**3.1**	**NO_x**	**42.1**		**NO_x**	**25.9**
*	**CO**	**99.0**	**CO**	**99.0**	**	**CO**	**97.2**
	VOC	**0.2**	**VOC**	**39.0**	**	**VOC**	**39.1**

* Previous increase due to installation of a hog fuel boiler to replace the natural gas boiler required an Air Quality analysis with modeling that reset the netting basis for PM, PM10, and CO.

** In the calculated example above, both CO and VOCs are close to the PSEL limits. Exceeding the PSEL is a violation of the permit.