

Lane Regional Air Protection Agency  
Air Contaminant Discharge Permit

**REVIEW REPORT**

**McFarland Cascade Pole & Lumber Company**

**Permit No. 205108**

1. General Background Information

McFarland Cascade Pole and Lumber Company (the facility) operates a wood treatment facility in Eugene, Oregon. Wood products are treated under pressure in closed cylindrical vessels called retorts. Emissions are from four (4) retorts, one (1) natural gas-fired boiler with oil backup, and fugitive emission sources. The maximum operating schedule for the facility is 8,760 hours per year (24 hours per day, 7 days per week, and 52 weeks per year).

2. Reasons for Permit Action

The facility's ACDP expired on March 31, 2008. The primary reason for the permit issuance is to renew the expired permit. The facility operates processes listed in Table 1, Part B and C, of LRAPA Rule 37 and is therefore required to obtain a permit.

3. Enforcement History

There have been no enforcement actions taken against the facility.

4. Performance Test Results

There is no record of any source test performed at the facility.

5. Plant Site Emission Limits PSELS

In accordance with LRAPA 42-0040 the PSELS for PM, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> and CO are set at the Generic PSEL level. In accordance with LRAPA 42-0041 the VOC PSEL is set at the Generic PSEL level above the VOC Baseline Emission Rate.

The following annual (12-month rolling) PSELS will be in the permit (all values are in tons per year).

Source	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
<b>Totals</b>	<b>24</b>	<b>14</b>	<b>39</b>	<b>39</b>	<b>99</b>	<b>59</b>

The attachment to this report contains the estimations of emissions for the 2008 calendar year.

Emissions from pole shaving were calculated for the previous renewal to this permit and were shown to be minimal. This permit does not contain limits on pole shaving emissions.

**Baseline Emission Rate (BER)**

Baseline emission rate for 1978 was established in the previous permit. The baseline year emissions (tons per year) for the facility are:

Pollutant	Baseline (tons/year)	Annual Emission Limit (tons/year)	Increase Over Baseline (tons/year)	Significant Emission Rate (tons/year)
PM	2.8	24	21	25
PM <sub>10</sub>	1.1	14	0	15
CO	0.3	99	99	100
NO <sub>x</sub>	1.4	39	38	40
SO <sub>2</sub>	0.1	39	39	40
VOC	20.2	59	39	40

The BER is based on the operation of two (2) retorts, and one (1) boiler.

6. Other Emission Limitations

The permit includes general visible emissions limitations for the facility. The permit also includes general grain-loading limitations for the facility.

7. Hazardous Air Pollutants

The projected HAP emissions from the facility are shown in the table below.

HAP Name	Amount (tons/year)
Pentachlorophenol	<0.01

The table above shows that the facility emits less than 10 tons per year of any single HAP and less than 25 tons per year for any combination of HAPs and is therefore an "area" source of HAPs. As an area source of HAPs the facility is subject to Subpart QQQQQQ – National Emission Standard for HAPs for Wood Preserving area sources.

8. Typically Achievable Control Technology (TACT)

LRAPA Title 32-008 requires an existing emission unit at a facility to meet TACT if the emissions unit has emissions of criteria pollutants greater than ten (10) tons per year of any gaseous pollutant or five (5) tons per year of particulate, the emissions unit is not subject to the emissions standards under LRAPA Title 32, Title 33, Title 39, or Title 46 for the pollutants emitted, and the facility is required to have a permit. The retorts and boilers each emit greater than 10 TPY of gaseous pollutants and is, therefore, required to meet TACT. The type of controls and work practices used by the facility are considered TACT by LRAPA.

9. New Source Review and Prevention of Significant Deterioration

Because the proposed PSELS for all regulated pollutants are below the Significant Emission Rates (SERs) in LRAPA Title 38, the facility is not subject to LRAPA's New Source Review (NSR) requirements for PM<sub>10</sub>, nor the Prevention of Significant Deterioration (PSD) requirements for SO<sub>x</sub>, NO<sub>x</sub>, CO, and VOC.

10. New Source Performance Standards (NSPS)

Because the boiler operates between 10 MM BTU/hr and 100 MM BTU/hr (14.7 MM BTU/hour), and because the boiler was constructed after June 9, 1989, the boiler is subject to the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR Part 60 Subparts A and Dc), including, but not limited to, record keeping of fuel usage and annual reporting.

As stated in the NSPS and LRAPA 32-065(2)(B) the sulfur content in the backup fuel oil may not exceed 0.5% by weight. The facility is allowed to demonstrate compliance with this rule by fuel supplier certification.

11. Continuous Compliance

To ensure compliance with the annual PSELS and the NSPS the facility is required to keep a record of the following information for a period of two (2) years.

	<u>Parameter</u>	<u>Minimum Recording Frequency</u>
a.	Date, time, type, and quantity of material removed from the retorts.	Daily
b.	Measured temperature of gas stream exiting condenser.	Hourly
c.	Name, type and quantity used of all chemicals used in the wood treatment process.	Annually
d.	Date and time of retort door openings	Per Opening
e.	Amount of oil combusted (gallons).	Daily
f.	Certification by supplier of sulfur content in oil.	Per Delivery

12. Reporting Requirements

In accordance with 40 CFR 60.48(c), the facility is required to submit quarterly reports of the use of No. 2 oil for quarters when No. 2 oil is used. The quarterly reports are to be postmarked by the 30<sup>th</sup> day following the end of the reporting period, and include the following information:

- (a) The name of the oil supplier;
- (b) A statement from the oil supplier that the oil complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, "Standard Specification for Fuel Oils";
- (c) A certification statement signed by the permittee that the records of fuel supplier certification submitted represent all of the fuel combusted during the quarter.

By March 15<sup>th</sup> each year, the facility is required to submit an annual report to include the information required by Condition 10 (a, c, e, and f only) and General Condition G15.

13. Production Limits

The facility is limited to treating no more than 6,000,000 cubic feet per year and/or no more than 2,400 charges per year. The facility production will be limited to prevent triggering a Significant Emissions Rate increase for VOC.

The facility is also limited to no more than two (2) retort door openings in any 60-minute period. This is to prevent a sudden emission level that may result in odor complaints. This is not based on past odor complaints, but rather the potential for future odor complaints.

14. Back-up Fuel Usage

The facility is limited to burning no more than 1,098,592 gallons of No. 2 oil per calendar year.

15. Public Notice

The draft permit was on public notice from October 7, 2009 to November 10, 2009. No written comments were submitted during the 30-day comment period.

COMPANY: L.D. MCPHARLAND COMPANY  
 ADDRESS: 9004 HIGHWAY 99 NORTH  
 FACILITY: EUGENE, OR 97402  
 TRM ID NO: 97402DMMHCP0010  
 Permit: 205108  
 YEAR: 2008

Permit No. 205108  
 Attachment to Review Report  
 Expiration Date: November 22, 2014  
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PCP TREATING STATISTICAL SUMMARY

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
NO. OF DAY/MONTH AVAILABLE HOURS	31	29	31	30	31	30	31	31	30	31	30	31	366
CF TREATED GROSS % OF TOTAL	200,687 8.1%	187,268 7.6%	203,477 8.2%	190,800 8.1%	194,242 7.8%	189,238 8.0%	216,880 8.7%	238,403 9.7%	229,688 9.3%	285,602 10.3%	324,487 10.3%	178,841 7.2%	2,480,941 100.0%
NO. OF CHARGES % OF TOTAL	70 8.0%	67 7.7%	72 8.3%	45 6.3%	68 7.8%	69 7.9%	78 8.7%	84 9.6%	91 10.2%	69 10.2%	69 9.1%	62 7.1%	872 100.0%
BOILER USAGE (THERMS) % OF TOTAL	37,419 8.9%	47,148 11.2%	40,339 9.8%	43,109 10.3%	39,111 9.5%	34,498 8.2%	32,887 7.8%	29,091 6.9%	28,668 6.3%	28,161 6.0%	30,319 7.2%	34,344 8.2%	429,089 100.0%
MIXED OIL (GALLONS) % OF TOTAL	148,224 8.3%	142,821 7.9%	148,228 8.1%	149,534 8.3%	164,625 9.2%	148,984 8.3%	182,872 8.5%	149,492 8.3%	169,848 8.5%	149,886 8.3%	142,995 8.0%	147,309 8.2%	1,797,464 100.0%
UNMIXED OIL (GALLONS) % OF TOTAL	195,186 8.1%	178,989 8.1%	188,177 8.8%	208,814 8.8%	195,520 8.1%	194,222 8.5%	213,981 8.0%	194,824 7.2%	178,778 8.2%	189,323 8.0%	173,305 8.1%	147,808 8.0%	2,141,913 100.0%
TOTAL HOURS 1/4 TOTAL HOURS % CAPACITY	2,948 737 89%	2,712 678 87%	3,006 762 101%	2,788 699 97%	2,938 749 101%	2,834 708 89%	2,874 719 87%	2,849 737 99%	2,784 691 99%	2,981 738 99%	2,882 708 98%	2,424 608 81%	34,089 8,822 97%
BUY HOURS 1/2 BUY HOURS % TOTAL BUY HOURS % TOTAL OPER HOURS	2,044 1,022 69.2%	1,833 936 71.3%	2,212 1,106 83.3%	2,813 1,406 83.3%	2,212 1,008 83.3%	1,812 906 83.3%	1,684 832 78.8%	1,888 943 81.3%	1,511 756 81.3%	1,864 932 81.3%	1,988 943 81.3%	1,511 756 81.3%	21,747 10,874 83.5%
STEAM HOURS 1/2 STEAM HOURS % TOTAL STEAM HOURS % TOTAL OPER HOURS	162 81 6.5%	195 98 6.5%	210 105 8.4%	159 80 6.4%	198 99 6.9%	201 101 7.1%	281 131 10.8%	234 117 9.4%	186 93 7.5%	261 131 10.5%	234 117 9.4%	186 93 7.5%	2,487 1,244 100.0%
DIESEL USED	4,587	3,992	4,308	3,872	3,819	3,483	3,881	3,789	3,841	4,189	3,719	3,129	46,300
NO.2 OIL USED	0	0	0	0	0	0	0	0	0	0	0	0	0
SHOWER													0
CF THRU SHOWER													0
MAX WOODPARK													0
% OF RAW PRODUCT													0

NOTES:  
 NO. OF RETORTS AVAILABLE HOURS: 4  
 BUY - BOIL UNDER VACUUM: 24  
 SOURCE: GASOLINE USAGE - Pre-treatment Inventory (accounted) in the room  
 DIESEL USAGE - Pre-treatment Inventory (accounted) in the room  
 NO. 2 OIL USAGE - Pre-treatment Inventory (accounted) in the room  
 SHOWER - TERR HERMAN (EXT: 370)

COMPANY: L.D. MCFARLAND COMPANY  
 ADDRESS: 80048 HIGHWAY 99 NORTH  
 EUGENE, OR 97402  
 FACILITY: TRI ID NO: 97402LDM/MCF90049  
 Permit: 205108  
 YEAR: 2009

Permit No. 205108  
 Attachment to Review Report  
 Expiration Date: November 22, 2014  
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PCP TREATING INFORMATION

GF TREATED	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
GROSS	200,667	187,385	203,477	150,800	194,242	189,339	216,560	239,483	229,859	255,602	224,567	178,947	2,480,941
NET	198,089.4	180,249.0	197,425.9	143,760.1	189,051.0	191,786.8	212,273.0	236,500.8	225,081.4	250,633.2	220,081.1	176,088.1	2,421,090
RETRACT (CF)	2577.4	7136	6051	7040.1	5181	7552.3	4287.3	2922	4777.4	4968.6	220081.1	4777.4	59,852
% RETREAT	1.29%	3.81%	2.97%	4.67%	2.67%	3.79%	1.98%	1.22%	2.08%	1.94%	1.94%	2.61%	2.41%
CONTRACT USED													
GROSS	224,519	201,231	218,874	161,760	207,995	218,671	237,669	262,626	252,502	282,615	244,308	182,557	2,706,485
NET	123,718	130,643	159,991	104,159	139,893	143,189	168,363	184,237	182,498	196,708	163,909	124,191	1,822,900
UNDEROVER	-100,802	-70,588	-59,883	-57,601	-68,072	-75,682	-69,306	-78,389	-70,004	-84,506	-80,397	-60,366	-882,585
% UNDEROVER	-45%	-35%	-27%	-36%	-33%	-35%	-29%	-30%	-29%	-30%	-33%	-33%	-33%
GALCF	0.82	0.70	0.79	0.68	0.72	0.72	0.78	0.77	0.79	0.78	0.73	0.69	0.73
NO. OF CHARGES	70	67	72	55	68	69	76	84	81	89	79	62	872
BLV HOURS	2043.50	1832.70	2212.40	2012.60	2072.20	1812.20	1766.20	1742.3	1593.9	1653.6	1686.1	1511.1	21,989
STREAM	162.00	195.00	210.00	159.00	198.00	201.00	222.00	244.00	240.00	261.00	234.00	186.00	2,512
TOTAL HOURS	2,949	2,712	3,006	2,796	2,898	2,834	2,874	2,949	2,764	2,951	2,832	2,424	34,089
NO. OF DAY/MONTH	31	29	31	30	30	30	31	31	30	31	30	31	365
AVAILABLE HOURS	2,976	2,784	2,976	2,880	2,880	2,880	2,976	2,976	2,880	2,976	2,880	2,976	35,040
CAPACITY %	98%	97%	101%	97%	104%	98%	97%	99%	96%	99%	99%	87%	97%
THERMS													
TH/HOUR	37.415	47.183	40.339	43.109	39.111	34.480	32.967	29.091	26.656	25.161	30.153	34.384	420,059
TOTAL \$	29,147	36,344	31,301	33,342	30,397	28,992	21,228	22,991	21,135	19,996	23,796	33,712	330,382
COST/TH	0.78	0.77	0.79	0.77	0.78	0.78	0.64	0.79	0.78	0.79	0.79	0.88	0.79
COST/HOUR	9.88	13.40	10.41	11.93	10.14	9.53	7.39	7.60	7.85	6.78	8.40	13.81	9.89
COST/CF	0.16	0.19	0.15	0.22	0.16	0.14	0.10	0.10	0.09	0.08	0.11	0.19	0.13
GALS #2	0	0	0	0	0	0	0	0	0	0	0	0	3238.2
MIXED OIL (GALLON)	149,224	142,821	148,228	149,834	164,625	148,864	152,872	149,492	153,840	149,586	142,985	147,303	1,787,484
UNMIXED OIL (GALLON)	196,186	173,869	189,177	209,814	196,530	124,322	213,981	154,824	175,778	189,123	173,305	147,506	2,141,513
TOTAL OIL (GALLON)	344,410	316,790	337,405	359,648	361,155	273,186	366,853	304,316	329,618	338,709	316,300	294,809	3,928,997

NOTES:  
 NO. OF RETORT: 4  
 AVAILABLE HOURS/DAY: 24  
 BLV - BOIL UNDER VACUUM  
 SOURCE: NICK RENIFF (EUGENE)

Facility: L.D. McFarland Company  
90049 Highway 99 North  
Eugene, OR 97402  
Location: Eugene  
Chemical: PCP  
CAS No: 000087866  
TRI Fac. ID: 97402LDMCF90049  
Permit: 205108  
Year: 2008

**PCP EMISSION SUMMARY**

Air	Fugitive emission	6.80 lb/yr	3.40E-03 tons
	Point source	0.23 lb/yr	
<b>TOTAL AIR EMISSION</b>		<b>7.02 lb/yr</b>	

**OPERATIONAL INFORMATION FOR 2008**

System hours of operation (each retort)	8,522 hr	
Vacuum pump hours of operation	8,760 hr	
Vacuum pump flow rate	1,292 cfm	(max flow rate)
PCP content of preservative solution	5%	
No. of flanges in the system	674	
No. of valves in the system	380	
No. of pump seals in the system	4	
Cubic feet of charge treated	2,480,941 cf	
No. of charges treated	872	
Gallon of preservative used	2,705,495 gal	
Retort volume	5,580 cf	
Number of retorts	4	
Molecular weight of treating oil	200 g/mole	
Molecular weight of PCP	268 g/mole	

**PCP FUGITIVE AIR EMISSION CALCULATION**

**Flange Releases**

SOCMI emission factor	1.80E-06 lb/hr/flange
Flange in system	674
Hour of operation	8522.2 hr
PCP concentration	5%
 (674 flange)(0.000018 lb/hr/flange)(8522.2 hour) =	103.4 lb
(0.05 PCP)(103.39 lb) =	5.17 lb/yr

**Valve Releases**

SOCMI emission factor	5.10E-06 lb/hr/valve
Valve in system	380
Hour of operation	8522.2 hr
PCP concentration	5%
 (380 valve)(0.0000051 lb/hr/valve)(8522.2 hour) =	16.62 lb
(0.05 PCP)(16.62 lb) =	0.83 lb/yr

**Pump Releases**

SOCMI emission factor	4.70E-04 lb/hr/pump
Pump seal in system	4
Hour of operation	8522.2 hr
PCP concentration	5%
 (4 pump)(0.00047 lb/hr/pump)(8522.2 hour) =	16.02 lb
(0.05 PCP)(16.02 lb) =	0.80 lb/yr

**TOTAL FUGITIVE AIR EMISSIONS (PT. 010)**

**6.80 lb/yr**

Note: SOCMI = Synthetic Organic Chemical Manufacturing Industry

**PCP POINT SOURCE AIR EMISSION CALCULATION**

Treating Cylinder (PT. 008)

Retort volume	5580 cf
Charge treated	2480841.3 cf
Gallon of preservative used	2705495.4 gallon
PCP concentration	5%
No. of charges treated	872
No. of retort	4
Molecular weight of meta oil	200 g/mole
Molecular weight of PCP	266.32 g/mole
Mole fraction of PCP in vapor mixture	1.16E-07

void space = cylinder volume - average charge volume  
 average charge volume = charge treated (cf) / no. of charges treated  
 annual emission volume = (no. of charges treated)(void space per charge)  
 Cylinder release = (PCP mole fraction)(emission volume)(PCP molecular weight)/(1 lb-mole/359 cf)  
 conversion factor = change from standard temperature-pressure (STP) to 122 F

average charge volume	2845.1 cf
void space	2734.9 cf
annual emission volume	2,384,819 cf

$(0.000000115)(2384818.7 \text{ cf})(266.32 \text{ g/mole})(32+460)/[(359 \text{ mole/cf})(122 + 460)]$   
 Cylinder release (PT. 008) 0.17 lb/yr

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Vacuum Pump (PT. 009)

Vacuum pump hours of operation	8,760 hr
Vacuum pump flow rate	1,282 cfm
No. of charges treated	872
Condensate temperature	90 F
Molecular weight of treating oil	200 g/mole
Molecular weight of PCP	266.32 g/mole
Mole fraction of PCP in condensate mixture	0.003
Partial pressure of PCP in vapor space within condensate tank	4.34E-10 psi

Annual emission volume = (vapor flow rate)(vacuum pump hour of operation)  
 $(1282 \text{ cfm})(8760 \text{ hr})(60 \text{ min/hr})$  6.79E+08 cf/yr

Vacuum pump release = (emission volume)(PCP partial pressure)(PCP molecular weight)(conversion factor)  
 $(679075200 \text{ cf/yr})(0.00000000434)(266.32 \text{ g/mole})/[(359 \text{ cf/mole})((32+460)/(90+460))]$

Vacuum pump release 0.20 lb/yr

System Emission Controls/Reduction	
Condenser (80% efficiency)	0.16 lb/yr
Vapor recovery tank (40% efficiency)	0.02 lb/yr
Total emission reduction	0.17 lb/yr

Total vacuum pump release (PT. 009) 0.02 lb/yr

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Storage Tank (PT. 002)

Gallon preservative used	2,705,495 gal
PCP concentration	5%
Storage tank capacity	160,828 gal

RST = Fixed Roof Working Loss (lb/yr)  
 $RST = (2.4E-05) * Mv * P * V * N * Kn * Kc$   
 Mv = molecular weight of vapor in storage tank  
 P = vapor pressure at bulk liquid temperature  
 V = tank capacity  
 N = turnovers per year = total tank throughput (consumption) / tank capacity  
 Kn = turnover factor (Kn = 1 for 36 turnover or less)  
 Kc = product factor (Kc = 1 for all organic liquid except crude oil)

Mv	266.32
P (PCP @ 100 F)	1.90E-06 psia
V	160,828 gal
N = (2705495.4 gal)/(160828 gal)	16.82
Kn	1
Kc	1

RST	0.033 lb/yr
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Total cylinder release (PT. 008)	0.172 lb/yr	<u>8.60E-05 tons</u>
Total vacuum pump release (PT. 009)	0.023 lb/yr	<u>1.17E-05 tons</u>
Total storage tank release (PT. 002)	0.033 lb/yr	<u>1.64E-05 tons</u>

<b>TOTAL POINT SOURCE EMISSIONS</b>	<b>0.23 lb/yr</b>	<b>1.14E-04 tons</b>
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Facility: L.B. MacFadden Company  
 80046 Highway 88 North  
 Eugene, OR 97412  
 Location: 80046 Highway 88 North  
 Chemical: VOC  
 YRL Proj. ID: 97000LDMC20004  
 Permit: 205108  
 Year: 2008

Air Flightline emission  
 13,248 lb/yr  
 27,482 lb/yr  
 40,730 lb/yr

System	Volume	Concentration	Flow Rate	Annual Emission (lb/yr)
System hours of operation (each reactor)	6,522 hr			(assuming year-end report)
Vacuum pump hours of operation	0,700 hr			
Vacuum pump flow rate	1,282 cfm			
VOC content of preservative solution	85%			
FCP content of preservative solution	5%			
No. of flanges in the system	674			
No. of valves in the system	380			
No. of pumps each in the system	4			
Circle leak or change frequency	2,480,841 ft			
No. of changes needed	672			
Quantity of preservative used	2,705,485 gal			
Quantity of solvent added	1,702,484 gal			
Galons on top-filhead of tank	2,141,513 gal			
Robot Volume	5,580 ft			
Number of robots	4			
Molecular weight of toluene	200 g/mole			
Molecular weight of FCP	286 g/mole			

Facility: L.D. MacFarland Company  
 5000 W. Ramsey 89 North  
 Eugene, OR 97402  
 Landmark: Eugene  
 Chemical: VOC  
 RRI File ID: 87402LDMCF-8004  
 Permit: 205108  
 Year: 2008

**SCS Environmental Services, Inc.**

**Pump Release:**  
 SO2H1 emission factor  
 Pumps in system  
 Hour of operation  
 VOC concentration  
 (974 lb/ton)(0.0019 lb/hr/ton)(6522.2 hour) =  
 (1.85 VOC)/(746.72 lb) =

Value Release: SO2H1 emission factor  
 Pumps in system  
 Hour of operation  
 VOC concentration  
 (380 value)/(0.0019 lb/hr/ton)(6522.2 hour) =  
 (0.85 VOC)/(746.72 lb) =

**Pump Releases:**  
 SO2H1 emission factor  
 Pumps used in system  
 Hour of operation  
 VOC concentration  
 (4 pump)/(0.0019 lb/hr/ton)(6522.2 hour) =  
 (0.85 VOC)/(656.31 lb) =

**TOTAL PUMPING AIR EMISSIONS (PT-VI)**  
**TOTAL PUMPING AIR EMISSIONS (PT-VI)**  
**Total SO2H1 - Organic Oxygen Chemical Manufacturing Industry**

1.30E-04 lb/hr/ton	3.80E-04 lb/hr/ton
67.4 lb	6522.2 hr
8479	824
746.7 lb	12392.09 lb
709.38 lb/yr	11690.75 lb/yr
	2.60E-02 lb/hr/pump
	6522.2 hr
	59%
	646.31 lb
	841.59 lb/yr
	12392.09 lb/yr
	0.85 lb/yr







Facility: L.D. McFarland Company  
 90049 Highway 89 North  
 Eugene, OR 97402  
 Location: Eugene  
 TRI Fac. ID: 97402LDMCF90049  
 Permit: 205108  
 Year: 2008

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**L.D. MCFARLAND EMISSION TOTAL**

Constituent	Source: Plant		Source: Road		Source: Boiler		TOTAL EMISSION	
	PT. 001, 002, 003, 004, 006, 009	Emission (lb)	PT. 005, 008	Emission (lb)	PT. 011	Emission (lb)	(lb)	(ton)
SO <sub>x</sub>	0	0.0E+00	0	0.0E+00	0	1.3E-04	0.25	1.3E-04
NO <sub>x</sub>	0	0.0E+00	0	0.0E+00	42.0	2.1E-02	42.0	2.1E-02
CO	0	0.0E+00	0	0.0E+00	35.3	1.8E-02	35.3	1.8E-02
PM	0	0.0E+00	6.652	3.3E+00	3.2	1.8E-03	6.655	3.3E+00
VOC	40,734	2.0E+01	0	0.0E+00	2.3	1.2E-03	40,736	2.0E+01
PCP	7.0	3.5E-03	0	0.0E+00	0	0.0E+00	7.0	3.5E-03
<b>TOTAL</b>							<b>47,476</b>	<b>2.4E+01</b>

**L.D. MCFARLAND EMISSION TOTAL BY EMISSION POINTS**

Constituent	PT. 001	PT. 002	PT. 003	PT. 004	PT. 005	PT. 006	PT. 007	PT. 008	PT. 009	PT. 010	PT. 011	TOTAL EMISSION
	(lb)	(lb)	(lb)	(lb)	(lb)	(lb)	(lb)	(lb)	(lb)	(lb)	(lb)	(ton)
SO <sub>x</sub>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
NO <sub>x</sub>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42
CO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.3	35
PM	0.0	0.0	0.0	0.0	2,217.3	4,434.7	0.0	0.0	0.0	0.0	3.2	6,655
VOC	892.5	1,046.2	0.8	26.9	0.0	4,434.7	0.0	0.0	0.0	0.0	2.3	85,979
PCP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	6.8	0.0	7
<b>TOTAL</b>	<b>892.5</b>	<b>1,046.2</b>	<b>0.8</b>	<b>26.9</b>	<b>2,217.3</b>	<b>4,434.7</b>	<b>0.0</b>	<b>0.2</b>	<b>0.0</b>	<b>6.8</b>	<b>83.0</b>	<b>72,619</b>
												<b>3.6E+01</b>

- Emission Points:
- 001 - East tank farm
  - 002 - West tank farm
  - 003 - Groundwater treatment system
  - 004 - Shop
  - 005 - Paved road
  - 006 - Unpaved road
  - 007 - Pole shave
  - 008 - Redrills
  - 009 - Vacuum pump
  - 010 - Puffline
  - 011 - Boiler

Facility: L.D. McFarland Company  
 90049 Highway 99 North  
 Eugene, OR 97402  
 Location: Eugene  
 TRI Part. ID: 97402LDMCF90049  
 Permit: 205108  
 Year: 2008

Permit No. 205108  
 Attachment to Review Report  
 Expiration Date: November 22, 2014  
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**L.D. McFARLAND EMISSION TOTAL - ANNUAL COMPLIANCE CHECK**

Constituent	2008 Emission (ton/yr)	Annual PSEL (ton/yr)	Emission under PSEL (ton/yr)
SO <sub>x</sub>	1.E-04	3.9E+01	39
NO <sub>x</sub>	2.E-02	1.1E+01	11
CO	2.E-02	5.4E+00	5
PM	3.E+00	3.7E+00	0
VOC	2.E+01	5.9E+01	38
PCP	4.E-03	NA	NA

**OPERATIONAL INFORMATION FOR 2008**

**BOILER**  
 Boiler BTU input 14.7 10<sup>6</sup> BTU/hr  
 Boiler fuel usage - Therms 420,059 scf  
 Boiler fuel usage - No. 2 Oil 0 gal  
**TREATMENT PLANT**  
 Gross CF treated 2,480,941 cf  
 Gallon preservative used 2,705,495 gal

**BOILER EMISSION SUMMARY**

Constituent	Source: Natural Gas			Source: No. 2 Oil			Total Emission	
	Emission Factor (lb/10 <sup>9</sup> scf)	Emission (lb)	Emission (ton)	Emission Factor (lb/10 <sup>3</sup> gal)	Emission (lb)	Emission (ton)	(lb)	(ton)
SO <sub>x</sub>	0.6	0.3	0.0	71	0	0	0.3	1.3E-04
NO <sub>x</sub>	100	42.0	0.0	20	0	0	42.0	2.1E-02
CO	84	35.3	0.0	5	0	0	35.3	1.8E-02
PM	7.6	3.2	0.0	2	0	0	3.2	1.6E-03
VOC	5.5	2.3	0.0	0.052	0	0	2.3	1.2E-03
PCP	0	0.0	0.0	0	0	0	0.0	0.0E+00
<b>TOTAL</b>							<b>83.0</b>	<b>4.3E-02</b>

Facility: L.D. McFarland Company

Location: 80049 Highway 89 North Eugene, OR 97402

TRI Fac. ID: 97402LDMCF90049

Year: 2008

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TREATMENT PLANT EMISSION SUMMARY

Constituent	Source: Plant		Source: Road (unpaved road)		Source: Road (paved road)		Total Emission	
	PT. 001, 002, 003, 004, 008, 009 Emission (lb)	Emission (ton)	PT. 005 Emission (lb)	Emission (ton)	PT. 005 Emission (lb)	Emission (ton)	(lb)	(ton)
SO <sub>x</sub>	0	0	0	0	0	0	0	0.0E+00
NO <sub>x</sub>	0	0	0	0	0	0	0	0.0E+00
CO	0	0	0	0	0	0	0	0.0E+00
PM	0	0	4,435	2.2	2,217	1.1	6,652	3.3E+00
VOC	40,734	20.4	0	0	0	0	40,734	2.0E+01
PCP	7.02	0.0	0	0	0	0	7	3.5E-03
<b>TOTAL</b>							<b>47,388</b>	<b>2.4E+01</b>

Assumptions:  
 For road emissions:  
 Load 5 ton/load  
 Density 55 lb/cf  
 Haul distance 0.25 mile/load

Facility:

L.D. McFarland Company  
90049 Highway 99 North  
Eugene, OR 97402

Location:  
Eugene

TRR Fac. ID:

97402LDMCF90049

Permit:

205108

Year:

2008

PERMIT 205108 - CONDITION 12

Condition No.	Reporting Requirement	Annual Limit	Unit	Annual Quantity	Unit	Comments
12 a.	Amount of wood treated	6,000,000	cf	2,480,941	cf	
12 b.	Volumes/Type of treating solutions			2,705,495	gallon	All solutions consist of 5% pentachlorophenol (PCP) in oil.
12c.	Estimated emissions					
	SO <sub>x</sub>	39,000	ton	0.0001	ton	
	NO <sub>x</sub>	11,000	ton	0.021	ton	
	CO	5,400	ton	0.018	ton	
	PM	4,900	ton	3.328	ton	For simplification, all TSP assumed to be PM10
	VOC	58,300	ton	20,368	ton	
	PCP			0.004	ton	
12d.	Amount of fuel oil burned	1,098,592	gallon	0.0	gallon	Backup boiler fuel
12e.	Amount of natural gas burned			420,059	therm	Primary boiler fuel

Facility:

L.D. McFarland Company  
 90049 Highway 99 North  
 Eugene, OR 97402

Location:

Eugene

TRI Fac. ID:

97402LDMCF90049

Permit:

205108

Year:

2006

PERMIT 205108 - CONDITION 12 (CONFIDENTIAL INFORMATION OMITTED)

Condition No.	Reporting Requirement	Annual Limit	Unit	Annual Quantity	Unit	Comments
12 a.	Amount of wood treated	6,000,000	cf			
12 b.	Volume/Type of treating solutions					All solutions consist of 5% pentachlorophenol (PCP) in oil.
12c.	Estimated emissions					
	SO <sub>x</sub>	39,000	ton	0.0001	ton	
	NO <sub>x</sub>	11,000	ton	0.021	ton	
	CO	5,400	ton	0.018	ton	
	PM	4,900	ton	3.328	ton	For simplification, all TSP assumed to be PM10
	VOC	58,300	ton	20,368	ton	
	PCP			0.004	ton	
12d.	Amount of fuel oil burned					Backup boiler fuel
12e.	Amount of natural gas burned	1,098,582	gallon	0.0	gallon	Primary boiler fuel