

**OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

MEMORANDUM

April 12, 2016

TO: ✓ Phillip Fielder, P.E., Permits and Engineering Group Manager

THROUGH: ^{em} Phil Martin, P.E., Engineering Manager, Existing Source Permits Section

THROUGH: ^{AT} Peer Review

FROM: ✕ Jian Yue, P.E., New Source Permits Section

SUBJECT: Evaluation of General Permit Application No. **2016-0065-TV**
Authorization to Operate, Air Curtain Incinerator Facilities
Pallet Logistics of America
1901 Skyline Dr. Air Curtain Wood Waste Burner
Facility ID: 3155 (SIC 2421, NAICS 321920)
Section 2, T-11N, R-3W
Latitude: 35.258°N; Longitude: 99.611°W
1901 Skyline Drive
Oklahoma City, Oklahoma County, Oklahoma 73143

INTRODUCTION

Pallet Logistics of America has applied for an Authorization to Operate under the General Permit for Air Curtain Incinerator Facilities (GP-ACI), issued October 14, 2015, for their 1901 Skyline Dr. Air Curtain Wood Waste Burner. The facility is currently operating under Permit No. 2009-136-TVR issued on October 30, 2009. The applicant submitted a Title V permit renewal application (2014-0463-TVR2) on April 1, 2014 before the GP-ACI became available, which will be cancelled upon issuance of this permit.

FACILITY DESCRIPTION AND EQUIPMENT

This facility manufactures or rebuilds wooden pallets to customer specifications. A McPherson Systems Inc. Model M10E refractory-lined incinerator is used to dispose of wood-waste generated from manufacturing and rebuilding wooden pallets. The M10E pit burner is a refractory wall design consisting of a lower chamber, an upper chamber, and a fan for the burning of wood blocks, sticks, and sawdust. The waste material to be burned is clean wood-waste generated from the re-manufacture of wood pallets.

The lower chamber (below the air curtain) is 9 feet wide by 10 feet long by 12 feet deep. Hinged doors are located at one end for ash removal. The upper chamber (above the air curtain) is 9 feet wide by 10 feet long by 10 feet high. The 480-volt 25-hp centrifugal type fan supplies a minimum of 1,000 cfm of air per foot of nozzle length. The nozzle supplies underfire air and an

air curtain which enters the burning chamber from the rear at a 20 degree downward angle. Wood blocks and sticks are loaded into the machine using a forklift equipped with self-dumping hoppers.

Maximum anticipated operation is 2,000 hours per year.

EU	Point	Description	Throughput		Construction Date
			TPH	TPY	
EU-1	EU-1	MacPherson Air Curtain Incinerator	3.5	3,825	1998

EMISSIONS

- Estimated emissions from the incineration of the wood are based on emission factors listed in noted sources and a short-term maximum of 3.5 tons per hour (TPH) and 3,825 tons per year (TPY) of wood-waste burned.

Source	Pollutant	Emission Factor	Emissions	
		lb/ton	lb/hr	TPY
Air Curtain Incinerator	NO _x ^a	4.0	14.0	7.65
	CO ^b	1.4	4.90	2.68
	SO ₂ ^a	0.1	0.35	0.19
	VOC ^c	0.1	0.35	0.19
	PM ^d	2.0	7.00	3.83

- ^a - AP-42 (10/96), Section 2.1, Refuse Combustion, Table 2.1-12.
- ^b - Fountainhead Engineering Limited, Final Report Describing Particulate and Carbon Monoxide Emissions from the Whitton S-127 Air Curtain Destructor, 12/00.
- ^c - AP-42 (03/02), Section 1.6, Wood Residue Combustion in Boilers, Table 1.6-3.
- ^d - Air Burners, LLC Letter dated February 2, 2005; Fountainhead Engineering Ltd. Emission Testing. Limit shall be based on OAC 252:100-19-12 (Appendix G - 9.49 lb/hr & 5.19 TPY).

Since potential emissions of any criteria pollutant are less than 100 TPY, potential emissions of any single HAP are less than 10 TPY, and potential emissions of total HAP are less than 25 TPY, and meet the following conditions:

- a. The facility contains only a single ACI.
- b. The air curtain incinerator is used to burn only the following materials:
 - i. 100 percent wood waste.
 - ii. 100 percent clean lumber.
 - iii. 100 percent yard waste.
 - iv. 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

The facility is eligible for coverage under the GP-ACI.

PREVIOUS PERMITS

This facility was issued a permit No. 2009-136-TVR dated October 30, 2009. This permit (GP-ACI 2016-0065-TV) supersedes all previous Air Quality permits for this facility, which are now canceled.

EMISSIONS LIMITATIONS

Emissions limitations are established in this Authorization as a facility-wide emissions cap in order to avoid other applicable requirements. This cap is established at a level to not equal or exceed major source thresholds. Compliance with these emissions limitations can be demonstrated by compliance with the following limits.

- a. Total annual burning amount shall not exceed the following.

Scenarios	Maximum ACI Throughputs
	TPY
Scenario2: No Combustion Engine or Engine Subject to NSPS	38,300

There is no combustion engine at this facility and the maximum burning rate of 3,825 TPY is in compliance with the limit of 38,300 TPY.

In addition, the operator shall meet the following two limitations:

- a. Maintain opacity to less than or equal to 10% opacity (6 minute average), except as described below.
- b. Maintain opacity to less than or equal to 35% opacity (6 minute average) during the startup period that is within the first 30 minutes of operation.

APPLICABLE REQUIREMENTS AND MONITORING AND RECORDKEEPING REQUIREMENTS

Applicable requirements and monitoring and recordkeeping requirements for all eligible sources were identified and evaluated in development of the GP-ACI. As a summary, and for informational purposes only, the table at the end of this memorandum lists whether or not a particular condition of the permit and any specific monitoring and recordkeeping requirement pertains to a particular emission unit presently operated under this Authorization.

PERFORMANCE TESTING

The permittee shall use Method 9 of Appendix A of Part 60 to conduct annual tests no more than 12 calendar months following the date of the previous test.

TIER CLASSIFICATION AND PUBLIC REVIEW

The application associated with this Authorization under the GP-ACI is classified as Tier I, per OAC 252:4-7-32(c)(1). Since the GP-ACI has previously undergone public review (notice published in the *Daily Oklahoman* on May 2, 2015 and the *Tulsa World* on May 3, 2015), no site-specific public review is required. Information on the GP-ACI and all permit actions is available for review by the public in the Oklahoma City offices of the Air Quality Division and the Air Quality section of the DEQ web page: www.deq.state.ok.us.

The applicant has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the applicant has a current lease to accomplish the permitted purpose.

INSPECTION

No inspection is required for facilities with criteria pollutant emissions below 50 TPY of NO_x and CO.

FEES PAID

\$900 for an Authorization to Operate.

SUMMARY

The facility was constructed and is operating as described in the application for an Authorization to Operate. Ambient air quality standards are not threatened at the site. Issuance of the Authorization to Operate is recommended.

SUMMARY OF STANDARDS, MONITORING, and/or RECORDKEEPING REQUIREMENTS

Emission Unit (EU)	Specific Condition	Applicable? Y/N	Description	Standard, Monitoring, and/ or Recordkeeping	Comments
Emission Limitations	Part 2.I.3	Y	Facility-wide cap	Compliance with Established Burning Rate and Engine Size	
Air Curtain Incinerator	Part 2.II.1	Y	Burning Rate Limitations	Annual calculations and records	
	Part 2.II.2	Y	Material Limitations	Annual records	
	Part 2.II.3	Y	Pollution Control	Maintain and operate the ACI in a manner consistent with good air pollution control practice	
	Part 2.II.4	N	SC 17, Part 9	Comply with Opacity limits per SC 17, Part 9	
	Part 2.II.4	N	40 CFR Part 60, Subpart CCCC	Comply with Opacity limits per 40 CFR Part 60, Subpart CCCC	
	Part 2.II.5	N	SC 17, Part 11	Comply with Opacity limits per SC 17, Part 11	
	Part 2.II.5	Y	40 CFR Part 60, Subpart EEEE	Comply with Opacity limits per 40 CFR Part 60, Subpart EEEE	
	Part 2.II.6	Y	Recordkeeping	Records of burning rate and any records required by NSPS Subparts CCCC and EEEE	
Combustion Equipment	Part 2.III.1	N	Engine size limitation	< 240-hp	
	Part 2.III.2	N	Engine identification plate	Make, model, and serial number	
	Part 2.III.3	N	SC 37-36 VOC emissions	Operate and maintain to minimize emissions	
	Part 2.III.4	N	Fuel Requirement	Natural gas or on road diesel	
	Part 2.III.6	N	40 CFR Part 60, Subpart IIII (CI engines)	Per NSPS Subpart IIII	No applicable equipment
	Part 2.III.7	N	40 CFR Part 60 Subpart JJJJ (SI engines)	Per NSPS Subpart JJJJ	No applicable equipment
	Part 2.III.8	N	40 CFR Part 63 Subpart ZZZZ (RICE)	Per NESHAP Subpart ZZZZ	No applicable equipment
Fugitive Emission Sources	Part 2.IV.1	Y	PM emissions	Per OAC 252:100-29	
Temporary Sources	Part 2.V	N	OAC 252:100-8-6.2	Per OAC 252:100-8-6.2	



SCOTT A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

MARY FALLIN
Governor

APR 26 2016

Pallet Logistics of America
Mr. Sean Crowe, President
1901 Skyline Drive,
Oklahoma City, OK 73129

SUBJECT: GP-ACI Authorization to Operate
Permit No. **2016-0065-TV**
1901 Skyline Dr. Air Curtain Wood Waste Burner
Facility ID: 3155 (SIC 2421, NAICS 321920)
Section 2, T-11N, R-3W

Dear Mr. Crowe:

Enclosed is the Authorization to Operate the referenced facility. Please note that this permit is issued subject to standard and specific conditions of the GP-ACI. These conditions must be carefully followed since they define the limits of the permit and will be confirmed by periodic inspections. A copy of the GP-ACI can be found on our website at <http://www.deq.state.ok.us/aqdnew/permitting/genperm.htm>. If you are unable to obtain a copy and need to have a copy mailed to you, you can request it by letter or by calling our office at (405) 702-4100.

Also note that you are required to annually submit an emissions inventory for this facility. An emissions inventory must be completed on approved AQD forms and submitted (hardcopy or electronically) by April 1st of every year. Any questions concerning the form or submittal process should be referred to the Emissions Inventory Staff at (405) 702-4100.

Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact this office at (405) 702-4100 or by email at jian.yue@deq.ok.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jian Yue', is written over a horizontal line.

Jian Yue, P.E.

New Source Permits Section
AIR QUALITY DIVISION

Enclosure: Authorization to Operate





AUTHORIZATION TO OPERATE
PURSUANT TO THE TERMS OF THE
GENERAL PERMIT FOR AIR CURTAIN INCINERATOR FACILITIES

Air Quality Division
State of Oklahoma
Department of Environmental Quality
707 North Robinson
P.O. Box 1677
Oklahoma City, Oklahoma 73101-1677

Authorization No.: 2016-0065-TV

Facility Name: 1901 Skyline Dr. Air Curtain Wood Waste Burner

SIC Code: 2421

Facility Location: Section 2, Township 11N, Range 3W, Oklahoma County, Oklahoma


Company Name: Pallet Logistics of America

Mailing Address: 1901 Skyline Drive, Oklahoma City, OK 73129

Contact Person: Mr. Sean Crowe, President

This Authorization is issued pursuant to OAC 252:100-8-6.1.

Authorization is hereby granted the above named entity to operate the emission units, emission points, and other processes listed herein which are located at the above described facility (Facility) pursuant to the terms of the General Permit for Air Curtain Incinerator Facilities as issued by the Oklahoma Department of Environmental Quality, Air Quality Division, on October 14, 2015. The Authorization addresses only those emission sources listed under Section VI or provided for under Section IV, and only while located at the Facility.



Phillip Fielder, P.E.
Permits and Engineering Group Manager

4/21/2016

Issuance Date

Except as otherwise prohibited or limited by the General Permit for Air Curtain Incinerator Facilities (GP-ACI) or this Authorization, the permittee is hereby authorized to operate the following emissions sources and/or conduct the following activities at the referenced site as described in the application received on January 7, 2016. The Evaluation Memorandum, dated April 12, 2016, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Commencing construction or operations under this permit constitutes acceptance of, and consent to, the conditions contained herein.

I. Emission Units and Emissions Limitations

Emission limitations are hereby established for all regulated pollutants as a facility-wide cap. Emissions from all emission units at the facility shall not equal or exceed major source thresholds, i.e., 100 TPY of any regulated pollutant, 10 TPY of any single hazardous air pollutant (HAP), or 25 TPY of total HAP. Compliance with these emissions limitations can be demonstrated by compliance with the following limits.

- a. Total annual burning amount shall not exceed the following.

Scenarios	Maximum ACI Throughputs
	TPY
Scenario2: No Combustion Engine	38,300

In addition, the operator shall meet the following two limitations:

- a. Maintain opacity to less than or equal to 10% opacity (6 minute average), except as described below.
- b. Maintain opacity to less than or equal to 35% opacity (6 minute average) during the startup period that is within the first 30 minutes of operation.

II. Monitoring and Recordkeeping Requirements

The permittee shall demonstrate continued compliance with any emission limitations or any operational conditions as specified in the GP-ACI.

III. Equipment Additions / Authorization Modifications

The permittee shall obtain a major source construction permit for any modification that would cause an existing facility to no longer be classified as a minor facility.

The permittee shall obtain a minor source construction permit for any modification listed under Part 1, Section II.3 of the GP-ACI.

An applicant proposing to modify an existing facility, using the minor modification procedures, already covered by an Authorization to Operate under this general permit need only submit an

application for a modification to their Authorization to Operate if the facility and modification meet all of the eligibility requirements in Part 4, Section XXI.

Note: For modifications that are considered to be minor modifications, no construction permit is required. The facility will only be issued a modified Authorization to Operate.

V. Previous Permits and Associated Specific Conditions

This facility was issued a permit No. 2009-136-TVR dated October 30, 2009. This permit (GP-ACI 2016-0065-TV) supersedes all previous Air Quality permits for this facility, which are now canceled.

VI. Equipment List

The following table shows equipment presently operated at the facility, other than de minimis activities. The permittee may change the actual equipment operated or change method of operations so long as potential facility-wide emissions do not exceed that amount which would cause the facility to be classified as a major source.

EU	Point	Description
EU-1	EU-1	MacPherson Air Curtain Incinerator