



October 4, 2018

AJ LYMAN
CITY ADMINISTRATOR
CITY OF SHENANDOAH
500 W CLARINDA AVE
SHENANDOAH IA 51601

SUBJECT: City of Shenandoah Air Curtain Incinerator
Air Quality TV Permit Compliance Inspection
Facility No: 73-01-026, TV Permit No: 08-A-251-S1
Shenandoah, Page County, Iowa

Dear Mr. Lyman:

Enclosed please find a copy of the report resulting from a recent Air Quality Permit Compliance Inspection of the air curtain incinerator in Shenandoah, Iowa. The report should be self-explanatory.

If you have questions, please contact me at 712/243-1934.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Wendy S. Wittrock', is written over a blue horizontal line.

Wendy S. Wittrock
Field Services & Compliance Bureau

Shenandoah100318.aq.CityofShenandoah-ShenandoahSanitation.inspectioncoverletter.wittrock.doc

Enc. Air Quality Permit Compliance Inspection Report

CC Brian Hutchins, CAS, AQB, DNR, Windsor Heights, Iowa
Kelly Morehouse, Shenandoah Sanitation, 1207 W Ferguson RD, PO Box 6, Shenandoah, IA 51601
Facility AQ File

**IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL SERVICES DIVISION
AIR QUALITY COMPLIANCE INSPECTION
FIELD OFFICE # 4**

FACILITY #73-01-026

TV Operating Permit #08-A-251-S1

Company Name: City of Shenandoah
Company Address: 500 W Clarinda AVE, Shenandoah, IA 51601
Plant Address: 1207 W Ferguson RD, Shenandoah, IA 51601
Process and/or Product Type: Air curtain incinerator (trees/tree trimmings)
Facility Classification: Title V SM 80 Minor

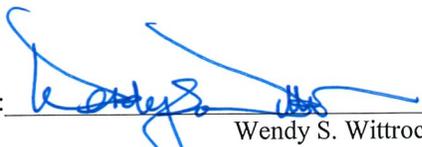
Deficiencies Noted During Inspection: Yes No (If yes, list deficiencies below)

EP	EP Description	Permit	Deficiency	FRV*
				Yes <input type="checkbox"/> No <input type="checkbox"/>
				Yes <input type="checkbox"/> No <input type="checkbox"/>
				Yes <input type="checkbox"/> No <input type="checkbox"/>
				Yes <input type="checkbox"/> No <input type="checkbox"/>
				Yes <input type="checkbox"/> No <input type="checkbox"/>
				Yes <input type="checkbox"/> No <input type="checkbox"/>

* A Federally Reportable Violation (FRV) as defined in the FRV Policy dated September 23, 2014 - EPA Guidance on Federally-Reportable Violations for Clean Air Act Sources.

VISIT NUMBER: 1
Inspection Type: Routine
Inspection Date: 10-3-18
Time Arrive: 10:00 AM
Wind Speed & Direction: ~20 mph from SW
Weather Conditions: Clear
Inspection status: Complete
Time Depart: 11:00 AM

Persons Contacted: Kelly Morehouse, Shenandoah Sanitation, operator **Phone:** 712-246-3350

Inspector's Signature:  _____
Wendy S. Wittrock

Date: 10/4/18

Reviewed by:  _____
Copy of Record
Holly Vandemark

Date: 10-4-18

IOWA DEPARTMENT OF NATURAL RESOURCES, ENVIRONMENTAL SERVICES DIVISION, AIR QUALITY COMPLIANCE INSPECTION

Company Name: City of Shenandoah-Shenandoah Sanitation

Facility # 73-01-026

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ID #	Source Description & Location	IN S T A D L L A T E A T I O N	P E R M I T	Applicable Regulations	Cntl Code	Maximum Capacity or Operating Limits	Actual Operating Condition (Process Input Rate)	C N T L E Q P	O S C H E D	R K E E C E O P I R I T Y D N G	O P A C I T Y	C S O T M A P T L U S	C O M M E N T S	I N S P I E T A O L	D A T E
1	EP 1 Air Curtain Incinerator	2009	08-A-251-S1	567 IAC 20-31	6	7 OL: not burn >35 tons /dy, material limitations, O&M per specs, trained operator	8 Not operating	9 N	10 As needed	11 yes	12 *	13 0*	14 yes	15 wsw	16 10-3-18
*DNR AQB staff observed opacity on May 16, 2018, which was in compliance with the permit; however, onsite records indicate non-compliance with opacity limits during the first 12 months of operation.															
Compliance Status															
Control Equipment Code															
0 - Unknown	5 - On ERP Schedule														
1 - Not in Compliance	6 - Not on ERP Schedule														
2 - In Compliance - Test	9 - In Compliance (Closed)														
3 - In Compliance - Insp.															
A - Afterburner															
E - Enclosure															
EP - Electrostatic Precip.															
WF - Waterwall															
MC - Multiclone															
R - Rotoclone															
CR - Cone Roof															
FX - Fixed Roof															
IFR - Internal Floating Roof															
SC - Scrubber															
VS - Venturi Scrubber															
PBS - Packed Bed Scrubber															
PCS - Packed Column Scrubber															
O - Other															
N - No Control															

AIR QUALITY COMPLIANCE INSPECTION
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The City of Shenandoah uses an air curtain incinerator to dispose of trees and tree trimmings.

EP 1 – Air Curtain Incinerator

Per the air quality TV operating permit, operating limits are as follows:

1. The emission unit shall not operate more than 9 hours per day.
2. The emissions unit shall not burn more than 5 tons of waste per hour or 35 tons per day of waste material.
3. The emissions unit shall be used to burn only wood waste and yard waste. Wood waste is untreated wood and untreated wood products, including tree stumps (whole or chipped) trees, tree limbs (whole or chipped), bark, sawdust, scraps, slabs, millings and shavings. Yard waste is leaves, grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs.
4. When burning yard waste in the air curtain incinerator (EU1), the owner or operator shall co-fire the yard waste with wood waste. Yard waste shall not be the only waste material charged to the air curtain incinerator.
5. The air curtain incinerator (EU1) shall not burn the following materials:
 - Construction, renovation or demolition wastes.
 - Treated wood and treated wood products, including wood products that have been painted, pigment stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote or manufactured wood products that contain adhesives or resins (e.g. plywood, particle board, flake board, and oriented strand board.)
5. The unit shall be installed, operated, and maintained in accordance with the recommendations and directions of the manufacturer.
6. The unit shall be operated only by operators who have been properly trained.

In order to minimize and eliminate emissions, the owner or operator shall follow its Maintenance Plan.

Per the air quality TV operating permit, operating condition monitoring (record keeping) requirements are as follows:

1. The owner or operator shall:
 - i. Maintain a daily record on the amount (tons) of waste burned in the air curtain incinerator (EU1).
 - ii. Maintain a daily record on the types of waste material burned in the air curtain incinerator (EU1).
 - iii. Submit an exceedance report for any day that the air curtain incinerator (EU1) burned more than 35 tons of material. This report shall identify the date of the exceedance and the total amount of waste burned. This report shall be submitted to the Iowa DNR, Air Quality Bureau no later than 30 days after the exceedance.
2. The owner or operator shall maintain a record of the initial and annual opacity tests for at least 5 years. These records must be maintained on site for at least 2 years, and may be maintained off site for the remaining 3 years.
3. In addition to the annual opacity test, for the first 12 months of the operation during which the air curtain incinerator (EU1) is used to burn yard waste (i.e. leaves and grass), the owner or operator shall perform a monthly opacity test on the air curtain incinerator (EU1) while the unit is burning yard waste. These tests shall be performed in the following manner:
 - An observer, certified to make Method 9 opacity readings, shall perform the test.
 - The first monthly opacity test shall be conducted no later than 30 days after the air curtain incinerator (EU1) begins to burn yard waste.
 - The length of each test shall be 60 minutes, at a minimum.
 - The data shall be reduced to six-minute observation blocks.

Inspector Initials: WJW

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- i. If the average opacity for any of the six minute blocks is greater than 10%, the charging of yard waste shall immediately cease.
 - ii. If no exceedances of the 10% opacity limit occur during the first 12 months of operation when the air curtain incinerator (EU1) burns yard waste, the monthly opacity tests may be discontinued.
 - iii. If any exceedances of the 10% opacity limit occur during the first 12 months of operation when the air curtain incinerator (EU1) burns yard waste, the monthly opacity test shall continue. The opacity test shall continue until there are 12 consecutive monthly tests when there are no exceedances of the 10% opacity limit while the air curtain incinerator (EU1) burns yard waste.
4. The owner or operator shall maintain a record of all monthly opacity tests.
 5. The owner or operator shall update its written Maintenance Plan if modifications are made to the air curtain incinerator (EU1) or to the method of operation of the air curtain incinerator (EU1) in order to maintain compliance with the opacity limit during the burning of yard waste.

The unit was not operating during my visit. DNR Air Quality Bureau staff observed compliance testing for opacity on May 16, 2018.

The monthly opacity readings, required during the first 12 months of operation of the air curtain incinerator (EU1) used to burn yard waste, indicate exceedances of the 10% opacity limit. Mr. Morehouse stated that in an effort to meet the 10% opacity requirement, operations have been adjusted. Yard waste is now being stockpiled with the wood waste in an effort to help better dry out the yard waste material prior to the burn. The material is now placed into the incinerator co-mingled instead of layered which they hope will provide for a more uniform opacity reading. Mr. Morehouse will document adjustments made to correlate to his opacity readings and will record the volume of the types of waste burned during each burn.



Inspector Initials: HW