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west virginia department of environmental protection

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Division of Air Quality  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304-2345

Phone: 304 926 0475 \$ Fax: 304 926 0479

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

*Pursuant to 45 CSR §13-8.8, the Division of Air Quality presents the*

*Final Determination*

*for the*

**Construction Permit**

*for*

*Thunder Mountain Environmental Services LLC*

*West Virginia Plant*

*located near*

Ravenswood, Jackson County, West Virginia

Permit Application Number: R13-3563

Facility Identification Number 035-00082

Date: September 12, 2023

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Promoting a healthy environment.

## BACKGROUND INFORMATION

Application No.: R13-3563  
Plant ID No.: 035-00082  
Applicant: Thunder Mountain Environmental Services LLC  
Facility Name: West Virginia Plant  
Location: Ravenswood  
NAICS Code: 562219  
Application Type: Construction  
Received Date: June 2, 2022  
Engineer Assigned: Edward Andrews  
Fee Amount: \$2000.00  
Date Received: June 6, 2022  
Complete Date: April 7, 2023  
Due Date: July 6, 2023  
Applicant Ad Date: June 24 and 28, 2022  
Newspaper: *The Jackson Herald And The Jackson Star News*  
DAQ Ad Date: May 26, 2023  
DAQ Ad Newspaper: *The Jackson Star News*  
DAQ Public Meeting Ad Date: July 11, 2023  
DAQ Public Meeting Ad Newspaper: *The Jackson Herald*  
UTMs: Easting: 430.86 km Northing: 4,308.59 km Zone: 17S

## NOTICES AND PUBLICATION

Pursuant to 45 CSR 13-8.4 the West Virginia Department of Environmental Protection (DEP), Division of Air Quality (DAQ) sent a copy of the advertisement, preliminary determination, and draft permit to representatives of the applicant, and US EPA Region 3 on May 25, 2023 via email. On July 26, 2023, the DAQ went to public notice by publishing a Class I Legal Advertisement in the *Jackson Start News* with a “Notice of Intent to Approve” to issue the permit to Thunder Mountain Environmental Services LLC for the proposed construction of the West Virginia Plant near Ravenswood, Jackson County, West Virginia. The Application, Draft Permit, Engineering Evaluation/Fact Sheet and supporting documents generated or reviewed by the DAQ were made available within DEP ApplicationXtender portal at the following web link:

<https://documents.dep.wv.gov/AppXtender/DataSources/DEPAX/account/login?ret=Lw==>

Login and search instructions into ApplicationXtender can be found at this link:

<https://dep.wv.gov/daq/permitting/Pages/NSR-Permit-Applications.aspx>

In addition to the requirements of the public notice procedures under Rule 13, the DAQ forwards a copy of all notices for the public to the DEP’s Public Information Office to

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be released to all subscribers of the DEP Enhanced Mailing List. The DAQ's notice for the TMES application was released on May 26, 2023 to the appropriate subscribers of the DEP Enhanced Mailing List.

The first public notice was followed by a 30-day public comment period that was scheduled to end at 5:00 P.M. on June 26, 2023. However, after receiving a single request for a public meeting and the Director's subsequent determination that, pursuant to §45-13-9.1, a public meeting was warranted, a second public notice was published on July 7, 2023, notifying the public that the DAQ was going to conduct a virtual public meeting on July 20, 2023. This advertisement also stated that the public comment period was being extended until 5pm on July 27, 2023. The public advertisement for the meeting was a Class I Legal Advertisement that ran in *The Jackson Herald*. Both *The Jackson Herald* and *The Jackson Star News* are newspapers of general circulation in Jackson County. To provide information on the permitting action and to facilitate the submission of comments, the DAQ held, on July 20, 2023, pursuant to §45-13-9, a public meeting concerning Permit Application R13-3563. The same notice for the public meeting was released to the appropriate subscribers of the DEP Enhanced Mailing List on July 17, 2023.

This document will summarize the comments received on the draft permit, any actions taken because of the comments, and any other changes to the final permit for Permit Application R13-3563.

## **COMMENTS ON THE DRAFT PERMIT**

During the public comment period, all comments were received from the public via email and during the virtual public meeting. A separate Response to Comments document has been developed. All original comments and any associated DAQ responses, including the Response to Comment document can be found on the DEP/DAQ web page under Popular Searches, Thunder Mountain and in the publicly available file, which is in the DEP's Application Extender at the following link:

<https://dep.wv.gov/daq/permitting/Pages/NSR-Permit-Applications.aspx>

## **CHANGES TO THE DRAFT PERMIT**

The changes to the draft permit that were incorporated into the final permit were focused on addressing errors, waste management plan requirements, and increasing the reporting frequency of deviations and emission data collected using continuous emission monitoring system (CEMS).

Several comments pointed out errors or suggested changes for clarity in Conditions 4.1.3,b. and 4.2.8. One commenter noted that the european standards for dioxins and furans are significantly more stringent than those initially set in the permit. As a result of this

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comment, it was discovered that the dioxins and furans toxic equivalency standard from Table 2 of Subpart Ec was not correctly incorporated into the dioxins and furans limits in Condition 4.1.3.viii. These identified errors in the permit were corrected.

The DAQ noticed that the draft permit stated the wrong long term limits for emission point EP-001 (Gasifier stack) in Condition 4.1.6. These limits were corrected to reflect the short-term limits with no limitation of hours of operation of the gasifier.

One commenter noted that the medical waste should be separated in an effort to minimize the emissions from the gasifier. Subpart Ec requires TMES to develop a waste management plan with the intent to separate certain types of solid waste in an effort to minimize the amount of toxic emissions from the incinerated waste. To address this commenters concerns, Condition 4.1.9. will require TMES to identify the procedures and methods in the waste management plan that are used to ensure the waste received conforms to the waste management plan.

Another commenter asked how TMES was going to ensure that the prohibited waste materials identified in Condition 4.1.1.a. were not going to be processed by the gasifier. The commenter suggested adding measures in the permit to prevent such prohibited materials from reaching the loading dock. The DAQ can only develop permit requirements and enforce such requirements at the location of the stationary air pollutant source. For TMES to effectively comply with this requirement, TMES would need to ensure that the generators of the medical waste are properly sorting the waste as generated. The DAQ cannot require permitting conditions for sources not part of the air quality permit. Subpart Ec does require the development of a waste management plan with the intent to separate certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste. Therefore, Condition 4.1.9. will required TMES to identify measures to ensure that prohibited waste materials is not processed at the facility as part of TMES waste management plan.

Subpart Ec does not directly establish a specified timing or any follow-up review of this plan. As TMES will be offering a service to dispose of medical waste and not directly generating it, TMES will not be in direct control of the generators of this medical waste and may agree to accept new sources of medical waste without any review by the DAQ . The DAQ will require this plan to be established within 180 days after startup and reviewed once every five years thereafter.

During the question and answer session of the July 20, 2023, Public Meeting, the public asked about timing reporting of the emissions and deviations (e.g., emission exceedances, malfunctions) that TMES was going to be held to in the permit. The reporting of CEMs emission data was following the reporting requirements of Subpart Ec, which is semi-annually. In the general provisions of 40CFR60, the Administrator can, on a case-by-case basis, determine that more frequent reporting is necessary to accurately assess the compliance status of the source. The Administrator did this in issuing Monarch Waste

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Technologies Title V Operating Permit for a medical waste gasifier located on tribal lands in New Mexico. For the Monarch permit, the Administrator increased the reporting frequency from semi-annual to quarterly for the first two years after issuance of the facility's Title V Operating Permit.

40CFR§60.50c(i) outlines specific authorities under Subpart Ec that are not transferred to delegating agencies (e.g., DAQ). Changes to reporting frequency are not listed. As a delegated agency, the DAQ does have the authority to make justified changes in the reporting frequency. Given the change is an increase in the reporting frequency and the Administrator has already made a case-by-case decision for a similar source subject to the same regulation, the DAQ believes this is a reasonable increase in reporting frequency for the first two years after issuance of the Rule 13 permit for the gasifier. Condition 4.5.4. was modified and Condition 4.5.6. was developed to require this increase in reporting frequency.

In Condition 4.5.2., TMES will be required to submit to the DAQ monthly reports that identify any exceedances of the requirements of Section 4.0 of the permit. The public believed that exceedances should be reported in a real-time manner. Rules 13 and 18 do not have any requirements to require real-time notification/reporting of exceedances. However, Rule 30, which is the state rule for the Title V Operating Permit Program in West Virginia, requires that any deviation that poses an imminent and substantial danger to the public be reported to the DAQ immediately by telephone or email.

To address the concern from the public, Condition 4.5.7. was established to require TMES to report all deviations of CEMS issues, any exceedance of the emission limit/standard noted by CEMs, any exceedance of an operating parameter limit (OPL), or a malfunction or failure of any control device within 24 hours. In addition Condition 4.5.7 will require TMES to provide a follow-up report of the cause and any action(s) taken with regard to this deviation within 10 days of the initial notification.

Condition 4.5.1. from the Draft Permit required TMES notify the DAQ of exceedance of any visible emission standard as soon as practicable. This condition required TMES to provide this notification and pertinent information as required in the newly developed Condition 4.5.7. Thus, the visible emissions deviations were added to Condition 4.5.7. and Condition 4.5.1. was omitted. This omission required a renumbering of the conditions under Section 4.5. The conditions in the above discussion were referenced based on the current numbering in the final permit.

The public believes that any information on deviations should be relayed to the local first responders or public. There is no system to relay such information. The DAQ does make this information available to the public by uploading such information and reports in the DEP ApplicationXtender database as soon as it is received, which is typically within one business day.

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At the time the draft permit was developed, the DAQ standard permit format contained language about emergencies under Section 2.12. Due to recent changes in Title V authority, the DAQ has elected to remove Section 2.12 Emergency from the permit format for all permits going forward. The language under Section 2.12 was omitted from the permit.

Also, the DAQ authority to enter and inspect any stationary source from the WV Code was clarified in Section 2.11.

## **FINAL RECOMMENDATION**

It is the view of the writer that, after consideration of all comments received, all available information indicates Thunder Mountain Environmental Services LLC's proposed construction of the Thunder Mountain Environmental Services West Virginia Plant near Ravenswood, Jackson County, WV, should meet the emissions limitations and conditions set forth in the permit and should comply with all currently applicable state and federal air quality management rules and standards. It is, therefore, the recommendation of the undersigned that the WVDEP-DAQ issue Permit R13-3563.

Edward S. Andrews, P.E.  
Engineer  
September 12, 2023

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