



United States Environmental Protection Agency
Region 7
Enforcement and Compliance Assurance Division

Air Branch

Air Branch Inspection Report
Unannounced Partial Compliance Evaluation
NorthStar Battery/EnerSys Energy Products Plant 1
4000 Continental Way
Springfield, MO 65803
FRS# 110012704083

Inspection Date(s):
February 28, 2023

CHARLOTTE PAPP

Digitally signed by
CHARLOTTE PAPP
Date: 2023.06.08
11:35:05 -05'00'

Charlotte Papp, Inspector, ECAD, Air Branch

Authorized for Release by:

TRACEY CASBURN

Digitally signed by TRACEY
CASBURN
Date: 2023.06.08 13:45:01
-05'00'

Tracey Casburn, Air Branch Chief, ECAD

11201 Renner Boulevard
Lenexa, Kansas 66219

CONTENTS

INSPECTION OVERVIEW	3
INSPECTION OBJECTIVE	3
FACILITY CONTACT INFORMATION	3
FACILITY OVERVIEW	3
FACILITY OPERATIONS SUMMARY	4
FIELD ACTIVITIES SUMMARY	4
INSPECTION OBSERVATIONS AND POTENTIAL FINDINGS	5

TABLES

Table 1. FACILITY CONTACT INFORMATION	3
Table 2. APPLICABLE REGULATIONS AND STANDARDS	3

APPENDICES

- A Confidential Business Information (4 pages)
- B Receipt for Documents (1 page)
- C Records Request (1 page)
- D Field Photographs (50 pages)

**This Contents page shows all the sections contained in this report
and provides a clear indication of the end of this report.**

INSPECTION OVERVIEW

INSPECTION OBJECTIVE

The objective of the partial compliance evaluation (PCE) inspection was to determine compliance of the facility with the Clean Air Act (CAA), specifically those requirements located in the code of federal regulations at 40 CFR Part 63 Subpart P, National Emission Standards for Hazardous Air Pollutants for Lead Acid Battery Manufacturing Area Sources. The inspection was part of the U.S. Environmental Protection Agency's (EPA) Creating Cleaner Air for Communities National Enforcement Compliance Initiative.

This inspection was conducted by Charlotte Papp, EPA Region 7, Enforcement and Compliance Assurance Division, Air Branch.

FACILITY CONTACT INFORMATION

Table 1 lists the primary facility contacts.

Table 1. FACILITY CONTACT INFORMATION		
Name	Title	Email Address
Bruce D. Volner	EHS Specialist	bruce.volner@enersys.com
Adam Holbrooke	EHS Manager	adam.holbrooke@enersys.com
Adam Bressler	America – EHS Manager	adam.bressler@enersys.com
Joe LaBarge Senior	Plant Manager	joesr.labarge@enersys.com

FACILITY OVERVIEW

According to the NorthStar Battery Plant 1 Title V operating permit (Permit Number 102022-003), issued by Missouri Department of Natural Resources, the facility is subject to the following regulations and standards subject to review during this inspection (**Table 2**):

Table 2. APPLICABLE REGULATIONS AND STANDARDS	
Code of Federal Regulation	Standard Name
40 CFR Part 63 Subpart P	National Emission Standards for Hazardous Air Pollutants for Lead Acid Battery Manufacturing Area Sources
40 CFR Part 60 Subpart KK	Standards of Performance for Lead-Acid Battery Manufacturing Plants for Which Construction, Reconstruction, or Modification Commenced After January 14, 1980, and On or Before February 23, 2022

The permit lists 10 emission points controlled via baghouses, HEPA filters and/or wet scrubbers, as well as 3 uncontrolled emission points. The permit likewise specifies that the facility must keep at least five years of relevant records to demonstrate compliance for these emission units.

An Enforcement and Compliance History Online (ECHO) report taken on February 8, 2023, list no history of CAA non-compliance in the past five years.

FACILITY OPERATIONS SUMMARY

The facility manufactures lead acid batteries. Lead oxide is produced in a lead oxide mill which is controlled with baghouses. The lead oxide dust is taken to the paste mixing area which is equipped with four scrubbers. A separate grid casting line creates the grids from solid lead, and the paste is applied to those grids. These grids are then placed into curing ovens.

After the grids are removed from the oven, they are taken placed into containers and filled with acid, then set into lines in the formation area where they are left to charge for several days.

FIELD ACTIVITIES SUMMARY

I arrived at the facility on February 28th, 2023, and completed a drive-by surveillance inspection, I did not observe anything out of the ordinary. I made entry at the front office and introduced myself, presented my credentials, and provided my business card to Mr. Holbrooke and Mr. Volner. I conducted an opening conference during which I explained that the purpose of the visit was to conduct an inspection to determine compliance with the CAA, specifically, to determine compliance with the conditions listed in Table 2. I explained that after asking for some general business information, I would observe work practices, process units, emission units, control equipment and review associated records demonstrating compliance with the regulations. I explained to Mr. Holbrooke that the facility could make a claim of business confidentiality and provided a Confidential Business Information form (Appendix A). Mr. Holbrooke did not make a claim of confidentiality at that time.

I was given a facility tour by Mr. Holbrooke and Mr. Volner. I was asked to wear the following personal protective equipment (PPE) by Mr. Holbrooke for general facility safety: safety glasses, steel-toed boots with disposable booties, gloves, lab coat (the lab coat was provided by the facility and returned to the facility after the site tour).

We began the site tour at the oxide manufacturing production unit. I observed the “process baghouse” and accompanying monitoring system. Next, we continued to the reclaim area, then to the paste mixing area where I observed Scrubbers 1-4. I then observed the grid casting and pasting lines, then the drying ovens. After the ovens, I viewed the acid fill station and formation area, then continued outside to the baghouses. Baghouses 1-3 appeared well maintained with no visible leaks or visible debris. Baghouse 4 had visible residue on the ground surrounding the baghouse (Photos 36-39). I observed the pressure gauges for baghouses 1, 2, 3 and 4.

We returned from the site tour into the conference room and continued our discussion of facility operations and recordkeeping. We broke for lunch and then continued this discussion after lunch until approximately 1:31 pm, when we broke off to allow me to prepare for a closing conference.

I conducted a closing conference with the attendees listed in Table 1. I confirmed the records I collected onsite that day, as indicated on the Receipt for Documents (Appendix B) and requested additional documents for further review (Appendix C). I provided the facility with copies of the small business resource information sheet, and the Receipt for Documents (Appendix B). We discussed my preliminary observations and potential compliance concerns. I departed the facility at 2:31 pm

INVESTIGATION OBSERVATIONS AND POTENTIAL FINDINGS

Ambient weather, site conditions and activities were documented in field records. All photographs are attached as **Appendix D**. I made the following observations during the inspection. I discussed all observations with facility representatives during the closeout meeting unless otherwise noted in the observation description.

These observations are not final compliance determinations. The EPA Region 7 Air Branch case review team will make the final compliance determinations based on its review of this report and other technical, regulatory, and facility information.

Potential Finding 1: Debris visible on ground surrounding Baghouse 4
Observation Summary: Yellow powder/debris was visible on the ground surrounding Baghouse 4 from a potential leak in the system.
Citation: Permit special condition 4A/B, 40 CFR 63.11423(a)(4), 40 CFR 63.6(e)(1)(i)
Evidence: Appendix D- Field Photographs, photographs No. 36-39; facility submitted records
Description of Observation: While conducting the facility site tour I observed a fine yellow powder on the ground and on the lids of nearby containers near Baghouse 4. Upon further inspection, I noticed a potential gap within a lower flange of the unit. The facility was made aware of this observation during the closing conference and informed me that they had already taken action to clean up the area. I requested photos and documentation of any repairs made to the area. On April 28, 2023, via a file transfer site, I received four photographs along with a maintenance report. The photo labeled “after” shows the area free of debris. The work order mentions “Check flange seal in ductwork repair as necessary so as to prevent potential oxide leaks”. However, no details as to the cause of the issue or the repair that was made are mentioned in the documentation. Further investigation into the adequacy of the repair may be warranted.

Potential Finding 2: Incorrect/inaccurate reporting and response during control device inspections
Observation Summary: Pressure differential readings on control devices were recorded outside of designated operating ranges during preventative maintenance inspections, but the facility did not designate them as needing immediate corrective action as required.
Citation: Permit special condition 4E and 4F, 40 CFR 63.11423(b)(2)(ii)
Evidence: Appendix B, document 5
Description of Observation: While reviewing records with facility staff, I observed recorded pressure readings on various control devices that appeared to be outside of the designated operating range, yet these readings were not marked in the electronic maintenance system as needing follow up. I requested preventative maintenance (PM) records from the previous 3 years as part of the records request. On April 28, 2023, via a file transfer site, I received a summary of the PM documents, however the pressure readings observed by staff were not included in the summary. Additional follow up is necessary to determine whether pressure readings are within the operating range, and, if not, what corrective action was taken as is required by 40 CFR 63.11423(b)(2)(ii). Further investigation may also be warranted to determine if control device operations outside the designated operating range will lead to excess emissions not currently reported by the facility.

Potential Finding 3: Inadequate detail and/or lack of repair records
Observation Summary: Requested repair records lacked substantive detail about repairs made to control equipment
Citation: Permit condition 4H
Evidence: Submitted records

Potential Finding 3: Inadequate detail and/or lack of repair records
Description of Observation: As part of the records request, I asked for work orders and records of repair to any documented issues on baghouses and other control devices for the past three years. The records I received on April 28, 2023, via a file transfer site, have little detail about the repairs that were made, simply the dates in which they were “closed out”. This calls into question whether the facility is taking measures to ensure repairs are adequate and durable. Further, no records of retesting or confirming the repairs were successful were submitted as part of the request for repair records. Further investigation may be required to determine if the repair records kept by the facility are sufficient.

End of report.