



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

Air Branch

Air Branch Inspection Report
Unannounced Partial Compliance Evaluation
Durham School Services
1401 W 4th Ave
Hutchinson, Kansas 67501

Inspection Date(s):
April 16-17, 2024
CHARLOTTE PAPP Digitally signed by
CHARLOTTE PAPP
Date: 2024.06.13
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APPENDICES

- A – Confidential Business Information Form (1 page)
- B – Receipt for Documents (4 pages)
- C - Field Photographs (149 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 listed in Table 3 below.

Table 1 lists the inspection team members.

Table 1. PROJECT TEAM MEMBERS		
Team Member	Organization	Project Role
Lead Inspector Charlotte Papp	EPA Region 7, ECAD, Air Branch	Project manager (PM)
Avery Bowers	EPA Region 7, ECAD, Air Branch	Field team member

FACILITY CONTACT INFORMATION

Table 2 lists the primary facility contacts in order of contact during the inspection.

Table 2. FACILITY CONTACT INFORMATION		
Name, Title	Phone No.	Email Address
Mike Simmons, General Manager	620-665-6595	msimmons@durhamschoolservices.com
Philip McPherson, Region Maintenance Manager TX-Midwest	480-238-2027	Philip.mcpherson@nellc.com
Archer Blaton, Mechanic		

FACILITY OVERVIEW

Durham School Services owns and operates a fleet of charter busses. According to Plant Manager Mike Simmons, the facility in Hutchinson houses approximately 30 vehicles, some of which are diesel engines, and some are gasoline. The primary client is the local school district. The drivers execute approximately 20 routes, 2-3 times per day. According to Mr. Simmons, the facility has an in-house mechanic, Archer Blaton, who deals with most maintenance and repair. The facility will occasionally use local service shops/dealerships for more in-depth or specialized repairs.

The facility is subject to the following regulations and standards subject to review during this inspection (**Table 3**):

Table 3. APPLICABLE PERMIT CONDITIONS, REGULATIONS AND STANDARDS	
42 U.S.C. Sec. 7522(a)(3)(b)	Prohibited Acts

FIELD ACTIVITIES SUMMARY

We arrived at the facility on April 16, 2024, at 12:24 p.m. and completed a drive by surveillance inspection. While waiting for the facility contacts to be available, the inspection team went into the fleet yard and counted 7 short busses and 23 long busses parked in the lot. We made entry at the front office and I introduced myself and members of the inspection team, presented my credentials, and provided my business card to Mr. Simmons. 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 with CAA section 203(a)(3) defeat device and tampering provisions. I explained that after asking for some general business information, I would inspect several vehicles, as well as request associated maintenance and repair records. I explained to Mr. Simmons that the facility would have an opportunity to make a claim of business confidentiality at the end of the inspection and provided him with a Confidential Business Information (CBI) form. Mr. Simmons did not make a claim of confidentiality (Appendix A).

We began inspecting Vehicle 1 at approximately 1:09 p.m. and concluded at 1:50 p.m. We broke for lunch shortly after and remained away while the busses were performing their afternoon school routes. We returned to the facility at 4:21 p.m. and began inspecting Vehicle 2 at 4:33 p.m. We concluded the Vehicle 2 inspection at 5:13 p.m. and left the facility for the day.

The following day, April 17, 2024, we arrived onsite at 8:34 a.m. We began inspecting Vehicle 3. Mr. Simmons escorted us to the vehicle, gave us the keys, then returned to his office while we completed the inspection of the vehicle. Vehicle 3 inspection was completed at 9:30 a.m.

We began the Vehicle 4 inspection at 9:37 a.m. and concluded at 10:34 a.m. The Vehicle 5 inspection began at 10:50 a.m. and concluded at 11:49 a.m.

The Vehicle 6 inspection was only an OBD scan. It began at 12:03 p.m. and concluded at 12:14 p.m.

At 12:23 p.m. we returned to the office to discuss record keeping with Mr. Simmons. We agreed on April 19th, 2024, for remaining records to be sent to me via email.

I conducted a closing conference with Mr. Simmons at 12:33 p.m. I provided the facility with copies of Receipt for Documents (Attachment B), and a small business resource information sheet. We departed the facility shortly thereafter.

Measurement and/or Sampling Activities

We conducted OBD scans of 6 vehicles during the onsite inspection. **Table 4** summarizes field measurement and field sampling activities.

All environmental measurement activities were performed in accordance with the EPA On-Board Diagnostic Data Acquisition Standard Operating Procedure.

Table 4 summarizes field measurement activities.

Table 4. FIELD MEASUREMENT ACTIVITIES			
Location Identifier	Date(s) and Time	Method and/or Procedure ¹ , and Equipment	Measurer Name
Vehicle 1	4/16/2024 1:34 p.m.	Method/EPA Procedure: OBD Data Acquisition Procedure Equipment: Blue Point Pocket iQ2, Model EEHD186030, Serial No. 03683	Charlotte Papp
Vehicle 2	4/16/2024 4:57 p.m.	Method/EPA Procedure: OBD Data Acquisition Procedure Equipment: Blue Point Pocket iQ2, Model EEHD186030, Serial No. 03683	Charlotte Papp
Vehicle 3	4/17/2024 9:15 a.m.	Method/EPA Procedure: OBD Data Acquisition Procedure Equipment: Blue Point Pocket iQ2, Model EEHD186030, Serial No. 03683	Charlotte Papp
Vehicle 4	4/17/2024 10:18 a.m.	Method/EPA Procedure: OBD Data Acquisition Procedure Equipment: Blue Point Pocket iQ2, Model EEHD186030, Serial No. 03683	Charlotte Papp
Vehicle 5	4/17/2024 11:33 a.m.	Method/EPA Procedure: OBD Data Acquisition Procedure Equipment: Blue Point Pocket iQ2, Model EEHD186030, Serial No. 03683	Charlotte Papp
Vehicle 6	4/17/2024 12:03 p.m.	Method/EPA Procedure: OBD Data Acquisition Procedure Equipment: Blue Point Pocket iQ2, Model EEHD186030, Serial No. 03683	Charlotte Papp
¹ The current version of each procedure, at the time of the investigation, was followed.			

INVESTIGATION OBSERVATIONS AND POTENTIAL FINDINGS

Ambient weather, site conditions, and field activities were documented in the field records. All photographs are attached as **Appendix C**. 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.

None of the 6 vehicles inspected showed obvious signs of tampering, or installation of defeat devices. A summary of the vehicle inspections is bellow in Table 5.

Table 5. VEHICLE INSPECTION SUMMARY				
Vehicle Identifier	VIN	Photo Range	Date(s) and Time	Observations
Vehicle 1	4UZABRDT5CCBN1859	4-23	4/16/2024 1:09 p.m.	EGR, DOC/OC, DPF/PTOX, SCR appeared to be present and not tampered
Vehicle 2	1GB6G5BLXE1213487	24-50	4/16/2024 4:33 p.m.	DOC/OC, DPF/PTOX, SCR appeared to be present and not tampered. EGR was not visible from inspector vantage point.
Vehicle 3	4DRLWTAN3LB087240	51-75	4/17/2024 8:44 a.m.	EGR, DOC/OC, DPF/PTOX, SCR appeared to be present and not tampered. I used an endoscopic camera in the tailpipe and saw potential catalytic material
Vehicle 4	1GB6G5BL9E1210967	76-101	4/17/2024 9:37 a.m.	DOC/OC, DPF/PTOX, SCR appeared to be present and not tampered. EGR was not visible from inspector vantage point.
Vehicle 5	4DRBUC8N2HB651561	102-138	4/17/2024 10:51 a.m.	EGR, DPF/PTOX, SCR appeared to be present and not tampered
Vehicle 6	4DRBUC9PXR029289	139-142	4/17/2024 12:03 p.m.	OBD Scan only

Potential Finding 1: Inconsistent data from OBD scans
Observation Summary: Certain data points taken during vehicle inspections were not consistent with a functioning exhaust aftertreatment system.
Citation: 42 U.S.C. Sec. 7522(a)(3)(b)
Evidence: OBD Scan Data
Description of Observation: While reviewing OBD data collected during the vehicle inspections, I observed several data points that are suggestive of a tampered vehicle exhaust treatment system. Some examples include: - DPF differential pressure at a constant 0 reported value or inlet and outlet pressure values do not equal differential pressure - Active fault codes relating to reductant tank temperature and NOx sensors - Average reagent consumption 0.0 gal/hr - Exhaust temperatures above normal operating range Further investigation into this matter should be considered.

Potential Finding 2: Incongruent amount of DEF usage
Observation Summary: The facility seems to use too little DEF fluid for the miles driven on diesel vehicles
Citation: 42 U.S.C. Sec. 7522(a)(3)(b)
Evidence: DEF purchase records, driving/mileage records
Description of Observation:

Potential Finding 2: Incongruent amount of DEF usage

According to the document titled "DEF Purchases 12 month record.xlsx" sent by the facility, Durham School Services has purchased 150 gallons of DEF on 5/20/23, and an additional 200 gallons on 1/30/2024.

According to the driving logs provided, the fleet has consumed a total of 13,235.8 gallons of diesel fuel from approximately 4/1/2023 to 4/12/2024. However, many entries in the driving logs list a vehicle traveling a considerable number of miles with no fuel used. The total number of miles driven in the same time period is 166,132.6 miles, which would assume a fuel efficiency of 12.55 mpg. According to the OBD data, a more reasonable approximation is 8 mpg. Using this figure, an estimated fuel usage would be 20,766.58 gallons.

EPA uses the approximation of 50 gallons of fuel per 1 gallon of DEF used in typical driving situations. Assuming the fleet used 20,766 gallons of fuel from 4/1/2023 to 4/12/2024, we would expect them to have used 415 gallons of DEF. However, purchase records show only 350 gallons purchased.

To be more concise, if we assume all 150 gallons of DEF were consumed between 5/20/2023 and 1/30/2024 when more DEF was purchased, we would expect to have 7,500 gallons of fuel consumed, or 60,000 miles collectively driven. Looking through the drive logs, the total miles driven from 7/1/2023 to 12/30/2023 was 76,551 miles. Even with a narrower time frame, the amount of DEF purchased and/or consumed seems to be too little for the miles driven of the vehicles.

Another document titled "Fuel Cost past 12 months.docx" is a table of figures for each month March 2023 to March 2024. It is unclear if these values are the total gallons of fuel purchased, or the total dollar amount spent on fuel. If they are total gallons of diesel fuel, it would indicate that from 6/1/2023 to 12/30/2023, the facility used 45,577 gallons of fuel, and thus would need approximately 911 gallons of DEF. Assuming it is instead \$45,577 spent on diesel fuel, with an assumed cost of \$3.50 per gallon, that would amount to 13,022 gallons of fuel and 260 gallons of DEF.

Further investigation into this issue is warranted.

End of report.