From:	Air.Pollution Control
To:	APC Permitting
Cc:	APC Enforcement
Subject:	FW: NOV Response
Date:	Friday, February 9, 2024 11:00:22 AM
Attachments:	TDAPC 82-1020 VVa Recordkeeping and Method 21 NOV 1 18 2024.pdf Nov Response Jan 2024.pdf

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From: Brian Potter <brianp@mxiinc.com>
Sent: Friday, February 9, 2024 8:53 AM
To: Air.Pollution Control <Air.Pollution.Control@tn.gov>
Cc: Candace Justice <Candace.Justice@tn.gov>; Rees Burt <rburt@aertn.com>
Subject: [EXTERNAL] NOV Response

Please see the attached NOV you issued to Dynamic Recycling LLC Facility ID 82-1020 and our response letter.

V/R,

Brian Potter
COO
Dynamic Recycling LLC
www.ethanolrecycling.com

DYNAMIC RECYCLING

Dynamic Recycling LLC
220 N. Industrial Dr.
Bristol TN, 37620
www.ethanolrecycling.com

Letter to: TDEC Division of Air Pollution Control 1/31/2024

Attention: Candace Justice

Subject: Refuting 18 January 2024 NOV

The NOV has three primary allegations of noncompliance with subpart VVa.

*The Portable Gas Detector XP-3000II Series Instruction Manual indicates on page 27 that, "*The detection of these gas types require a gas sampling tube for solvent gas detection (SH-401, separately sold)." Ethanol is one of the gases noted as requiring the solvent gas detection tube, SH-401. In an email dated November 27, 2023, it was indicated that you do not have and therefore cannot utilize the gas sampling tube required for ethanol detection. Therefore, without the required gas sampling tube, Method 21 of appendix A-7 has not been met since the VOC instrument detector cannot respond accordingly to the monitored compound.*

There is nothing in Method 21 or Subpart VVa that addresses gas sampling tubes or references to the manual of the instrument being used for test. Therefore, TDEC has no reason to declare our method invalid because of the gas sampling tube. We have responded to you previously regarding this gas sampling tube and our conversation with the distributor. The SH-401 tube is recommended by the manufacturer for longevity purposes as it is Teflon, not for purposes of accuracy. The standard tube is urethane plastic and will not adsorb ethanol and we have confirmed this with testing at our facility and we are happy to demonstrate this to TDEC. TDEC has no proof or good scientific reason that the sampling tube did not yield proper results.

The calibration records for July 31, 2023, through November 30, 2023, document that they were not performed as required. Method 21 was not followed according to 40 CFR §60.485a(b)(1) or 40 CFR §60.485a(c), which requires the procedures specified in Method 21 of appendix A–7 be utilized. Monthly VVa records provided for July through October 2023 did not contain documentation for all elements of Section 8.0: response factor, calibration precision, or response time. Additionally, the analyzer was not adjusted to the known concentration of the calibration gas, which was 1017 ppm based on the Certificate of Analysis from Gasco dated August 24, 2023. The facility submitted documentation of the response factor, calibration precision, and response time as completed on November 30, 2023, after the information was requested via an email the same day. Therefore, these requirements of Method 21 of appendix A–7, Section 8 were met as of November 30, 2023.

In terms of these items it appears that TDEC believes we are currently in compliance with these new record keeping requirements.

The instrument scale(s) used were not documented as required by S1-20(e)(8)(iii) in the monthly VVa records provided, which results in a violation.

Instrument scale documentation is covered by the model number of the instrument as our instrument does not have an adjustable scale. This is clearly outlined in the manual and specification of the device. We included the model number on the calibration sheet. We have added the scale to the daily calibration sheet to make this more obvious for TDEC.

The biggest sticking point is that TDEC and Dynamic have to agree upon is the definition of "adjustment" under Method 21. TDEC and Dynamic are at odds with the calibration procedure in outlined in Method 21 Appendix A-7 and its instruction to "adjust" the instrument. We believe that this section of Method 21 is poorly written by the EPA and you have a misunderstanding of what it is trying to say. The calibration procedure for any instrument is an adjustment of the output from a known quantity. All laboratory instruments are calibrated and then that calibration is tested with a known sample to confirm the instrument is performing with the required precision. This is exactly what we are doing as we demonstrated for you on your 31 January visit to the site. The calibration protocol is defined in the instrument's software. It asks for the 3 gases it wants in order with zero gas before and after. This plots a new calibration curve which changes the output for a given sample. The newly plotted calibration curve is an "adjustment" to the instrument.

The ThermoFisher TVA2020 (current model) and TVA1000 (the instrument TDEC uses for Method 21) both have very similar calibration procedures to the instrument we have used in the past. There is the option on the TVA instruments for single or multipoint calibration unlike our instrument that only allows multipoint. In the meeting at TDEC and the meeting at Dynamic compliance validation agreed that a multipoint calibration was appropriate and they admitted that they could not conduct a calibration and then adjust it. They stated clearly that they recalibrate the instrument until they got a result that they deemed appropriate. There is no instrument manufactured today that will let you conduct a calibration and then adjust it at a single point to get the exact result you want. Therefore, unless TDEC recognizes calibrating the instrument as an "adjustment" then as far as we can tell Dynamic nor TDEC itself cannot even comply with your interpretation of Appendix A-7 of Method 21. Furthermore, good common sense and experience with laboratory instruments would recognize that Method 21 and VVa require a daily calibration and then gives a calibration precision (before testing) and a calibration drift allowance (after testing) of 10% which would indicate that you do not need the instrument to read +- 0 ppm before putting into service. If you did, then the calibration precision test would state +-0 PPM. In the months that you are asking for we did daily calibrate the device as demonstrated during your 31 January visit, which constitutes an adjustment. The device cannot be calibrated any other way. We have changed our daily calibration sheet to demonstrate more clearly the calibration procedure going forward. We have also changed the line that shows the operator adjusted the instrument to state that the operator calibrates and adjusts the instrument. We have purchased a Thermofisher TVA2020 FID instrument that will allow for custom calibration curves and we will begin using it for February's testing if possible.

Dynamic Recycling will make its best attempt to fully comply with the corrective action outlined in your NOV. We have invested a significant sum of money to upgrade the instrument used during testing. However, TDEC and Dynamic need to settle on the definition of adjusting for the purposes of complying with VVa and Method 21. TDEC must acknowledge that calibrating the device until it reads accurately is an adjustment and meets the definitions in Method 21. As outlined above our instrument is now the same as TDEC's. We plan on conducting a multipoint calibration to ensure the device reads accurately from 0-10,000 PPM. Then conduct a calibration precision procedure to confirm the device is reading correctly similarly to how we do it now. However, the problem is no instrument that is commercially available for purchase that will allow you to calibrate and then in a separate procedure "adjust" to a single calibration point. The only option is to calibrate and then recalibrate until you get a precision deemed accurate enough to conduct proper testing. Compliance validation agreed twice with this assessment. First, when we met at the TDEC's offices and then again at the facility last month. We see no path forward for Dynamic or even TDEC itself to meet your interpretation of the Method unless TDEC can agree that

calibrating and recalibrating until it meets a standard is an adjustment that appeases the language in Method 21. Outside of your agreement on this point we see no way anyone, including TDEC's compliance validation team, could meet your interpretation of EPA Method 21 and satisfy the LDAR requirements outlined in Subpart VVa.

Respectfully,

Brian Potter
COO
Dynamic Recycling LLC

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF AIR POLLUTION CONTROL
2305 Silverdale Road Johnson City, Tennessee 37601
PHONE (423) 854-5400 STATEWIDE 1-888-891-8332 FAX (423) 854-5401

January 18, 2024

Brian Potter
COO
Dynamic Recycling, LLC
220 North Industrial Drive
Bristol, TN 37620

ELECTRONIC DELIVERY

Facility/Source ID: 82-1020, Source 01

RE: Corrective Action for Compliance Inspection NOV dated August 31, 2023

Dear Mr. Potter,

On February 9, 2022, Operating Permit 478102 (Permit 478102) was issued for an ethanol recycling facility. As part of the compliance inspection conducted on July 27, 2023, a Notice of Violation was issued. Records for 40 CFR 60 Subpart VVa were requested as corrective action, and the following violations of Permit 478102 were discovered based on the submitted records.

Condition S1-14(a)(1) of Permit 478102 incorporates the requirements of 40 CFR §60.482-2a and states, in pertinent part:

> Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR §60.485a(b), except as provided in 40 CFR §60.482-1a(c) and (f) and paragraphs (d), (e), and (f) of this condition . . . .

Condition S1-16(a)(1) of Permit 478102 incorporates the requirements of 40 CFR §60.482-7a and states, in pertinent part:

> Each valve shall be monitored monthly to detect leaks by the methods specified in 40 CFR §60.485a(b) . . .

40 CFR §60.485a(b) states:

> The owner or operator shall determine compliance with the standards in §§ 60.482–1a through 60.482–11a, 60.483a, and 60.484a as follows:

> (1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of appendix A–7 of this part. The following calibration gases shall be used:
>
> (i) Zero air (less than 10 ppm of hydrocarbon in air); and
>
> (ii) A mixture of methane or n-hexane and air at a concentration no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring.
>
> (2) A calibration drift assessment shall be performed, at a minimum, at the end of each monitoring day. Check the instrument using the same calibration gas(es) that were used to calibrate the instrument before use. Follow the procedures specified in Method 21 of appendix A–7 of this part, Section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. Record the instrument reading for each scale used as specified in § 60.486a(e)(7). Calculate the average algebraic difference between the three meter readings and the most recent calibration value. Divide this algebraic difference by the initial calibration value and multiply by 100 to express the calibration drift as a percentage . . .

Condition S1-15(a) of Permit 478102 incorporates the requirements of 40 CFR §60.482-4a and states:

> Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR §60.485a(c).

40 CFR §60.485a(c) states:

> The owner or operator shall determine compliance with the no-detectable-emission standards in §§ 60.482–2a(e), 60.482–3a(i), 60.482–4a, 60.482–7a(f), and 60.482–10a(e) as follows:
>
> (1) The requirements of paragraph (b) shall apply.
>
> (2) Method 21 of appendix A–7 of this part shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum

> concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

Method 21 of appendix A–7 of this part, Section 6.1 states:

> The VOC instrument detector shall respond to the compounds being processed . . . .

The Portable Gas Detector XP-3000II Series Instruction Manual indicates on page 27 that, "*The detection of these gas types require a gas sampling tube for solvent gas detection (SH-401, separately sold)." Ethanol is one of the gases noted as requiring the solvent gas detection tube, SH-401. In an email dated November 27, 2023, it was indicated that you do not have and therefore cannot utilize the gas sampling tube required for ethanol detection. Therefore, without the required gas sampling tube, Method 21 of appendix A-7 has not been met since the VOC instrument detector cannot respond accordingly to the monitored compound.

Method 21 of appendix A–7 of this part, Section 8.0 requires the following be performed, 8.1.1 Response Factor, 8.1.2 Calibration Precision, and 8.1.3 Response Time.

Method 21 of appendix A–7 of this part, Section 8.0 states, in pertinent part:

> 8.1.1 Response Factor. A response factor must be determined for each compound that is to be measured, either by testing or from reference sources. The response factor tests are required before placing the analyzer into service, but do not have to be repeated at subsequent intervals.
>
> 8.1.2 Calibration Precision. The calibration precision test must be completed prior to placing the analyzer into service and at subsequent 3-month intervals or at the next use, whichever is later.
>
> 8.1.3 Response Time. The response time test is required before placing the instrument into service. If a modification to the sample pumping system or flow configuration is made that would change the response time, a new test is required before further use.

Method 21 of appendix A–7 of this part, Section 10.1 states:

> Calibrate the VOC monitoring instrument as follows. After the appropriate warmup period and zero internal calibration procedure, introduce the calibration gas into the instrument sample probe. Adjust the instrument meter readout to correspond to the calibration gas value.
>
> Note: If the meter readout cannot be adjusted to the proper value, a malfunction of the analyzer is indicated and corrective actions are necessary before use.

The calibration records for July 31, 2023, through November 30, 2023, document that they were not performed as required. Method 21 was not followed according to 40 CFR §60.485a(b)(1)

or 40 CFR §60.485a(c), which requires the procedures specified in Method 21 of appendix A–7 be utilized. Monthly VVa records provided for July through October 2023 did not contain documentation for all elements of Section 8.0: response factor, calibration precision, or response time. Additionally, the analyzer was not adjusted to the known concentration of the calibration gas, which was 1017 ppm based on the Certificate of Analysis from Gasco dated August 24, 2023. The facility submitted documentation of the response factor, calibration precision, and response time as completed on November 30, 2023, after the information was requested via an email the same day. Therefore, these requirements of Method 21 of appendix A–7, Section 8 were met as of November 30, 2023.

Condition S1-20(e)(8)(iii) of Permit 478102 states:

> The following information pertaining to all equipment subject to the requirements in 40 CFR §§60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location . . . Records of the information specified in paragraphs (e)(8)(i) through (vi) of this condition for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of this part and 40 CFR §60.485a(b).
>
> iii. Instrument scale(s) used.

The instrument scale(s) used were not documented as required by S1-20(e)(8)(iii) in the monthly VVa records provided, which results in a violation.

As corrective action, the facility should submit documentation of the calibration and calibration drift assessment completed for December 2023. The calibration and calibration drift assessment completed per Method 21 for January 2024 shall be submitted and include the following.

1. In an email dated November 29, 2023, the facility stated that the SH-401 solvent gas tube had been ordered. The facility should begin documenting the use of SH-401 tube.
2. The analyzer should be adjusted to the known concentration of the calibration gas per 40 CFR §60.485a(b)(1) or 40 CFR §60.485a(c), which requires the procedures specified in Method 21 of appendix A–7 be utilized. There is a note in Method 21 that states, "If the meter readout cannot be adjusted to the proper value, a malfunction of the analyzer is indicated and corrective actions are necessary before use." Any corrective actions for January 2024 should be documented and submitted.
3. As required by Condition S1-20(e)(8)(iii), the instrument scale(s) of the equipment used should be documented.

The corrective actions detailed should be completed and submitted to the Division of Air Pollution Control within thirty days of your receipt of this letter to the Johnson City Environmental Field Office, 2305 Silverdale Drive, Johnson City, TN 37601. You also have the option of submitting this information to APC.JCEFO@tn.gov. Documents submitted via email must be signed, dated, and in PDF format.

By failing to comply with Conditions S1-14(a)(1), S1-15(a)(1), S1-16(a)(1), and S1-20(e)(8)(iii) of Permit 478102 as discussed herein, you have violated Tennessee Air Pollution Control

Regulations 1200-03-09-.02(6).

TAPCR 1200-03-09-.02(6) states, in pertinent part:

> Operation of each air contaminant source shall be in accordance with the provisions and stipulations set forth in the operating permit, all provisions of these regulations, and all provisions of the Tennessee Air Quality Act . . . .

Compliance with the Tennessee Air Quality Act, the Tennessee Code Annotated, and the TAPCR contributes to the protection of the health, welfare, and physical property of the people and is used to help maintain an equitable balance between the benefits of clean air and the economic cost of achieving clean air in our state.

If you have any information that proves the violation did not occur or if you have any additional information regarding this violation that you would like to submit, submit the information in writing to the Technical Secretary, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15th Floor, Nashville, Tennessee 37243 or e-mail the response letter to Air.Pollution.Control@tn.gov. To ensure that your information will be considered, it must be submitted within 20 days of your receipt of this **Notice of Violation**.

Technical inquiries surrounding this allegation of noncompliance related to the compliance inspection should be directed to Candace Justice at (423) 854-5416 or by e-mail at Candace.Justice@tn.gov and questions concerning the enforcement process should be directed to Air.Pollution.Control@tn.gov.

Sincerely,

Amanda Davis

Amanda Davis
Manager
Division of Air Pollution Control
Johnson City Field Office