August 25, 2023 *Sent electronically only*

Mr. Mark Dziadosz
EGLE, Air Quality Division
Warren District Office
27700 Donald Court
Warren, MI 48092

Re: Tribar Technologies Plant 5 – Response to Violation Notice Dated August 4, 2023

Dear Mr. Dziadosz:

Tribar Technologies Inc. (Tribar) has prepared this letter with assistance from Barr Engineering Co. to timely address the issues outlined in the Air Quality Division's Violation Notice for Plant 5 dated August 4, 2023. The Violation Notice alleged the following:

Process Description	Rule/Permit Condition Violated	Comments
EUSYSTEM2	S.C. III.2 R 336.1224 R 336.1225 R 336.1910	The permittee must maintain a surface tension of 35 dynes and under at any time during tank operation. Tanks 5 and 6 exceeded this limit multiple times in the time frame checked.
EUCHROME5	S.C. III.2 R 336.1225 R 336.1910 40 CFR Part 63 Subpart N	The permittee must maintain a surface tension of 35 dynes and under at any time during tank operation. Tank 49 exceeded this limit multiple times in the time frame checked.
EUCHROME5	S.C. VI.2 R 336.1225 R 336.1910 40 CFR Part 63 Subparts A and N	The permittee must conduct quarterly inspections on the composite mesh pad system. According to records provided, there were no inspections done on the tank 49 control system between February 13, 2021 and June 20, 2022.

A response to these items appears below.

EUSYSTEM2 SC III.2 Tanks 5 and 6 surface tension

In response to the EUSYSTEM2 surface tension measurements of Tank 5, surface tension data gathered during periods of non-production (e.g., during startup and shutdown) do not reflect noncompliance with S.C. III.2. When these non-operational data points are removed from the compliance evaluation, Tank 5 complied with the PTI's surface tension threshold of 35 dynes/cm. See Attachment A for Tank 5 surface tension results summary for the period of August 1, 2022, through May 31, 2023.

With respect to the EUSYSTEM2 surface tension measurements of Tank 6, and as noted in the Staff Activity Report for the July 12, 2023 inspection, the facility satisfactorily monitors and records the surface tension of EUSYSTEM2, going above and beyond the requirement in PTI SC VI.1. Thus, while it does not excuse readings more than permit limit, it is worth noting that the facility routinely gathers more data than is necessary to document compliance.

See Attachment B for the surface tension measurements during the requested time-period. Measurements taken at startup and shutdown as noted in Attachment B are taken to establish the amount of surface tension reducer addition prior to operation. Therefore, these values should not be evaluated for compliance because the tank is not in operation.

The surface tension readings are performed multiple times per shift. As noted in AQD staff activity report, Tribar previously established the surface tension set point of 33 dynes/cm to maintain compliance. Going forward, Tribar has lowered the set point to 30 dynes/cm and has implemented a system that will prompt staff to add more fume suppressant at 29 dynes/cm to help maintain the proper surface tension.

As allowed by PTI No. 121-16, an acceptable surface tension can be determined during testing. The November 9, 2017 performance testing yielded an emission rate of less than the detection limit of 2.42E-05 lb/hr of total chromium, which is an order of magnitude less than the permit limit of 1.50E-04 lb/hr of total chromium. The purpose of monitoring the surface tension serves as a parametric demonstration for compliance with Michigan air toxics rules; Rules 225 through 227. The applicable averaging period, which established the 1.50E-04 lb/hr emission rate, is annual for the secondary risk screening level. Therefore, the parametric demonstration should align with this averaging basis, i.e., monitoring on a monthly basis. Thus, there is evidence that the emissions complied with the applicable limits.

Taking into consideration the factors of increased frequency of monitoring and the performance testing results documenting emissions that were an order of magnitude less than the permitted limit (2.42E-05 lb/hr vs permitted limit of 1.50E-04 lb/hr), the facility would not have exceeded the permitted screening threshold for chromium, which is the basis for S.C. III.2.

EUCHROME5 SC III.2 Tank 49 surface tension measured above 35 dynes/cm using a tensiometer.

In the surface tension readings for August 1, 2022 through May 31, 2023 at EUCHROME5, a reading of 38 dynes/cm was noted on December 13, 2022. On December 15, 2022, pursuant to VI.1, Tribar increased the frequency of surface tension readings until the surface tension did not measure above 35 dynes/cm. See Attachment C for Tank 49 surface tension results summary for the period of August 1, 2022 through May 31, 2023.

Similar to EUSYSTEM2, the November 9, 2017 performance testing measured an emission rate less than the detection limit of 6.02E-06 lb/hr of total chromium, which is an order of magnitude less than the permit limit of 4.20E-05 lb/hr of total chromium.

Next, compliance with 40 CFR Part 63 Subpart N (Chrome NESHAP) can be accomplished through surface tension monitoring or differential pressure daily monitoring of +/- 2 inches water across the composite mesh pad as established in a performance test that demonstrates compliance with the Chrome NESHAP total chromium emission limit of 6E-03 mg/DSCM (milligrams per dry standard cubic meter). 40 CFR § 63.344. The November 9, 2017 performance test resulted in a total chromium emission rate of less than 1.74E-04 mg/DSCM, which is less than three percent of the Chrome NESHAP emission limit. The corresponding differential pressure of 3.1 inches water across the composite mesh pad system was established during the November 9, 2017 performance testing. Applying the +/- 2 inches water results with a compliance range of 1.1 to 5.1 inches of water. When reviewing the daily differential pressure across the EUCHROME5 composite mesh pad systems, the data demonstrate compliance with the Chrome NESHAP. See Attachment D for the daily differential pressure readings across the composite mesh pad for Tank 49 (noted as System #5 (Chrome) on the log sheet). Thus, while S.C. III.2 focuses on surface tension aspect from the Chrome NESHAP, it is relevant that the facility met the other compliance monitoring provision in the Chrome NESHAP (i.e., the differential pressure daily monitoring).

Taking these factors into consideration (i.e., the increased frequency of monitoring and performance testing results an order of magnitude less than the permitted limit of 4.20E-05 lb/hr), the actual emissions would be less than the Chrome NESHAP requirements and the permitted emissions for total chromium.

EUCHROME5 SC VI.2 conduct quarterly inspections on the composite mesh pad system.
Tribar continues to review documents and therefore may supplement these responses in the future, but it has not located a record of the quarterly inspections that—based on discussions with maintenance staff—were probably made in 2Q, 3Q, and 4Q of 2021 or 1Q of 2022. Tribar has provided records of the subsequent quarterly inspections and implemented additional systems for tracking these inspections.

If you have questions or require additional information, please feel free to reach out to me.

Sincerely,

Alexandria Muench

Alexandria Muench, Tribar Technologies Inc. EHS Manager

cc: Jon Gifford, COO
Joyce Zhu, EGLE
Scott Venman, Barr Engineering Co.
Kurt Kissling, Warner Norcross + Judd

Enclosures:
Attachment A – Tank 5 PC ABS Surface Tension Readings August 1, 2022 – May 31, 2023

Attachment B – Tank 6 ABS Surface Tension Readings August 1, 2022 – May 31, 2023
Attachment C – Tank 49 EUCHROME5 Surface Tension Readings August 1, 2022 – May 31, 2023
Attachment D – Tank 49 EUCHROME5 Daily Differential Pressure August 1, 2022 – May 31, 2023