



October 19, 2022

EGLE, AQD
Warren District Office
27700 Donald Court
Warren, MI 48092

Re: Tribar Technologies Plant 5 – Response to Violation Notice Dated August 9, 2022

Dear Mr. Dziadosz:

Tribar Technologies Inc. (Tribar) has prepared this letter with assistance from Barr Engineering Co. to address the issues outlined in the Michigan Department of Environment, Great Lakes, and Energy, Air Quality Division Violation Notice dated August 9, 2022. The violation notice (VN) alleges the following:

FGSYSTEMS SC IV.1 Tanks 5, 6 and 45 HEPA (high efficiency particulate air) filter - Scrubber systems monitored pressures drops were above the range during the inspection on July 21, 2022.

EUSYSTEM2 SC III.2 Tank 6 surface tension measured above 35 dynes/cm using a tensiometer.

Responses to both issues are addressed below.

The permit to install (PTI) No. 121-16 for Tribar Technologies Inc. Plant 5 (Tribar) FGSYSTEMS covers EUSYSTEM1, EUSYSTEM3, EUSYSTEM4 and EUSYSTEM6. Tanks 5 and 6 are regulated under EUSYSTEM2. Assuming EUSYSTEM2 is the appropriate group that was intended to be referenced in your letter, special condition (SC) for EUSYSTEM2 IV.1 states:

The permittee shall not operate any process tank in EUSYSTEM2 unless the associated pollution control system is installed, maintained, and operated in a satisfactory manner. Satisfactory operation shall include, but is not limited to, maintaining the pressure drop across each scrubbers and composite mesh pad per manufacturer specifications or as determined through compliance testing.

In review of the Staff Activity Report for the July 21, 2022 inspection, it appears the differential pressure reading was across the HEPA filters for Tanks 5 and 6. The HEPA filter is only one stage of the four stages of the composite mesh pad system, as defined in EUSYSTEM2. The differential pressures posted near the Magnehelic gauges are guidance and are not intended to imply manufacturer specified differential pressure limits. In several discussions with ScrubAir (Tom O'Connor and Jeremy Mongeon), the manufacturer specification only applies to the +/- 2" H₂O pursuant to EUSYSTEM2 VI.3.a. Therefore, the scrubber systems were operated in a satisfactory manner and not in violation of EUSYSTEM2 SC IV.1.

Tank 45 has not been in service for years; it is unclear to what this portion of the alleged violation references. In addition, Tank 45 is regulated under EUCHROME5, not FGSYSTEMS. Either way, the alleged citations were not valid for Tank 45.

In response to the EUSYSTEM2 surface tension measurements of Tank 6 as noted in the Staff Activity Report for the July 21, 2022 inspection, the facility satisfactorily monitors and records the surface tension of EUSYSTEM2 several times every 40 hours. This is above and beyond the requirement, i.e., once every 40 hours of operation after compliance is demonstrated according to PTI SC VI.1. The PTI SC VI.1 requires the following:

The permittee shall monitor, in a satisfactory manner, the surface tension of tanks 5 and 6 in EUSYSTEM2 once every four (4) hours during tank operation for the first 40 hours of tank operation. If there are no exceedances during the first 40 hours of tank operation, then surface tension measurements may be conducted once every eight (8) hours of tank operation for the next 40 hours of tank operation. If there are no exceedances during the 40 hours of tank operation when surface tension measurements are being conducted every eight (8) hours, then surface tension measurements may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every four hours must be resumed and the subsequent decrease in frequency shall follow the schedule as laid out above. The minimum frequency of monitoring allowed is once every 40 hours of tank operation. The surface tension shall be monitored with a tensiometer.

The surface tension readings are performed multiple times per operating period (approximately every 4 hours). As noted previously in AQD staff activity reports, Tribar established the surface tension set point of 33 dynes/cm to maintain compliance with the 35 dynes/cm. However, as observed, the surface tension reading did exceed 35 dynes/cm at the required every 40-hour of operations measurement schedule on July 5, 2022. According to the EUSYSTEM2 VI.1, operations reverted to the once every four hours for 40 hours of tank operation and the subsequent decrease in frequency as defined in the PTI. Tank 6 surface tension did not exceed the 35 dynes/cm threshold for the remainder of the evaluated time-period. See attached table for the surface tension measurements during the requested time-period. Measurements taken at startup as noted in the attached spreadsheet (highlighted in pale green), are taken to establish the amount of surface tension reducer to add prior to operational startup. Therefore, these values should not be evaluated for compliance because the tank is not in operation.

As allowed by PTI No. 121-16 SC III.2, an acceptable surface tension can be determined during testing. The November 9, 2017 stack testing resulted with an emission rate of less than detection 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 emissions compliance 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. Taking these factors into consideration, which include frequency of monitoring (nearly every four hours instead of every 40 hours) and stack testing results 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 this special condition.

