

April 21, 2017

Via E-Mail



Mr. David L. Morgan
Environmental Quality Specialist
Michigan Department of Environmental Quality
Air Quality Division
Grand Rapids District Office
350 Ottawa Avenue, NW, Unit 10
Grand Rapids, MI 49503

Re: *Hutchinson Antivibration Systems, Inc. Violation Notice Dated March 10, 2017*

Dear Mr. Morgan:

This letter is in response to the March 10, 2017 letter addressed to Mr. Eric Jamet of Hutchinson Antivibration Systems, Inc. ("HAVS"). As an initial matter, I would like to thank you for extending the time for HAVS to respond to April 21, 2017. As we discussed, the March 10, 2017 letter raised numerous issues and HAVS wanted to respond in detail to each item. In addition, HAVS's investigation included reviewing many thousands of data points from the CPMS which is considerably time consuming. Because of the number of issues, HAVS has found it efficient to respond in the form of a table, similar to the table that appears in the March 10, 2017 letter. Please see the enclosed table and supporting information for HAVS's detailed responses to the March 10, 2017 letter.

There are some issues that requires further elaboration. Many of the items noted in the March 10, 2017 letter arise from a misunderstanding or miscommunication about the purpose and use of emission test data. As you know, HAVS performed a capture and destruction efficiency test in April 2015. The capture and destruction efficiency demonstrated during this test were sufficient to meet the emission limitations in Subpart M MMM National Emission Standard for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (40 C.F.R. Part 63, Subpart M MMM). The 2015 compliance test demonstrated compliance with Subpart M MMM using the emission capture system and add-on control device option on the basis that none of HAVS's coating lines qualified as a permanent total enclosure ("PTE"). However, when the Michigan Department of Environmental Quality ("MDEQ") permit unit denied a permit modification to decrease the overall control efficiency for FGRT0 in the renewable operating permit, HAVS decided to further investigate. HAVS worked with experts

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from both the MDEQ and consulting to insure that this determination was done appropriately. In February of 2016, BTEC performed a Method 204 analysis on all of the equipment. The results of this analysis was that all of the equipment, excluding EUSIL01 (referred to as "Silver 1"), qualified as a PTE. Therefore, it was necessary to conduct additional testing to verify the capture efficiency of Silver 1 to demonstrate compliance with Subpart MMMM for Silver 1.

Subpart MMMM requires testing for each capture device and the control device separately and the testing of one does not necessitate the testing of another. It is important to note that the 2015 testing was valid to demonstrate compliance and establish operating parameters for the Regenerative Thermal Oxidizer ("RTO") control device. Monitors were in place to determine the 3 hour average operating temperature of the RTO. The average operating temperature for the RTO during the 2015 testing was approximately 1450 degrees Fahrenheit. Accordingly, HAVS's Malfunction Abatement Plan conservatively included a temperature of 1550 degrees Fahrenheit, approximately 100 degrees higher than the 2015 compliance testing.

Thus, the only regulatory necessity for the July 2016 testing was to verify the capture efficiency for EUSIL01. Although the July 2016 testing included some verification that the PTEs were operating properly and destruction efficiency of the RTO, HAVS viewed this data as merely a confirmation that the systems were operating properly and not as a wholesale replacement of the 2015 compliance demonstration and February 2016 PTE determination. Accordingly, HAVS did not reopen and revise its malfunction abatement plan to change the requirements for EUAMS02, EUSIL02, EUSIL03, EUSIL04 and EUCOE01 based on the July 2016 testing. The March 10, 2017 letter presumes that HAVS was required to use the RTO operating temperature that occurred during the July 2016 testing, and not the equally valid data from the 2015 testing, as the exclusive means of complying with Subpart MMMM for EUSIL02, EUSIL03, EUSIL04 and EUCOE01. This difference in understanding of the purpose and use of the April 2016 test data resulted in the RTO temperature issues in the March 10, 2017 letter.

The inadvisability of revising Subpart MMMM operating parameters every time there is a testing event is demonstrated by reviewing the history of the RTO operating temperature. During the 2015 testing, the RTO was demonstrated to achieve a destruction efficiency of 96.61% at an operating temperature of 1450° F (because of the formulations of the coatings used, HAVS can comply with the Subpart MMMM emission limits with a destruction efficiency of 50% or possibly less). Based on the Initial Compliance Notification HAVS submitted in 2008 declaring that it would comply with Subpart MMMM based, in part, on an RTO operating temperature of 1450° F +/- 100° F, MDEQ later determined that the *minimum* RTO operating temperature must be 1550° F because Subpart MMMM does not provide for a +/- RTO operating temperature range. In the spirit of cooperation, HAVS accepted this determination. Because 1550° F is a *minimum* operating temperature, as a practical matter HAVS must set the RTO set point temperature even higher to ensure that the operating temperature always remains above 1550° F. As a result of the March 10, 2017 letter taking the position that the minimum RTO

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operating temperature is 1577° F, HAVS has *further* increased the RTO operating temperature set points.

Currently, the RTO operating temperature is set at 1615° F to ensure that an operating temperature above 1577° F is maintained at all times. This is 165° F higher than the originally intended minimum operating temperature of 1450° F, resulting in unnecessary increased fuel consumption by the RTO without a corresponding improvement in control efficiency (the destruction efficiency in July 2016 was 96.86% compared to 96.61% in 2015, a negligible “improvement” of 0.25%). If this continues and every time there is a testing event on the RTO a new minimum RTO operating temperature is established, before long the RTO minimum operating temperature will reach an unsustainable level at significant expense with no environmental benefit.

Fortunately Subpart M MMM does not require this result. Subpart M MMM requires capture efficiency and destruction efficiency testing (for facilities using the add-on control device compliance option) as part of the Initial Compliance Demonstration, but it does not mandate subsequent capture efficiency or destruction efficiency testing. Although additional iterations of capture efficiency and destruction efficiency are implicitly allowed under Subpart M MMM, the most reasonable interpretation is that Subpart M MMM allows a source to use the best available data (not only the most recent data) to demonstrate compliance. In fact, this is specifically allowed in 40 C.F.R. 63.3963(c)(2), which states:

If an operating parameter deviates from the operating limit specified in Table 1 to this subpart, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the Administrator.

40 C.F.R. 63.3963(c)(2) (emphasis added). The emphasized language clearly contemplates that more than one source of data (*e.g.* more than one testing event) may be used to demonstrate compliance with Subpart M MMM.

Therefore, HAVS objects to the presumption in the March 10, 2017 letter that the operating temperature for the RTO during the July 2016 testing event are the exclusive means for those coating operations to comply with Subpart M MMM. As indicated above, because of the March 10, 2017 letter, HAVS has provisionally revised its Malfunction Abatement Plan and the set points for air flow for EUSIL01 and RTO operating temperature based on the July 2016 testing event, HAVS requests a meeting with MDEQ to discuss this issue and to determine the appropriate basis to establish operating parameters for Subpart M MMM going forward.

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Similarly, the March 10, 2017 letter incorrectly assumes that each booth is required to be maintained at a pressure drop of 0.007 inches of water at all times. In fact, HAVS can demonstrate compliance with the emission capture system requirements of Subpart M MMM either through pressure drop across the enclosure or by the facial velocity at each NDO. For HAVS's PTE booths (Silver 2 -4 and the Chain-on-Edge) compliance may be demonstrated by maintaining an average facial velocity of air through all natural draft openings of at least 200 feet per minute (Subpart M MMM, Table 1, Item 6.b). For Silver 1, compliance with the emission capture system requirements can be demonstrated using the gas volumetric flow rate established during the capture efficiency determination. 40 C.F.R. 3967(f). The July 2016 testing established 2,075 cfm as the compliance point for Silver 1.

In addition, during its investigation of these matters, HAVS discovered that the CPMS data previously provided included both RTO operating temperature and booth air flow data for periods when there were no operations. The file only indicated when there were large blocks of shutdown times such as a holiday, but not shorter duration shutdowns. There is a 30 minute down time at the end of each shift. Each machine also goes through an extensive cleaning process a minimum of once per week during which the unit is shutdown for approximately 4 to 8 hours. In addition, throughout a shift, downtimes may occur for a variety of reasons. HAVS personnel spent considerable time correlating information about these shorter downtime periods with the data indicating there was either an RTO temperature or a booth gas flow rate deviation. This is part of the reason why an extension of time to respond to the March 10, 2017 letter was requested. In light of this experience, improvements have been made to the CPMS to collect more data, including booth operational mode (manual or auto), CPMS control status (booth enabled or disabled) and RTO status (online or offline). It is expected that this additional data will enable HAVS to identify production downtime more efficiently in future reports.

Another issue that was discovered during HAVS's review is that the booth CPMS data for several hours at the end of each month was inadvertently lost. This occurred due to a coding error that caused data to be compiled for each booth at either 6:00 a.m. or 11:00 a.m. on the last day of the month instead of the first day of the following month. As a result, data for the remaining hours of the last day of the month were not retained and HAVS has been unable to retrieve this information. HAVS has since reprogrammed the CPMS to compile the report on the first day of the month and to include 40 days of data, rather than one month, to provide sufficient overlap to ensure that data are not lost in the future.

When all of these factors are taken into account (using the volumetric air flow instead of pressure drop for compliance, correcting for known downtime and excluding the periods of missing data at the end of each month) the compliance rates for EU COE01, EUSIL02, EUSIL03

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and EUSIL04 are very high – exceeding 99.7%¹ of all operating time for which data are available. The one exception is EUSIL01. As discussed in the enclosed table of response, HAVS’s investigation has found that there were apparently 500 three-hour block periods in which the volumetric air flow rate was below the compliance standard of 2,075 cfm. Upon further investigation, HAVS has determined that interlocks for gas flow rate believed to be in place following the July 2016 testing were not effective. As an interim measure and pending further discussion with MDEQ, HAVS has set the interlock at 2,369 cfm as of late March 2017. Accordingly, HAVS believes this issue has been corrected.

HAVS also wishes to report that it has taken measures to increase the life of the booth filters, thereby improving its ability to maintain a consistent air flow through the booths. These measures include installing a replaceable overspray target to prolong booth filter life and the installation of pre-filters in the rooftop filter box to prolong the life of the primary filter media.

Thank you for your attention to this matter. I trust that the information in this letter and the enclosed table and supporting information is sufficient to respond to the March 10, 2017 letter. As discussed above, HAVS requests a meeting with MDEQ to discuss the establishment of operating parameters and data reporting for Subpart M MMM compliance. In addition, HAVS will be submitting updated reports and compliance certifications reflecting the information described above and in the enclosed table.

Sincerely,

HONIGMAN MILLER SCHWARTZ AND COHN LLP



S. Lee Johnson

c: Lynn Fiedler, MDEQ
Mary Ann Dolehanty, MDEQ
Christopher Ethridge, MDEQ
Thomas Hess, MDEQ
Heidi Hollenbach, MDEQ
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¹ Although the fact that several hours of data are missing at the end of each month (as a result of a programming error that has been corrected) is regrettable, this very high compliance rate provides a degree of assurance that there were very few, if any, deviations during the few hours of missing data.