

# AIR POLLUTION CONTROL DIVISION

OHIO EPA APC CONTRACTUAL REPRESENTATIVE SERVING ALL OF STARK COUNTY



**Public Health**  
Prevent. Promote. Protect.

**TERRI A. DZIENIS**  
APCD ADMINISTRATOR

**JAMES M. ADAMS, RS, MPH**  
HEALTH COMMISSIONER

## CANTON CITY HEALTH DEPARTMENT

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CANTON, OHIO 44702-1544  
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### CERTIFIED MAIL

August 26, 2013

Naomi Mattingly, EHS Manager  
MAC Trailer Manufacturing, Inc.  
14599 Commerce St.  
Alliance, OH 44601  
nmattingly@mactrailer.com  
330-823-9900

- Re: 1. FULL COMPLIANCE EVALUATION (FCE)**
- 2. NOTICE OF VIOLATION (NOV)**  
**Categories: Recordkeeping and Reporting; Material usage limitation exceedance**  
Facility Name: MAC Trailer Manufacturing, Inc.  
Location: 14599 Commerce St., Alliance, OH 44601, Stark County  
Facility ID: 1576001906
- 3. PRELIMINARY ASSESSMENT OF OTHER SOURCES OF EMISSIONS AT THE FACILITY**

Dear Ms. Mattingly:

Thank-you for meeting with me at your facility on June 13, 2013 for the purpose of a Full Compliance Evaluation (FCE). Thank-you also for meeting with me again on July 12, 2013 to continue our review of your recordkeeping and reporting requirements, and also to inspect the following previously undocumented sources of emissions as an initial step in determining whether they might have permitting requirements: production welding operations, a plasma torch "burn table" for cutting steel plate, and a corn-fired boiler used to heat the Frame Line/Warehouse building.

This letter includes a summary of the FCE and a Notice of Violation (NOV) for noncompliance issues identified during FCE, followed by requested actions to resolve the violations. The letter then concludes with a preliminary assessment of the three other sources of emissions I inspected with you on 7/12/2013.

### **PART 1: FCE Summary**

The purpose of the FCE was to evaluate compliance with the applicable terms and conditions from PTIO No. P0101100 for the four operating emissions units at your facility, identified as Sand Blast Booth, P001 and Spray Booth Group, K001-K003. Installation has not yet begun for Spray Booth 4 (K004, PTIO No. P0110518), so it was not included in this FCE. The evaluation covered the time period since the previous 2008 FCE, which included an inspection by David Augenstein on 6/20/2008 and a completion date (internal filing date) of 7/11/2008. My conclusion is that during the time period evaluated, the facility has been and remains in full

compliance regarding air emissions, which also includes proper operation and maintenance of control equipment for particulate emissions. The facility has not been in full compliance with recordkeeping and reporting requirements. Also, the facility has not been in compliance with a permit limitation on the annual usage of cleanup/purge material, although this exceedance had no impact on compliance with air emissions limitations, as will be discussed further below. The attached "Appendix N" Facility Inspection Forms dated 8/7/2013 provide additional details summarizing the FCE.

**PART 2: NOTICE OF VIOLATION (NOV) with Requested Actions and Additional Suggested Actions**

During my review of records attached to the annual Fee Emissions Report (FER) submitted via Air Services on 4/18/2013 and discussions held with you on 6/13/2013, I noticed several problems regarding compliance with the terms and conditions contained in PTIO No. P0101100. Findings 1 – 5 and the associated violations identified below all concern the Spray Booth Group consisting of emissions units K001 – K003.

**Finding 1:**

779.3 gallons of cleanup/purge material usage was reported for the 12-month period January 1 – December 31, 2012 compared to the permit limit of 198 net gallons for any 12-month period (i.e., a limit based on a rolling, 12-month summation). Net gallons of usage is defined as material employed minus material recovered.

**Violation of:**

The use of 779.3 gallons of cleanup/purge material for the 12-month period January 1 – December 31, 2012 constitutes a violation of paragraph C.1.b)(2) of PTIO P0101100, which states in part that:

*The maximum annual cleanup/purge material usage...from the entire facility (K001 – K003) shall not exceed the following as [a] rolling, 12-month summation: 198 gallons of cleanup/purge material net usage per year (material employed minus material recovered)....*

**Comments:**

The intended purpose of the above usage limit, combined with a limit of 6.8 pounds of VOC per gallon, was to assure compliance with allowable emissions limit of 0.67 tons/yr of VOC from all cleanup/purge materials (6.8 lb/gal x 198 gal/yr divided by 2000 lb/ton = 0.67 tons/yr). Separate VOC emissions limits for coatings (52.5 tons/yr) and cleanup/purge materials (0.67 tons/yr) were first established in PTI 15-01483, issued 4/9/2002. The reason for establishing separate limits is not known, but at present there is no valid reason apparent. The same can be said for the annual usage limits that were established for topcoat, primer and cleanup/purge materials. These all place unnecessary restrictions on the facility and can be removed by an administrative modification PTIO .

Also, even though the 198 net gallons limit for cleanup/purge material was exceeded, actual facility-wide 2012 emissions for both VOC and HAPs were well below allowable permit limits. VOC emissions were 17.4% of allowable (9.25 ton actual vs. 53.2 ton

allowable from coatings and cleanup/purge material combined). Total HAPs were 4.9% of allowable (1.18 ton actual vs. 24.0 ton allowable).

**Finding 2:**

Records identifying all materials used, including VOC and HAPs content information, were not complete for the period January 1 – December 31, 2012. Several low-volume special coatings and one zinc-rich primer were omitted.

**Violation of:**

The incomplete records described above in Finding 2 constitute violations of paragraph C.1.d)(1)a., b., c. & d. of PTIO P0101100, which state in part that:

*The permittee shall collect and record the following information each month for each coating and cleanup/purge material employed in emissions units K001, K002, and K003:*

- a. the name and identification number...;*
- b. the total VOC content, in pounds of VOC per gallon, excluding water and exempt solvents...as applied;*
- c. the individual Hazardous Air Pollutant (HAP) content for each HAP, in pounds of individual HAP per gallon of coating, as applied;*
- d. the total combined HAP content..., in pounds of combined HAPs per gallon of coating, as applied.*

**Finding 3:**

Records for gallons of material used and the related VOC and HAPs emissions were not being summarized on a monthly basis.

**Violation of:**

The failure to summarize required records on a monthly basis constitutes a violation of paragraph C.1.d)(1) of PTIO P0101100, which states in part that:

*The permittee shall collect and record the following information each month for each coating and cleanup/purge material employed in emissions units K001, K002, and K003.*

**Finding 4:**

As a continuation from Finding 3, the recordkeeping format for gallons of material used and the related VOC and HAPs emissions was not set-up to update each month the rolling, 12-month totals. Rather, the format was set-up to summarize totals just once per year, on an annual calendar year basis.

**Violation of:**

The failure to record rolling, 12-month summations and update them monthly constitutes violations of paragraph C.1.d)(1) of PTIO P0101100, which states in part that:

*The permittee shall collect and record the following information each month for each coating and cleanup/purge material employed in emissions units K001, K002, and K003...*

*m. the rolling, 12-month summation of the total VOC emissions from all coatings and cleanup/purge materials employed...;*

*[and] the rolling, 12-month summation of individual HAP emissions from all coatings and cleanup/purge materials employed...and the rolling, 12-month summation of the total combined HAP emissions from all coatings and cleanup/purge materials employed....*

**Finding 5:**

An annual report due January 31, 2013 was not submitted for total tons of VOC emissions, total and individual HAPs emissions, and gallons of coating used during calendar year 2012. The permit requires this report in addition to the annual fee emissions report (FER) which was received April 18, 2013. Because the underlying data is the same, the attachments to the annual FER included the 2012 totals for VOC and gallons of coatings used. However, the annual FER did not include HAPs emissions.

**Violation of:**

The failure to submit the annual report described above in Finding 5 constitutes a violation of paragraph C.1.e)(4) of PTIO P0101100, which states that:

*The permittee shall submit annual reports which specify the VOC, total HAP, and individual HAP emissions, in tons for K001, K002, and K003, and the annual coating usage, in gallons. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.*

**Finding 6:**

Findings 1 – 5 above all describe violations of terms and conditions contained in PTIO No. P0101100, which was issued pursuant to Ohio Administrative Code (OAC) Chapter 3745-31, Permits to Install New Sources.

**Violation of:**

A violation of OAC Chapter 3745-31 is also a violation of Ohio Revised Code (ORC) 3704.05(A), which states in part:

*No person shall cause, permit, or allow emission of an air contaminant in violation of any rule adopted by the director of environmental protection under division (E) of section 3704.03 of the Revised Code....*

**Assignment of Violation Category:**

Canton City Health Department, Air Pollution Control Division (Canton APC) considers the material usage violation associated with Finding 1 to be a first-time violation of the identified limit which resulted in no exceedance of an emission limit. As explained in the comments, Canton APC also considers the identified limit itself to be unnecessary and therefore removable by an administrative permit modification.

Canton APC considers the violations associated with Findings 2 - 4 to be first-time violations of the specific identified recordkeeping and reporting requirements.

Therefore, Canton APC considers all of the violations described in this NOV to be in the category of "general noncompliance" as defined under the current Ohio EPA policy known as the Compliance Assurance Through Enforcement Program (CATEP) because they are first-time and/or minor violations that involves negligible environmental harm. Please be advised that future violations will be considered differently.

**Requested Actions:**

1. Submit an application via Air Services for an administrative PTIO modification to remove the gallons per year limitation for cleanup/purge materials listed in paragraph C.1.b)(2) of PTIO P0101100, or submit an alternative plan to Canton APC to demonstrate how you are no longer in violation of the 198 net gallons per year limitation for cleanup/purge material. If you choose the administrative permit modification option, you will cease to be in violation of the requirement described in Finding 1 above as soon as a new permit is issued. Please submit either the PTIO application or the alternative plan requested above within 30 days of receipt of this letter. If more time is needed, please notify Carl Safreed to request an extension. Please be aware, however, that the longer you take to complete the requested action, the longer you will be in non-compliance.
2. Submit the overdue Annual Report for 2012 via Air Services described in Finding 5 above. This report must include emissions and gallons-used for the missing coating materials described in Finding 2 above. (*Completed: this report was submitted 7/15/2013 and approved by Carl Safreed 7/16/2013.*)
3. Provide a copy of corrected records for 2012 to Canton APC demonstrating compliance with all required information for the missing coating materials described in Finding 2 above. (*Completed: corrected records were provided to Carl Safreed on 7/12/2013.*)
4. Update your recordkeeping format to correct the violations described in Findings 3 & 4 above; i.e., show monthly totals and monthly updates to the rolling 12-month summations as required in paragraph C.1.d)(1) of PTIO P0101100. Please provide a copy of records for June and July 2013 to Canton APC that demonstrate the revised recordkeeping, within 30 days of receipt of this letter. If more time is needed, please notify Carl Safreed to request an extension. Please be aware, however, that the longer you take to complete the requested action, the longer you will be in non-compliance.

**Suggested Additional Actions:**

1. Submit an application via Air Services for an administrative permit modification requesting the changes listed below (this can be the same application described in Requested Action No. 1 above):
  1. Change the facility classification from Synthetic Minor/FEPTIO to "Non-Title V," i.e., a natural-minor source. Your reason for this request should be that revised facility-wide potential-to-emit calculations that were determined during the development of PTIO P0110518 for Spray Booth 4 (K004) showed that the facility is not a major source for HAPs, so synthetic minor restrictions are not necessary. (Note: your facility can also be shown to qualify as Non-Title V because records show that your actual emissions

have always been less than twenty percent of any major threshold, e.g., 10 tons/yr for a single HAP, 25 tons/yr for total HAPs, and 100 tons/yr for VOC. For example, your 2012 emissions were 0.42 tons for the highest single HAP (xylene), 1.18 tons total HAPs, and 9.25 tons VOC. The less-than-twenty-percent policy is explained in Ohio EPA DAPC's Engineering Guide #61 under the heading "Presumed Inherent Physical Limitations.")

2. Create an emissions unit group for all four paint spray booths (K001 – K004) with combined emissions limitations for VOC and particulates based on the revised potential-to-emit information described in 1. above. This means that the administrative modification will combine permit No's. P0101100 (K001-K003) and P0110518 (K004) into a new PTIO that will supersede both.
3. Remove the gallons per year limitations for top coat, primer and cleanup/purge materials currently listed in paragraph C.1.b)(2) of PTIO P0101100 (because you don't need synthetic minor restrictions).
4. Remove the combined annual emissions limitations of 24.0 tpy for total HAPs and 10.0 tpy individual HAP currently listed in paragraph C.1.b)(2) of PTIO P0101100 (because you don't need synthetic minor restrictions).
5. Remove the separate VOC emissions limitation for cleanup/purge materials currently listed in paragraph C.1.b)(1)(a) of PTIO P0101100 and instead create a single annual emissions limitation for VOC from all coatings and cleaning materials.
6. Remove the VOC content limit of 6.8 lb/gal for cleanup/purge materials currently listed in paragraph C.1.b)(1)(a) of PTIO P0101100 (because, along with the change in 5 above, this separate limit serves no purpose).
7. Replace references to OAC rules 3745-17-07(A)(1) and 3745-17-11(B)(1) currently listed in paragraph C.1.b)(1)(a) of PTIO P0101100 with the appropriate reference to the requirements found in OAC rule 3745-17-11(C), which addresses the control of particulate emissions specifically for paint spray booths.
8. Administratively carry-over the terms and conditions for the Sand Blast Booth, P001, from PTIO P0101100 so that all emissions units that are part of the coating operations are contained in a single permit.

### **Ohio EPA Enforcement Authority:**

Regarding the above Notice of Violation, please note that the Ohio EPA has the authority to seek civil penalties as provided in Section 3704.06 of the Ohio Revised Code (ORC). This letter or information pursuant to this letter does not constitute a waiver of the Ohio EPA's authority to seek civil penalties as provided in the ORC. The decision on whether or not to seek such penalties in this case will be made by Ohio EPA at a later date.

### **PART 3: Preliminary Assessment of other sources of emissions at the facility**

1. Production welding operations: Based on information you provided on 7/12/2013, additional information provided by Lincoln Electric, and some engineering judgments I made based on AP-42 12.19, my calculations show that total particulate emissions from all production welding operations combined are less than the 10 lb/day "de minimis" limit

based on actual usage rates and one 10-hr shift per day. The maximum potential to emit based on a full 24-hr day is greater than 10 lb/day. Since you already keep accurate production records, my conclusion is that the welding operations would appear to qualify for the "de minimis" exemption via recordkeeping (ref OAC rule 3745-15-05).

2. Plasma torch "burn table:" This operation was installed approximately December 2011, and includes a down draft cutting table and baghouse. I have not performed a detailed analysis, but I suspect that uncontrolled particulate emissions (potential or actual) would exceed 10 lb/day, which would disqualify this operation from the "de minimis" exemption. I strongly recommend that you pursue this matter further, and if necessary submit a Permit-to-Install and Operate (PTIO) application via Air Services. The Ohio EPA Office of Compliance Assistance and Pollution Prevention (OCAPP) should be able to provide assistance at your request. The current local contact for OCAPP is Tamara Girard at the Northeast Ohio District Office in Twinsburg, and her direct number is 330-963-1282.

FYI: AP-42 does not have a "regular" section with emission factors for this type of source, but there is a special attachment to Chapter 12 entitled "Plasma Cutting of Stainless and Mild Steel," a 1994 document published by The Swedish Institute of Production Engineering Research."

3. Corn-fired boiler: This boiler, used to provide heat to the Frame Line/Warehouse building, was installed approximately 4 or 5 years ago according to your maintenance supervisor, Rusty. I have not performed a detailed analysis, nor do I have an opinion one way or the other regarding possible permitting requirements for this boiler. As with the plasma torch burn table, I recommend that you pursue this matter further, and if necessary submit a Permit-to-Install and Operate (PTIO) application via Air Services. Once again, OCAPP should be able to provide assistance. FYI: AP-42 does not have specific emission factors for corn-fired boilers, but as a starting point, Chapter 1.6, "Wood Residue Combustion in Boilers" may be useful.

Please see the attached Site Visit Report dated 7/22/2013, which includes additional details regarding the above sources.

Sincerely,



Carl Safreed, P.E.  
Air Pollution Control Engineer  
direct line 330-438-4682  
csafreed@cantonhealth.org

Attachments:

1. Appendix N Facility Inspection Forms dated 8/7/2013
2. Site Visit Report for 7/12/2013; report date 7/22/2013

**OHIO EPA/DAPC - FACILITY INSPECTION FORM (APPENDIX N)**  
**FACILITY-WIDE INFORMATION**

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**FCE ID in STARS2: 15816**  
**Report Date: 8/7/2013**

**Section A, Part 1**

1. Date of inspection: 6/13/2013 Arrival Time: 9:15 AM Departure Time: 1:45 PM
2. Inspection announced?  Yes  No
3. Facility identification number: 15-76-00-1906 County: Stark
4. Primary facility contact: Naomi Mattingly, EHS Manager
5. Company name and address: MAC Trailer Manufacturing, Inc., 14599 Commerce Street, Alliance, OH, 44601 Tel. 330-823-9900
6. Mailing address (if different from above): \_\_\_\_\_
7. List all pollutants regulated at the facility (mark all that apply):  
 Particulate Emissions  Organic Compounds  Volatile Organic Compounds  
 Carbon Monoxide  Nitrogen Oxides  Sulfur Dioxide  Lead  HAPs  
 Fluorides (excluding hydrogen fluoride)  Sulfuric Acid Mist  Hydrogen Sulfide  
 Total Reduced Sulfur  Non-Methane Organic Compounds from Municipal Waste Landfills  
 Mercury  Beryllium  Vinyl Chloride  Air Toxics
8. Facility type (mark only one):  
 Title V  Synthetic Minor-FEPTIO\*  Mega-Site **\*See "Additional comments" in Section B, Part 1, item 4c on the Emissions Unit Evaluation Forms for both the Spray Booth Group, K001 – K003, and the Sand Blast Booth, P001.**
- 9a. Applicable federal regulations (mark all that apply):  
 NESHAPS  MACT  NSPS  PSD  Emissions Offset  SMPTI (PSD/NSR)
- 9b. If applicable, please specify federal regulation(s): \_\_\_\_\_
10. For reference: SIC = 3715, "Truck Trailers." The corresponding NAICS is 336212, "Truck Trailer Manufacturing.
11. Compliance monitoring category (mark all that apply):  
 Full Compliance Evaluation  Partial Compliance Evaluation  Investigation (CMS)

**Section A, Part 2**

- 1a. Is the facility in compliance with the **facility-wide** operational, recordkeeping, and reporting requirements of its permit terms and conditions?  Yes (see additional comments)  No  N/A
- 1b. If No, with which **facility-wide** operational, recordkeeping, or reporting requirements is the facility not in compliance? \_\_\_\_\_
- 1c. Additional comments: In the annual fee emissions report (FER) that was received on 4/18/2013, the reported tons of organic compounds (OC) were the same as the volatile organic compounds (VOC), when the actual OC number should have been greater. This was not considered to be a violation, but rather a technical error. A revised report was submitted 7/26/2013 and approved on 7/29/2013.
- 2a. For those facilities that have received a final Title V permit, was an annual certification of compliance submitted as required by OAC 3745-77-04(C)(10)?  Yes  No  N/A

**OHIO EPA/DAPC - FACILITY INSPECTION FORM (APPENDIX N)**  
**FACILITY-WIDE INFORMATION**

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If received, date received: \_\_\_\_\_ date reviewed: \_\_\_\_\_

2b. Does the annual compliance certification comply?  Yes  No  N/A (If no, explain in Section A, part 3)

**Section A, Part 3**

1a. Has the Ohio EPA or Local Air Agency taken enforcement action against the company within the last 5 years?  Yes  No  N/A

1b. If yes, identify the emissions units and describe the enforcement action(s):

Since 2008, the facility has received three NOVs, all for late Fee Emission Reports. All three NOVs were assigned Enforcement ID numbers by Ohio EPA Central Office, and all were resolved without any specific enforcement action, even though the action taken to close each case is labeled "Final Compliance After Enforcement." The three cases are summarized below, and all of this information can also be found under Enforcement in STARS2 for this facility.

**Enforcement ID 4940:** NOV for late 2007 FER issued 10/3/2008; FER received and Final Compliance After Enforcement action processed 6/5/2009; Case closed.

**Enforcement ID 6835:** NOV for late 2009 FER issued 5/7/2010; FER received and Final Compliance After Enforcement action processed 6/10/2010; Case closed.

**Enforcement ID 7601:** NOV for late 2010 FER issued 5/12/2011; FER received and Final Compliance After Enforcement action processed 7/8/2011; Case closed.

2a. Compliance Evaluation:

No violations were discovered, based on inspector's observations

Violations were discovered as summarized below. All violations were for the Spray Booth Group (K001-K003), and all refer to terms and conditions in the active permit, PTIO P0101100.

**1. Material Usage Operational Restriction violation:**

1. 779.3 gallons of cleanup/purge material usage was reported for CY2012 compared to the operational restriction of 198 net gallons for any rolling, 12-month period. Net gallons of usage is defined as material employed minus material recovered.

**2. Monitoring, Recordkeeping and Reporting violations:**

1. Records identifying all materials used in the coating operations during 2012 were not complete. Several low-volume, special-color coatings and one zinc-rich primer were omitted. The special colors were all from the PPG Delfleet Essentials line, and were all custom-mixed by a local supplier, Heastand Auto Parts, to meet specific customer requirements.

2. Records for gallons of material used and the related VOC and HAPs emissions records were not being summarized monthly as required by the active permit.

3. The recordkeeping format for gallons of material used and the related VOC and HAPs emissions was not updating the rolling, 12-month totals as summations of the monthly totals. Rather, these records were being summarized and reported on an annual calendar year basis only.

4. The annual report that was due January 31, 2013 had not been submitted. The permit requires this special report for total tons of VOC emissions, total and individual HAPs emissions, and gallons of coatings used for the preceding calendar year. This report is currently required in addition to the annual Fee Emissions Report (which was received April 18, 2013).

2b. If violations were discovered, were non-compliance issues reviewed verbally with the permittee during

**OHIO EPA/DAPC - FACILITY INSPECTION FORM (APPENDIX N)**  
**FACILITY-WIDE INFORMATION**

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an exit interview or while conducting the inspection and in writing after the inspection?

Yes     No     N/A

3. Additional notes and comments:

a. Following the inspection on 6/13/2013, Carl Safreed worked with the facility to correct the recordkeeping and reporting violations described above. As of this report date (8/7/2013), the following issues have been resolved:

- Records have been updated to show all materials used in the coating operations during 2012.
- The annual report that was due January 31 was submitted 7/15/2013 and approved 7/16/2013. For future years, we will recommend that the facility request an administrative modification to remove the requirement for this report from their permit terms & conditions based on our opinion that there is no longer a legitimate reason to require it; instead, recordkeeping will suffice.
- As previously stated in Section A, Part 2 above, a revised FER was approved 7/29/2013.

b. The following issues have not yet been resolved, but work is in progress to do so:

- Exceedance of the rolling 12-month operational restriction on cleanup/purge material usage. For future years, we will recommend that the facility request an administrative modification to remove this and all other operational restrictions on material usage from their permit terms & conditions based on revised potential-to-emit calculations (see P0110518 for new paint spray booth K004) that show the facility is not a major source for HAPs (nor VOC), and thus does not need synthetic minor restrictions.
- The facility has agreed to revise their recordkeeping practices to generate monthly summations of material usage and the related VOC and HAPs emissions as well as a monthly update to the rolling 12-month totals. This issue will be considered resolved as soon as they demonstrate to our satisfaction that the corrected recordkeeping practices are in place.

c. Carl Safreed will send a letter to the facility to summarize the results of the FCE and follow-up actions up through the date of this report. The letter will also include a Notice of Violation (NOV) for the issues described above and our recommended corrective actions.

d. During the inspection visit on 6/13/2013, Naomi Mattingly mentioned that there were production welding operations that to the best of her knowledge had not been evaluated with respect to potential emissions and permitting requirements. It was agreed that Carl Safreed would follow-up with another site visit and provide information to help the facility determine the status of the welding operations. This site visit occurred on 7/12/2013, and in addition to an inspection of the welding operations, two other potential emissions units were observed: a plasma torch "burn table" for cutting steel and a corn-fired boiler used to heat one building. See the Site Visit Report attached in STARS2 for details.

4. Name of individual company representatives or consultants interviewed during inspection (if different from the primary contact identified in part 1 of this section): Nick Santis – Supervisor for the paint spray and sand blast operations; Ralph Miller – Maintenance dept. technician and baghouse operator

Inspector: Carl Safreed  
Print Name

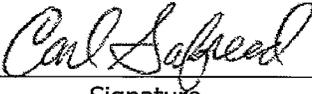
  
Signature

Date 8/7/2013

**OHIO EPA/DAPC - FACILITY INSPECTION FORM (APPENDIX N)**  
**FACILITY-WIDE INFORMATION**

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Permit Writer(s) – Most recent: Dave Augenstein, FEPTIO P0101100, 9/5/2008 (K001-K003 and P001);  
Carl Safreed, PTIO P0110518, 8/7/2012 (K004), not yet installed

Evaluator: Carl Safreed  Date 8/7/2013  
Print Name Signature

# OHIO EPA/DAPC -- FACILITY INSPECTION FORM (APPENDIX N) EMISSION UNIT LEVEL (INDIVIDUAL OR GROUP)

<b>EMISSIONS UNIT EVALUATION FORM</b>	FCE ID in STARS2: <b>15816</b> Evaluator: Carl Safreed	Facility Name: <b>MAC Trailer Mfg. Inc.</b>
<b>K001, K002, K003</b> Spray Booth Group	Inspection Date: 6/13/2013 Report Date: 8/23/2013	Facility ID: <b>15-76-00-1906</b>

## Section B, Part 1

- 1a. Emissions Unit IDs: **K001 – K003**    1b. Description: Paint Spray Booth No.'s 1 - 3
- 1c. Source Classification Codes 4-02-025-01 "Petroleum and Solvent Evaporation, Surface Coating Operations, Miscellaneous Metal Parts, Coating Operation"
- 2a. Were the emissions units operating at the time of the inspection?     Yes     No
- 2b. If No, when was each emissions unit last operated? \_\_\_\_\_
- 3a. PTI Status (installed after 1973):     Issued     Pending     Requested     Not Applicable
- 3b. Installation date: 6/1/1996 for all in group    3c. & 3d. PTI #(s): PTI 15-01483, 4/9/2002; PTIO P0101100, 9/5/2008
- 4a. Operating permit status: Initial  PTIO P0101100, 9/5/2008     Pending     Requested     Registration
- 4b. PTIO expiration date: 9/5/2018    4c. Renewal App. date: \_\_\_\_\_
- 4c. Additional comments: Some permit history needs to be explained: PTI 15-01483 was issued 4/9/2002 with synthetic minor restrictions on annual material usage, plus limitations on total HAP and individual HAP emissions, all for K001 – K003 combined. This should have been followed by a FESOP, but no operating permit was issued until PTIO P0101100 was issued 9/5/2008. The synthetic minor restrictions were carried over from the PTI, but P0101100 was incorrectly identified as a regular PTIO with a 10-year expiration instead of an FEPTIO with a 5-year expiration. Despite this, the Permitting Classification in STARS2 is shown as FEPTIO and the Emissions Reporting Category is SMTV. To complicate things further, revised facility-wide potential-to-emit information was provided with the application for new EU K004 (P0110518) that demonstrated upstream manufacturing capacity limitations on all coating operations. This information suggested that synthetic minor restrictions are not actually needed and that the facility should be reclassified as a natural minor. This change has yet to be addressed.
- 5a. Pollutants subject to applicable requirements:  
 PM     PM<sub>10</sub>     CO     NO<sub>x</sub>     SO<sub>2</sub>     OC     VOC     T-HAP     Lead     Other
- 5b. If Other, list pollutants: \_\_\_\_\_
- 6a. Applicable state rules/regulations: Ohio Toxic Air Contaminant Statute, ORC 3704.03(F) and OAC Chapter 3745-114
- 6b. Applicable federal regulations (mark all that apply):  
 NESHAPS     MACT     NSPS     PSD     Emissions Offset     SMPTI
- 6c. Federal rule and Subpart: \_\_\_\_\_
- 7a. Have any of the emissions units been modified? (See instructions)     Yes     No     N/A
- 7b. Modification comments: \_\_\_\_\_

## Section B, Part 2 *[Note: Unless otherwise stated, all recordkeeping and reporting compliance*

**OHIO EPA/DAPC -- FACILITY INSPECTION FORM (APPENDIX N)  
EMISSION UNIT LEVEL (INDIVIDUAL OR GROUP)**

*determinations apply to the time period since the last FCE inspection on 6/20/2008 (report filed 7/11/2008.)*

1a. Are monitoring and recordkeeping being performed?       Yes [ ] No [ ] N/A

1b. Do the monitoring and recordkeeping comply with T&Cs?    [ ] Yes  No [ ] N/A

1c. Additional comments:    **All of the following relate to requirements in PTIO No. P0101100:**

**1. The records reviewed on 6/13/2013 showed the following noncompliance problems with the recordkeeping *format*:**

1. The permit requires VOC, HAPs and gallons of material usage records to be kept on a monthly basis including monthly total emissions of VOC, individual HAPs and total HAPs. The current practice is to input data on an annual basis from daily worksheets completed by production operators. The data for monthly totals is available, but not recorded as such. I would consider this to be a very minor non-compliance issue if it were a stand-alone requirement, but it is not stand-alone because the monthly totals are needed to update the rolling 12-month summations (see next item).
2. The permit requires rolling 12-month summations of the monthly totals for VOC, individual HAPs and total HAPs. The current practice is to record these totals on a calendar year basis only.

**2. The records reviewed on 6/13/2013 showed compliance (i.e., no problems) with any of the following emissions limitations and material usage operational restrictions:**

1. 52.5 tpy VOC limit from coating operations (i.e., from coatings as applied, but not from cleanup/line purge solvents).
2. 3.5 lb<sub>VOC</sub>/gal excluding water and exempt solvents for all coating mixtures *as applied*.
3. 6.8 lb<sub>VOC</sub>/gal for cleanup/line purge solvent.
4. 2.41 tpy PE limit from coatings applied (compliance with same limit for PM<sub>10</sub> obviously included).
5. 22,000 gal/yr of topcoat
6. 8,000 gal/yr of primer
7. 24.0 tpy total HAPs
8. 9.00 tpy of any individual HAP

**3. The records reviewed on 6/13/2013 did NOT show compliance with the following requirements from PTIO P0101100:**

1. The permit includes an operational restriction of 198 net gallons of cleanup/purge material usage per year (material employed minus material recovered). The reported total for calendar year 2012 was 779.3 gallons of "Line Flush" FT220. When asked to confirm that the reported amount was the net amount used, Naomi Mattingly replied "yes" (email to Carl Safreed 6/28/2013). Although the cleanup/purge material usage exceeded the permit restriction, I have determined that the restriction itself is irrelevant (i.e., artificial and unnecessary) since the intended purpose, along with restrictions on gallons of topcoat and primer, was to help the facility stay below the 10 ton/25 ton major source levels for single HAP/total HAPs (written into the permit as the artificially reduced limits of 9.0/24.0 tons). Actual tpy emissions for VOC and HAPs are well below both permit and major source levels, so the fact that cleanup/purge usage exceeded its gal/yr limit is not relevant to anything. The permit should be administratively modified to remove this and all other operational restrictions on material usage.
2. The permit requires recordkeeping for *each* coating used. The records reviewed included only twelve "OEM MAC" topcoat colors and one standard primer that the facility purchases directly from PPG Industries, Inc.. The records did *not* include nineteen specialty colors ("PPG Essentials") and one zinc-rich primer that were used in small quantities and purchased locally from Heastand's Auto Parts.

## OHIO EPA/DAPC -- FACILITY INSPECTION FORM (APPENDIX N) EMISSION UNIT LEVEL (INDIVIDUAL OR GROUP)

- 2a. Are deviation reports required to be submitted?  Yes  No (if no leave 2b-2c blank)
- 2b. Do the required deviation reports comply?  Yes  No
- 2c. Additional comments: An annual Permit Evaluation Report (PER) is due Nov. 15 each year. Quarterly deviation reports are not required by PTIO P0101100. The annual PERs have been received and accepted after each of the four FULL years since P0101100 was issued on 9/5/2008; i.e., 2009, 2010, 2011 & 2012. Even though these four PERs were accepted, it has now been recognized that they were not correct because one or more of the noncompliance issues described above (e.g., recordkeeping format, cleanup/purge material > 198 gallons) occurred in each of those years and was not reported as a deviation in the PER. So in retrospect, the PERs did not comply with the requirement to report deviations.

Also, there was a PER due 11/15/2008 that was supposed to cover the brief period beginning 9/5/2008 (when PTIO P0101100 was issued) through 9/30/2008. This first PER was not received. On 5/2/2013, Canton recommended that the Ohio EPA Central Office cancel the requirement for the PER due 11/15/2008 (email T Dzienis to Erica Engel-Ishida).

- 3a. Are emissions unit-specific reports required to be submitted?  Yes  No (if no leave 3b-3c blank)
- 3b. Do the required emissions unit-specific reports comply?  Yes  No
- 3c. Additional comments: PTIO P0101100 requires an **annual report** to be submitted by January 31 for total VOC, total HAP and individual HAP emissions, in tons, and the annual coating usage, in gallons, for K001 – K003 combined, all for the preceding calendar year. This is separate from the annual fee emissions report (FER) due April 15, although the underlying data is the same. As of 6/13/2013, the 2012 report had **not** been submitted. The VOC and gallons usage data for 2012 was included in the attachments to the annual FER received 4/18/2013, but the HAPs data was not included. As a follow-up to the inspection, Carl Safreed worked with the facility to complete and submit the required report. It was submitted 7/15/2013 and approved 7/16/2013.
- 4a. Are any CEM/COM/**other** reports required?  Yes  No (if no leave 4b-4d blank)
- 4b. Do the CEM/COM/**other** required reports comply?  Yes  No  Unknown
- 4c. List any **other** reports required: PTIO P0101100 requires deviation (excursion) reports **only** in the event of an exceedance of the rolling, 12-month limitation for coating usage, or the VOC, total HAP or individual HAP emission limitations for K001 – K003 combined. Also, written notification is required for any daily record showing the use of noncomplying coatings. No deviation reports have been received for any of these items since the last FCE, July 11, 2008. Also, I am satisfied that no noncomplying coatings have been used based on my review of the records after making sure that the VOC limit in lb/gal less water and exempt solvents was properly evaluated to the coatings in the **as-applied** condition.
- 4d. Additional comments: \_\_\_\_\_
- 5a. Were visible emissions observations (VEOs) Performed?  Yes  No  N/A
- 5b. If No, explain why not (*see instructions for guidance*): \_\_\_\_\_
- 5c. If performed, did the VEOs show compliance with permit limits?  Yes  No  N/A
- 5d. Additional comments: PTIO P0101100 does not include an opacity limit for K001 – K003.
- 6a. Did the review of operational logs and usage records show compliance?  Yes  No  N/A
- 6b. Additional comments: The paint spray booth operators' daily material usage logs, located in the paint

**OHIO EPA/DAPC -- FACILITY INSPECTION FORM (APPENDIX N)**  
**EMISSION UNIT LEVEL (INDIVIDUAL OR GROUP)**

storage room, were observed to be complete except there was some confusion about which color was which when the logs were compared with the data entered into the spreadsheet in the office. In particular, there are two types of blue and two types of green, and the names have changed over time, but the operators were using the old names. The operators need to be trained to use the correct names *and* corresponding product codes to eliminate any confusion. A blank copy of the latest usage log form (revised 5/29/2013) was obtained and is attached to FCE ID 15816 in STARS2, but there is no separate column for product code. As part of the follow-up to the inspection, Carl Safreed will suggest a further revision to add a column for product code.

- 7a. Did the operational parameters show compliance with rule or permit limits?  Yes  No  N/A
- 7b. Additional comments: \_\_\_\_\_
- 8a. Is Air Pollution Control Equipment required?  Yes  No (if no leave 8b-8e blank)  
Paint spray booth panel filters with overall control efficiency of 79% (capture x control) are indirectly required based on the calculations shown in the Applicable Compliance Method section for particulate emissions limitation in PTIO P0101100.
- 8b. Was the APCE operating?  Yes  No  N/A
- 8c. List operational parameters observed: N/A
- 8d. Was the APCE operating in compliance with permit T&Cs?  Yes  No
- 8e. Do the level and frequency of maintenance appear adequate?  Yes  No
- 8f. Is the facility required to have a CAM plan?  Yes  No (if no leave 8g blank)
- 8g. Does the CAM plan comply?  Yes  No
- 8h. Additional comments: The paint spray booth panel filters are disposable, and according to the operator they are changed daily, sometimes more than once per day depending upon the amount of spraying performed.
- 9a. Do applicable permits require testing?  Yes  No (if no leave 9b-9g blank)
- 9b. Enter the date of the most recent test: \_\_\_\_\_
- 9c. Was the test observed?  Yes  No
- 9d. Did the test show compliance?  Yes  No
- 9e. Please list pollutants tested:  
 PM  PM<sub>10</sub>  CO  NO<sub>x</sub>  SO<sub>2</sub>  OC  VOC  T-HAP  Lead  Other
- 9f. Did the test conform to the proper methodology?  Yes  No
- 9g. Additional comments: \_\_\_\_\_

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EMISSION UNIT LEVEL (INDIVIDUAL OR GROUP)**

<b>EMISSIONS UNIT EVALUATION FORM</b>	FCE ID in STARS2: <b>15816</b> Evaluator: Carl Safreed	Facility Name: <b>MAC Trailer Mfg. Inc.</b>
<b>P001</b> Sand Blast Booth	Inspection Date: 6/13/2013 Report Date: 8/7/2013	Facility ID: <b>15-76-00-1906</b>

**Section B, Part 1**

- 1a. Emissions Unit IDs: **P001** 1b. Description: Sand Blast Booth with baghouse
- 1c. Source Classification Codes 3-09-002-07 "Industrial Processes, Fabricated Metal Products, Abrasive Blasting of Metal Parts, Shotblast with Air"
- 2a. Were the emissions units operating at the time of the inspection?  Yes  No
- 2b. If No, when was each emissions unit last operated? \_\_\_\_\_
- 3a. PTI Status (installed after 1973):  Issued  Pending  Requested  Not Applicable
- 3b. Installation date: 6/1/1996 3c. & 3d. PTI #(s): PTI 15-01483, 4/9/2002; PTIO P0101100, 9/5/2008
- 4a. Operating permit status: Initial  PTIO P0101100, 9/5/2008  Pending  Requested  Registration
- 4b. PTIO expiration date: 9/5/2018 4c. Renewal App. date: \_\_\_\_\_
- 4c. Additional comments: Some permit history needs to be explained: PTI 15-01483 was issued 4/9/2002 with synthetic minor restrictions on annual material usage, plus limitations on total HAP and individual HAP emissions, all for K001 – K003 combined. This should have been followed by a FESOP, but no operating permit was issued until PTIO P0101100 was issued 9/5/2008. The synthetic minor restrictions were carried over from the PTI, but P0101100 was incorrectly identified as a regular PTIO with a 10-year expiration instead of an FEPTIO with a 5-year expiration. Despite this, the Permitting Classification in STARS2 is shown as FEPTIO and the Emissions Reporting Category is SMTV. To complicate things further, revised facility-wide potential-to-emit information was provided with the application for new EU K004 (P0110518) that demonstrated upstream manufacturing capacity limitations on all coating operations. This information suggested that synthetic minor restrictions are not actually needed and that the facility should be reclassified as a natural minor. This change has yet to be addressed.
- 5a. Pollutants subject to applicable requirements:  
 PM  PM<sub>10</sub>  CO  NO<sub>x</sub>  SO<sub>2</sub>  OC  VOC  T-HAP  Lead  Other
- 5b. If Other, list pollutants: \_\_\_\_\_
- 6a. Applicable state rules/regulations: \_\_\_\_\_
- 6b. Applicable federal regulations (mark all that apply):  
 NESHAPS  MACT  NSPS  PSD  Emissions Offset  SMPTI
- 6c. Federal rule and Subpart: \_\_\_\_\_
- 7a. Have any of the emissions units been modified? (See instructions)  Yes  No  N/A
- 7b. Modification comments: \_\_\_\_\_

**Section B, Part 2** *[Note: Unless otherwise stated, all recordkeeping and reporting compliance determinations apply to the time period since the last FCE inspection on 6/20/2008 (report filed 7/11/2008.)]*

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EMISSION UNIT LEVEL (INDIVIDUAL OR GROUP)**

- 1a. Are monitoring and recordkeeping being performed?       Yes [ ] No [ ] N/A
- 1b. Do the monitoring and recordkeeping comply with T&Cs?     Yes [ ] No [ ] N/A
- 1c. Additional comments: PTIO P0101100 requires daily recordkeeping for the pressure drop across the baghouse to demonstrate compliance with the permitted range of 1.0 – 6.0 in H<sub>2</sub>O, which is listed as an operational restriction. A copy of the log covering Jan 1–Jun 20, 2013 was obtained and is attached to FCE ID 15816 in STARS2.
- 2a. Are deviation reports required to be submitted?       Yes [ ] No (if no leave 2b-2c blank)
- 2b. Do the required deviation reports comply?     Yes [ ] No
- 2c. Additional comments: An annual Permit Evaluation Report (PER) due Nov. 15 each year. Quarterly deviation reports are not required by PTIO P0101100. The annual PERs have been received and accepted after each of the four FULL years since P0101100 was issued on 9/5/2008. However, the very first required PER covering the brief period of Sep 5 – 30, 2008 was due 11/15/2008 but was not received. On 5/2/2013, Canton recommended that the Ohio EPA Central Office cancel the requirement for the PER due 11/15/2008 (email T Dzienis to Erica Engel-Ishida).
- 3a. Are emissions unit-specific reports required to be submitted?    [ ] Yes     No (if no leave 3b-3c blank)
- 3b. Do the required emissions unit-specific reports comply?    [ ] Yes [ ] No
- 3c. Additional comments: \_\_\_\_\_
- 4a. Are any CEM/COM/other reports required?     Yes [ ] No (if no leave 4b-4d blank)
- 4b. Do the CEM/COM/other required reports comply?     Yes [ ] No [ ] Unknown
- 4c. List any other reports required: PTIO P0101100 requires deviation (excursion) reports **only** in the event of an exceedance of the allowable pressure drop range across the baghouse. No such reports have been received since the last FCE, July 11, 2008.
- 4d. Additional comments: \_\_\_\_\_
- 5a. Were visible emissions observations (VEOs) Performed?    [ ] Yes     No [ ] N/A
- 5b. If No, explain why not (*see instructions for guidance*): The baghouse vents back into the west end of the sand blast booth in the vicinity of the filter system intake, with additional make-up air entering the booth at the opposite (east) end. It was not feasible to conduct a formal visible emissions observation, although as a cursory observation, no visible emissions were seen.
- 5c. If performed, did the VEOs show compliance with permit limits?    [ ] Yes [ ] No     N/A
- 5d. Additional comments: The BAT limit for this EU is 5% opacity as a six-minute average. See 5b. above.
- 6a. Did the review of operational logs and usage records show compliance? [ ] Yes [ ] No     N/A
- 6b. Additional comments: \_\_\_\_\_
- 7a. Did the operational parameters show compliance with rule or permit limits?  Yes [ ] No [ ] N/A
- 7b. Additional comments: \_\_\_\_\_
- 8a. Is Air Pollution Control Equipment required?       Yes [ ] No (if no leave 8b-8e blank)  
PTIO P0101100 requires the use of a baghouse with maximum rated outlet concentration of 0.01 grains/dscf. Pressure drop across the baghouse to be maintained within range of 1.0 – 6.0 in H<sub>2</sub>O.

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- 8b. Was the APCE operating?  Yes  No  N/A
- 8c. List operational parameters observed: Baghouse pressure drop observed at 5 in H<sub>2</sub>O while the EU was operating. A photo of this reading is attached to FCE ID 15816 in STARS2.
- 8d. Was the APCE operating in compliance with permit T&Cs?  Yes  No
- 8e. Do the level and frequency of maintenance appear adequate?  Yes  No
- 8f. Is the facility required to have a CAM plan?  Yes  No (if no leave 8g blank)
- 8g. Does the CAM plan comply?  Yes  No
- 8h. Additional comments: The baghouse operator's daily logs were observed to be complete. A copy of the log covering Jan 1 – Jun 20, 2013 was obtained and is attached to FCE ID 15816 in STARS2.
- 9a. Do applicable permits require testing?  Yes  No (if no leave 9b-9g blank)
- 9b. Enter the date of the most recent test: \_\_\_\_\_
- 9c. Was the test observed?  Yes  No
- 9d. Did the test show compliance?  Yes  No
- 9e. Please list pollutants tested:  
 PM  PM<sub>10</sub>  CO  NO<sub>x</sub>  SO<sub>2</sub>  OC  VOC  T-HAP  Lead  Other
- 9f. Did the test conform to the proper methodology?  Yes  No
- 9g. Additional comments: \_\_\_\_\_

**Site Visit Report**  
*Canton City Health Department*  
*Air Pollution Control Division*

<b>Site Visit Date/Time:</b> 07/12/2013 @ 09:00 am – 2:15 pm	<b>Final Report Date:</b> 07/22/2013
<b>Facility Name:</b> MAC Trailer Manufacturing, Inc.	<b>Report Writer Name:</b> Carl Safreed
<b>Facility Address:</b> 14599 Commerce St., Alliance, OH 44601	<b>Report Writer Title:</b> APC Engineer
<b>Facility ID #:</b> 1576001906	

**Site Visit Participants:**

*CCHD, APCD representative(s):* Carl Safreed, APC Engineer

*Facility representative(s):* Naomi Mattingly, EHS Manager; Dave Wade, HR Manager

**Purpose of the Site Visit:**

This visit had two purposes. The first purpose was to review corrective actions the facility had made regarding recordkeeping and reporting noncompliance issues discovered during the FCE inspection on 6/13/2013. The second purpose of the visit was to inspect the facility's production welding operations in order to determine whether or not there are unmet permitting requirements. During the inspection tour, two additional undocumented emissions sources besides welding were observed and preliminary information was gathered to help determine whether one or both of these sources have unmet permitting requirements. The additional sources seen were a plasma torch for cutting steel plate (including downdraft "burn table" and baghouse) and a corn-fired boiler used to heat the Frame Line & Warehouse building.

**Brief Facility Background:**

MAC Trailer Manufacturing is currently permitted as a Synthetic Minor Title V facility based initially on PTI #15-01483, issued 4/9/2002 with synthetic minor operating restrictions on their coating operations (EUs K001-K003) that limit single-HAP and total HAPs emissions below Title V thresholds. The PTI also including a grit blast room with baghouse (P001). A FESOP was planned following the PTI, but no operating permit was issued until 9/5/2008, by which time the state operating permit program (PTO) had been replaced by the combined installation and operating permit program (PTIO). PTIO #P0101100, issued 9/5/2008, included all of the same synthetic minor terms as the PTI and should have been identified as an FEPTIO with a 5-yr expiration date. Instead, it was misidentified as a regular PTIO with a 10-yr expiration date. Despite this mistake however, the permitting classification in STARS2 is FEPTIO and the emissions reporting category is SMTV. For these reasons, the facility has been on the 5-yr FCE schedule and the annual Fee Emissions Report (FER) schedule.

An initial installation PTIO for a new paint spray booth (P0110518 for K004) was issued 8/7/2012, but construction has not yet begun on this EU. During the application and permit development process for K004, the facility-wide potential to emit for VOCs and HAPs was reevaluated, and it was determined that the original PTE leading to the 2002 synthetic minor restrictions had been over-estimated. Upstream manufacturing capacity limitations on the maximum number of trailers that could be painted (as converted into maximum possible gallons of coating and cleaning materials) were not properly considered. New calculations showed that even with allowance for a 33% increase in upstream manufacturing (a conservatively-high estimate), the facility-wide PTE was actually below Title V thresholds for 1-HAP (10 tpy), total HAPs (25 tpy), and VOCs (100 tpy). Based on this new information, P0110518 for K004 was issued as a regular PTIO. It was noted at the time that the facility's status should be changed to non-Title V, but that an administrative modification PTIO would be needed to accomplish this change. The admin mod PTIO remains an uncompleted task.

**Site Visit Observations and Notes:**

*Meeting in Naomi's office:*

The first issue addressed was a follow-up to a noncompliance issue from the FCE inspection on 6/13/2013. The coatings-content spreadsheet and the annual emissions spreadsheets for OC, VOC, HAPs and PE had not included all coatings used during 2012. Missing were special-order colors from the PPG Delfleet Essentials line that the facility purchases in small volumes from a local custom-mixer, Heastand Auto Parts. In the weeks following 6/13, Naomi provided the missing

information and Carl provided assistance in obtaining the coating content data from PPG. During the 7/12 site visit, Carl confirmed that the missing coating content and usage information had been properly added to the various spreadsheets. The total volume of Essentials special-color coatings used during 2012 was 75 gal compared to 5513 gal of the "OEM MAC" coatings.

The second issue addressed was the annual fee emissions report (FER) that had been received on 4/18/2013. The reported tons of organic compounds (OC) were the same as the volatile organic compounds (VOC), when the actual OC number should have been greater because of the "exempt solvent," acetone, contained in both the coating and the reducer materials. This was not considered to be a violation, but rather a technical error, and in the weeks following the FCE inspection, Carl provided assistance to help further revise MAC's spreadsheets to show both total OC and the subset of VOC. With the records now complete (all coatings included) and correct (separate OC and VOC columns), Carl confirmed that Naomi had all information needed to submit the annual report that had been due January 31 (as required by PTIO #P0101100) and to revise and resubmit the FER.

The third issue addressed was the recordkeeping format. The permit requires monthly and rolling, 12-month totals for gallons of materials used and the related VOC and HAPs emissions. Instead, the facility had been collecting daily records from the coating operators and summarizing them only once per calendar year. Naomi confirmed that she would revise the spreadsheets as required and begin updating them monthly.

The fourth issue addressed was 779 net gallons of cleanup/purge material reported for 2012 vs. an operational restriction in the permit of 198 gal. Although the usage exceeded the permit restriction, Carl explained that in his opinion the restriction was irrelevant (i.e., artificial and unnecessary) since the intended purpose, along with restrictions on gallons of topcoat and primer, was to help the facility stay below the 10 ton/25 ton major source levels for single HAP/total. Actual tpy emissions for VOC and HAPs have always been well below major source levels at this facility, so the fact that cleanup/purge usage exceeded its gal/yr restriction is not relevant to anything. Carl recommended that the permit should be administratively modified to remove unnecessary operational restrictions.

The final subject during the meeting was a discussion about how and why the above issues would be documented. Carl presented a nearly finished draft of the internal Appendix N report summarizing the FCE, and a preliminary draft a proposed NOV/ROV letter that would be sent to the facility. Carl explained that he was required to issue a Notice of Violation(s) letter for the noncompliance issues, but that he was proposing a delay until all of the issues had been resolved, so that the same letter could serve as a Resolution of Violation(s). This approach was possible only because he believed that all of the issues could be categorized as "general noncompliances" (meaning minor, no further enforcement action required) rather than "significant noncompliances" (further action required, including possible fines).

#### *Plant walkthrough:*

##### 1. Production welding operations

- Welding is performed at multiple sites on each of MAC's four trailer assembly lines, all in the "main shop."
- Three of the assembly lines are for aluminum trailers (i.e., aluminum welding), and one is steel.
- All of the welding is Gas Metal Arc Welding (GMAW)
- They use two consumable electrode welding wires:
  1. SuperGlaze 5356 aluminum wire, AWS ER5356, 1/16" (1.6 mm) diameter.
  2. SureArc S6 carbon steel wire, AWS ER70S-6, 1/16" (1.6 mm) diameter
- AP-42 12.19 has emissions factors for steel wire only. Pollutants are "total fume" in units of lb per 1000 lb of electrode consumed, and individual metal HAPs, typically in units of 0.10 lb per 1000 lb of electrode consumed.
- Both the aluminum and steel welding wire is manufactured by Lincoln Electric, based in Cleveland. Carl contacted the company and on 7/19/2013 received "fume generation rate and elemental fume chemistry" data sheets from Kathy\_Gargasz@lincolnelectric.com (216-383-4147), along with an email containing a list of disclaimers regarding the lack of accuracy for use in emissions calculations (see attachments).
- On 7/12, Naomi provided wire usage data (see attachment), which can be summarized as follows: maximum aluminum wire electrode usage is 576 lb/day based on one 10-hr shift. The max. hourly rate is therefore 56 lb/hr; maximum steel wire electrode usage is 11 lb/day based on one 10-hr shift. The max. hourly rate is therefore 1.1 lb/hr.
- There are no control devices for any of the welding processes. All emissions are fugitive.

- cursory calculations suggest that total particulate emissions from all welding operations combined are less than 10 lb/day based on actual usage, but would exceed 10 lb/day based on a full 24-hr day. Since accurate production records are kept, the welding operations would likely qualify for “de minimis” via recordkeeping.
2. Plasma torch “burn table”
    - Installed approx. Dec 2011
    - Located in the “Fab” department within the Frame Line & Warehouse building.
    - Downdraft cutting table vents to baghouse outside building.
    - Baghouse manufacturer is United Air Specialists, Inc (UASinc.com).
    - Baghouse model SFC20-5; S/N 60063822
    - The process was operating during the inspection; the digital pressure-drop gauge read 5.40 (gauge # DPC-A3).
    - Blower cfm information was not readily available.
    - There is a special attachment to AP-42, Chapter 12 entitled “Plasma Cutting of Stainless and Mild Steel, “ a 1994 document by The Swedish Institute of Production Engineering Research.
  3. Corn-fired boiler
    - Installed “4 or 5 years ago” according to maintenance supervisor, Rusty.
    - Manufactured September 2006 by Profab Industries, Inc., Arborg, Manitoba, Canada according to plate.
    - Labeled as an “outdoor/indoor boiler.”
    - Model No. P02520; S/N P25119106
    - Blower cfm information was not readily available.
    - Used to heat the Frame Line & Warehouse building and located outside the building.
    - The fuel is corn from Mr. Conny’s farm.
    - The corn kernels are fed to the burner from an adjacent Pelco-brand silo, which is *roughly* 8 ft dia x 12 ft tall.
    - Rusty stated that when used during the cold months, a full silo typically lasts about 1.5 weeks.
    - There appears to be no control equipment.
    - The stack is about 10-12” dia and roughly 25 ft above ground level.
    - AP-42 does not have EF’s for corn-fired boilers, but as a starting point, Chapter 1.6, “Wood Residue Combustion in Boilers” may be useful.
  4. Other equipment and notes
    - The Main Shop and Mounting buildings are heated by natural gas.
    - The heat appears to be supplied by overhead infrared burners running the length of the buildings.

**Record Review/Documents Provided:**

Record review discussed in detail above. The following documents were provided by Naomi during the visit: welding wire usage estimates and MSDS sheets for the aluminum and steel wire.

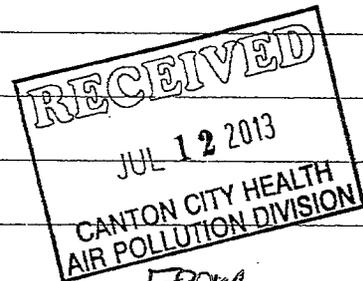
**Specific Violations Observed or Determined (if applicable):**

None during this visit. Follow-up determinations regarding possible permitting requirements for the emissions sources described above to be made at a future date. Currently the renewal permit backlog has been given much higher priority by Terri Dzienis.

**Conclusions & Recommendations:**

1. Dave Wade, HR Manager, joined Naomi and Carl for a wrap-up meeting. The primary subject was the pending NOV/ROV letter discussed above.
2. Naomi agreed to submit the 2012 annual report that was due January 31 and the revised FER as soon as possible via Air Services, depending primarily on the availability of the Authorized Representative, Michael Conny.
3. Naomi agreed to revise the coatings recordkeeping to comply with the monthly and rolling 12-month permit requirements, then send Carl a sample to demonstrate compliance.
4. Carl agreed, within reason, to delay issuing the NOV until items 2 & 3 above have been completed in order to be able to make the letter a combination NOV/ROV.

	PROD RATE	WIRE RATE
Dumps	5 / day	3-4 spool EA.
MF	2 / day	3-4 spools EA.
1/2 O	2 / day	3-4 spool EA.
Steel	1 / wk	1 spool EA.



Wire

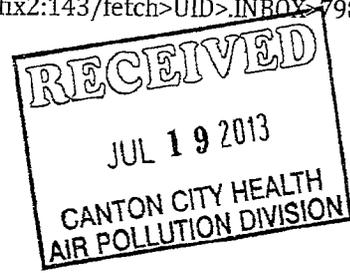
1 Spool = 16 lbs aluminum  
44 lb steel

FROM  
NAOMI MATTINGLY

(MAXIMUM) Potential to Emit

$$24 \times 365 = 8760 \text{ hr/yr}$$

PM emissions



**Subject:** Re: Air emission factors for aluminum and steel MIG wire  
**From:** Kathy\_Gargasz@lincolnelectric.com  
**Date:** Fri, 19 Jul 2013 11:21:10 -0400  
**To:** Carl Safreed <csafreed@cantonhealth.org>

Mr. Safreed,

We do not have emissions data for the exact consumables you are requesting. I have some data for 3/64" Superglaze 5356, and .045" S6 wire. The data I have is not in the units you are requesting.

It is also important to note that many factors can change the fume generation rate, such as:

1. Diameter
2. Shielding Gas
3. Travel Speed
4. Settings (voltage/amperage)
5. Substrate material
6. Polarity
7. Process (Spray arc vs short arc vs STT)

With all of these things considered, the attached data is likely no more or less accurate than what is published on AP-42. I generally advise customers who call for fume data to use AP-42 for these reasons.

If you have any additional questions, please let me know.

Kathy Gargasz  
Environmental Coordinator  
Lincoln Electric  
216.383.4147 Phone  
216.244.4779 Cell



Reduce your Environmental Footprint! Please print only what is necessary.

**From:** Carl Safreed <csafreed@cantonhealth.org>  
**To:** Kathy Gargasz <kathy\_gargasz@lincolnelectric.com>  
**Date:** 07/16/2013 02:52 PM  
**Subject:** Air emission factors for aluminum and steel MIG wire

Kathy,

I was given your name by Brian C. (or K?) in your "MSDS" department. I am working with one of Lincoln Electric's customers, MAC Trailer, Inc., at their plant in Alliance, Ohio. I am an air pollution control engineer at Canton City Health Department, and we are a contractual agency of the Ohio EPA, Division of Air Pollution Control. We are responsible for all of Stark County.

I am trying to determine if the emissions from MAC Trailer's welding processes (which are dispersed all along their four assembly lines) are great enough to require a Permit to Install and Operate (PTIO). What I'm looking for are appropriate emission factors similar to those found in U.S. EPA AP-42, Chapter 12.19, but for the specific electrode types that MAC uses.

All of MAC's welding is Gas Metal Arc Welding (GMAW). They use two consumable electrode welding wires:

1. SuperGlaze 5356 aluminum wire, AWS ER5356, 1/16" (1.6 mm) diameter.
2. SureArc S6 carbon steel wire, AWS ER70S-6, 1/6" (1.6 mm) diameter

The types of emission factors I am looking for, as shown in AP-42 12.19, are total fume in units of lb per 1000 lb of electrode consumed, and individual metal HAPs, typically in units of 0.10 lb per 1000 lb of

electrode consumed.

Any help or direction you could give me would be much appreciated.

Thank-you,

Carl Safreed, P.E.  
Air Pollution Control Division  
Canton City Health Department  
420 Market Ave North  
Canton, OH 44702-1544  
[csafreed@cantonhealth.org](mailto:csafreed@cantonhealth.org)  
330-438-4682

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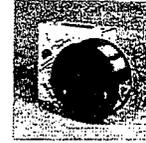
-----Superglaze.pdf-----

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# GMAW

## Fume Generation Rates and Elemental Fume Chemistry



Wire	Dia. (in)	Voltage	WFS (l.p.m.)	Polarity	E.S.O.	Shielding Gas	Melt - Off Rate (lbs / hr)	Fume Gen. Rate (g / min)	Percent Particulate
							Fe	Mn	Cu
<b>LINCOLN</b> <b>ELECTRIC</b> SuperArc L56	.045	27.0	450	DC+	3/4 "	CO <sub>2</sub>	12.8	.64	.66
		29.0	450	DC+	3/4 "	CO <sub>2</sub>	12.8	.85	.88
		31.0	450	DC+	3/4 "	CO <sub>2</sub>	12.8	.90	.93
<b>LINCOLN</b> <b>ELECTRIC</b> SuperArc L56	.045	29.0	450	DC+	3/4 "	CO <sub>2</sub>	50.4	9.9	.64
		27.0	450	DC+	3/4 "	75 Ar / 25CO <sub>2</sub>	49.3	7.3	.62

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# Requested Product Data

## Fume Generation Rates and Elemental Fume Chemistry

### SuperGlaze



Wire	Dia. (in)	Voltage	WFS (l.p.m.)	Polarity	ES.O.	Shielding Gas	Melt - Off Rate (lbs / hr)	Fume Gen. Rate (g / min)	Percent Particulate
<b>LINCOLN ELECTRIC</b> SuperGlaze 4043	3/64	20.0	450	DC+	1/2"	Argon	4.3	.65	1.98
<b>LINCOLN ELECTRIC</b> SuperGlaze 5356	3/64	22.0	450	DC+	1/2"	Argon	4.8	1.33	3.69
<b>Elemental Fume Chemistry (%)</b>									
			Al	Fe	Mn	Si	Mg	Ti	Be
<b>LINCOLN ELECTRIC</b> SuperGlaze 4043	3/64	----	48.4	<.01	<.01	1.1	.02	<.01	0.0002
5356	3/64	----	48.1	<.01	<.01	<.01	5.3	<.01	

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