State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Rd.
Twinsburg, Ohio 44087

TELE: (330) 963-1200 FAX: (330) 487-0769
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

September 24, 2009

RE: AS AMERICA, INC.
FACILITY ID# 02 15 09 0011
NOTICE OF VIOLATION
HIGH PRIORITY VIOLATION-GC #7

CERTIFIED MAIL

Mr. Paul Lee, Plant Manager
AS America, Inc.
605 South Ellsworth Avenue
Salem, OH 44460

Dear Mr. Lee:

On August 6, 2009, I visited the AS America facility in Salem, Ohio and met with you and Mr. Jim Wilgus to discuss the current application for a modified air permit and to view each emissions unit that is contained within the current permit. On August 26, 2009, I returned to the AS America facility and met with Mr. Jim Wilgus to review the records kept for each permitted emissions unit. Records for P015 and R018 for 2007, 2008 and 2009 were later e-mailed to me on August 26, 2009, August 28, 2009 and September 10, 2009.

This letter serves to summarize my inspection observations, record review findings, and to notify you of permit violations.

A. Summary of significant inspection and record review findings:

1. Current permits #02-18111 and #02-23002 require deviation reports to be submitted to the Ohio EPA every quarter. AS America has complied with this reporting requirement.

2. On August 6, 2009, P015 was reported to no longer be used. On August 26, 2009, Mr. Jim Wilgus provided a verbal report that AS America removed the grinders of P015 in January 2007. In an e-mail received on September 17, 2009, Mr. Wilgus confirmed the grinding booths were removed in January 2007. However, the cleaning and finishing operations continue to exist.

3. An application to modify emissions unit R018 was submitted to and received by the Ohio EPA on June 3, 2008. The proposed modification was to include the use of styrene resins. The application included information that R018 would be enclosed and emissions would be vented to the polyad control system. The permit was therefore, drafted to reflect what was reported in this application. The date of the cover letter of the draft permit was April 7, 2009. Within the 30 day comment period, AS America did not submit any comments or corrections. The permit was issued final on May 15, 2009.

   During the August 6, 2009, visit, it was discovered that R018 is not enclosed, its emissions are not being vented to the polyad control system, and styrene resins are being used.

   Copies of two types of records for R018 are enclosed for reference. One type has "Styrene Based Resin" at the top, and the other lists the process emissions, in lb/day. The copies are partial and are enclosed only for reference. The record "Styrene Based Resin" for both 2008 and 2009 states "Starting on 1/1/2008 styrene based product has been used in this operation." This start date is before the date when the application for the permit modification was received by Ohio EPA.

   According to an e-mail sent on September 8, 2009, to the Ohio EPA, R018 was reconnected to the polyad system as of 9/4/09.

4. On August 26, 2009, the records for each permitted emissions unit were reviewed. Later that day on August 26 and on August 28, 2009, you e-mailed records for P015 and R018 for calendar years 2007, 2008 and part of 2009. On September 10, 2009, you e-mailed me the records for R018 for August 2009. The following observations on AS America's record keeping program are noted:

   a. For most of the emissions units, there is a hard copy report that has handwritten information about the operations for each day of operation. The information from the hard copy is then entered into a computer spreadsheet. On August 26, 2009, we found that the dates of the hard copies did not match the dates entered into the computer, i.e., they were not in sync for most of the records. The dates were off by one day.

   b. For R008 (and R022 when in use), AS America has calculated that 11.97 pounds of resin is needed per tub. The number of tubs produced and the number of hours of operation are recorded. The number of tubs is then multiplied by 11.97 lbs resin/tub to calculate the amount of resin used per day. For cleanup, the number of tubs is multiplied by 0.31 pounds of acetone to get the total amount of acetone used. We have concerns about this methodology.

What if tub size or operations change such that the resin/acetone usage is changed? If AS America prefers to continue this methodology in measuring material usage, we recommend that the amounts are verified frequently, e.g. monthly. Otherwise, the materials should be measured directly by using a scale or meter.

c. The equation to derive the appropriate emission factor (EF) to calculate styrene emissions is taken from Table 1 of 40 CFR 63, Subpart WWWW (National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production). This equation is needed to calculate styrene emissions from emissions units R008, R022 and R018. When using the equation for "Open mold operation, non-atomized mechanical resin application, nonvapor suppressed resin" from Table 1 of 40 CFR 63 Subpart WWWW along with a styrene content of 47%, an EF of 114.58 lbs styrene/ton resin is derived.

   However, AS America has a record ("Styrene Based Resin" for both calendar years 2008 and 2009) that states the EF is 97.37 lb/ton. On those same reports, the styrene content is reported to be 47% and the control efficiency is reported to be 87%. An EF of 97.37 lb/ton is not derived when using a styrene content of 47%. The control efficiency is not 87% because stack testing in 2005 demonstrated a 93% control efficiency by the polyad system.

   The errors on the 2008 and 2009 reports are worrisome, as they reflect the use of inaccurate information (an EF of 97.37 lb/ton is not derived if using the appropriate equation and a styrene content of 47%) and outdated information (87% control vs. 93% control).

d. During the August 26, 2009, visit, an error was found in one report where two columns (process emissions and cleanup emissions) were not being added together in the column for total emissions. A similar error was discovered by Mr. Wilgus in the R018 records. The monthly emissions from R018 during calendar year 2008 were not being summed correctly. As indicated in an e-mail by Jim Wilgus sent to Ohio EPA on 9/11/09, AS America discovered the error, corrected it, and attached the corrected record in an e-mail sent on August 28, 2009.

We understand AS America is already in communication with GT Environmental for assistance in getting records corrected and to "mistake-proof" the record keeping program as best as possible.

After all records are thoroughly reviewed and corrected, we recommend that AS America establish a periodic review of its record keeping program to be certain all information is correct and updated.

5. Fee emissions reports are due each year before April 15. AS America has complied with this requirement each year, submitting summarized calculations and emissions. However, please attach additional information to future fee emissions reports. The additional information should include copies of each MSDS page that identifies the VOC and/or HAP content in the material used, and all equations used for each emissions calculation.

B. Draft Federally Enforceable Permit-to-Install and Operate (FEPTIO) # P0104854:

AS America submitted an application to modify emissions unit R009. This modification involves a switch from a water based material to a solvent based material in this spray booth. This proposed change in operation affects the potential emissions from the facility. Therefore, AS America also proposed to reduce its operations at R008, R022 and P010. Because the changes affect the permitted facility-wide emissions limitations, all permitted emissions units in the current permit (#02-18111) also need to be modified.

During the August 6, 2009, meeting, we discussed the draft permit. This draft permit was later mailed to AS America along with a cover letter dated September 1, 2009. As stated in this letter, comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. A legal notice was published in the Morning Journal on September 3, 2009. Comments will therefore, be received by Ohio EPA up to October 5, 2009.

At this time, I see a need to make changes to the draft permit based on my observations during my two visits and subsequent review of records. These changes are as follows:

1. Include the emissions from P009 (mixing operations) in the calculation for the facility-wide limitations. This emissions unit is currently viewed as *de minimis* and therefore, exempt from permitting. However, these emissions have been re-evaluated and this unit appears to not qualify as *de minimis*.

   OAC rule 3745-15-05(A)(6) defines potential emissions as "the amount of emissions of an air contaminant which would be emitted from a source during a twenty-four hour calendar day or calendar year basis, whichever is applicable, if that source were operated without the use of air pollution control equipment..."

   OAC rule 3745-15-05(B) states "any air contaminant source is exempt from Chapter 3704 of the Revised Code and rules adopted thereunder, unless the potential emissions of any one of the following exceeds ten pounds per day: particulate matter, sulfur dioxide, nitrogen oxides, organic compounds, carbon monoxide, lean or any other air contaminant."

The mixers (P009) provide the mixed batch of resins, fillers, and pigments to the FRP spray application processes. R008 and R022 can potentially use a combined amount of 7,200 pounds of resin per day. The resin contains styrene at 47%. From AP-42.6.4.1, we get that 2% of the solvent is lost.

(7,200 lbs resin)(0.47)(0.02) = 67.68 lbs styrene (VOC)/day.

The above calculated uncontrolled emissions from R009 do not qualify as *de minimis*. R009 should therefore, be permitted in the FEPTIO.

2. AS America needs to determine whether or not they wish to continue venting emissions from R018 to the polyad control system. The calculated emissions would be either controlled or uncontrolled. Either way, the terms and conditions under R018 need to be modified to correctly reflect the operations at this emissions unit.

3. Mr. Wilgus reports in an e-mail dated 9/17/09 that the grinders of P015 were removed in January 2007, but the cleaning and finishing operations continue. Therefore, the requirements pertaining to particulate emissions may be removed from P015.

4. In the current permit (#02-18111) and in the draft permit, dust collector AM-11 is associated only with P015. I questioned why the records show AM-11 as still operating when the grinders were removed. Mr. Wilgus explained in a phone conversation that dust collector AM-11 is also used for emissions unit P016 (Tubs department glue station) to take the dust away from the employees when they grind around the holes in the tub.

   Please evaluate the potential particulate emissions generated at P016 and submit them to this office. Requirements pertaining to particulate emissions may need to be added to P016.

C. **Violations of existing, active permits:**

1. Violations of permit #02-23002:

   a. Section 1.b)(1)a requires organic compound emissions and volatile organic compound emissions not to exceed 1.28 pounds per day." AS America violated these requirements on 7/10/09, 7/17/09, 8/20/09, 8/24/09 and 8/31/09 when OC/VOC emissions calculate to had been 2.86 lbs/day for each day.

   b. Section 1.b)(2)a requires all styrene emissions to be captured by a total enclosure providing 100% capture. These emissions are to be vented to the

Polyad control system which shall achieve a minimum control efficiency of 93% by weight. AS America violated these requirements on 7/10/09, 7/17/09, 8/20/09, 8/24/09 and 8/31/09, when emissions were not captured by a total enclosure providing 100% capture. Emissions were also not vented to the Polyad control system.

c. Section 1.b)(2)b requires the styrene emissions from this emissions unit to not exceed 1.28 lbs per day. AS America violated these requirements on 7/10/09, 7/17/09, 8/20/09, 8/24/09 and 8/31/09, when styrene emissions calculate to had been 2.86 lbs/day for each day.

d. Section 1.c)(1) requires the polyad preconcentrator and thermal oxidizer control systems to be used whenever this emissions unit is in operation. AS America violated this requirement when R018 was in operation on 7/10/09, 7/17/09, 8/20/09, 8/24/09 and 8/31/09, without the polad preconcentrator and thermal oxidizer control systems.

e. Section 1.c)(3) requires R018 to be totally enclosed such that all emissions are captured for venting to the Polyad control system. Section 1.c)(3)a-e provide the criteria of U.S. EPA Method 204. AS America violated these requirements when R018 was in operation on 7/10/09, 7/17/09, 8/20/09, 8/24/09 and 8/31/09, without being totally enclosed such that all emissions are captured for venting to the Polyad control system.

f. Section 1.f)(1)c requires the capture efficiency requirement of 100% for the permanent total enclosure to be determined using Methods 204 – 204F, as specified in 40 CFR Part 51 Appendix M within 2 months of permit issuance. Two months from the permit issuance date of May 15, 2009, was July 15, 2009. AS America violated this requirement as no test was performed, as there was no enclosure.

The above noted emissions violations were determined by review of operating records provided by AS America from January 2007 through August 2009. This review is summarized below.

Date of operation at R018	Amount of resin used, per records	*Actual emissions, lbs styrene per day using an emission factor of 114.58 lbs styrene per ton resin (47% styrene in resin)	Permit Limits at time of operation	Violation of permit?
8/31/09	50 lbs or 0.025 ton	2.8645	Modified permit issued 5/15/09: With controls, OC, VOC, styrene shall not exceed 1.28 lbs/day	**Yes**
8/24/09	50 lbs or 0.025 ton	2.8645		**Yes**
8/20/09	50 lbs or 0.025 ton	2.8645		**Yes**
7/17/09	50 lbs or 0.025 ton	2.8645		**Yes**
7/10/09	50 lbs or 0.025 ton	2.8645		**Yes**

*Emissions calculated as follows:
Use equation for "Open mold operation, non-atomized mechanical resin application, nonvapor suppressed resin" in Table 1 of 40 CFR 63 Subpart WWWW to calculate the styrene emission factor.

EF = [(0.157 x %HAP) – 0.0165) x 2000] lb styrene/ton resin
The resin contains styrene at 47%. Therefore, the %HAP is 0.47.
EF = [(0.157 x 0.47) – 0.0165) x 2000] = 114.58 lb styrene/ton resin

The emissions limitations provided in permit #02-23002 were based on the use of control equipment. Therefore, the allowed emissions are less than the previous emissions limitations in permit #02-18111. Had AS America correctly reported the information in the permit application and/or discovered the error when the draft was issued, the above noted violations of permit #02-23002 would have been avoided.

2. Violations of permit #02-18111:

The terms and conditions for R018 in permit #02-18111 are based on the understanding that a polyurethane process is the only operation.

An application to modify emissions unit R018 was submitted to and received by the Ohio EPA on June 3, 2008. The proposed modification was to include the use of styrene resins, in addition to the polyurethane process. The application included information that R018 would be enclosed and emissions would be vented to the polyad control system. The modified permit was issued final on May 15, 2009.

Until the permit was issued final, AS America was required to comply with the terms and conditions of permit #02-18111. During the review of records for R018, the following is noted:

a. As previously mentioned, copies of two types of records for R018 are enclosed for reference. The type of report reviewed for this discussion is the one that lists the calculated process emissions in lb/day. Calculations for styrene emissions are included in these records for calendar year 2008 and 2009. For each record, the first few columns from left to right are labeled as follows: Date, OC, VOC (styrene), and VOC Styrene Controlled. The middle columns of the record are for cleanup emissions, and the right side of the record compares the emissions to permit limits.

   In the 2008 record, the numbers under "VOC (styrene)" and "VOC Styrene Controlled" are similar. Each number appears to be calculated using an emission factor of 97.37 lbs styrene per ton resin.

In the 2009 records, some of the numbers under the "VOC (styrene)" column appear to be uncontrolled styrene emissions and the numbers under the "VOC Styrene Controlled" column appear to be controlled styrene emissions. The dates with a calculation are highlighted on the enclosed copy. For example, on 2/20/09, another record reports that 50 lbs of resin was used that day. The number "2.43E+00" is recorded under "VOC (Styrene)." 2.43E+00 can be calculated by the equation of (50 lbs resin)(ton/2,000 lbs)(97.37 lbs styrene/ton resin). Under the column labeled "VOC Styrene Controlled," a number of "3.16E-01" is entered for 2/20/09. 2.43E+00 (1 – 0.87) = 0.316 or 3.16E-01. It appears AS America was crediting the use of the polyad control system to the calculation of emissions from this emissions unit, when no control was provided.

The following table summarizes this review of records:

Date	Amount of resin used, per records	*Actual emissions, lbs styrene per day using EF of 114.58 lbs styrene per ton resin and 47% styrene content	AS America's report of daily styrene emissions from R018 using EF of 97.37 lbs styrene per ton resin	
			VOC styrene	VOC styrene controlled
8/31/09	50 lbs or 0.025 ton	2.8645	2.43E+00	2.43E+00
8/24/09	50 lbs or 0.025 ton	2.8645	2.43E+00	2.43E+00
8/20/09	50 lbs or 0.025 ton	2.8645	2.43E+00	2.43E+00
7/17/09	50 lbs or 0.025 ton	2.8645	**2.43E+00**	**3.16E-01**
7/10/9	50 lbs or 0.025 ton	2.8645	**2.43E+00**	**3.16E-01**
5/1/09	50 lbs or 0.025 ton	2.8645	**2.43E+00**	**3.16E-01**
4/17/09	50 lbs or 0.025 ton	2.8645	**2.43E+00**	**3.16E-01**
3/20/09	50 lbs or 0.025 ton	2.8645	**2.43E+00**	**3.16E-01**
3/6/09	50 lbs or 0.025 ton	2.8645	**2.43E+00**	**3.16E-01**
2/27/09	50 lbs or 0.025 ton	2.8645	**2.43E+00**	**3.16E-01**
2/20/09	50 lbs or 0.025 ton	2.8645	**2.43E+00**	**3.16E-01**

AS America violated Section C. Monitoring and/or Recordkeeping Requirements under R018 in permit #02-18111 when controlled emissions were calculated and recorded when no control was provided for the following days in 2009: July 17, July 10, May 1, April 17, March 20, March 6. February 27 and February 20.

D. Please submit the following items:

1. Before October 5, 2009 (within the 30 day comment period for the draft permit), please submit the following items:

   a. Please respond to our review of emissions unit P009. If you believe this emissions unit qualifies as *de minimis*, please submit the supporting calculations and explanation.

If you agree that P009 does not qualify as *de minimis*, please submit a request to include the emissions from P009 in the facility-wide emissions limitations of the draft permit. Information regarding the operation of R009 should be submitted in the format of a permit application.

b. Please report AS America's intended operation of R018, i.e., use of polyurethane and/or styrene resins and whether the emissions will be controlled or uncontrolled.

c. As previously mentioned, the emissions generated at P015 and P016 need to be re-evaluated. Please submit the recalculated VOC, HAP and particulate emissions from P015 and P016 based on current operations in the format of a permit application.

2. Within 14 days of receipt of this letter, please explain in a response letter what happened in the submittal of the permit application for the R018 modification that allowed inaccurate information to be reported. Please also include the actions AS America has taken/will take to prevent this from happening again.

3. Within 14 days of receipt of this letter, please confirm whether the enclosed record for R018 is correct in stating "starting on 1/1/2008 styrene based product has been used in this operation." If this date is accurate, please explain why AS America started to use the styrene resins at R018 before obtaining a permit modification. If this date is inaccurate, please provide the correct date when the styrene resins were used at R018.

4. Within 14 days of receipt of this letter, please explain why controlled emissions from R018 were calculated and recorded in 2009 when no control was provided.

5. Within 30 days of receipt of this letter, please update your facility profile in e-Business Center:Air Services. Please check the accuracy of the SCC values assigned to each emissions process and which egress points are attached to which emissions process. Please also review the enclosed table listing those emissions units that are not included in permit #02-18111 and not include in the draft FEPTIO. Please review the listed emissions units and report the following:

a. Are the units with a "Registration Status" permit still at the facility? Has there been any modification in design or operation that would change the potential uncontrolled emissions? See OAC rule 3745-31-08(B) for the definition and explanation of registration status.

b. Are emissions units R016 and R017 still at the facility? If yes, what are their emissions? If they emit VOCs and/or HAPs, we may need to include those emissions in the facility-wide emissions limitations.

c. Is emissions unit Z205 part of emissions unit R015? If yes, we can remove or shutdown unit Z206 for your facility profile.

Failure to respond to this request in the requested time frame can result in a referral to the Central Office of Ohio EPA for the appropriate enforcement action.

The submission of the requested information does not constitute a waiver of Ohio EPA's authority to seek civil penalties as provided in ORC 3704.06 or for USEPA to seek civil penalties pursuant to federal law. Ohio EPA will decide whether to pursue or decline to pursue penalties regarding this matter at a later date.

Should you have any questions, please contact me at (330) 963-1237 or at pam.korenewych@epa.state.oh.us.

Sincerely,

Pamela L. Korenewych

Pamela L. Korenewych
Environmental Specialist
Division of Air Pollution Control

PLK:bo

enclosures

ec: Ed Fasko, DAPC, NEDO
Tim Fischer, DAPC, NEDO
Tom Kalman, DAPC, CO

pc: Lisa Holscher, U.S. EPA
Jim Wilgus, AS America