

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: **Scheduled Inspection**

P031043833

<b>FACILITY:</b> AMERICAN COMPOUNDING SPECIALTIES		<b>SRN / ID:</b> P0310
<b>LOCATION:</b> 9984 BORDERLINE DRIVE, BRIGHTON		<b>DISTRICT:</b> Lansing
<b>CITY:</b> BRIGHTON		<b>COUNTY:</b> LIVINGSTON
<b>CONTACT:</b> Rena Pomaville, Ph.D. , QLHS Manager		<b>ACTIVITY DATE:</b> 03/20/2018
<b>STAFF:</b> Kelly Richart	<b>COMPLIANCE STATUS:</b> Compliance	
<b>SUBJECT:</b> Unannounced scheduled inspection		<b>SOURCE CLASS:</b> MINOR
<b>RESOLVED COMPLAINTS:</b>		

**March 14th, 2018 Inspection (attempt)**

Dan McGeen and I arrived at American Compounding Specialties (ACS) on 3/14/2018 at 9:23am. The weather conditions were cloudy with light snow, 23 °F, and slight winds coming from the west/southwest. We did not see any visible emissions nor detect any odors outside of the facility. We entered and asked for Rena Pomaville, the environmental contact; however, we were informed that she was out of the office for the rest of the week (in Arlington, TX). We asked if anyone else could help us with our environmental questions/inspection, but the woman at the front desk said no one would know as much as Rena and that we should come back when she returns. We have scheduled an unannounced inspection for next Tuesday, March 20th, 2018.

**March 20th, 2018 Inspection**Contacts:

Rena Pomaville, QLHS Manager, 810-227-3500, rmpomaville@americancompounding.net  
D.J., Safety & Environment Leader/Quality/Lab Tech

Rena was absent during the time of our inspection (still in Arlington). She was expecting the AQD to show up this week so she made sure another employee was well prepared for the inspection. We met with D.J. the Safety & Environmental Leader/Quality/Lab Tech for the inspection.

Company:

ACS manufacturers plastic pellets for their various customers who use the pellets to make plastic products. They serve as a process facility for companies like Dow and Dupont.

2/13/15 Dan emailed Rena stating they are now a true minor source.

Previous Inspections:

Brad Myott: 2012  
Dan McGeen: 2014 (self-initiated)  
Numerous odor complaints

Previous Complaints:

12/21/15 – odor complaint – inspected by: Nathan Hude  
12/14/15 – odor complaint – inspected by: Dan McGeen  
1/10/14 – odor complaint – inspected by: Dan McGeen  
8/12/13 – odor complaint – inspected by: Dan McGeen

Exemptions:

Rule 286(a): four plastic extrusion lines (70mm twin screw extrusion lines)  
Rule 285 (l)(vi)(B): mixing bins & pelletizing systems with baghouses

Arrival:

Dan McGeen and I did an odor check by driving around the facility and stopping at the First Baptist Church off Rickett Rd., which is located southwest of American Compounding Specialties (see Attachment **B** for a map of the route). The winds were coming from the northeast direction about 10mph. We did not detect any odors or any visible emissions.

Time: 9:31am

Conditions: Weather conditions were 30 °F, sunny with winds from the northeast. There were no visible emissions. We did notice a strange "burnt coffee" odor while outside of the facility. After the departure of the inspection, Dan noticed three firetrucks at a building that was north/northeast of ACS, so that may be the explanation for the strange odor.

Equipment:Plastic Extrusion Lines (4):

American Compounding Specialties has four plastic extrusion lines (Line #1, Line #2, Line #3, and Line #4). All four

lines run through a water bath that creates steam, which is captured and filtered into the facility. Recently, they have only been running three of the four lines during the day. During the inspection only Line #2 and Line #3 were running (black and white pellets were being produced), while Line #1 was changing over between products, and Line #4 was not running. The plastic is extruded through a specific number of holes to create the lines of plastic. Each run may have a different number of extrusion holes depending on the production/customer request. The plastic ribbons are run through a water bath and then cut into 1/8" pellets. The residual dust from mixing the raw material is collected into baghouses with filters. All four extrusion lines share two baghouses.

*Exemption: 286(2)(a)*

*Exemption: 285 (l)(vi)(B)*

#### Water bath

A water bath is used to cool the plastic ribbons before they are cut into pellets. Employees change the water at the end of each run or during a longer run in order to maintain a clean water bath. A steam collector condenses the water vapor from the water bath into a liquid waste. D.J. noted it only collects about a half cup per run and the sludge waste is then stored in 55-gallon drums until properly disposed. There was only a slight odor by the gallons of sludge waste. There is a cooling tower outside of the facility next to the second baghouse for the plastic extrusion lines/mixers.

#### Pulverizers (2)

There are two pulverizers (Pulverizer A, and Pulverizer B) that take plastic pellets and pulverize them into dust, which is then sold to a company that produces Kayaks from the dust material. The pulverizers both share a separate bag collector from the extrusion lines. This new separate bag collector was installed about a year and a half ago. Pulverizer B was running during the inspection, and we observed the black powder being created from the black plastic pellets. Both pulverizers can run at the same time.

*Exemption: 285 (l)(vi)(B)*

#### Building filters

Building filters are changed every week PM (product maintenance). If they are damaged, they are replaced. Every run or anytime there is a change in material they clean the filters. After the 12-hour shifts, they are required to change the filters as well.

#### Outside: Bag collectors

Outside, there is the dust collector for Pulverizers A and B, which was installed about 1.5 years ago. This baghouse has big fabric/panel filters, which according to Dan this could be described more like a cartridge than a baghouse. Approximately every 10 seconds there is a blast of air that knocks debris off the filters into the 55-gallon drums at the bottom. The drums are changed when needed, and are checked during the weekly PM. The drums are completely covered with no exterior debris on the ground. ACS is very careful with making sure these drums are not over-filled because they would have to shut down the equipment and stop production in order to take care of the mess.

The next two baghouses outside are for the four plastic extrusion lines. The first baghouse had four 55-gallon drum collectors that were all well-kept and concealed. The second baghouse had five 55-gallon drum collectors that were all covered and well-maintained also. Blasts of air knock the debris off of the filters into the drums about every 15 seconds. Any secondary dust or residue from the mixers is collected into these baghouses also.

#### Second floor/Mix Stand:

Each machine has a specific "recipe" for the plastic pellets they are producing. Workers have to hand load or use funnels and large machinery to dump the raw material into the plastic extrusion line. Above the scale used for measuring raw materials for the mixer, there is a residual dust collector that leads to the baghouses outside. Additionally, there is a vent on the floor used to vacuum up any dust that may have deposited on the floor, which is then transported to the baghouses as well.

*Exemption: 285 (l)(vi)(B)*

#### Raw materials

Their dry raw materials are stored in the back of the facility by the loading dock. Any material stored has SDS information kept on record. There are limitless possibilities for the number of plastic "recipes" that could be created for their pellets. Customers specify what product they need and then ACS will create this product using their raw materials such as additives, minerals, colors, etc.

#### Recordkeeping:

D.J. provided us with an Excel sheet containing information about their equipment and exemptions. For example, this document lists parameters such as the potential tons produced annually, VOC and PM emission factors, annual potential tons of VOC and PM emissions, and other key data. See Attachment **A** for a copy of the Excel document.

#### Summary:

American Compounding Specialties has a very well-kept and organized facility. D.J. was very knowledgeable

of the equipment and functions of the facility. The Excel sheet provided by D.J. was very helpful as it provided usage, VOC data, emission factors, product details, and exemptions for all of the equipment. ACS is doing a good job of controlling their air emissions and documenting their equipment use and air quality data. I did not find any compliance issues during the time of inspection.

Departure:

Time: 10:50am

Conditions: Weather conditions were 34 °F, and sunny with winds still from the northeast. We did not detect any visible emissions. The burnt coffee odor was still lingering- possibly from an incident northeast of ACS where Dan spotted three firetrucks.

Attachments:

Attachment **A**: A copy of the provided Excel data sheet from D.J. that provides all of the exemption, product details, total usage and VOC data.

Attachment **B**: Example of the odor evaluation path taken before the inspection on a Google Maps image.

NAME Kelly Riehm

DATE 4/4/18

SUPERVISOR S.M.



	Potential Annual Lbs Produced	Potential Annual Tons Produced	VOC Emission Factor	Annual Potential lbs of VOC Emissions	Annual Potential tons of VOC Emissions	PM Emission Factor	Annual Potential lbs of PM Emissions	Annual Potential tons of PM Emissions	Baghouse Efficiency	Actual Emissions with Control (tons)	Yr Installed	Project Number	Exemption	Details
Compounding Line 1 Capacity	30,672,000	15,336	0.30	4,601	2.30	0.66	10,122	5.06	0.95	0.253044	2011	1	R336.1286 2(a)	Plastic extrusion, rotocasting, and pultrusion equipment and associated plastic resin handling, storage and drying equipment.
Ancillary Equipment														
Cooling Tower - Installed with Line 1 - serves all lines (gallons)	8,500,000	9	0.70	6	0.00	19.00	162	0.08	N/A	N/A	2011	1	R336.1290 2(a)(i)	Emission Units with Limited Emissions
Baghouse 1 & 2 - Installed with Line 1 - serves all lines	0	0	0.00	0	0.00	0.00	0	0.00	0	0	2011	1	R336.1285 2(f)	Installation of air pollution control equipment that does not generate a significant amount of criteria air contaminants.
Vacuum System - serves all lines	0	0	Included with Extrusion	Included with Extrusion	Included with Extrusion	Included with Extrusion	Included with Extrusion	Included with Extrusion	N/A	N/A	2011	1	N/A	N/A
Laboratory Equipment (Mold Machine + Ash Ovens)	Used on all lines for all products										2011	1	R336.1283 2(d)	Equipment used for the inspection of metal, wood, or plastic products.
Compounding Line 2 Capacity	30,672,000	15,336	0.30	4,601	2.30	0.66	10,122	5.06	0.95	0.253044	2013	2	R336.1286 2(a)	Plastic extrusion, rotocasting, and pultrusion equipment and associated plastic resin handling, storage and drying equipment.
Compounding Line 3 Capacity	30,672,000	15,336	0.30	4,601	2.30	0.66	10,122	5.06	0.95	0.253044	2013	2	R336.1286 2(a)	Plastic extrusion, rotocasting, and pultrusion equipment and associated plastic resin handling, storage and drying equipment.
Silos (4)														
Exhaler Unit														
Same vent stack as the vacuum tank														
Compounding Line 4 Capacity	76,680,000	38,340	0.30	11,502	5.75	0.66	25,804	12.65	0.95	0.63	2013	3	R336.1286 2(a)	Plastic extrusion, rotocasting, and pultrusion equipment and associated plastic resin handling, storage and drying equipment.
Silos (4)														
Pulverizer A	15,336,000	7,668	0.00	0	0.00	0.66	5,061	2.53	0.95	0.13	2016	4	R336.1290 2(a)(i)	Emission Units with Limited Emissions
Pulverizer B	15,336,000	7,668	0.00	0	0.00	0.66	5,061	2.53	0.95	0.13	2016	4	R336.1290 2(a)(i)	Emission Units with Limited Emissions
Baghouse 3												4	R336.1285 2(f)	Installation of air pollution control equipment that does not generate a significant amount of criteria air contaminants.
Oil Tanks (2)	0	0	0.00	0	0.00	0.00	0	0.00	0	0	2017	5	R336.1284 2(f)	Storage of noncarcinogenic liquids in a vessel that has a capacity of not more than 40,000 gallons where the contents have a true vapor pressure of not more than 1.5 psia at actual storage conditions (Paralux 6001 = 0.001 psia)
Safety Klean Solvent Unit											2011	6	R336.1281 2(h)	Cold cleaners with air/vapor interface of not more than 10-sq feet; ACS = 3 feet by 2 feet = 6-sq feet
Total Facility Wide Estimated Emissions					12.66		37.98	1.64						
Major Source Limits					100		100							
Significant Levels (Rule 119)					40		25							
Styrene as MAP (2017 example)					5,283,512	2,642	0.30	793	0.40					under 10-tons



Attachment B: Map of odor evaluation

Winds coming from the NE 



