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CERTIFIED MAIL

JULY 30, 2013

Mr. Jeff Ferg
Republic Steel
2633 Eighth Street N.E.
Canton, OH 44704-2311

**Re: NOTICE OF VIOLATION; Significant Violation
Fugitive visible particulate emissions from the Meltshop
Facility ID # 1576050694**

Dear Mr. Ferg:

On September 19, 2012, and September 25, 2012, I, along with Mr. Gregory Clark of this office, met with you at your facility at 2633 Eighth St NE, Canton, for the purpose of conducting a Full Compliance Evaluation (FCE) of Republic Steel's Canton plant ("Republic") at that address. The purpose of the inspection was to evaluate the compliance with the terms and conditions of the facility's Title V air permit. This same type of inspection was conducted previously by me on September 8-9, 2010, and September 23, 2010. Compliance during these inspections was assessed based upon an examination of each emissions unit at the facility.

During the FCE in September 2010, fugitive visible particulate emissions (VE) were observed being generated at the #7 Electric Arc Furnace (EAF) (P905), which is a normal occurrence, during in the building observations. These fugitive VEs were then observed to congregate and create a haze of VE inside the meltshop building along the roof rafters, indicating the collection of these VEs into the building exhaust evacuation system was slow.

The Flexcast Caster building was built as a building addition onto the meltshop building. Previous to that addition, this was an outside wall of the meltshop building. The Flexcast Caster building transition area from the meltshop building area is not completely enclosed; essentially the entire roof rafter area is open between the two areas. The Flexcast Caster building itself is not required to have building exhaust evacuation since it is not considered the building that houses the EAFs (i.e. the meltshop). Therefore, the Flexcast Caster building has roof ventilation openings to the atmosphere.

During the FCE in September 2010, the fugitive VEs that were congregated at the roof rafters of the meltshop were observed to migrate through the opening between the Flexcast Caster building and meltshop area, and then out into the atmosphere through the Flexcast Caster building roof ventilation openings (see attached photographs). Due to this migration of VEs from the EAF, the fugitive VEs that were observed outside of the building are subject to the meltshop building fugitive VE opacity limit.

During the FCE in September 2010, Method 9 readings were taken to assess the level of opacity that was leaving the Flexcast Caster building openings. The highest 6-minute average opacity reading observed was 34%. This exceedance of the allowable 6% opacity limit was verbally discussed with the Environmental Manager of Republic at the time, Patrick Monnot. Patrick stated that since the #7 EAF (P905) and the #9 EAF (P907) were being operated simultaneously at the time of observation, the building evacuation system was likely over-loaded. Patrick said that the short term corrective action would be to not run both EAFs simultaneously until a long term solution could be achieved. This short term solution would not be overly burdensome on Republic since they rarely have production needs that require both EAFs to operate simultaneously.

I also verbally discussed with Patrick the concern of the Flexcast Caster building addition short-circuiting the meltshop building evacuation system. The meltshop building evacuation system was originally designed without the Flexcast Caster building addition, so with the building addition, the evacuation system may not be properly designed. I suggested that Patrick have a ventilation study conducted, and/or a feasibility study conducted to close off the roof area between the meltshop building area and Flexcast Caster building area to prevent the migration. Over the next several months, Patrick was working toward completing those objectives.

During the next FCE in September 2012, these same issues were observed regarding the fugitive VE migration from the EAF to the Flexcast Caster building openings to the atmosphere. However, only #7 EAF (P905) was operating at that time, so the simultaneous operation with #9 EAF (P907) was not the cause of this issue as previously concluded. Method 9 readings were taken during that time to assess the level of opacity that was leaving the Flexcast Caster building openings. The highest 6-minute average opacity reading observed was 6.25%. This exceedance of the 6% opacity limit was verbally discussed with you, Jeff Ferg, the Environmental Manager of Republic Steel. I verbally discussed with you about the situation, and how it is unchanged from what was observed in September 2010. You described several planned maintenance activities to the #7 EAF (P905) that you anticipated would improve the fugitive VE issue.

During routine surveillance on July 25, 2013 around 5:00 p.m., I, along with Jaclyn Hupp of this office, observed excessive fugitive VEs from the Republic Steel roofline. The fugitive VEs were observed exiting the same area of the building as the previous two times (September 2010 and September 2012); the Flexcast Caster building openings. Visual observations, in compliance with the Method 9 methodology, estimated the opacity to be between 10-25% during the 20 minute observation period. This exceedance of the 6% opacity limit was verbally discussed with you that evening (at approximately 5:30 pm) over the phone. You confirmed that #7 EAF (P905) was operating at the time of observation.

Due to the fugitive VE issuing continuing despite several verbal warnings, this letter is being sent to you to request long term corrective action be taken to prevent the reoccurrence of this issue, and to document the violations that have been observed. Below is a summary of the findings, violations, and actions that need to be addressed regarding this issue.

Finding:

During #7 EAF (P905) operation, fugitive visible particulate emissions (VE) from the melt shop roof vents (as migrated to the Flexcast Caster building openings) have been observed three distinct times with an opacity value assessed by this office. The following are those details:

Observation Date	EAFs Operating	Opacity Reading
09/09/2010	#7 (P905), #9 (P907)	34%
09/19/2012	#7 (P905)	6.25%
07/25/2013	#7 (P905)	10% (minimum)

Violation of:

These fugitive visible particulate emissions are a violation of Republic Steel's Title V Permit to Operate (P0101210) issued 12/29/2005. The specific terms violated are for Emission Unit P905, #7 EAF, term Part III.A.I.1 [established per OAC rule 3745-31-05(A)(3)], which states:

Visible particulate emissions of fugitive dust shall not exceed 6% opacity as a 6-minute average from the roof monitors (vents) and openings of the No. 4 Melt Shop building, including doors, windows, etc.

And term III.A.I.2.a.ii. [established per OAC rule 3745-31-05(A)(3)], which states in part:

2.a. The PM₁₀/PM_{2.5} emissions from this emissions unit shall be collected and controlled by the #4 Melt Shop evacuation system baghouse...

ii. The evacuation system shall achieve and maintain a minimum capture efficiency that is sufficient to prevent violations of the 6% opacity emission limitation for fugitive emissions from the melt shop.

These fugitive visible particulate emissions are also a violation of NSPS rule 40 CFR Part 60, Subpart AAa, which is noted as an applicable requirement to #7 EAF in the Title V Permit to Operate (P0101210). The specific section violated is §60.272a(a)(3), which states in part:

...No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from an EAF...any gases which...Exit from a shop and, due solely to the operations of any affected EAF(s)...., exhibit 6 percent opacity or greater.

Violations of the terms and conditions of the issued Title V Permit to Operate are also considered violations of Ohio Revised Code (ORC) 3704.05(C), which states:

No person who is the holder of a permit issued under division (F) or (G) of section 3704.03 of the Revised Code shall violate any of its terms or conditions.

Requested Actions:

The following requested actions shall be completed no later than August 30, 2013:

1. Provide copies of the records of all major, non-routine, maintenance that has been performed on the Meltshop baghouse BGH01 capture/evacuation system (dampers, ductwork, building opening repairs, etc.) from September 8, 2010 till present.
2. Provide copies of any ventilation study, feasibility study, capture/evacuation system evaluation, etc that was performed on the Meltshop baghouse BGH01 capture/evacuation system from September 8, 2010 till present.

3. Provide copies of any records that describe any other corrective actions that have taken place to prevent these fugitive visible particulate emission occurrences from September 8, 2010 till present.
4. Provide a written compliance plan detailing the corrective actions you plan to take to prevent these fugitive visible particulate emission violations from occurring in the future and the estimated time frame for completion of those actions. The following are a few examples, of corrective actions you may take, however, you are not limited to this list:
 - Hire a professional firm to evaluate the evacuation system and recommend improvements
 - Close the openings from the meltshop to the Flexcast Caster building area.

Additional Information:

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 Ohio EPA's authority to seek civil penalties as provided in the ORC. Ohio EPA will determine later whether to pursue such penalties in this case.

If you have any questions, please contact me at 330-489-3385 or via email at tdzienis@cantonhealth.org.



Terri Dzienis
APCD Administrator

enclosure: Photographs

cc: Bruce Weinberg, Ohio EPA, via email
Brian Dickens, U.S. EPA, via email
Greg Clark, CCHD, APCD, via email
Republic Steel Facility file

Ariel photograph from internet with locations marked



Method 9
observation point

Exit point of
Fugitive VEs
to atmosphere

#7 EAF

BGH01
Meltshop
baghouse

Photograph of fugitive VEs observed



