



August 22, 2018

VIA EMAIL

Jayne Graham  
Air Quality Program Manager  
Allegheny County Health Department  
301 39<sup>th</sup> Street, Building #7  
Pittsburgh, PA 15201-1891

RE: Proposed Revisions to Article XXI § 2105.21, Coke Ovens and Coke Oven Gas

Dear Ms. Graham:

In response to your letter of August 1, 2018, U.S. Steel is providing its compliance analysis of the proposed revisions to Article XXI §2105.21. We respectfully note that we do not believe there was a misunderstanding as to what was explained during the July 10, 2018 meeting. All of the U. S. Steel representatives left the meeting with the clear understanding that the Department indicated that the revised standards had been developed based upon a review of U.S. Steel inspection data by the County that purportedly showed that U.S. Steel was able to attain and maintain the proposed standards. Your letter described a very different process that apparently included an analysis and review by individuals with extensive coke oven experience. We hope you will be able to provide us with a better understanding of the change.

As you will see, we followed the format of the Allegheny County Health Department ("ACHD") compliance analysis to see if existing data support the apparent conclusion reached by the ACHD that 2017 inspection data established and confirmed that U.S. Steel would be able to meet these standards at all ten of its Clairton coke batteries. Based on U. S. Steel's analysis, we concluded that the proposed draft standards would not be met based on 2017 data and would jeopardize the competitiveness of the Clairton Plant and the U. S. Steel Mon Valley Works.

Because of the limited time, we also were unable to evaluate the potential impact of several of the other revisions that were not addressed in the ACHD emissions analysis. We look forward to discussing those matters with you on Monday to better understand the thinking behind those proposed revisions.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris W. Hardin".

Chris Hardin

cc: Sandra Etzel (ACHD – via email)  
Dean DeLuca (ACHD – via email)  
Jeffrey Bailey (ACHD – via email)  
Chip Babst, Esq. (Babst Calland – via email)  
Tishie Woodwell (U. S. Steel – via email)  
Dave Hacker (U. S. Steel – via email)  
Mike Dzurinko (U. S. Steel – via email)

**ACHD 2017 Data Analysis of proposed new rule compared to USS 2017 Data under the current rule.**

**Charging - 10 seconds/ charge**

ACHD analysis indicates 4.64% of ACHD Method 303 inspections would exceed the 10 second limit.

In 2017, USS has total of 4018 inspections.

This would result in 186 violations under the new rule.

Under the current rule, there were 124 violations in 2017, or 3.09%.

*Estimated increase of 62 violations.*

**Doors - 1 leaking door allowed per side**

ACHD notes that 540 inspections out of 4061 are % leaking 2.5 or >, which is 13.3% of inspections.

USS calculated an average % leaking in which we would exceed 1 leaking door per side. This % is 1.44%.

Therefore, there would be 992 inspections out of 4061 that are % leaking 1.5 or >, which is 24.2%.

Under the current rule, there were 34 violations in 2017, or 0.67%.

*Estimated increase of 958 violations.*

\*Note: The 2.5% cutoff may not be correct, based on 1 leak allowed per side.

**Lids - no visible emissions allowed**

ACHD notes that 138 inspections out of 4,040 observations are greater than 0% leaking, which is 3.41% of inspections.

Under the current rule, there were 37 violations in 2017, or 0.92%.

*Estimated increase of 101 violations.*

**Offtakes - 1 leaking pipe allowed per side**

ACHD notes that 105 readings out of 4040 readings are % leaking 2.5 or >, which is 2.6% of inspections.

USS calculated an average % leaking in which we would exceed 1 leaking door per side. This % is 1.44%.

Therefore, there would be 984 inspections out of 4040 that are % leaking 1.5 or >, which is 24.4%.

Under the current rule, there were 36 violations in 2017, or 0.89%.

*Estimated increase of 948 violations.*

\*Note: The 2.5% cutoff may not be correct, based on 1 leak allowed per side.

**Pushing - 10% opacity any time**

ACHD notes that 469 inspections out of 1480 inspections are 10 or more % opacity, which is 31.69% of inspections.

Under the current rule, there were 37 violations in 2017, out of a total of 3021 observations, which is 1.22%.

*Estimated increase of 432 violations.*

**Traveling - combined with pushing/ 10% opacity any time**

ACHD notes that 319 inspections out of 1329 inspections are 10 or more % opacity, which is 24% of inspections.

Under the current rule, there were 31 violations in 2017, out of a total of 3021 observations, which is 1.03%.

*Estimated increase of 288 violations.*

**Soaking - no visible emissions allowed**

ACHD deciphers between flame/ no flame, but in summary, 271 inspections out of 4088 inspections had % opacity > 0, which is 6.6% of inspections.

Under the current rule, there were 154 violations in 2017, out of a total of 4088 observations, which is 3.8%.

*Estimated increase of 117 violations.*

***In 2017, under the new proposed rule, U. S. Steel would have had an additional 2906 violations.***

	Current Standard	Proposed Revised Standard	Proposed vs current standard adjustment	PADEP Coke Battery Regulations	Total inspections (2017)	Exceedances Under Current Rule (2017)	Compliance Rate Under Current Rule (2017)	Projected Exceedances Under Revised Rule (based on ACHD's determinations)	Compliance Rate Under Proposed Revised Standard	Percent Increase in Number of Exceedances
Charging	55/75 sec per 5 consec charges	10 sec/charge	as high 33% more stringent; No averaging	75 sec/4 consecutive charges	4018.00	124.00	96.91	186.00	95.37	50.00
Doors	3% - 8%	1 door leak/side	as high as 86% more stringent	10% of the door area of operating coke ovens, excluding the two-door area representing the last oven charged on any battery and any door areas obstructed from view	4061.00	34.00	99.16	992.00	75.57	2817.65
Lids	0.6% - 2%	No VE allowed	Infinitely more stringent	At no time may there be visible topside emissions from more than 2.0% of the charging port seals on operating coke ovens in any battery, excluding visible emissions from no more than three ovens which may be dampered off.	4040.00	37.00	99.08	138.00	96.58	272.97
Offtakes	4% - 5%	1 pipe leak/side	as high as 50%	At no time may there be topside emissions from more than 5.0% of the offtake piping on operating coke ovens in any battery, excluding visible emissions from open standpipe caps on no more than three ovens which may be dampered off.	4040.00	36.00	99.11	105.00	97.40	191.67
Pushing	0.15	10% opacity	33% more stringent	20% 3-min aggregate	1480.00	37.00	97.50	469.00	68.31	1167.57
Soaking	0.20	No VE allowed	Infinitely more stringent	N/A	4088.00	154.00	96.23	271.00	93.37	75.97
<b>OVERALL</b>					<b>21727.00</b>	<b>422.00</b>		<b>2161.00</b>	<b>90.05</b>	<b>412.09</b>