



Great Lakes Works
Environmental Dept.
No. 1 Quality Drive
Ecorse, Michigan 48229



September 8, 2017

Ms. Katherine Koster
State of Michigan, Department of Environmental Quality
Air Quality Division, Southeast District
3058 W. Grand Blvd, Suite 2-300
Detroit, MI 48202

SENT VIA ELECTRONIC MAIL AND CERTIFIED MAIL

**SUBJECT: United States Steel Corporation – Great Lakes Works
Violation Notice dated August 18, 2017**

Dear Ms. Koster:

On or about August 24, 2017, U. S. Steel – Great Lakes Works (U. S. Steel) received a violation notice (VN) dated August 18, 2017 from the Michigan Department of Environmental Quality (MDEQ) regarding the No. 5 Pickle Line Fume Scrubber. In the notice, MDEQ alleges U. S. Steel did not operate the No. 5 Pickle Line Fume Scrubber at or above the required minimum recirculation and makeup water flow rates on multiple occasions between February 15, 2017 and June 30, 2017 as required by ROP No. 199600132d, Table E-01.08, Section III.A.2. The MDEQ also alleges that U. S. Steel did not operate the pickle line and acid fume wet scrubber in a satisfactory manner in violation of ROP No. 199600132d, Table E-01.08, Section V.2, and MI Rule 336.1910.

While U. S. Steel takes its obligations under the ROP seriously, we believe the operation of the pickle line was and remains satisfactory and in compliance with the applicable requirements. We also, concede, however, that we failed to update our parametric monitoring parameters to conform to the most recent performance demonstration. This oversight was promptly corrected as noted herein.

As you may recall, U. S. Steel respectfully provided information regarding recirculation and makeup water flow rates at the No. 5 Pickle Line Fume Scrubber to the Department in conformance with the Department's request and direction provided on May 11, 2017. We promptly implemented corrective actions with regards to our parametric monitoring to ensure that acceptable flow rates were properly maintained. Please note that during the time of February 15, 2017 to June 30, 2017, U. S. Steel experienced passing stack test data, implemented timely corrective action, and maintained subsequent compliant operating flow rates.

During the February 14, 2017 stack test, U. S. Steel recorded the makeup and recirculation flows for the fume scrubber as required at 15 minute intervals. In ROP No. 199600132d, Table E-01.08, Section III.A.2 states "Operation of the scrubber shall be with a minimum of scrubber makeup water flow rate and recirculation water flow rate *as established during the most recent*

performance test.” U. S. Steel respectfully maintains that the requirement has some ambiguity as to what is meant by “established during the most recent performance test.” We note that during the relevant time period, U. S. Steel operated the scrubber at all times above the lowest flow rates observed during the February performance test that demonstrated compliance with the applicable limitations. U. S. Steel’s interpretation at the time was that the new minimum operating parameters for the fume scrubber were to be adjusted based the performance test, but not necessarily set to the exact averages. In fact, U. S. Steel did increase both minimums flow rates after evaluating the flow rate data from the stack test and determining the capabilities of the equipment that could be maintained over the long-term without causing a process upset. This is significant to note because the make-up water is supplied by city water with varying pressure, therefore the make-up water flow is highly dependent on the city water pressure. U. S. Steel operated the scrubber based on the new U. S. Steel minimums of 35 gpm and 525 gpm and there were no periods between February 15, 2017 and May 11, 2017 where the scrubber operated below those values.

In any case, after the issue was brought to U. S. Steel’s attention, we promptly completed corrective actions as we now acknowledge that the minimum flow rate established during the most recent performance test is not necessarily the lowest individual flow rate during the test, nor is it the average value measured over the entire testing period. Instead, EPA acknowledged that some flexibility in establishing operating parameter compliance values is appropriate; and that the average value during any of the compliant individual runs could be used.

Upon notification by the MDEQ on May 11, 2017 regarding the minimum flow rates we immediately sought to operate at the proper flow rates. Based on the Daily Turn Monitoring forms submitted to the MDEQ in the 2nd Quarter maintenance records, the recirculation flow rate was never under the 564 gpm minimum beginning with the day shift on May 12, 2017. The MDEQ was notified that there may be some restrictions to maintaining consistent make-up water flow during the May 11, 2017 inspection due to the fluctuations of incoming city water pressure. This led to the make-up water flow periodically falling below the minimum of 38 gpm after May 12, 2017. In order to maintain proper makeup water flow, the valve for the makeup flow had to be continually adjusted based on the incoming flow to both remain above the limit, but also to ensure the system would not be overburdened should a major swing in the incoming water pressure occur. Starting with the day shift of May 28, 2017 and continuing through to September 6, 2017 the make-up flow has not fallen below the minimum. The June, July, and August Daily Turn Monitoring Reports are attached at the end of this correspondence. U. S. Steel would also like to note that the spray nozzles for the fume scrubber were replaced with larger nozzles in June 2017 to help continually operate at or above the required operating limits.

Based on the data provided to the MDEQ, the fume scrubber is operating in the same manner as it was during the performance test, and therefore should not have to retest. Additionally, U. S. Steel disagrees that current operating parameters are an indication that a passing performance test is now considered unacceptable. Rule 336.2001(1)(c) says: “*The owner or operator of the source has not submitted an acceptable performance test, in accordance with R 336.2003.*” R336.2003 does not mention operating parameters from *after* a completed and passing performance test being cause for an unacceptable test.

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Additionally, 40 CFR Part 63, Subpart CCC, 63.1160(b)(1)(vi) does not consider falling below the minimum operating parameters a violation if corrective action is initiated within 24 hours and completed as soon as practicable. Furthermore, EPA does not consider falling below the flow rates a violation of the emissions limit; and it would be a waste of U. S. Steel and Department resources to retest since U. S. Steel has since changed its operating ranges and has demonstrated that the ranges can be properly maintained.

As mentioned above, the makeup flow valve was continually manually adjusted to attempt to remain above the operating limit. Also, during the June outage, the spray nozzles were adjusted to continually operate above on a consistent basis. Finally, as the June, July, and August monitoring reports show, the corrective action that was implemented was successful and therefore the instances where U. S. Steel fell below the minimums are not considered violations in accordance with 40 CFR Part 63, Subpart CCC, 63.1160(b)(1)(vi).

We would be pleased to address any questions or concerns the MDEQ may have. If you have any questions regarding this matter or require additional information, please contact Alexis Piscitelli at 313-749-3900.

I certify that based off information and belief formed after reasonable inquiry, the information provided in this response is true and correct to the best of my knowledge and information.

Sincerely,



Ronald Kostyo
General Manager
U. S. Steel – Great Lakes Works



Alexis Piscitelli
Director, Environmental Control
U. S. Steel – Great Lakes Works

cc: Dave Hacker (USS)
Jon Lamb (MDEQ)
Wilhemina McLemore (MEDQ)

#5 Pickle Line HCl NESHAP Daily Turn Monitoring Records Requirements
 The Shift Manager Is to record readings once per turn each day as per SOP

Month JUNE Year 2017

Day	Turn	Recirculated Water GPM 564.0 Min*	Make-up Water GPM 38 Min*	3.0 - 10.0 Pressure Drop Inches
1	1	569	44.1	4.8
	2	568	42.3	4.8
	3	566	42.4	4.8
2	1	568	41.7	4.2
	2	570	40.4	4.3
	3	568	40.4	4.3
3	1	567	41.8	4.6
	2	570	40.6	4.1
	3	569	40.5	4.3
4	1	569	40.6	4.5
	2	DOWN		
	3	DOWN		
5	1	DOWN		
	2	DOWN		
	3	DOWN		
6	1	DOWN		
	2	DOWN		
	3	DOWN		
7	1	DOWN		
	2	DOWN		
	3	DOWN		
8	1	DOWN		
	2	DOWN		
	3	DOWN		
9	1	DOWN		
	2	DOWN		
	3	DOWN		
10	1	DOWN		
	2	DOWN		
	3	600	38.5	4.8
11	1	601	50.6	4.9
	2	599	49.3	4.6
	3	600	49.9	5.0
12	1	600	47.7	4.7
	2	598	47.4	4.7
	3	601	46.9	4.9
13	1	598	47.7	4.9
	2	601	47.5	4.8
	3	601	48.0	4.7
14	1	597	47.5	4.9
	2	600	48.5	4.5
	3	599	46.8	4.4
15	1	599	46.8	4.3
	2	596	48.8	5.3
	3	597	46.9	5.4
16	1			
	2	DOWN @ 7.55 AM		
	3	DOWN		

Day	Turn	Recirculated Water GPM 564.0 Min*	Make-up Water GPM 38 Min*	3.0 - 10.0 Pressure Drop Inches
17	1	DOWN		
	2	596	52.9	4.65
	3	602	51.3	3.97
18	1	601	51.4	3.99
	2	603	51.2	3.97
	3	600	51.7	4.00
19	1	601	51.6	3.97
	2	601	51.8	4.2
	3	601	50.0	4.2
20	1	602	51.2	3.7
	2	601	50.7	4.1
	3	601	51.4	4.3
21	1	600	51.5	4.3
	2	602	50.9	4.0
	3	600	51.8	4.5
22	1	595	53.3	5.2
	2	597	53.1	5.2
	3	601	48.4	4.8
23	1	602	49.1	4.1
	2	599	49.4	4.8
	3	601	49.1	4.4
24	1	602	50.5	4.1
	2	596	51.3	4.3
	3	603	51.5	4.2
25	1	600	51.6	4.3
	2	596	52.2	4.81
	3	594	52.2	4.79
26	1	597	53.3	5.1
	2	601	50.9	4.3
	3	602	51.3	4.2
27	1	600	50.1	4.1
	2	601	48.8	4.6
	3	600	48.7	4.5
28	1	601	48.0	4.7
	2	597	48.2	4.7
	3	601	48.3	4.7
29	1	603	49.0	4.5
	2	597	49.9	6.4
	3	602	48.2	4.4
30	1	601	48.8	4.3
	2	602	48.8	4.3
	3	601	49.1	4.2
31	1			
	2			
	3			

*These values represent internal audits. Actual operating parameters can be found in SOP E-5626-05-01

#5 Pickle Line HCI NESHAP Daily Turn Monitoring Records Requirements
 The Shift Manager Is to record readings once per turn each day as per SOP

Month July Year 2017

Day	Turn	Recirculated Water GPM 564.0 Min*	Make-up Water GPM 38 Min*	3.0 - 10.0 Pressure Drop Inches
1	1	594	53.4	4.0
	2	597	53.6	4.6
	3	596	53.9	4.6
2	1	596	54.5	4.7
	2	597	50.7	5.1
	3	598	50.9	5.0
3	1	599	49.2	4.2
	2	600	49.6	4.2
	3	598	50.1	4.4
4	1	597	53.2	5.0
	2	592	50.9	4.9
	3	596	50.7	4.9
5	1	598	50.7	4.8
	2	601	49.0	4.2
	3	600	49.2	4.7
6	1	601	49.4	4.6
	2	599	50.6	4.9
	3	591	44.8	4.5
7	1	591	44.9	4.5
	2	590	38.3	4.4
	3	591	44.4	4.0
8	1	593	48.2	4.3
	2	589	47.8	4.4
	3	592	48.1	4.4
9	1	592	47.7	4.4
	2	590	48.4	4.7
	3	588	48.8	4.6
10	1	590	46.8	4.6
	2	589	47.2	4.6
	3	589	47.0	4.7
11	1	600	47.2	4.6
	2	592	47.1	4.4
	3	590	45.9	4.4
12	1	590	44.7	4.2
	2	590	44.9	4.2
	3	591	45.0	4.2
13	1	591	45.1	4.3
	2			
	3			
14	1			
	2			
	3			
15	1			
	2			
	3			
16	1			
	2			
	3			

Day	Turn	Recirculated Water GPM 564.0 Min*	Make-up Water GPM 38 Min*	3.0 - 10.0 Pressure Drop Inches
17	1			
	2			
	3			
18	1			
	2			
	3			
19	1			
	2			
	3			
20	1			
	2			
	3			
21	1			
	2			
	3			
22	1			
	2			
	3			
23	1			
	2	586	51.6	5.1
	3	588	51.6	5.1
24	1	588	43.8	4.9
	2	592	43.6	4.6
	3	590	42.8	4.7
25	1	591	47.9	4.7
	2	592	45.6	4.7
	3	591	43.9	4.6
26	1	593	42.9	4.5
	2	598	41.6	4.3
	3	596	41.7	4.4
27	1	598	41.7	4.4
	2	600	41.9	4.4
	3	601	41.7	4.4
28	1	600	41.5	4.3
	2	600	41.3	4.4
	3	599	41.6	4.3
29	1	598	42.1	4.3
	2	598	41.8	4.4
	3	601	41.6	4.5
30	1	600	41.0	4.4
	2	599	40.4	4.3
	3	600	39.4	4.4
31	1	601	38.9	4.5
	2	600	38.5	4.5
	3	601	38.2	4.7

OUTAGE

*These values represent internal audits. Actual operating parameters can be found in SOP E-5626-05-01

#5 Pickle Line HCI NESHAP Daily Turn Monitoring Records Requirements

The Shift Manager Is to record readings once per turn each day as per SOP

Month August Year 2017

Day	Turn	Recirculated Water GPM 564.0 Min*	Make-up Water GPM 38 Min*	3.0 - 10.0 Pressure Drop Inches
1	1	601.2	38.47	4.72
	2	601.1	38.56	4.62
	3	600	42.6	4.9
2	1	601	38.2	4.7
	2	600	38.4	4.6
	3	596	40.9	5.0
3	1	596	40.8	4.9
	2	595	40.8	5.1
	3	594	40.6	4.7
4	1	598	39.4	4.6
	2	595	38.4	5.1
	3	597	42.3	4.9
5	1	600	42.2	4.8
	2	598	43.6	4.8
	3	602	41.9	4.8
6	1	600	42.0	4.6
	2	601	41.6	4.6
	3	598	42.6	4.6
7	1	598	42.5	4.7
	2	598	42.5	4.8
	3	601	42.5	4.8
8	1	600	42.3	4.5
	2	600	42.4	4.5
	3	601	43.1	4.8
9	1	600	42.1	5.0
	2	601	42.4	4.9
	3	602	42.1	5.0
10	1	600	41.8	4.8
	2	600	43.0	4.9
	3	599	43.1	5.0
11	1	600	43.1	4.9
	2	598	45.1	5.2
	3	597	45.2	5.2
12	1	600	44.4	4.7
	2	599	44.3	4.8
	3	597	44.6	4.8
13	1	595	44.8	5.1
	2	598	45.4	5.5
	3	596	45.2	5.5
14	1	599	43.4	4.8
	2	601	43.1	5.0
	3	602	42.9	5.0
15	1	595	43.1	5.0
	2	603	42.8	4.9
	3	602	42.7	4.9
16	1	598	43.0	4.7
	2	600	42.9	4.6
	3	601	42.2	4.7

Day	Turn	Recirculated Water GPM 564.0 Min*	Make-up Water GPM 38 Min*	3.0 - 10.0 Pressure Drop Inches
17	1	599	42.7	4.7
	2	595	44.6	5.4
	3	597	44.7	5.4
18	1	600	43.3	4.9
	2	597	44.2	4.9
	3	598	44.0	5.0
19	1	601	44.6	4.7
	2	600	43.5	4.6
	3	601	43.7	4.6
20	1	600	43.7	4.5
	2	601	43.6	4.6
	3	599	43.6	4.7
21	1	600	43.3	4.9
	2	601	43.5	4.9
	3	599	43.3	4.8
22	1	599	43.1	4.9
	2	599	42.6	4.5
	3	598	42.8	4.3
23	1	597	42.3	4.4
	2	598	42.8	4.5
	3	597	40.8	4.8
24	1	598	42.5	4.9
	2	597	43.2	4.5
	3	598	43.2	4.4
25	1	599	43.0	4.4
	2	597	42.6	4.7
	3	599	42.5	4.6
26	1	598	42.3	4.6
	2	597	41.7	4.7
	3	597	42.2	4.7
27	1	598	42.0	4.8
	2	598	42.5	4.9
	3	597	42.3	4.9
28	1	597	42.6	5.0
	2	600	42.5	4.9
	3	600	42.4	5.1
29	1	599	42.3	5.0
	2	599	46.1	5.5
	3	596	46.2	5.5
30	1	594	46.3	5.5
	2	592	46.6	5.6
	3	591	45.1	5.4
31	1	596	47.9	5.0
	2	599	45.4	4.0
	3	597	45.5	4.9

*These values represent internal audits. Actual operating parameters can be found in SOP E-5626-05-01

#5 Pickle Line HCl NESHAP Daily Turn Monitoring Records Requirements

The Shift Manager is to record readings once per turn each day as per SOP

Month Sept Year 2017

Day	Turn	Recirculated Water GPM 564.0 Min*	Make-up Water GPM 38 Min*	3.0 - 10.0 Pressure Drop Inches
1	1	597	43.8	4.9
	2	597	45.5	4.5
	3	599	45.5	4.6
2	1	598	45.0	4.8
	2	598	45.1	4.8
	3	599	45.2	4.4
3	1	590	48.1	5.3
	2	588	48.0	5.3
	3	589	45.5	5.2
4	1	590	46.5	5.0
	2	591	46.2	5.1
	3	594	45.8	5.1
5	1	596	46.0	5.0
	2	598	45.8	4.8
	3	597	46.1	4.9
6	1	599	45.6	4.9
	2	590	46.2	4.8
	3			
7	1			
	2			
	3			
8	1			
	2			
	3			
9	1			
	2			
	3			
10	1			
	2			
	3			
11	1			
	2			
	3			
12	1			
	2			
	3			
13	1			
	2			
	3			
14	1			
	2			
	3			
15	1			
	2			
	3			
16	1			
	2			
	3			

Day	Turn	Recirculated Water GPM 564.0 Min*	Make-up Water GPM 38 Min*	3.0 - 10.0 Pressure Drop Inches
17	1			
	2			
	3			
18	1			
	2			
	3			
19	1			
	2			
	3			
20	1			
	2			
	3			
21	1			
	2			
	3			
22	1			
	2			
	3			
23	1			
	2			
	3			
24	1			
	2			
	3			
25	1			
	2			
	3			
26	1			
	2			
	3			
27	1			
	2			
	3			
28	1			
	2			
	3			
29	1			
	2			
	3			
30	1			
	2			
	3			
31	1			
	2			
	3			

*These values represent internal audits. Actual operating parameters can be found in SOP E-5626-05-01