

**BEFORE THE**  
**OHIO ENVIRONMENTAL PROTECTION AGENCY**

**In the Matter of:**

<b>Republic Steel - Canton</b>	<b>:</b>	<b><u>Director's Final Findings</u></b>
<b>2633 Eighth Street N.E.</b>	<b>:</b>	<b><u>and Orders</u></b>
<b>Canton, Ohio 44704</b>	<b>:</b>	

**PREAMBLE**

The Director of Ohio Environmental Protection Agency ("Ohio EPA") hereby issues final findings and orders as follows:

**I. JURISDICTION**

These Director's Final Findings and Orders ("Orders") are issued to Republic Steel ("Respondent") pursuant to the authority vested in the Director of Ohio EPA under Ohio Revised Code ("ORC") §§ 3704.03 and 3745.01.

**II. PARTIES BOUND**

These Orders shall apply to and be binding upon Respondent and successors in interest liable under Ohio law. No change in ownership of Respondent or of the facility (as hereinafter defined) shall in any way alter Respondent's obligations under these Orders.

**III. DEFINITIONS**

Unless otherwise stated, all terms used in these Orders shall have the same meaning as defined in ORC Chapter 3704 and the rules promulgated thereunder.

**IV. FINDINGS**

The Director of Ohio EPA makes the following findings:

1. Respondent owns and operates a facility located at 2633 Eighth Street NE, in Canton, Ohio (Stark County). This facility is a steel mill (Facility ID1576050694) and it is a Title V source.
2. The following relevant emissions units ("EUs") at the facility are subject to Ohio EPA rules and regulations and they are the subject of these orders:

I certify this to be a true and accurate copy of the  
official documents as filed in the records of the Ohio  
Environmental Protection Agency.

By Dan Lassiter Date: 5/14/19

EU ID	Company Description	Egress	Year Installed/ modified
F010	Continuous bloom casting facility ("CBCF") ladle transfer	Fugitive from CBCF Building	1994 / 2016
P123	CBCF ladle metallurgical facility ("LMF")	CBCF main LMF baghouse BGH20 stack and Fugitive from CBCF Building	1994 / NA
P124	CBCF vacuum tank degasser ("VTD")	CBCF VTD stack and Fugitive from CBCF Building	1994 / 2016
P125	CBCF continuous caster	Fugitive from CBCF Building (and during leaded-steel heats only use vacuum truck with stack)	1994 / 2016
F007	FlexCast Tundish Dump Station	Fugitive from FlexCast Building	2006 / NA
F008	FlexCast Alloy Handling	FlexCast baghouse BGH08 stack and Fugitive from FlexCast Building	2006 / NA
F009	FlexCast Slag Rake #3	Meltshop baghouse BGH01 stack and Fugitive from FlexCast/Meltshop Building	2006 / NA
P152	FlexCast Vacuum Tank Degasser ("VTD")	FlexCast VTD stack and Fugitive from FlexCast/Meltshop Building	2006 / NA
P157	FlexCast Bloom/Billet Caster	Fugitive from FlexCast Building (and during leaded-steel heats only use FlexCast baghouse BGH08 with stack)	2006 / NA
P158	Ladle Dumping of leaded and non-leaded steels within the #4 Meltshop Building for all production areas at the facility	Meltshop baghouse BGH01 stack and Fugitive from Meltshop Building	2006 / 2016
P178	FlexCast - Leaded Steel Ladle Makeup Station	Fugitive from FlexCast Building	2006 / NA
P179	FlexCast - Ladle Transfers	Fugitive from FlexCast Building	2006 / NA
P182	FlexCast - Caster Torch Cutoff Station	Fugitive from FlexCast Building	2006 / NA

3. ORC § 3704.05(C) prohibits any person who is a holder of a permit issued by the Director of Ohio EPA pursuant to ORC § 3704.03 from violating any of its terms and conditions.

4. ORC § 3704.05(G) prohibits a person from violating any order, rule, or determination of the Director that was issued, adopted, or made under ORC Chapter 3704.

5. Ohio Administrative Code ("OAC") rule 3745-15-07 states, "(A) The emission or escape into the open air from any source or sources whatsoever, of smoke, ashes, dust, dirt, grime, acids, fumes, gases, vapors, or any other substances or combinations of substances, in such manner or in such amounts as to endanger the health, safety or welfare of the public, or cause unreasonable injury or damage to property, is hereby found and declared to be a public nuisance. It shall be unlawful for any person to cause, permit or maintain any such public nuisance."

6. The Canton City Health Department, Air Pollution Control Division ("Canton APC") acts as a contractual agent for Ohio EPA's Division of Air Pollution Control in Stark County.

7. The most recent Title V permit for the facility (P0101210) was effective on December 29, 2005 and expired on April 24, 2007. Timely Title V renewal applications were submitted for the facility pursuant to OAC rule 3745-77-08(E)(1). As such, all provisions and authorizations of the expired permit remain in effect until the Director's final action on the pending renewal applications.

8. Chapter 31 modification Permit-to-install ("PTI") # P0120406 was issued on December 2, 2016 for the modification to add leaded steel operations to CBCF EUs F010, P124, and P125 and was administratively modified as PTI P0123277 on October 18, 2017. PTI P0123277 term B.4.d. states, in part, if the ambient air monitor measures lead in the air equal or greater than  $0.11 \text{ ug/m}^3$  as a 3-month average, then the permittee shall submit a written proposal of additional actions to take to minimize airborne lead. This proposal shall be submitted within 10 days of receiving the 3-month average lead data. Additionally, this PTI requires the Respondent to perform lead ambient air monitoring, which Respondent has selected Canton APC to perform. This PTI also contains several monitoring, recordkeeping, and reporting requirements to support compliance with emissions limitations, operational restrictions, and work practice requirements.

9. The National Ambient Air Quality Standard ("NAAQS") for lead is  $0.15 \text{ ug/m}^3$  for a 3-month rolling average. Ambient monitoring results from the lead monitor located across the street from Respondent's facility show the March 2018 through May 2018 3-month average at  $0.25 \text{ ug/m}^3$ .

10. On June 29, 2018, Ohio EPA issued Director's Final Findings and Orders to Respondent to address the exceedance of the lead NAAQS as described in Finding #9. The Orders required Respondent to:

a. Upon the effective date of these Orders by 11:59 P.M., Respondent shall suspend leaded steel production at the facility and investigate the cause of the ambient monitoring exceedances on May 11, 2018 and May 20, 2018. The investigation shall include, but not be limited to, a review of production data and an investigation into which lead emission sources were being operated, what maintenance activities were being conducted at the CBCF building, what dust handling activities were being conducted, and what cleanup/housekeeping was being conducted at or around the CBCF building. The results of the investigation, including a list of all activities that were conducted on May 10, 2018, May 11, 2018, May 19, 2018 and May 20, 2018, shall be submitted to Ohio EPA and Canton APC as soon as possible after completion.

b. Within two (2) business days of the effective date of these Orders, Respondent shall submit to Ohio EPA and Canton APC in accordance with section VIII production records showing operating times and quantities of production that was conducted on May 10, 2018, May 11, 2018, May 19, 2018 and May 20, 2018. These production records shall cover the EAF (P907), LMF (P123), CBCF VTD (P124), CBCF Caster (P125) and CBCF ladle transfer (F010) operations on those days and shall include copies of heat sheets for those days.

c. Respondent shall commence an evaluation of potential short-term actions for the emission reductions of lead. The emissions evaluation shall also include an examination of building ventilation emissions from F010, P123, P124 and P125 including roof fans, doors and other egress points. Based upon the evaluation, Respondent shall submit a proposal of actions to be taken to minimize lead emissions. Respondent shall submit in accordance with section VIII, the evaluation results, proposed actions and an implementation schedule, to Ohio EPA, for approval. The Respondent may choose to use this submission to comply with the requirements of PTI P0123277 term B.4.d.

d. Upon approval from Ohio EPA, along with the submission of the results from the investigation as required by Order V.1, submission of the action plan as required by PTI P0123277 term B.4.d., and submission of documentation as required by Order V.3, Respondent may resume leaded steel production.

e. Within fourteen (14) days of resuming leaded steel operations or as soon as practicable after fourteen (14) days, Respondent shall conduct a stack test for EU P124 to determine the level of lead (Pb) and particulate emissions from the CBCF VTD stack and for EU P123 to determine the level of lead (Pb) and particulate emissions from the CBCF LMF baghouse stack. Pb shall be tested using U.S EPA Reference Method 29 and the particulate emissions shall be tested

using EPA Reference Method 5 (or approved alternative method) with back-half analysis. Respondent shall conduct a Method 9 on the emissions from the CBCF VTD and CBCF LMF baghouse stacks and of the fugitives from the CBCF building roofline simultaneously while conducting the stack test for Pb and the particulate emissions. EU P124 and P123 (and other EUs controlled by the baghouse) shall be operated at or as close as possible to its maximum capacity and "worst case" conditions for leaded steel production while conducting the stack test for emissions from the CBCF VTD and CBCF LMF baghouse. In the event Respondent determines that particulates cannot be tested from the CBCF VTD stack, Respondent shall submit a detailed technical report that shows there are no approved or alternative methods to test for the particulate emissions from these types of steam laden stack emissions.

f. No later than fourteen (14) days prior to the scheduled testing, Respondent shall submit an Intent-to-Test notification ("ITT") for EUs P123 and P124 as identified in Order V.5 to Canton APC, in accordance with section VIII. Respondent shall submit reports, in accordance with section VIII, of the results of the stack testing conducted in accordance with Order V.5 to Ohio EPA and Canton APC within thirty (30) days following the testing.

g. Within thirty (30) days of the effective date of these Orders, Respondent shall install high-definition cameras positioned to and capable of recording video of particulate emissions from any part of the CBCF building roof and CBCF baghouse stack. At least one camera shall be installed at the lead monitor site on the monitor platform facing the facility. Respondent shall thereafter video record the CBCF roof and CBCF baghouse stack emissions daily from the time the ladle starts at LMF through the end of casting and leaded ladle dumping (P158) unless technical circumstances beyond the reasonable control of Respondent prevent recording. Respondent shall maintain the video of each day for 90 days and make it available for review at the facility by Ohio EPA and Canton APC upon request.

h. Upon resumption of leaded steel production, Respondent shall perform daily lead ambient air monitoring. Daily monitoring shall be performed for thirty (30) days. (This may be completed by Canton APC by increasing the frequency of the current lead ambient air monitoring program.)

11. On July 10, 2018, the Director issued a Resumption of Leaded Steel Production letter ("Resumption Letter") to Respondent, which included the following conditions:

a. Meet every deadline set forth in the implementation schedule included in the short-term action plan dated July 10, 2018, and submit documentation to Ohio EPA and the Canton City Health Department, Air Pollution Control Division ("Canton APC") via Air Services within two (2) business days after

the completion of each action item confirming/documenting that the action item has been completed.

b. Provide a forty-eight (48) hour notice (or as much notice as practicable) to Ohio EPA and Canton APC prior to the initiation of any leaded steel production specifying the intended hours of leaded steel operation. For leaded steel production occurring on Sunday or Monday, the notice shall be provided no later than on the previous Friday by 12:00 P.M.

c. Perform lead ambient air monitoring every day of leaded steel production, in addition to any other required ambient air monitoring. The monitoring will be completed by the current chosen vendor, Canton APC, by increasing the frequency of the current lead ambient air monitoring program, with Canton APC costs paid for by Republic Steel. The notice required in paragraph 2 will provide Canton APC with adequate time to perform air quality monitoring during those days that leaded steel is produced. [Note: if Republic Steel chooses another ambient monitoring vendor in the future, that vendor shall be subject to these conditions].

d. Every effort must be made to avoid a reoccurrence of the May 2018 violation of the national ambient air quality standard (NAAQS) for lead at Republic Steel. The NAAQS for lead is 0.15 ug/m<sup>3</sup>, rolling three-month average. The following plan consisting of three separate tiers that identify actions Republic Steel must undertake depending on the ambient monitoring levels at the Georgetown Street monitoring location to help avoid a reoccurrence of the high readings in May of 2018.

i. Investigate: If any individual value exceeds 0.15 ug/m<sup>3</sup>, Republic Steel must investigate plant operations, including identify all activities at the plant, and determine what operations, activities, and/or work practices may be impacting the monitor.

ii. Action: If any individual value exceeds 0.75 ug/m<sup>3</sup>, in addition to the investigation in paragraph A, Republic Steel must take additional action. This action can include additional watering, detailed baghouse inspection, apply more chemical suppressant, etc.

iii. Suspend Leaded Steel Production: If any individual value exceeds 1.5 ug/m<sup>3</sup>, Republic Steel must suspend leaded steel production until the end of the month so as to evaluate whether the lead monitor measures attainment with the NAAQS three month rolling average. If the NAAQS has been exceeded, leaded steel production may be suspended for up to 3 months.

12. Ambient monitoring results from the lead monitor located across the street from Respondent's facility show the January 2019 through March 2019 3-month average at  $0.167 \text{ ug/m}^3$ , an exceedance of the lead NAAQS.

13. It is the Director's position that based upon the ambient monitoring results, Respondent has caused, permitted, or maintained a public nuisance in the neighborhood surrounding the facility as a result of the monitor exceeding the NAAQS for lead, in violation of OAC Rule 3745-15-07 and ORC § 3704.05(G).

14. On April 12, 2019, Respondent suspended leaded steel production at the CBCF. On April 17 and April 19, 2019, Respondent submitted an Action Plan to address the lead exceedances which included 15 action items.

15. On April 22, 2019, Respondent submitted additional action items relating to dust suppression misting cannons, near-term source capture, and long-term source/building capture. Respondent also provided an update on its progress to date on long-term source/building capture and control at the CBCF.

16. An updated Action Plan, combining and updating all activities from the submissions referenced in Finding Nos. 14 and 15 of these Orders, is attached as Exhibit A.

17. The Director has given consideration to, and based her determination on, evidence relating to the technical feasibility and economic reasonableness of complying with the following Orders and their relation to benefits to the people of the State to be derived from such compliance.

## **V. ORDERS**

The Director hereby issues the following Orders:

1. Respondent shall cease leaded steel production until items 1-15 and 16a identified in Exhibit A – Action Plan have been completed. Respondent shall submit documentation to Ohio EPA and Canton APC demonstrating that each action item has been completed and when it was completed. Upon written verification, by Canton APC, that items 1-15 and 16a have been completed, Respondent may resume leaded steel production.

2. Within 7 days after receipt of the air monitoring results from the Source Evaluation as referenced in item 17 of Exhibit A – Action Plan, Respondent shall submit the air monitoring results and what, if any, interim actions were implemented pending completion of the Near-Term Source Capture referenced in item 18 of Exhibit A – Action Plan.

3. Within sixty (60) days after the effective date of these Orders, Respondent shall submit a report on the implementation and evaluation of the Dust Suppression Misting Cannons as referenced in item 16 of Exhibit A – Action Plan. If the Dust Suppression Misting Cannons are found to be effective, Respondent shall continue to implement those measures until Respondent receives approval to stop implementing those measures from the Director.

4. Upon the effective date of these Orders, should ambient monitoring results show an exceedance of the NAAQS for lead (3-month rolling average) using data measured after April 2019, Respondent shall cease leaded steel production at the CBCF until the action items from the Long-Term Source/Building Capture plan as referenced in item 19 of Exhibit A – Action Plan have been implemented and appropriate controls have been installed and are operating, unless an earlier resumption is approved by the Director in writing. In the event Respondent's investigations under paragraph 6(c) indicates that leaded steel production at the FlexCast is the cause for the exceedance of the NAAQS, Respondent shall not resume leaded steel production at the FlexCast until Respondent receives approval from the Director.

5. Respondent shall continue to comply with June 29, 2018 Director's Final Findings and Orders, as specified in Finding 10, with the following replacing Orders 5 and 6:

a. Within five (5) business days from the effective date of these Orders, Respondent shall submit an Intent-to-Test notification ("ITT") for EU P123 to Canton APC in accordance with section VIII of these Orders. Within twenty-eight (28) days of resuming leaded steel operations at the CBCF, Respondent shall conduct a stack test for EU P123 to determine the level of lead (Pb) and particulate emissions from the CBCF LMF baghouse stack. Pb shall be tested using U.S EPA Reference Method 29 and the particulate emissions shall be tested using EPA Reference Method 5 (or approved alternative method) with back-half analysis. Respondent shall conduct a Method 9 on the emissions from the CBCF LMF baghouse stack and of the fugitives from the CBCF building roofline simultaneously while conducting the stack test for Pb and the particulate emissions. EU P123, and other EUs controlled by the baghouse, shall be operated at or as close as possible to its maximum capacity and "worst case" conditions for leaded steel production while conducting the stack test for emissions from the CBCF LMF baghouse. Within thirty (30) days following the testing, Respondent shall submit the results of the stack testing to Ohio EPA and Canton APC in accordance with section VIII of these Orders.

b. Within fourteen (14) days from the effective date of these Orders, Respondent shall submit a technical report identifying how Respondent plans to characterize particulate and Pb emissions being emitted from the CBCF VTD stack during leaded and non-leaded steel operations, along with a schedule for when the analysis will be completed. If the plan calls for sampling of lead and solids content

within VTD steam condensate, rather than sampling of the air stream from inside the steam ejector stack, the resulting water samples will be analyzed for Total Lead, Total Suspended Solids (TSS) and Total Dissolved Solids (TDS) using EPA-approved test methods. The report shall be submitted to Ohio EPA and Canton APC for agreement.

6. The July 11, 2018 Resumption letter, referenced in Finding 11, shall be superseded and replaced with the following:

a. Provide a forty-eight (48) hour notice (or as much notice as practicable) to Ohio EPA and Canton APC prior to the initiation of any leaded steel production, including all CBCF and FlexCast operations, specifying the intended hours of leaded steel operation. For leaded steel production occurring on Sunday or Monday, the notice shall be provided no later than on the previous Friday by 12:00 P.M.

b. Respondent shall perform, or have performed, lead ambient air monitoring at the Georgetown Road monitor station located across the street from Respondent's facility as required by 40 CFR 58.10(a)(4) to determine compliance with the National Ambient Air Quality Standard for lead. This ambient air quality sampling may include special studies during periods of leaded steel production. The specific details of the ambient air monitoring including frequency will be determined, and may be modified, by the Director or a designee of the Director. The notice required in paragraph 6(a) shall provide Canton APC with adequate time to perform air quality monitoring during those days that leaded steel is produced. Respondent shall reimburse actual costs of the lead air quality monitoring at the Georgetown Road site.

c. Investigate: For any individual value which exceeds 0.15 ug/m<sup>3</sup>, Respondent must investigate plant operations, including identify all activities at the plant, and determine what operations, activities, and/or work practices may be impacting the monitor. This shall be completed within fourteen (14) days of receiving the filter sample results.

d. Action: If any individual value exceeds 0.75 ug/m<sup>3</sup>, in addition to the investigation in paragraph 6(c), Respondent must take additional action. This action can include additional watering, detailed baghouse inspection, apply more chemical suppressant, etc. This shall be completed within seven (7) days of receiving the filter sample results.

e. Suspend Leaded Steel Production: If any individual value exceeds 1.5 ug/m<sup>3</sup>, Respondent must suspend leaded steel production until the completion of the investigation in paragraph 6(c) and action in paragraph 6(d) have occurred and the next set of filter sample results have been received so as to evaluate whether the lead monitor measures attainment with the NAAQS three month rolling

average based on data collected after April 2019. If the NAAQS has been exceeded, Respondent shall suspend leaded steel production and comply with Order 4 of these Orders.

f. Reports: Respondent shall submit the results of their investigation in paragraph 6(c) and actions taken in paragraph 6(d) upon completion to Ohio EPA and Canton APC in accordance with section VIII of these Orders.

## **VI. TERMINATION**

Respondent's obligations under these Orders shall terminate when Respondent certifies in writing and demonstrates to the satisfaction of Ohio EPA that Respondent has performed all obligations under these Orders, these obligations have been embedded in operation permits, if necessary, and the Chief of Ohio EPA's Division of Air Pollution Control acknowledges, in writing, the termination of these Orders. If Ohio EPA does not agree that all obligations have been performed, then Ohio EPA will notify Respondent of the obligations that have not been performed, in which case Respondent shall have an opportunity to address any such deficiencies and seek termination as described above.

The certification shall contain the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

This certification shall be submitted by Respondent to Ohio EPA and shall be signed by a responsible official of Respondent. For purposes of these Orders, a responsible official is as defined in OAC Rule 3745-77-01(II) for a corporation, or a corporate officer who is in charge of a principal business function of Respondent.

## **VII. OTHER APPLICABLE LAWS**

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, State and federal laws and regulations. These Orders do not waive or compromise the applicability and enforcement of any other statutes or regulations applicable to Respondent.

## **VIII. NOTICE**

All documents required to be submitted by these orders shall be submitted electronically by Respondent via the Air Services Portal.

## **IX. RESERVATION OF RIGHTS**

Nothing contained herein shall be construed to prevent Ohio EPA from seeking legal or equitable relief to enforce the terms of these Orders or from taking other administrative, legal or equitable action as deemed appropriate and necessary, including seeking penalties against Respondent for noncompliance with these Orders and/or for

the violations described herein. Nothing contained herein shall be construed to prevent Ohio EPA from exercising its lawful authority to require Respondent to perform additional activities pursuant to ORC Chapter 3704 or any other applicable law in the future. Nothing herein shall restrict the right of Respondent to raise any administrative, legal or equitable claim or defense with respect to such further actions which Ohio EPA may seek to require of Respondent. Nothing in these Orders shall be construed to limit the authority of Ohio EPA to seek relief for violations not addressed in these Orders.

#### **X. APPEAL RIGHTS**

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
30 East Broad Street, 4th floor  
Columbus, OH 43215

#### **XI. EFFECTIVE DATE**

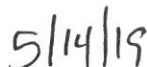
The effective date of these Orders is the date these Orders are entered into the Ohio EPA Director's journal.

#### **IT IS SO ORDERED:**

Ohio Environmental Protection Agency



Laurie A. Stevenson  
Director



Date

## EXHIBIT A

### Republic Steel Action Plan

	Action Item	Due Date	Status
1	Change current work practices to ensure that the ventilation fan on the South side of the CBCF is turned off during all downturn maintenance and cleaning activities that take place in the CBCF (including any cleaning of the CBCF pit area).	Immediately	Completed (4/17/19)
2	Cease the practice of dumping material from the CBCF cast floor into the pit.	Immediately	Completed (4/17/19)
3	Cease the practice of taking degas pans out through the CBCF alloy door to the CBCF pit area.	Immediately	Completed (4/17/19)
4	Cease the practice of storing equipment and material in the paved area on the South side of the CBCF building to allow for ease of cleaning (see area identified in Attachment 1).	Immediately	Completed (4/17/19)
5	Change work practices to ensure that any mobile equipment that enters the CBCF pit area must be sprayed with water immediately upon exiting the pit to prevent it from tracking dust out of the pit.	Immediately	Completed (4/17/19)
6	Begin removing all equipment and material currently being stored in the paved area on the South side of the CBCF building. To prevent any resuspension of dust during removal, all equipment/material will be rinsed off prior to its removal.	Immediately	Completed (4/25/19)
7	Place a lock on the pit roll-up screen door to prevent employees from opening the screen without management approval. Place signage on the door stating that opening of the door is strictly prohibited without management approval.	4/19/2019	Completed (4/18/19)
8	Perform industrial cleaning of particulate matter located on the horizontal surfaces of the interior of the south wall of the CBCF building. Thereafter, such surfaces will be <b><i>cleaned on a quarterly basis.</i></b>	4/26/2019	Completed (4/28/19)
9	As the above-referenced material and equipment is being removed from the area on the South side of the CBCF building, a deep cleaning of the entire area will be performed (cleaning will begin once the first section of material is removed). The area to be cleaned is identified in Attachment 1.	4/29/2019	Completed (4/25/19)
10	Perform a deep cleaning of the area immediately inside the CBCF pit roll-up door. Thereafter, this area immediately inside the CBCF pit roll-up door will be paved (see below) and <b><i>cleaned on a weekly basis.</i></b> Such cleaning will be performed with the roll-up door closed.	4/29/2019	Completed (4/28/19)

# EXHIBIT A – Republic Steel Action Plan

	Action Item	Due Date	Status
11	Repair the opening in the side wall of the CBCF in the area located on the East side of the CBCF pit roll-up door.	4/29/2019	Completed (4/27/19)
12	After the above-referenced deep cleaning, all remaining portions of the area on the South side of the CBCF building will be patched or repaved and, if practicable, will be sealed. Such cleaning will act as a baseline for future lead dust monitoring.	5/3/2019	Completed (4/29/19)
13	Pave the area located immediately inside the CBCF pit roll-up door (approximately 10 feet past the threshold of the roll-up door) to allow for ease of cleaning in the future.	5/3/2019	Completed (4/29/19)
14	Begin performing <b>weekly cleaning of the entire paved area</b> on the southside of the CBCF building with follow-up testing (via XRF analysis and/or wipe sampling) after each cleaning (for at least 6 weeks of cleaning) to determine the efficacy of such cleaning.	5/6/2019	Completed (week of 4/29/19)
15	Install a replacement door and make associated repairs for the CBCF roll-up door located on the East side of the CBCF pit roll-up door.	5/15/2019	Completed (4/27/19)
16a	<b>Near-Term Dust Suppression:</b> Rent and place three Bosstek DB-60 misting cannons along the fence line on the South side of the CBCF, facing the building. The goal is to knock-down airborne fugitives that escape the building into the laydown area on the South side of the building and to provide more consistent wetting of the area to prevent resuspension of particulate matter from that area.	4/29/2019	Completed (4/26/19)
16b	Evaluate the effectiveness of these units over a period of at least 4 weeks, potentially relocating (laterally and vertically) over the evaluation period.	----	
16c	If effective, units will be mounted more permanently and potentially installed with programming capabilities.	----	
17a	<b>Source Evaluation:</b> Perform further air monitoring at the ventilation fan located above the alloy handling door on the South side of the CBCF using two portable AQ monitors at the fan, one inside and one outside, for simultaneous readings to determine whether particulate matter is escaping through the filter media currently in place.	5/3/19	Completed (5/3/19)
17b	If the monitoring reveals that a relevant amount of particulate matter is escaping through the fan with the media in place, evaluate potential actions pending installation of the VTD source control described in item 18.	----	
18	<b>Source Capture at the VTD:</b> Working with a 3 <sup>rd</sup> party engineering firm, install a capture system with cartridge-style baghouse targeting fugitive emissions from the VTD area.	7/15/2019	

# EXHIBIT A – Republic Steel Action Plan

	Action Item	Due Date	Status
19a	<b>Long-Term Source/Building Capture:</b> Working with a 3 <sup>rd</sup> party engineering firm, evaluate capture and control options for the control of emissions generated by operations in the CBCF (including the slag rake area, LMF, VTD, building exhaust fans, ladle/tundish casting deck, e-ladle area, ladle table evac area, shroud/tundish pour area, VTD exhaust, and tundish dump location). Submit a report to the agencies identifying potential CBCF capture/control solutions and recommending our preferred plan (conceptual level) together with implementation schedule for detailed engineering and installation.	7/31/2019	
19b	Obtain concurrence from the agencies prior to proceeding with detailed engineering on selected plan	8/15/2019	
19c	Design, fabricate and install additional controls for the CBCF source and/or building for the capture and control of lead emissions.	Due Date – Consistent with 19a and 19b	