AZR AMERICAN ZINC RECYCLING
Delivering a Sustainable Future

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February 9, 2017

Julie Morita, M.D
Commissioner, Department of Public Health & Environment
333 South State St., 2nd Floor
Chicago, IL 60604

Re: Second Amendment to Request for Variance from the Rules and Regulations for Control of Emissions from the Handling and Storage of Bulk Solid Materials-American Zinc Recycling (f/k/a Horsehead Corporation)

Dear Commissioner Morita:

Pursuant to Section 8.0 of Article II, Part E of the City of Chicago Department of Public Health's (the "Department") Rules and Regulations for Control of Emissions from the Handling and Storage of Bulk Solid Materials (the "Bulk Solid Materials Rules" or "Rules"), American Zinc Recycling ("AZR") submits this Second Amendment to its pending request for variance dated June 13, 2014, as amended by the Horsehead Corporation submission to the Department dated September 25, 2017, for its facility located in Chicago, Illinois (the "Chicago Plant").[1] This Second Amendment further amends the original June 2014 variance request to inform the Department of the following changes and developments relating to the variance relief requested:

1. Because of the corporate name change from "Horsehead Corporation" to "American Zinc Recycling Corp.," it is AZR who is now seeking a variance;

2. The coke materials enclosure structure required by Section 6.0(6) of the Bulk Solid Materials Rules has been completed but a separate plumbing issue relating to the water supply line to the fire hydrants has been identified by the City of Chicago and is being addressed by AZR; and

3. The completion of the coke material enclosure structure, and other operational changes at the Chicago Plant, provide additional factual support for the Department's decision to grant AZR's pending request for a variance from the fugitive dust monitors requirement in Section 3.0(4)(a)-(e).

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[1] The June 16, 2014 variance request addressed Sections 3.0(2)(c), 3.0(4)(a)-(e), 3.0(8)(d), 5.0(2), 5.0(5), and 5.0(6)(d). As stated in Horsehead's February 19, 2015 Response to the Department's January 26, 2015 Request for Additional Information, Horsehead has completed the activities for which its 2014 variance request sought an extension of time.

Each of the above developments and accomplishments are described in further detail below.

I. Corporate Name Change from Horsehead to AZR

On May 1, 2017, the corporate name "Horsehead Corporation" was changed to "American Zinc Recycling Corp." The change was limited to a change in the name of the corporation. There were no changes to the corporate structure. Therefore, AZR, formerly known as Horsehead, amends its pending variance request to submit that the Department grant AZR, rather than Horsehead, a variance from the following requirements of the Bulk Solid Materials Rules:

(1) the fugitive dust monitors requirement in Section 3.0(4)(a)-(e) of the Bulk Solid Materials Rules;

(2) an extension of the coke materials enclosure deadline to within fourteen (14) days of the issuance of the certificate of occupancy for the enclosure structure by the City of Chicago;

(3) the requirement in Section 5.0(6)(d) to prevent "any" pooling of water at the facility to allow the temporary occurrence of pooling water in areas in the southern portion of the facility following rainfall events; and

(4) the requirement in Section 5.0(5)(b) to use Chemical Stabilizers and/or water heating systems when temperatures fall below 32° F for its IRM storage piles.

II. Request for Variance to Extend the Enclosure Deadline in Rules Section 6.0(6)

Horsehead, now AZR, has a pending request for relief from the enclosure deadline established in Section 6.0(6) of the Rules. Section 6.0(6) requires AZR to remove or fully enclose all coke and coal bulk materials within two years following the submission of its Enclosure Plan. That deadline was June 11, 2016. AZR diligently pursued the completion of the design, permitting and construction of its coke materials enclosure building. It worked cooperatively with representatives of the Department, the City Fire Department and the City Building Department to complete the enclosed coke materials building. AZR has regularly provided monthly progress reports to the Department concerning the status and progress in completing the structure. Construction of the enclosure structure was completed before the end of 2017. However, in the course of the City's inspection of the completed enclosure structure for purposes of issuing a certificate of occupancy, the City identified a separate issue relating to the existing water supply line to the fire hydrants at the facility which has delayed issuance of the occupancy certificate. AZR is working cooperatively with the City to address this water supply line issue and upon its completion, it reasonably expects the certificate to be issued. Therefore, AZR is requesting that the Department grant a variance extending the deadline in Section 6.0(6) of the Rules for the completion of the coke materials enclosure to within fourteen days of the issuance of the certificate of occupancy by the City in order to allow a reasonable amount of time

to transfer the existing coke materials, and any new coke material deliveries, into the new enclosure structure once that certificate is issued.

A. Description of the Coke Materials Enclosure Construction Completion

AZR completed the coke materials enclosure structure at a substantial cost, estimated at approximately $2 million. The enclosure structure is approximately 5,725 square feet. It is equipped with an overhead door which allows trucks bringing in the coke to the Chicago Plant to enter the building and unload the coke within the enclosure structure. The design and construction of the enclosure were closely reviewed by the City Building Department. In addition, the fire protection system, including the existing water supply line and fire hydrants locations, also was reviewed by the City's Fire Department.

The enclosure building was completed in May 2017. However, in April 2017, an unexpected issue arose regarding the process water lines at the plant and the potential need for a new water supply line for the building fire pump. After it was determined that a new water supply line was needed, the construction of this line was delayed due to another unforeseen development. The City required a change in the location of the firewater access, which in turn required a new permit for the water supply line. After obtaining the new permit, construction of the plumbing commenced this past summer but a City plumbing inspector halted construction of the water supply line and requested a copy of the enclosure plumbing drawings prior to allowing construction of the line to commence. Preliminary plumbing design drawings were submitted to the City and a meeting with the City Fire Department's engineering personnel was held to review the design. The Fire Department agreed the preliminary plumbing design drawings were accepted but also requested that the fire hydrant location plan for the Chicago Plant be submitted for review. A fire hydrant location plan has been submitted to the Fire Department.

The solution to the fire water supply line issue necessitates performing a significant plumbing project to install new fire hydrants and lines to those hydrants. Due to the onset of winter and ground freezing conditions, the field work to complete this plumbing project could not be completed before the end of 2017. It will be completed once all City approvals and permits are obtained and the ground conditions are suitable for performing the work. It is reasonably expected that this can be accomplished prior to June 2018. Upon the City's issuance of a certificate of occupancy for the enclosure structure, AZR will transfer the coke materials used in its on-site operations into the enclosure.

An updated Chicago Plant diagram showing the location of the new enclosure building is attached as Exhibit A. Because the enclosure building cannot yet be used, the updated Chicago Plant diagram continues to show the coke storage area.

Once the certificate of occupancy for the enclosure structure is issued, all new coke materials received at the Chicago Plant will be conveyed by truck into the enclosure building for

storage. All coke materials used in the Chicago Plant operations will be moved by front end loader from the enclosure building directly to the coke hopper. None of the relatively small quantities of coke materials,[2] which currently consist solely of petcoke,[3] used in the Chicago Plant operations will be stored outside. As previously explained in the original and amended variance request, all coke materials are consumed in the AZR production process. The full enclosure of all coke materials will further reduced the Chicago Plant's potential for fugitive dust emissions.

B. The Extension of the Enclosure Deadline in Section 6.0(6) has not Caused a Nuisance or Adversely Affect the Surrounding Community (§ 8.0(2)(d)).

Section I.C. (at pp. 3-4) of the September 2015 Amended Variance Request described in detail why the granting of the requested extension of the enclosure deadline in Section 6.0(6) of the Rules would not cause a nuisance or adversely affect the surrounding community. All of the information previously provided to show that no nuisance or adverse effect on the surrounding community would occur has proven to be true. There were no, and have not subsequently been, complaints of any kind received from residents in the surrounding community. The interim precautionary measures that were taken which significantly reduced the surface area of the stored coke (using two piles instead of three) and the added concrete barriers around the remaining coke storage areas maximized the containment of coke material and reduction of fugitive emissions from that material during their limited outdoor storage period. The limited quantity of coke material on site, the protected location of the coke storage piles, their high moisture content, and their large particle size all contributed to preventing or minimizing any fugitive emissions from the coke materials. As represented in the 2015 Amended Variance Request, the Chicago Plant has remained in compliance with all applicable fugitive particulate matter emissions requirements in its Illinois Title V Air Permit issued in May 2002.[4] Finally, continued quarterly opacity testing at the Chicago Plant from 2015 to the present did not identify any exceedances of the applicable opacity limits within the facility and repeated testing pursuant to Method 22 detected no visible emissions at the property line of the Plant. The changes to the Chicago Plant's operating procedures to comply with the City's Rules have further reduced fugitive

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[2] Under the terms of the July 2, 2015 Provisional Administrative Order Pertaining to Coke & Coal Bulk Material Uses issued to Horsehead by the City's Commissioner of Planning and Development, the total daily amount of coke or coal materials present at the Chicago Plant "shall not exceed 4,516 tons at any one time" and the annual receipt of coke materials is limited to 52,808 tons.

[3] As explained in Horsehead's September 25, 2015Amended Variance Request (at p. 2), Horsehead agreed to a request by the United States Environmental Protection Agency to limit its petcoke use to 10% by weight. Notwithstanding the ability to use 10% petcoke, Horsehead has not been using any petcoke in its manufacturing process since agreeing to the U.S. EPA's request in 2015.

[4] The relevant requirements of the Illinois Title V Air permit were described in the September 2015 Amended Variance Request at pp. 4-5.

emissions such that the typical opacity results for on-site handling activities is zero emissions. Copies of the opacity test results for the last two quarters of 2017 are included as Exhibit B.[5]

C. The Proposed Methods to Achieve Compliance with the Regulations will be Successfully Completed. (§ 8.0(2)(f))

As required by Section 8.0(2)(f) of the Rules, Horsehead proposed to complete the enclosure building in cooperation with the City Building and Fire Departments in a diligent manner. It has done so. Although unexpected and unforeseen developments have occurred during the process, AZR continually kept the Department informed of these developments and its progress in resolving all issues that arose through monthly progress reports. The Chicago Plant also complied with all other provisions of the Bulk Solids Rules, save those identified in its pending variance request.

D. Alternative Methods and Factors Influencing the Choice of Applying for a Variance (§ 8.0(2)(g))

The information presented in the September 2015 Amended Variance Request is unchanged and is hereby incorporated by reference.

E. Statement Regarding the Person's Current Status as Related to the Subject Matter of the Variance Request (§ 8.0(2)(h))

AZR has complied with the enclosure requirement of the City's Rules. However, it requests that the Department grant it the requested variance to extend the deadline in Section 6.0(6) of the Rules to within fourteen (14) days of the City's issuance of the certificate of occupancy, which is expected to occur by June 2018.

III. Second Amendment to Variance Request from the Fugitive Dust Monitors Requirements of Section 3.0(4)(a)-(e) of the Bulk Solid Materials Rules.

AZR requests that the Department consider the new information presented in this Second Amendment in its consideration of Horsehead's prior request for a variance from the fugitive dust monitors requirement of Section 3.0(4)(a)-(e) of the Bulk Solid Materials Rules. The enclosure structure is completed and the outside storage of coke material used in the Chicago Plant's production process will cease upon issuance of a certificate of occupancy for the enclosure structure. As stated above, continued quarterly opacity testing shows consistent compliance with fugitive emissions limits. Further, the quantity of coke materials received at the Chicago Plant also has remained in consistent compliance with the limits imposed under the City's Provisional Throughput Order.

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[5] Due to their voluminous nature, the opacity test results for all quarters of testing are not included here. However, Horsehead will provide any or all of the additional opacity testing reports upon the Department's request.

The only outside storage activity involving bulk solid materials that will remain at the Chicago Plant are the Iron Rich Material ("IRM") product storage piles. As explained in detail in the 2014 original Variance Request, the IRM material stored outside forms a crust which minimizes the potential for airborne release from these piles. AZR's dust suppression system has proven successful at protecting against off-site emissions during the handling of IRM on-site. As previously stated, the Chicago Plant continues to perform all of the other requirements of the City's Rules for preventing or minimizing airborne emissions of IRM. The limited handling activities associated with the IRM product do not warrant or justify the imposition of the fugitive air monitors requirement under the Rules.

IV. Limited Updates to the Chicago Plant Information Previously Provided in Support of the Variance Request.

With limited exception, the information required by Section 8 of the Bulk Solid Materials Rules which was included in the Original and Amended variance requests is still accurate today. With regard to the Original Variance Request's description of the quantities and types of materials, processes and activities for which the variance is requested (see Original Variance Request at Section II & Exhibits A + B and Section III), as required by Rules Sections 8.0(2)(b) and § 8.0(2)(c)), the types of materials and the production processes at the Chicago Plant have not changed. The Chicago Plant still uses Electric Arc Furnace dust (EAF dust) and coke materials[6] to produce Waelz Oxide (WOX) and IRM product. EAF dust is received by railcars and trucks directly into the Conditioning & Blending ("C&B") Building, which provides full enclosure for the receipt and handling of this material. EAF dust is offloaded and processed in the recycling operation within fully enclosed facilities and equipment to produce the WOX and IRM. As stated in the Original Variance Request, all EAF dust is contained indoors.

Various areas of the recycling operation conducted in the C&B Building are vented through baghouses with permitted stack emissions. WOX product is captured in fabric filter product collectors (baghouses). Emissions from these product collectors are regulated under the terms of the facility's existing Clean Air Act Title V Permit. The facility has 24-hour opacity monitors to measure if particulate matter is emitted from the product collector stacks at above permitted levels. Alarms alert plant personnel if limits are exceeded, and the affected part of the product collector is shut down for repairs. Hence, the previous description of the production processes provided is hereby incorporated by reference.

There have been limited changes in the handling of bulk solids materials at the Chicago Plant which are relevant to the pending request for variance. These changes relate only to the handling of IRM. No changes have been made to the handling of WOX, which is still conveyed from the product collectors via an enclosed conveyor to a loading chute that extends into closed,

[6] As stated above, the Chicago Plant presently uses 100% metallurgical coke, and has voluntarily limited future coke use to a ratio of 90% metallurgical coke to 10% petroleum coke.

pressure differential rail cars for off-site shipment. These railcars also are in an enclosed building. The WOX is never exposed to the outdoors.

The changes to the IRM handling operations involve minor changes in how the IRM is temporarily stored for testing of product quality (*i.e.,* whether product specifications are met) prior to being loaded for off-site transfer or moved to the IRM storage piles on the southern portion of the Plant property to await future off-site transfer. IRM product is removed from the kilns, transferred by pay loader and placed into either a silo or a storage pile in a designated area near the kilns. After testing, the IRM is moved by a pay loader to one of three areas. Two of those areas are temporary storage areas located close to the barge loading area from which the IRM is then loaded directly onto barges via an enclosed conveyor system. The third area is the IRM storage piles area on the southern portion of the property. Each of these three storage area are shown on the updated Chicago Plant diagram attached as Exhibit A. As before, fugitive emissions, if any, are controlled with water suppression when moving and loading IRM at the facility. When the IRM is removed from the silos for transfer to one of the three storage areas, water suppression is used as a precautionary measure on IRM piles to further reduce the potential for emissions from movement of IRM on site, as described in AZR's written fugitive dust control plan previously submitted to the Department. The application of water to the IRM accelerates the formation of the crust on the surface of the IRM, which is typically about 4-5 inches thick.

V. Conclusion

AZR is working cooperatively with the City of Chicago's Fire and Building Departments to address the water supply line and hydrants issue so that it can obtain the certificate of occupancy for the enclosure structure as soon as possible. Because the completion of the enclosure project depends on certain factors beyond AZR's control, such as the issuance of permits and weather conditions, AZR is requesting that the requested variance for the extension of the enclosure structure's completion deadline be tied to the issuance of the certificate of occupancy. It is not possible to predict with certain a specific date by which that certificate will be issued, but it is reasonably expected to be accomplished by June 2018. There have not been any other significant changes to the Chicago Plant's operations, and any changes relevant to the variance relief requested by AZR have been identified in this submission.

AZR respectfully submits that it has satisfied the requirements for a variance in Section 8.0 of the Rules and requests that the Commissioner grant the requested variance relief for the reasons described above.

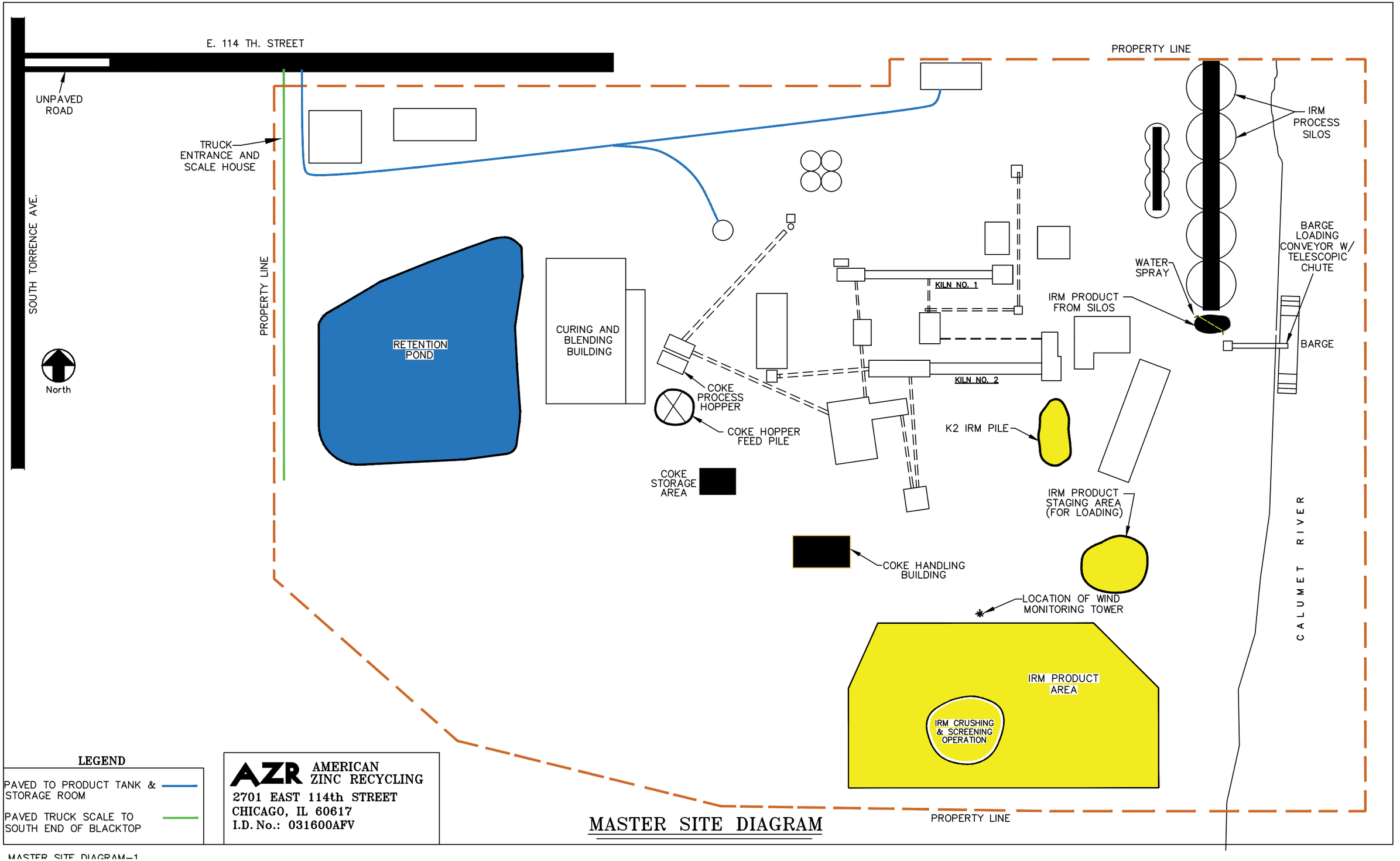
Respectfully submitted,

Brad Sutek
Plant Manager

EXHIBIT A

To Second Amendment to

AZR's Request for Variance



LEGEND

PAVED TO PRODUCT TANK & STORAGE ROOM

PAVED TRUCK SCALE TO SOUTH END OF BLACKTOP

AZR AMERICAN ZINC RECYCLING
2701 EAST 114th STREET
CHICAGO, IL 60617
I.D. No.: 031600AFV

MASTER SITE DIAGRAM

EXHIBIT B

To Second Amendment to

AZR's Request for Variance

AZR AMERICAN ZINC RECYCLING
Delivering a Sustainable Future

American Zinc Recycling – MTL-XXXX
Quarterly Visible Emissions and Opacity Summary

DATE: 9/5/17 BAGHOUSE ID#: ~~MTL~~ Quarterly Opacities

TIME: All DAY INSPECTED BY: Shannon Andrews

Instructions: This checklist is to be used by site personnel as a guide to perform visible emissions and opacity observations. Walk-around inspections should not be limited to only items included on this form. Any corrective actions required are to be reported on this form. Comments / concerns on this form should be kept brief and concise.

Quarterly Visible Emissions and Opacity Summary

Location	Type of Fugitive Emissions Source	Duration of Observation (Minutes)	Average Opacity (%)
✓ Coke Hopper X	Fugitive	30 min	0
✓ Off Spec Coke Pile X	Fugitive	30 min	0
Temp. IRM Storage Pile ~~(East of Coke Pile)~~ ~~West~~ X	N/A		
✓ Temporary IRM Storage Pile X	Fugitive	7 min	0
✓ Main IRM Storage Pile X	Fugitive	30 min	0
✓ Coke Loading Pile	Fugitive	14 min	0
West Coke Pile	N/A		
East Coke Pile	N/A		
✓ Main IRM Storage Bunkers X	Fugitive	7 min	0

Location	Type of Fugitive Emissions Source	Duration of Observation (Minutes)	Average Opacity (%)
IRM Truck Loading	N/A		
Paved Road - Main Truck Road	TRAFFIC EMISSION	60 min	0
Parking Lot	TRAFFIC EMISSION	60 min	0
Paved Road - To IRM Truck Loading	TRAFFIC EMISSION	60 min	0
Unpaved Road - Section of 114th Street	TRAFFIC EMISSION	60 min	0
Property Line Locations (Method 22)	Fugitive	1 hour	0
IRM Barge Loading Hopper and Loading Conveyor/Chute	Material Transfer	60 min	0
IRM Barge Loading Hopper	Material Transfer	60 min	0
IRM Barge Loading Conveyor/Chute	Material Transfer	60 min	0

CORRECTIVE ACTIONS TAKEN	Yes ☐	No ☒
DID YOU GENERATE A WORK ORDER	Yes ☐	No ☒

DOCUMENT REPAIRS MADE BELOW.

PLEASE ADD ANY ADDITIONAL NOTES BELOW

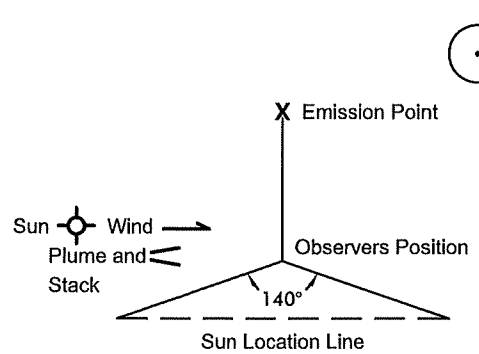
No observable emissions from opacity event

Weather 70's, W/NO @ 9 mph WNW

Visible Emissions Observations Form

SOURCE NAME: American Zinc Recycling (Chicago Plant)	
ADDRESS: 2701 East 114th Street	
CITY: Chicago	STATE: IL ZIP: 60617
PHONE	SOURCE ID NUMBER: 031600AFV
PROCESS EQUIPMENT: Coke loading pile	OPERATING MODE: loading
CONTROL EQUIPMENT: H2O Truck as needed	OPERATING MODE
DESCRIBE EMISSION POINT START: Coke loading pile	
HEIGHT ABOVE GROUND LEVEL: 12 FT	HEIGHT RELATIVE TO OBSERVER START: 12FT STOP: 12FT
DISTANCE FROM OBSERVER START: 30FT STOP: 30FT	DIRECTION FROM OBSERVER START: SW STOP: SW
DESCRIBE EMISSIONS START: None	STOP: none
EMISSION COLOR START: N/A STOP	PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☐ INTERMITTENT ☐
WATER DROPLETS PRESENT: NO ☒ YES ☐	IF WATER DROPLET PLUME: ATTACHED ☐ DETACHED ☐
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START: 3 FT	STOP: 3 FT
DESCRIBE BACKGROUND START: Sky	STOP: SKY
BACKGROUND COLOR START: Blue STOP	SKY CONDITIONS START: Cloudy STOP
WIND SPEED START: 9 STOP: 9	WIND DIRECTION START: WNW STOP
AMBIENT TEMP START: 70 STOP: 70	WET BULB TEMP / RH.percent

Source Layout Sketch



OBSERVATION DATE: 9/5/17 START TIME: STOP TIME:

MIN	SEC 0	15	30	45	MIN	SEC 0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
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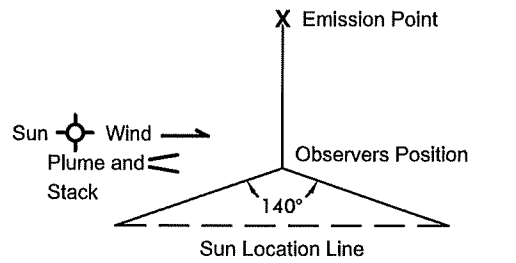
13	0	0	0	0	43				
14	0	0	0	0	44				
15					45				
16					46				
17					47				
18					48				
19					49				
20					50				
21					51				
22					52				
23					53				
24					54				
25					55				
26					56				
27					57				
28					58				
29					59				
30					60				

AVERAGE OPACITY FOR HIGHEST PERIOD: 0	NUMBER OF READINGS ABOVE: 100 % WERE: 0
RANGE OF OPACITY READINGS: 0 MINIMUM	MAXIMUM: 0
OBSERVER'S NAME (PRINT): S. Andrews	
OBSERVER'S SIGNATURE:	DATE: 9/5/17
ORGANIZATION: AZR	
COMMENTS	
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE	CERTIFIED BY: DATE
TITLE DATE	VERIFIED BY: DATE

SOURCE NAME	American Zinc Recycling (Chicago Plant)
ADDRESS	2701 East 114th Street
CITY	Chicago
STATE	IL
ZIP	60617
PHONE	
SOURCE ID NUMBER	031600AFV
PROCESS EQUIPMENT	IRM BUNKERS
OPERATING MODE	UNP
CONTROL EQUIPMENT	H2O TRUCK
OPERATING MODE	UNP
DESCRIBE EMISSION POINT START	IRM BUNKER
HEIGHT ABOVE GROUND LEVEL	8 FT
HEIGHT RELATIVE TO OBSERVER START	8 FT STOP 8 FT
DISTANCE FROM OBSERVER START	50 FT STOP 50 FT
DIRECTION FROM OBSERVER START	NNW STOP NNW
DESCRIBE EMISSIONS START	NONE STOP NONE
EMISSION COLOR START	N/A STOP
PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☒ INTERMITTENT ☐	
WATER DROPLETS PRESENT: NO ☒ YES ☐	
IF WATER DROPLET PLUME: ATTACHED ☐ DETACHED ☐	
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START	4FT STOP 4FT
DESCRIBE BACKGROUND START	TAN STOP TAN
BACKGROUND COLOR START STOP	
SKY CONDITIONS START STOP	
WIND SPEED START STOP	
WIND DIRECTION START STOP	
AMBIENT TEMP START STOP	
WET BULB TEMP	
RH.percent	

Source Layout Sketch

Draw North Arrow



OBSERVATION DATE: 9/5/17

START TIME

STOP TIME

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
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20					50				
21					51				
22					52				
23					53				
24					54				
25					55				
26					56				
27					57				
28					58				
29					59				
30					60				

AVERAGE OPACITY FOR HIGHEST PERIOD: 0

NUMBER OF READINGS ABOVE 0 % WERE 0

RANGE OF OPACITY READINGS: MINIMUM 0 MAXIMUM 0

OBSERVER'S NAME (PRINT): Shannon Andrews

OBSERVER'S SIGNATURE:

DATE: 9/5/17

ORGANIZATION: AZR

COMMENTS

I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS
SIGNATURE

TITLE

DATE

CERTIFIED BY:

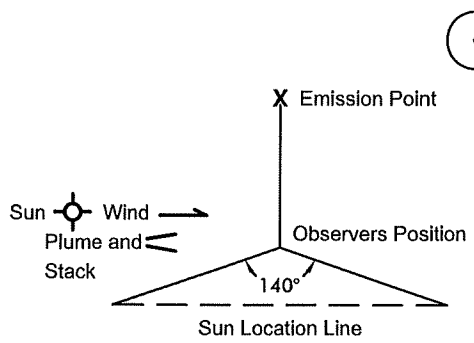
DATE

VERIFIED BY:

DATE

SOURCE NAME	American Zinc Recycling (Chicago Plant)
ADDRESS	2701 East 114th Street
CITY	Chicago
STATE	IL
ZIP	60617
PHONE	
SOURCE ID NUMBER	031600AFV
PROCESS EQUIPMENT	Barge loading Conveyor
OPERATING MODE	loading
CONTROL EQUIPMENT	H2O spray & Hopper
OPERATING MODE	working
DESCRIBE EMISSION POINT START	enclosed Conveyor in Barge
HEIGHT ABOVE GROUND LEVEL	15
HEIGHT RELATIVE TO OBSERVER START	15 STOP 15
DISTANCE FROM OBSERVER START	60 STOP 60
DIRECTION FROM OBSERVER START	West STOP
DESCRIBE EMISSIONS START	None STOP None
EMISSION COLOR START	None STOP
PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☐ INTERMITTENT ☐	
WATER DROPLETS PRESENT: NO ☐ YES ☒	IF WATER DROPLET PLUME: ATTACHED ☐ DETACHED ☒
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START	2ft STOP 2ft
DESCRIBE BACKGROUND START	Sky STOP Sky
BACKGROUND COLOR START	Blue STOP
SKY CONDITIONS START	Clear STOP
WIND SPEED START	9 STOP 9
WIND DIRECTION START	WNW STOP
AMBIENT TEMP START	70 STOP 70
WET BULB TEMP	
RH.percent	

Source Layout Sketch



OBSERVATION DATE	9/5/17
START TIME	700 a
STOP TIME	800 a

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1	0	0	0	0	31	0	0	0	0
2	0	0	0	0	32	0	0	0	0
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5	0	0	0	0	35	0	0	0	0
6	0	0	0	0	36	0	0	0	0
7	0	0	0	0	37	0	0	0	0
8	0	0	0	0	38	0	0	0	0
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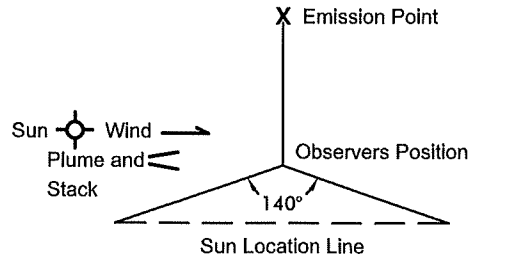
13	0	0	0	0	43	0	0	0	0
14	0	0	0	0	44	0	0	0	0
15	0	0	0	0	45	0	0	0	0
16	0	0	0	0	46	0	0	0	0
17	0	0	0	0	47	0	0	0	0
18	0	0	0	0	48	0	0	0	0
19	0	0	0	0	49	0	0	0	0
20	0	0	0	0	50	0	0	0	0
21	0	0	0	0	51	0	0	0	0
22	0	0	0	0	52	0	0	0	0
23	0	0	0	0	53	0	0	0	0
24	0	0	0	0	54	0	0	0	0
25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0
30	0	0	0	0	60	0	0	0	0

AVERAGE OPACITY FOR HIGHEST PERIOD	0
NUMBER OF READINGS ABOVE	100 % WERE 0
RANGE OF OPACITY READINGS	0 MINIMUM MAXIMUM 0
OBSERVER'S NAME (PRINT)	Shannon Andrews
OBSERVER'S SIGNATURE	
DATE	9/5/17
ORGANIZATION	AZR
COMMENTS	
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE	
TITLE	
DATE	
CERTIFIED BY:	
DATE	
VERIFIED BY:	
DATE	

SOURCE NAME	American Zinc Recycling (Chicago Plant)
ADDRESS	2701 East 114th Street
CITY	Chicago
STATE	IL
ZIP	60617
PHONE	
SOURCE ID NUMBER	031600AFV
PROCESS EQUIPMENT	Temp IRM Storage
OPERATING MODE	UNO
CONTROL EQUIPMENT	H_2O Spray
OPERATING MODE	Filling
DESCRIBE EMISSION POINT START	Stack piling
HEIGHT ABOVE GROUND LEVEL	6 Ft
HEIGHT RELATIVE TO OBSERVER START	6 STOP 6 Ft
DISTANCE FROM OBSERVER START	30 STOP 30
DIRECTION FROM OBSERVER START	NW STOP NW
DESCRIBE EMISSIONS START	None STOP None
EMISSION COLOR START	N/A STOP
PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☐ INTERMITTENT ☐	
WATER DROPLETS PRESENT: NO ☐ YES ☒	
IF WATER DROPLET PLUME: ATTACHED ☒ DETACHED ☐	
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START	3 Ft STOP 3 Ft
DESCRIBE BACKGROUND START	Coke Bld STOP Coke Bld
BACKGROUND COLOR START	Gry STOP Grey
SKY CONDITIONS START	Cloudy STOP
WIND SPEED START	9 STOP 9
WIND DIRECTION START	WNW STOP WNW
AMBIENT TEMP START	7 STOP 0
WET BULB TEMP	
RH.percent	

Source Layout Sketch

Draw North Arrow



OBSERVATION DATE	9/5/17	START TIME		STOP TIME	

MIN	SEC 0	15	30	45	MIN	SEC 0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	0	0	0	0	54				
25	0	0	0	0	55				
26	0	0	0	0	56				
27	0	0	0	0	57				
28	0	0	0	0	58				
29	0	0	0	0	59				
30	0	0	0	0	60				

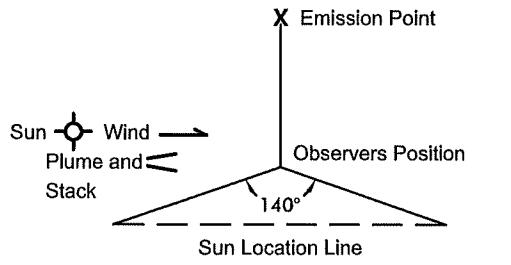
AVERAGE OPACITY FOR HIGHEST PERIOD	0
NUMBER OF READINGS ABOVE	100 % WERE 0
RANGE OF OPACITY READINGS	0 MINIMUM MAXIMUM 0
OBSERVER'S NAME (PRINT)	S. Andrews
OBSERVER'S SIGNATURE	DATE 9/5/17
ORGANIZATION	AZR
CERTIFIED BY:	DATE
VERIFIED BY:	DATE

COMMENTS	
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE	
TITLE	DATE

SOURCE NAME: American Zinc Recycling (Chicago Plant)	
ADDRESS: 2701 East 114th Street	
CITY: Chicago / STATE: IL / ZIP: 60617	
PHONE:	SOURCE ID NUMBER: 031600AFV
PROCESS EQUIPMENT: MAIN IRM pile	OPERATING MODE: UND
CONTROL EQUIPMENT: Water truck	OPERATING MODE: UND
DESCRIBE EMISSION POINT START: IRM Storage pile	
HEIGHT ABOVE GROUND LEVEL: 20 Ft	HEIGHT RELATIVE TO OBSERVER START: 20 STOP: 20
DISTANCE FROM OBSERVER START: 50 STOP: 50	DIRECTION FROM OBSERVER START: SW STOP: SW
DESCRIBE EMISSIONS START: none	STOP: none
EMISSION COLOR START: N/A STOP:	PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☐ INTERMITTENT ☐
WATER DROPLETS PRESENT: NO ☒ YES ☐	IF WATER DROPLET PLUME: ATTACHED ☐ DETACHED ☐
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START: 4Ft	STOP: 4Ft
DESCRIBE BACKGROUND START: Sky	STOP: Sky
BACKGROUND COLOR START: Blue STOP:	SKY CONDITIONS START: Blue STOP:
WIND SPEED START: 9 STOP: 9	WIND DIRECTION START: WNW STOP:
AMBIENT TEMP START: 70 STOP: 70	WET BULB TEMP: / RH.percent:

Source Layout Sketch

Draw North Arrow



OBSERVATION DATE: 9/5/17	START TIME: 1200 / STOP TIME: 1230

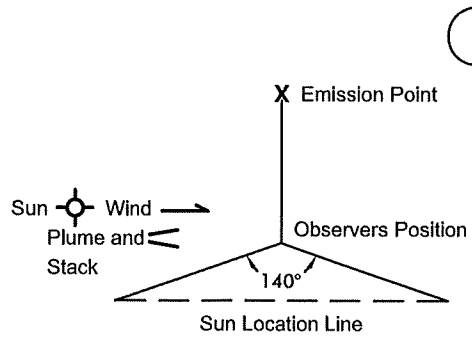
SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	0	0	0	0	54				
25	0	0	0	0	55				
26	0	0	0	0	56				
27	0	0	0	0	57				
28	0	0	0	0	58				
29	0	0	0	0	59				
30	0	0	0	0	60				

AVERAGE OPACITY FOR HIGHEST PERIOD: 0	NUMBER OF READINGS ABOVE 100 % WERE 0
RANGE OF OPACITY READINGS MINIMUM: 0	MAXIMUM: 0
OBSERVER'S NAME (PRINT): Shannon Andrews	
OBSERVER'S SIGNATURE:	DATE: 9/5/17
ORGANIZATION: AZR	
CERTIFIED BY: Aeromet	DATE:
VERIFIED BY:	DATE:

COMMENTS:	
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE	
TITLE:	DATE:

SOURCE NAME	American Zinc Recycling (Chicago Plant)
ADDRESS	2701 East 114th Street
CITY	Chicago
STATE	IL
ZIP	60617
PHONE	
SOURCE ID NUMBER	031600AFV
PROCESS EQUIPMENT	off-spec Coke pile
OPERATING MODE	UNOS
CONTROL EQUIPMENT	covered
OPERATING MODE	covered
DESCRIBE EMISSION POINT	
START	
HEIGHT ABOVE GROUND LEVEL	12 Ft
HEIGHT RELATIVE TO OBSERVER START	N/A STOP 12 Ft
DISTANCE FROM OBSERVER START	50 STOP 50
DIRECTION FROM OBSERVER START	SW STOP SW
DESCRIBE EMISSIONS START	None STOP none
EMISSION COLOR START	N/A STOP
PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☐ INTERMITTENT ☐	
WATER DROPLETS PRESENT: NO ☒ YES ☐	
IF WATER DROPLET PLUME: ATTACHED ☐ DETACHED ☐	
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START	3 Ft STOP 3 Ft
DESCRIBE BACKGROUND START	trees STOP Trees
BACKGROUND COLOR START	green STOP green
SKY CONDITIONS START	clear STOP Cloudy
WIND SPEED START	9 STOP 9
WIND DIRECTION START	WNW STOP WNW
AMBIENT TEMP START	70 STOP 70
WET BULB TEMP	
RH.percent	

Source Layout Sketch



OBSERVATION DATE	START TIME	STOP TIME
9/5/17		

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	0	0	0	0	54				
25	0	0	0	0	55				
26	0	0	0	0	56				
27	0	0	0	0	57				
28	0	0	0	0	58				
29	0	0	0	0	59				
30	0	0	0	0	60				

AVERAGE OPACITY FOR HIGHEST PERIOD	0
NUMBER OF READINGS ABOVE 100 % WERE	0
RANGE OF OPACITY READINGS MINIMUM	0
MAXIMUM	0
OBSERVER'S NAME (PRINT)	S Andrews
OBSERVER'S SIGNATURE	
DATE	9/5/17
ORGANIZATION	AZR
CERTIFIED BY:	
DATE	
VERIFIED BY:	
DATE	

COMMENTS

I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS
SIGNATURE

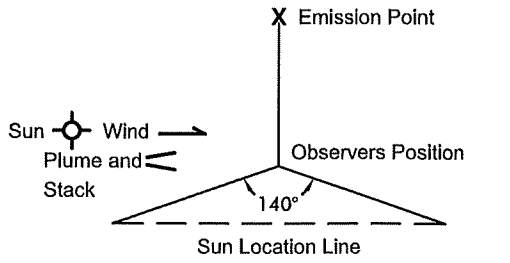
TITLE

DATE

SOURCE NAME	American Zinc Recycling (Chicago Plant)
ADDRESS	2701 East 114th Street
CITY	Chicago
STATE	IL
ZIP	60617
PHONE	
SOURCE ID NUMBER	031600AFV
PROCESS EQUIPMENT	Coke loading Hopper
OPERATING MODE	Loading
CONTROL EQUIPMENT	H_2O truck / spray (GAS Needed)
OPERATING MODE	
DESCRIBE EMISSION POINT START	front end loader
HEIGHT ABOVE GROUND LEVEL	12 ft
HEIGHT RELATIVE TO OBSERVER START	12 ft STOP 12 ft
DISTANCE FROM OBSERVER START	50 ft STOP 50 ft
DIRECTION FROM OBSERVER START	NW STOP NW
DESCRIBE EMISSIONS START	none STOP none
EMISSION COLOR START	N/A STOP N/A
PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☐ INTERMITTENT ☐	
WATER DROPLETS PRESENT: NO ☐ YES ☐	
IF WATER DROPLET PLUME: ATTACHED ☐ DETACHED ☐	
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START	3 ft above STOP 3 ft above
DESCRIBE BACKGROUND START	C&D Building STOP C&D
BACKGROUND COLOR START	Tan STOP Tan
SKY CONDITIONS START	Clear STOP
WIND SPEED START	9 STOP 9
WIND DIRECTION START	WNW STOP
AMBIENT TEMP START	70 STOP 70
WET BULB TEMP	
RH,percent	

Source Layout Sketch

Draw North Arrow



OBSERVATION DATE: 9/5/17

START TIME

STOP TIME

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	0	0	0	0	54				
25	0	0	0	0	55				
26	0	0	0	0	56				
27	0	0	0	0	57				
28	0	0	0	0	58				
29	0	0	0	0	59				
30	0	0	0	0	60				

AVERAGE OPACITY FOR HIGHEST PERIOD: 0

NUMBER OF READINGS ABOVE: 100 % WERE 0

RANGE OF OPACITY READINGS: MINIMUM 0 MAXIMUM 0

OBSERVER'S NAME (PRINT): S. Andrews

OBSERVER'S SIGNATURE:

DATE: 9/5/17

ORGANIZATION:

COMMENTS

I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS
SIGNATURE

TITLE

DATE

CERTIFIED BY:

DATE

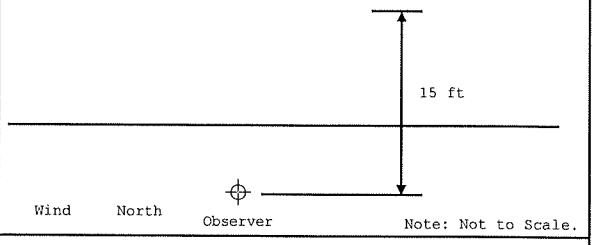
VERIFIED BY:

DATE

Method 9 Visual Emissions Observation Record Form

Paved and Unpaved Roadways

Company: AZR- Chicago	Provide sketch of observer's position relative to the source:
Address: 2701 E. 114th St	
Facility ID:	
Date: 9/5/17	
Location Description: main truck roads	
Control Device: Water truck	
Hours of Observation: 1 hr	
Observer's Name: Shannon Andrews	
Certification Date of Observer:	Observer's Affiliation: AZR
Point of Emissions: Roadway/Tire Interface	Height of Discharge Point: 0 ft



CLOCK TIME	Initial	Final
OBSERVER LOCATION		
Distance to discharge	15 ft	15 ft
Direction from discharge	90 degrees	90 degrees
Height of observation point	4 ft	4 ft
BACKGROUND DESCRIPTION	Trees / Sky	Trees / Sky
WEATHER CONDITIONS		
Wind Direction	From the	From the
Wind Speed	mph	mph
Ambient Temperature	F	F
SKY CONDITIONS (e.g., clear, overcast, % clouds, etc.)	Cloudy	Cloudy
PLUME DESCRIPTION		
Color	None	None.
Distance Visible	7 miles	7 miles
OTHER INFORMATION		

SUMMARY OF AVERAGE OPACITY

Set Number	Time Start - End	Opacity (%) Sum	Average
1	1400 - 1406	0	0
2	1406 - 1412	0	0
3	1412 - 1418	0	0
4	1418 - 1424	0	0

Readings ranged from 0 to 0 % opacity.

Average of 12 readings: 0

Method 9 Visual Emissions Observation Record Form

Paved and Unpaved Roadways (Cont.)

Company AZR Observer S. Andrews

Location Chicago FL Facility Type Industrial

Point of emissions **Roadway/Tire Interface**

Vehicle Pass #	Seconds			Vehicle Type
	0	5	10	
1	0	0	0	Truck
2	0	0	0	Pay loader
3	0	0	0	Truck
4	0	0	0	Truck

Description of Road (Paved/Unpaved, ~~Dry/Wet~~):

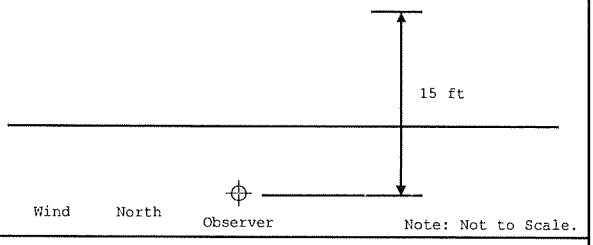
Observer Signature

9/5/17
Date

Method 9 Visual Emissions Observation Record Form

Paved and Unpaved Roadways

Company: AZR	Provide sketch of observer's position relative to the source:
Address: 2701 E. 114th St	
Facility ID:	
Date: 9/5/17	
Location Description: Unpaved Rd - 114th St	
Control Device: H_2O truck	
Hours of Observation: 60 min	
Observer's Name: S. Andrews	
Certification Date of Observer:	Observer's Affiliation:
Point of Emissions: **Roadway/Tire Interface**	Height of Discharge Point: **0 ft**



CLOCK TIME	Initial	Final
OBSERVER LOCATION		
Distance to discharge	15 ft	15 ft
Direction from discharge	90 degrees	90 degrees
Height of observation point	4 ft	4 ft
BACKGROUND DESCRIPTION	plants/sky	plants/sky
WEATHER CONDITIONS		
Wind Direction	From the WNW	WNW from the
Wind Speed	9 mph	9 mph
Ambient Temperature	70 F	70 F
SKY CONDITIONS (e.g., clear, overcast, % clouds, etc.)	cloudy	cloudy
PLUME DESCRIPTION		
Color	None	None
Distance Visible	>1 miles	>1 miles
OTHER INFORMATION		

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity (%)	
	Start - End	Sum	Average
1	330 - 336	0	0
2	336 - 342	0	0
3	342 - 354	0	0
4	354 - 406	0	0

Readings ranged from 0 to 0 % opacity.

Average of 12 readings: 0

Method 9 Visual Emissions Observation Record Form

Paved and Unpaved Roadways (Cont.)

Company AZR Observer S. Andrews

Location Chicago, IL Facility Type INDUSTRIAL

Point of emissions **Roadway/Tire Interface**

Vehicle Pass #	Seconds			Vehicle Type
	0	5	10	
1	0	0	0	TRUCK
2	0	0	0	TRUCK
3	0	0	0	CAR
4	0	0	0	SUV

Description of Road (Paved/Unpaved, Dry/Wet): moist

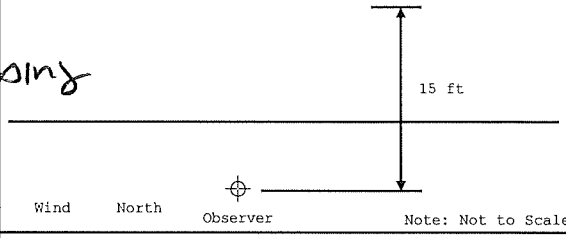
Observer Signature

9/5/17
Date

Method 9 Visual Emissions Observation Record Form

Paved and Unpaved Roadways

Company: AZR	Provide sketch of observer's position relative to the source:
Address: 2701 E. 114th St	
Facility ID:	
Date: 9/5/17	
Location Description: paved Road to IRM loading	
Control Device: H_2O truck	
Hours of Observation:	
Observer's Name: S. Andrews	
Certification Date of Observer:	Observer's Affiliation:
Point of Emissions: Roadway/Tire Interface	Height of Discharge Point: 0 ft



CLOCK TIME	Initial	Final
OBSERVER LOCATION		
Distance to discharge	15 ft	15 ft
Direction from discharge	90 degrees	90 degrees
Height of observation point	4 ft	4 ft
BACKGROUND DESCRIPTION	Sky, trees	Sky, trees
WEATHER CONDITIONS		
Wind Direction	From the W	From the W
Wind Speed	mph 16	mph 16
Ambient Temperature	F 70	F 70
SKY CONDITIONS (e.g., clear, overcast, % clouds, etc.)	Cloudy	Cloudy
PLUME DESCRIPTION		
Color	None	None
Distance Visible	miles	miles
OTHER INFORMATION		

SUMMARY OF AVERAGE OPACITY

Set Number	Time Start - End	Opacity (%) Sum	Opacity (%) Average
1	1510 - 1516	0	0
2	1516 - 1522	0	0
3	1528 - 1534	0	0
4	1534 - 1540	0	0

Readings ranged from 0 to 0 % opacity.

Average of 12 readings: 0

Method 9 Visual Emissions Observation Record Form

Paved and Unpaved Roadways (Cont.)

Company AZR Observer S. ANDREWS

Location Chicago, IL Facility Type INDUSTRIAL

Point of emissions **Roadway/Tire Interface**

Vehicle Pass #	Seconds			Vehicle Type
	0	5	10	
1	0	0	0	TRUCK
2	0	0	0	TRUCK
3	0	0	0	PAYLOADER
4	0	0	0	FORK LIFT

Description of Road (Paved/Unpaved, Dry/Wet): MOIST

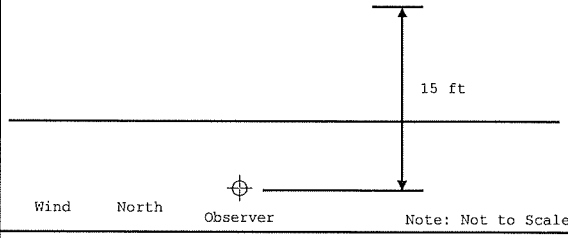
Observer Signature

9/5/17
Date

Method 9 Visual Emissions Observation Record Form

Paved and Unpaved Roadways

Company: AZR	Provide sketch of observer's position relative to the source:
Address: 2701 E. 114th St Chicago	
Facility ID:	
Date: 9/5/17	
Location Description: Parking LOT	
Control Device: H_2O Truck	
Hours of Observation: 60 min	
Observer's Name: S. Andrews	
Certification Date of Observer:	Observer's Affiliation:
Point of Emissions: **Roadway/Tire Interface**	Height of Discharge Point: **0 ft**



CLOCK TIME	Initial	Final
OBSERVER LOCATION		
Distance to discharge	15 ft	15 ft
Direction from discharge	90 degrees	90 degrees
Height of observation point	4 ft	4 ft
BACKGROUND DESCRIPTION	Sky Foliage	Sky, Foliage
WEATHER CONDITIONS		
Wind Direction	From the	From the
Wind Speed	mph	mph
Ambient Temperature	F	F
SKY CONDITIONS (e.g., clear, overcast, % clouds, etc.)	Cloudy, 70's	Cloudy, 70's
PLUME DESCRIPTION		
Color	None	None.
Distance Visible	7 miles	7 miles
OTHER INFORMATION		

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity (%)	
	Start - End	Sum	Average
1	1440 - 1446	0	0
2	1446 - 1452	0	0
3	1452 - 1458	0	0
4	1458 - 1503	0	0

Readings ranged from 0 to 0 % opacity.

Average of 12 readings: 0

40 CFR 60, App. A, Method 9

Method 9 Visual Emissions Observation Record Form

Paved and Unpaved Roadways (Cont.)

Company AZR Observer S. Andrews

Location PARKING LOT Facility Type INDUSTRIAL

Point of emissions **Roadway/Tire Interface**

Vehicle Pass #	Seconds			Vehicle Type
	0	5	10	
1	0	0	0	light Truck
2	0	0	0	CAR
3	0	0	0	CAR
4	0	0	0	SUV

Description of Road (Paved/Unpaved, Dry/Wet): UNPAVED, DAMP

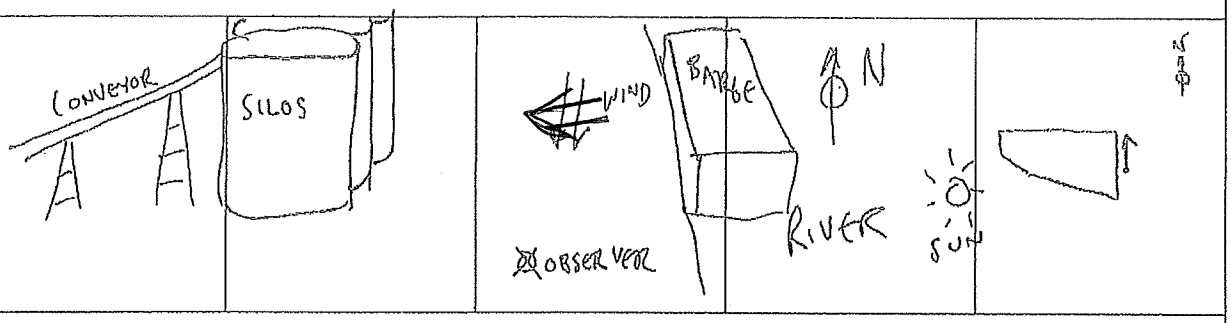
Observer Signature

9/5/17
Date

FUGITIVE OR SMOKE EMISSION INSPECTION
OUTSIDE LOCATION – METHOD 22

Company Horsehead Corporation (Chicago Plant)	**Observer** S. Andrews
Location Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	**Affiliation** AZR
Company Rep. Shannon Andrews	**Date** 9/5/17
Sky Conditions Cloudy	**Wind Direction** West
Precipitation None	**Wind Speed** 16 mph
Industry Secondary Refining of Non Ferrous Metals	**Process Unit** Property Line (1/8)

Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.



OBSERVATIONS

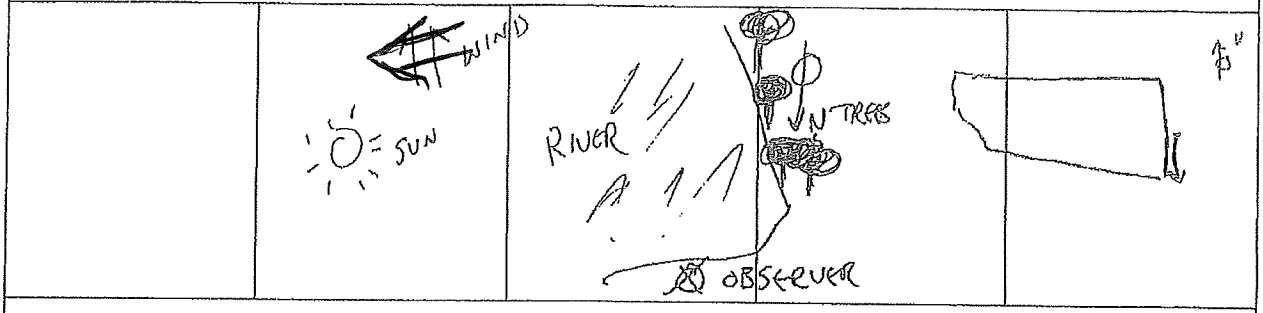
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
Begin Observation	1120	2 min	0.0
	1122		
	1124		
	1126		
	1128		
	1130		
End Observation			

Total Sample Time:	10 min
Total Emission Time:	0
Emission Frequency: (Total Emission Time/Total Sample Time) x 100%	0

FUGITIVE OR SMOKE EMISSION INSPECTION
OUTSIDE LOCATION – METHOD 22

Company Horsehead Corporation (Chicago Plant)	Observer S. Andrews
Location Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	Affiliation AZR
Company Rep. Shannon Andrews	Date 9/5/17
Sky Conditions Cloudy	Wind Direction West
Precipitation none	Wind Speed 16 mph
Industry Secondary Refining of Non Ferrous Metals	Process Unit Property Line (2/8)

Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.



OBSERVATIONS

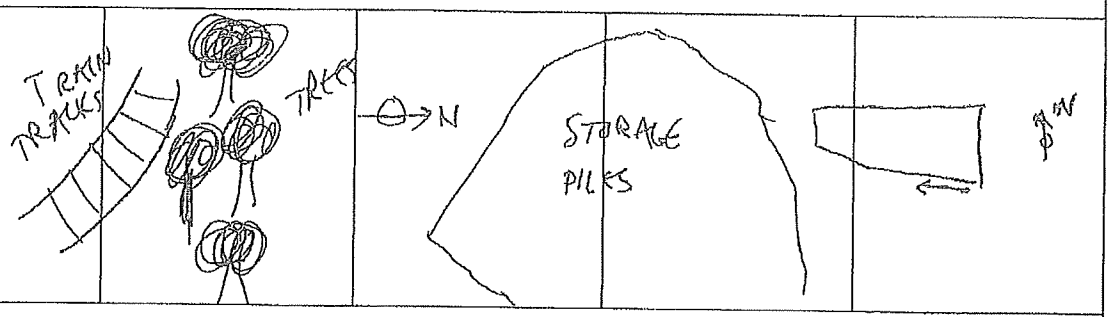
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
Begin Observation	1100	2 min	0.0
	1102		
	1104		
	1106		
	1108		
	1110		
End Observation			

Total Sample Time:	10min
Total Emission Time:	0
Emission Frequency: (Total Emission Time/Total Sample Time) x 100%	0

FUGITIVE OR SMOKE EMISSION INSPECTION
OUTSIDE LOCATION – METHOD 22

Company Horsehead Corporation (Chicago Plant)	Observer S. Andrews
Location Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	Affiliation AZR
Company Rep. Shannon Andrews	Date 9/5/17
Sky Conditions Cloudy	Wind Direction West
Precipitation None	Wind Speed 16 mph.
Industry Secondary Refining of Non Ferrous Metals	Process Unit Property Line (3/4)

Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.



OBSERVATIONS

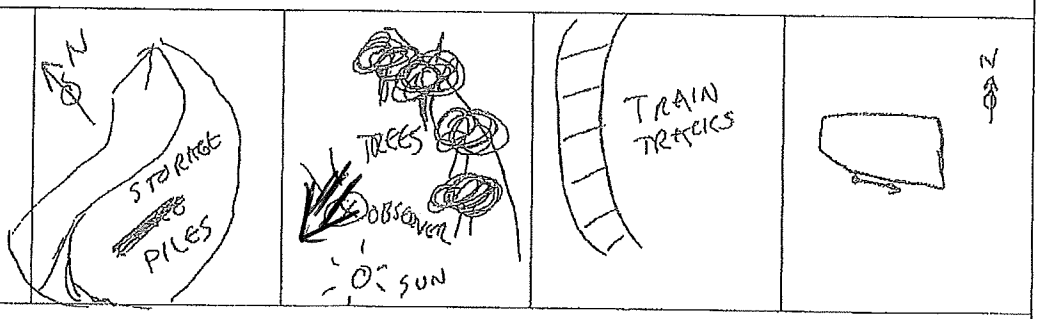
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
Begin Observation	10:30	2 min	0
	1032	↓	↓
	1034		
	1036		
	1038		
	1040		
End Observation			

Total Sample Time:	10min.
Total Emission Time:	0
Emission Frequency: (Total Emission Time/Total Sample Time) x 100%	0

FUGITIVE OR SMOKE EMISSION INSPECTION
OUTSIDE LOCATION – METHOD 22

Company AZR ~~Horsehead Corporation~~ (Chicago Plant)	Observer S. Andrews
Location Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	Affiliation AZR
Company Rep. Shannon Andrews	Date 9/5/17
Sky Conditions Cloudy	Wind Direction West
Precipitation None	Wind Speed 16 mph
Industry Secondary Refining of Non Ferrous Metals	Process Unit Property Line (N/E)

Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.



OBSERVATIONS

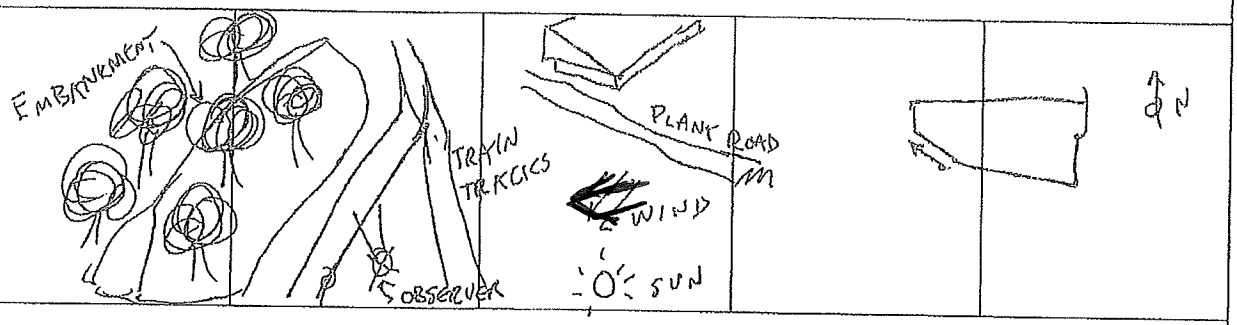
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
Begin Observation	1010	2 min	0.0
	1012	↓	↓
	1014		
	1016		
	1018		
	1020		
End Observation			

Total Sample Time:	10 min
Total Emission Time:	0
Emission Frequency: (Total Emission Time/Total Sample Time) x 100%	0

FUGITIVE OR SMOKE EMISSION INSPECTION
OUTSIDE LOCATION – METHOD 22

Company Horsehead Corporation (Chicago Plant)	**Observer** S. Andrews
Location Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	**Affiliation** AZR
Company Rep. Shannon Andrews	**Date** 9/15/17
Sky Conditions Cloudy	**Wind Direction** West
Precipitation None	**Wind Speed** 16 mph
Industry Secondary Refining of Non Ferrous Metals	**Process Unit** Property Line (5/8)

Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.



OBSERVATIONS

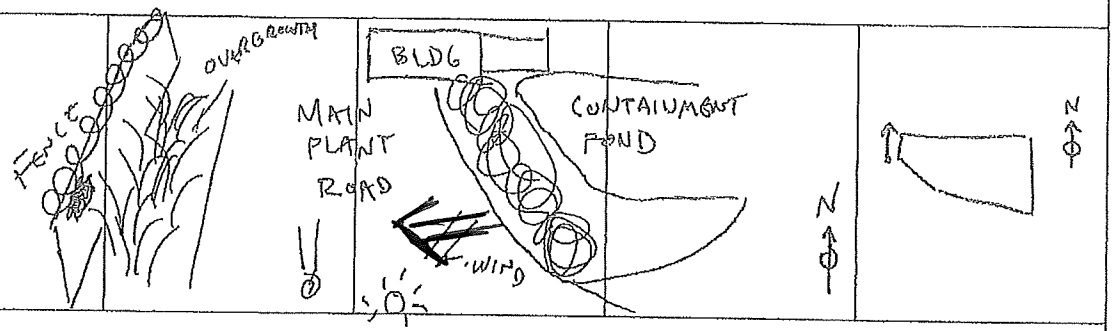
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
Begin Observation	930	2 min	0
	932		
	934		
	936		
	938		
	940		
End Observation			

Total Sample Time:	10 min
Total Emission Time:	0
Emission Frequency: (Total Emission Time/Total Sample Time) x 100%	0

FUGITIVE OR SMOKE EMISSION INSPECTION
OUTSIDE LOCATION – METHOD 22

Company Horsehead Corporation (Chicago Plant)	Observer S. Andrews
Location Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	Affiliation AER
Company Rep. Shannon Andrews	Date 9/5/17
Sky Conditions Cloudy	Wind Direction West
Precipitation None	Wind Speed 16 mph
Industry Secondary Refining of Non Ferrous Metals	Process Unit Property Line (6/8)

Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.



OBSERVATIONS

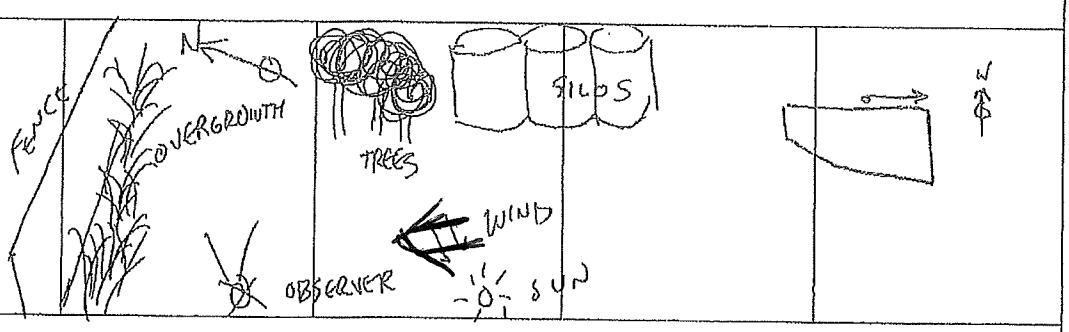
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
Begin Observation	910a	2 min	00
	912	↓	↓
	914		
	916		
	918		
	920		
End Observation	10 min		

Total Sample Time:	10 min
Total Emission Time:	0
Emission Frequency: (Total Emission Time/Total Sample Time) x 100%	0

FUGITIVE OR SMOKE EMISSION INSPECTION
OUTSIDE LOCATION – METHOD 22

Company AZR ~~Horsehead Corporation (Chicago Plant)~~	Observer S. Andrews
Location Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	Affiliation AZR
Company Rep. S. Andrews	Date 9/5/17
Sky Conditions Cloudy	Wind Direction West
Precipitation None	Wind Speed 16 mph
Industry Secondary Refining of Non Ferrous Metals	Process Unit Property line (B/B)

Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.



OBSERVATIONS

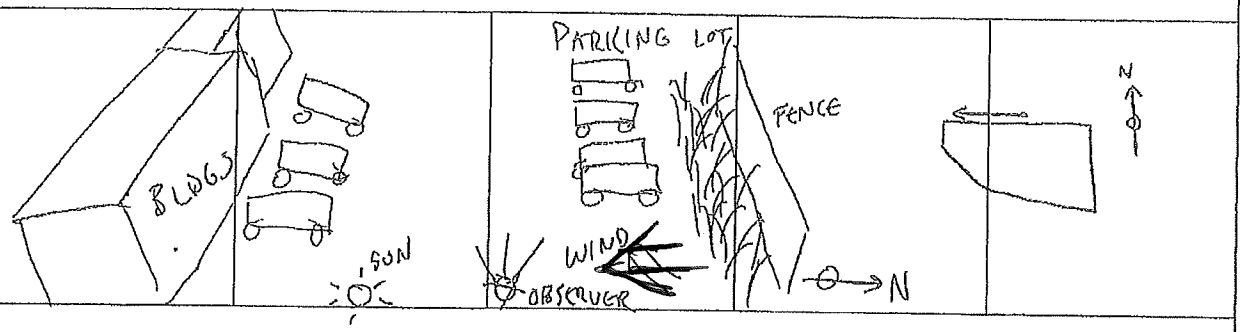
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
Begin Observation	8:30 am	2 min	00:00
	8:32 am		
	8:34		
	8:36		
	8:38		
End Observation			

Total Sample Time:	5 min
Total Emission Time:	0
Emission Frequency: (Total Emission Time/Total Sample Time) x 100%	0

FUGITIVE OR SMOKE EMISSION INSPECTION
OUTSIDE LOCATION – METHOD 22

Company Horsehead Corporation (Chicago Plant)	Observer S. Andrews
Location Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	Affiliation AZR
Company Rep. Shannon Andrews	Date 9/5/17
Sky Conditions Cloudy	Wind Direction West
Precipitation None	Wind Speed 16 MPH
Industry Secondary Refining of Non Ferrous Metals	Process Unit Property line (7/8)

Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.



OBSERVATIONS

	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
Begin Observation	8:50	2 min	0
	8 52		
	8 54		
	8 56		
	8 58		
End Observation	10 min		

Total Sample Time:	8
Total Emission Time:	0
Emission Frequency: (Total Emission Time/Total Sample Time) x 100%	0

AZR AMERICAN ZINC RECYCLING
Delivering a Sustainable Future

American Zinc Recycling – MTL-XXXX
Quarterly Visible Emissions and Opacity Summary

DATE: 11/15/17 **BAGHOUSE ID#:** Quarterly opacity

TIME: ALL DAY **INSPECTED BY:** S. Andrews

Instructions: This checklist is to be used by site personnel as a guide to perform visible emissions and opacity observations. Walk-around inspections should not be limited to only items included on this form. Any corrective actions required are to be reported on this form. Comments / concerns on this form should be kept brief and concise.

Quarterly Visible Emissions and Opacity Summary

Location	Type of Fugitive Emissions Source	Duration of Observation (Minutes)	Average Opacity (%)
Coke Hopper ✓	Fugitive	7 min	0
Off Spec Coke Pile ✓	Fugitive	7 min	0
Temp. IRM Storage Pile (East of Coke Pile)	N/A		
Temporary IRM Storage Pile	Fugitive	14 min	0
Main IRM Storage Pile ✓	Fugitive	7 min	0
Coke Loading Pile ✓	Fugitive	14 min	0
West Coke Pile –	N/A		
East Coke Pile –	N/A		
Main IRM Storage Bunkers ✓	Fugitive	14 min	0

Location	Type of Fugitive Emissions Source	Duration of Observation (Minutes)	Average Opacity (%)
IRM Truck Loading	N/A		
Paved Road - Main Truck Road	Vehicle Traffic	30 min	0
Parking Lot	Vehicle Traffic	30 min	0
Paved Road - To IRM Truck Loading	Vehicle Traffic	45 min	0
Unpaved Road - Section of 114th Street	Vehicle Traffic	45 min	0
Property Line Locations (Method 22)	Fugitive	60 min	0
IRM Barge Loading Hopper and Loading Conveyor/Chute	Material Transfer	60 min	0
IRM Barge Loading Hopper	Material Transfer	60 min	0
IRM Barge Loading Conveyor/Chute	Material Transfer	60 min	0

CORRECTIVE ACTIONS TAKEN	**Yes** ☐	**No** ☒
DID YOU GENERATE A WORK ORDER	**Yes** ☐	**No** ☒

DOCUMENT REPAIRS MADE BELOW.

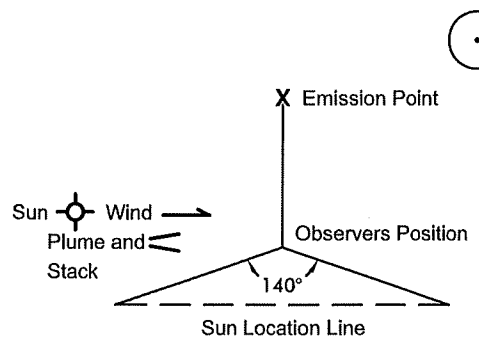
PLEASE ADD ANY ADDITIONAL NOTES BELOW

Weather 50° Wind (9) 12 mph, West

Visible Emissions Observations Form

SOURCE NAME	American Zinc Recycling (Chicago Plant)
ADDRESS	2701 East 114th Street
CITY	Chicago
STATE	IL
ZIP	60617
PHONE	
SOURCE ID NUMBER	031600AFV
PROCESS EQUIPMENT	Temporary Iron pile
OPERATING MODE	UNO
CONTROL EQUIPMENT	H2O truck
OPERATING MODE	UNO
DESCRIBE EMISSION POINT START	Temp Iron Storage pile
HEIGHT ABOVE GROUND LEVEL	7 ft
HEIGHT RELATIVE TO OBSERVER START	7 STOP 7
DISTANCE FROM OBSERVER START	25 STOP 25
DIRECTION FROM OBSERVER START	NW STOP NW
DESCRIBE EMISSIONS START	None STOP None
EMISSION COLOR START	N/A STOP
PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☐ INTERMITTENT ☐	
WATER DROPLETS PRESENT: NO ☒ YES ☐	
IF WATER DROPLET PLUME: ATTACHED ☐ DETACHED ☐	
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START	3 ft STOP 3ft
DESCRIBE BACKGROUND START	Coke Build STOP Coke Build
BACKGROUND COLOR START	Grey STOP
SKY CONDITIONS START	Overcast
WIND SPEED START	12 STOP 12
WIND DIRECTION START	West STOP
AMBIENT TEMP START	50 STOP 50
WET BULB TEMP	
RH,percent	

Source Layout Sketch



OBSERVATION DATE	START TIME	STOP TIME
11/15/17		

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15					45				
16					46				
17					47				
18					48				
19					49				
20					50				
21					51				
22					52				
23					53				
24					54				
25					55				
26					56				
27					57				
28					58				
29					59				
30					60				

AVERAGE OPACITY FOR HIGHEST PERIOD	0
NUMBER OF READINGS ABOVE	120 % WERE 0
RANGE OF OPACITY READINGS MINIMUM	0
MAXIMUM	0
OBSERVER'S NAME (PRINT)	S. Andrews
OBSERVER'S SIGNATURE	
DATE	11/15/17
ORGANIZATION	
COMMENTS	
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE	
TITLE	
DATE	
CERTIFIED BY:	
DATE	
VERIFIED BY:	
DATE	

Visible Emissions Observations Form

SOURCE NAME: American Zinc Recycling (Chicago Plant)

ADDRESS: 2701 East 114th Street

CITY: Chicago | STATE: IL | ZIP: 60617

PHONE:

SOURCE ID NUMBER: 031600AFV

PROCESS EQUIPMENT: Coke Hopper | OPERATING MODE: loading

CONTROL EQUIPMENT: H_2O Truck / H_2O Spray | OPERATING MODE: As needed

DESCRIBE EMISSION POINT START: Front End loader

HEIGHT ABOVE GROUND LEVEL: 12 Ft | HEIGHT RELATIVE TO OBSERVER START: 12 STOP: 12

DISTANCE FROM OBSERVER START: 30Ft STOP: 30Ft | DIRECTION FROM OBSERVER START: NW STOP: NW

DESCRIBE EMISSIONS START: None STOP: None

EMISSION COLOR START: N/A STOP: | PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☐ INTERMITTENT ☐

WATER DROPLETS PRESENT: NO ☒ YES ☐ | IF WATER DROPLET PLUME: ATTACHED ☐ DETACHED ☐

POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START: 3Ft STOP: 3 Ft

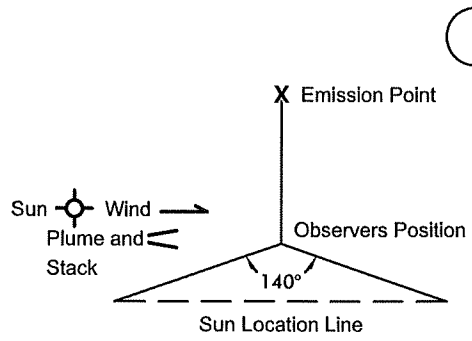
DESCRIBE BACKGROUND START: C&B Building STOP:

BACKGROUND COLOR START: TN STOP: | SKY CONDITIONS START: STOP:

WIND SPEED START: 12 STOP: 12 | WIND DIRECTION START: SW STOP:

AMBIENT TEMP START: 50 STOP: 50 | WET BULB TEMP: | RH.percent:

Source Layout Sketch



OBSERVATION DATE: 11/15/17	START TIME	STOP TIME

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8					38				
9					39				
10					40				
11					41				
12					42				
13					43				
14					44				
15					45				
16					46				
17					47				
18					48				
19					49				
20					50				
21					51				
22					52				
23					53				
24					54				
25					55				
26					56				
27					57				
28					58				
29					59				
30					60				

AVERAGE OPACITY FOR HIGHEST PERIOD: 0 | NUMBER OF READINGS ABOVE: 100 % WERE 0

RANGE OF OPACITY READINGS: MINIMUM 0 MAXIMUM 0

OBSERVER'S NAME (PRINT): S. Andrews

COMMENTS:

OBSERVER'S SIGNATURE: | DATE: 11/15/17

ORGANIZATION: AZR

I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS
SIGNATURE:

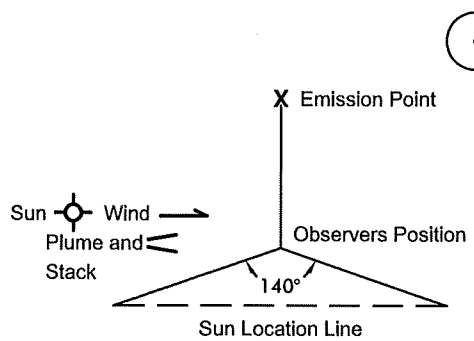
TITLE: | DATE:

CERTIFIED BY: | DATE:

VERIFIED BY: | DATE:

SOURCE NAME	American Zinc Recycling (Chicago Plant)
ADDRESS	2701 East 114th Street
CITY	Chicago
STATE	IL
ZIP	60617
PHONE	
SOURCE ID NUMBER	031600AFV
PROCESS EQUIPMENT	Coke loading pile.
OPERATING MODE	loading
CONTROL EQUIPMENT	H2O Truck/Spray
OPERATING MODE	As Needed
DESCRIBE EMISSION POINT START	Coke loading pile.
HEIGHT ABOVE GROUND LEVEL	8 ft
HEIGHT RELATIVE TO OBSERVER START	8 STOP 8
DISTANCE FROM OBSERVER START	25' STOP 25
DIRECTION FROM OBSERVER START	SW STOP SW
DESCRIBE EMISSIONS START	None STOP None
EMISSION COLOR START	N/A STOP
PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☐ INTERMITTENT ☐	
WATER DROPLETS PRESENT: NO ☒ YES ☐	
IF WATER DROPLET PLUME: ATTACHED ☐ DETACHED ☐	
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START	3 Ft STOP 3 Ft
DESCRIBE BACKGROUND START	Sky STOP Sky
BACKGROUND COLOR START	Blue/Grey STOP
SKY CONDITIONS START	Blue/Grey STOP
WIND SPEED START	12 STOP 12
WIND DIRECTION START	South STOP
AMBIENT TEMP START	50 STOP 50
WET BULB TEMP	
RH.percent	

Source Layout Sketch



OBSERVATION DATE	START TIME	STOP TIME
11/15/17		

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15					45				
16					46				
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22					52				
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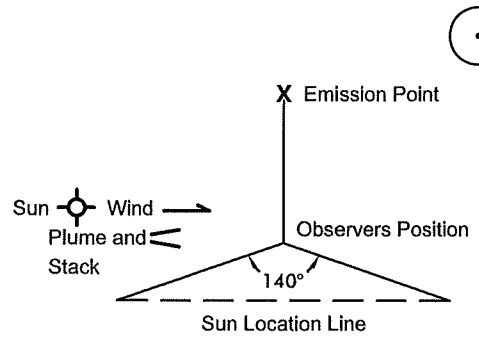
24					54				
25					55				
26					56				
27					57				
28					58				
29					59				
30					60				

AVERAGE OPACITY FOR HIGHEST PERIOD	0
NUMBER OF READINGS ABOVE 100% WERE	0
RANGE OF OPACITY READINGS MINIMUM	0
MAXIMUM	0
OBSERVER'S NAME (PRINT)	S. Andrews
OBSERVER'S SIGNATURE	
DATE	11/15/17
ORGANIZATION	AZE
COMMENTS	
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE	
TITLE	
DATE	
CERTIFIED BY:	
DATE	
VERIFIED BY:	
DATE	

Visible Emissions Observations Form

SOURCE NAME	American Zinc Recycling (Chicago Plant)
ADDRESS	2701 East 114th Street
CITY	Chicago
STATE	IL
ZIP	60617
PHONE	
SOURCE ID NUMBER	031600AFV
PROCESS EQUIPMENT	MAIN FRM pile
OPERATING MODE	UND
CONTROL EQUIPMENT	H2O truck
OPERATING MODE	Watered.
DESCRIBE EMISSION POINT START	MAIN FRM pile
HEIGHT ABOVE GROUND LEVEL	18 Ft
HEIGHT RELATIVE TO OBSERVER START	18 STOP 18
DISTANCE FROM OBSERVER START	45 STOP 45
DIRECTION FROM OBSERVER START	SW STOP SW
DESCRIBE EMISSIONS START	NONE STOP NONE
EMISSION COLOR START	N/A STOP
PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☐ INTERMITTENT ☐	
WATER DROPLETS PRESENT: NO ☐ YES ☐	
IF WATER DROPLET PLUME: ATTACHED ☐ DETACHED ☐	
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START	3 Ft STOP 3 Ft
DESCRIBE BACKGROUND START	Sky STOP Sky
BACKGROUND COLOR START	Grey STOP Blk
SKY CONDITIONS START	STOP
WIND SPEED START	12 STOP 12
WIND DIRECTION START	SW STOP
AMBIENT TEMP START	50 STOP 50
WET BULB TEMP	
RH.percent	

Source Layout Sketch



OBSERVATION DATE	START TIME	STOP TIME
11/15/17		

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8					38				
9					39				
10					40				
11					41				
12					42				
13					43				
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26					56				
27					57				
28					58				
29					59				
30					60				

AVERAGE OPACITY FOR HIGHEST PERIOD	0
NUMBER OF READINGS ABOVE	100 % WERE 0
RANGE OF OPACITY READINGS	0 MINIMUM MAXIMUM 0
OBSERVER'S NAME (PRINT)	S. Andrews
OBSERVER'S SIGNATURE	
DATE	11/15/17
ORGANIZATION	AZR
CERTIFIED BY:	
DATE	
VERIFIED BY:	
DATE	

COMMENTS

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SIGNATURE

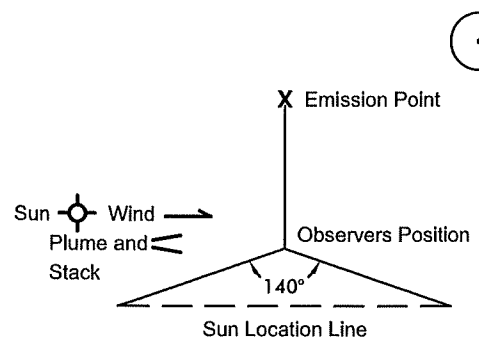
TITLE

DATE

Visible Emissions Observations Form

SOURCE NAME: American Zinc Recycling (Chicago Plant)	
ADDRESS: 2701 East 114th Street	
CITY: Chicago	STATE: IL ZIP: 60617
PHONE	SOURCE ID NUMBER: 031600AFV
PROCESS EQUIPMENT: Off Spec Coke Pile	OPERATING MODE: UNO
CONTROL EQUIPMENT: Covered	OPERATING MODE: UNO
DESCRIBE EMISSION POINT START: Coke Pile	
HEIGHT ABOVE GROUND LEVEL: 12	HEIGHT RELATIVE TO OBSERVER START: 12 STOP: 12
DISTANCE FROM OBSERVER START: 45 STOP: 45	DIRECTION FROM OBSERVER START: SW STOP: SW
DESCRIBE EMISSIONS START: None	STOP: None
EMISSION COLOR START: N/A STOP	PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☐ INTERMITTENT ☐
WATER DROPLETS PRESENT: NO ☐ YES ☐	IF WATER DROPLET PLUME: ATTACHED ☐ DETACHED ☐
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START: 3 Ft	STOP: 3 Ft
DESCRIBE BACKGROUND START: Trees	STOP: Trees
BACKGROUND COLOR START: Green STOP	SKY CONDITIONS START: Cloudy STOP
WIND SPEED START: 12 STOP: 12	WIND DIRECTION START: South STOP
AMBIENT TEMP START: 50 STOP: 50	WET BULB TEMP: RH.percent

Source Layout Sketch



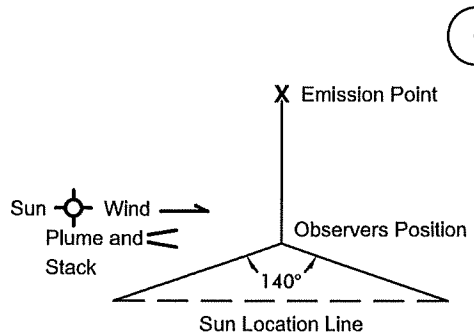
OBSERVATION DATE: 11/15/17	START TIME	STOP TIME

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8					38				
9					39				
10					40				
11					41				
12					42				
13					43				
14					44				
15					45				
16					46				
17					47				
18					48				
19					49				
20					50				
21					51				
22					52				
23					53				
24					54				
25					55				
26					56				
27					57				
28					58				
29					59				
30					60				

AVERAGE OPACITY FOR HIGHEST PERIOD: 0	NUMBER OF READINGS ABOVE: 100 % WERE: 0
RANGE OF OPACITY READINGS: 0 MINIMUM	MAXIMUM: 0
OBSERVER'S NAME (PRINT): S. Andrews	
OBSERVER'S SIGNATURE:	DATE: 11/15/17
ORGANIZATION: AZR.	
COMMENTS	
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE	CERTIFIED BY: DATE
TITLE DATE	VERIFIED BY: DATE

SOURCE NAME: American Zinc Recycling (Chicago Plant)	OBSERVATION DATE: 11/15/17
ADDRESS: 2701 East 114th Street	START TIME:
CITY: Chicago / STATE: IL / ZIP: 60617	STOP TIME:
PHONE:	SOURCE ID NUMBER: 031600AFV
PROCESS EQUIPMENT: IRM Bunkers	OPERATING MODE: UNO
CONTROL EQUIPMENT: H2O Truck	OPERATING MODE: UNO
DESCRIBE EMISSION POINT START: IRM Bunkers	
HEIGHT ABOVE GROUND LEVEL: 9 ft	HEIGHT RELATIVE TO OBSERVER START: 9 STOP: 9
DISTANCE FROM OBSERVER START: 35 STOP: 35	DIRECTION FROM OBSERVER START: NNW STOP: NNW
DESCRIBE EMISSIONS START: NONE	STOP: NONE.
EMISSION COLOR START: STOP:	PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☐ INTERMITTENT ☐
WATER DROPLETS PRESENT: NO ☐ YES ☐	IF WATER DROPLET PLUME: ATTACHED ☐ DETACHED ☐
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START: 3 ft	STOP: 3ft
DESCRIBE BACKGROUND START: C&B	STOP: C&B
BACKGROUND COLOR START: TN STOP: TAN	SKY CONDITIONS START: Cloudy STOP:
WIND SPEED START: 12 STOP: 12	WIND DIRECTION START: S STOP:
AMBIENT TEMP START: 50 STOP: 57	WET BULB TEMP: RH.percent:

Source Layout Sketch

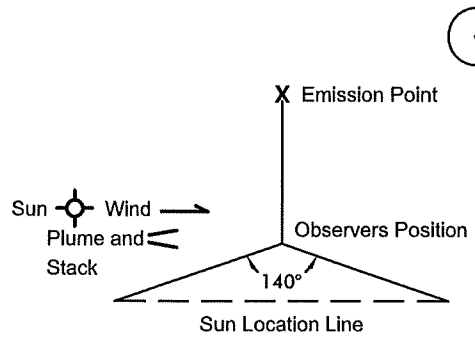


SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15					45				
16					46				
17					47				
18					48				
19					49				
20					50				
21					51				
22					52				
23					53				
24					54				
25					55				
26					56				
27					57				
28					58				
29					59				
30					60				

AVERAGE OPACITY FOR HIGHEST PERIOD: 0	NUMBER OF READINGS ABOVE: 100 % WERE: 0
RANGE OF OPACITY READINGS: MINIMUM: 0	MAXIMUM: 0
OBSERVER'S NAME (PRINT): S ANDREWS	
OBSERVER'S SIGNATURE:	DATE: 11/15/17
ORGANIZATION: AZR.	
COMMENTS:	
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE:	CERTIFIED BY: / DATE:
TITLE: / DATE:	VERIFIED BY: / DATE:

SOURCE NAME	American Zinc Recycling (Chicago Plant)
ADDRESS	2701 East 114th Street
CITY	Chicago
STATE	IL
ZIP	60617
PHONE	
SOURCE ID NUMBER	031600AFV
PROCESS EQUIPMENT	Barge loading conveyor
OPERATING MODE	Hopper — loading
CONTROL EQUIPMENT	H2O Truck / Hose
OPERATING MODE	Using
DESCRIBE EMISSION POINT START	conveyor system
HEIGHT ABOVE GROUND LEVEL	15 ft
HEIGHT RELATIVE TO OBSERVER START	15 STOP 15
DISTANCE FROM OBSERVER START	60 STOP 60
DIRECTION FROM OBSERVER START	West STOP
DESCRIBE EMISSIONS START	None STOP None
EMISSION COLOR START	N/A STOP
PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☐ INTERMITTENT ☐	
WATER DROPLETS PRESENT: NO ☐ YES ☒	
IF WATER DROPLET PLUME: ATTACHED ☒ DETACHED ☐	
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START	3 ft STOP 3 ft
DESCRIBE BACKGROUND START	Sky STOP Sky
BACKGROUND COLOR START	Grey/Blue STOP
SKY CONDITIONS START	Cloudy STOP
WIND SPEED START	12 STOP 12
WIND DIRECTION START	South STOP
AMBIENT TEMP START	50 STOP 50
WET BULB TEMP	
RH.percent	

Source Layout Sketch



OBSERVATION DATE 11/15/17 START TIME 7:15 STOP TIME 8:15

MIN	0	15	30	45	MIN	0	15	30	45
1	0	0	0	0	31	0	0	0	0
2	0	0	0	0	32	0	0	0	0
3	0	0	0	0	33	0	0	0	0
4	0	0	0	0	34	0	0	0	0
5	0	0	0	0	35	0	0	0	0
6	0	0	0	0	36	0	0	0	0
7	0	0	0	0	37	0	0	0	0
8	0	0	0	0	38	0	0	0	0
9	0	0	0	0	39	0	0	0	0
10	0	0	0	0	40	0	0	0	0
11	0	0	0	0	41	0	0	0	0
12	0	0	0	0	42	0	0	0	0
13	0	0	0	0	43	0	0	0	0
14	0	0	0	0	44	0	0	0	0
15	0	0	0	0	45	0	0	0	0
16	0	0	0	0	46	0	0	0	0
17	0	0	0	0	47	0	0	0	0
18	0	0	0	0	48	0	0	0	0
19	0	0	0	0	49	0	0	0	0
20	0	0	0	0	50	0	0	0	0
21	0	0	0	0	51	0	0	0	0
22	0	0	0	0	52	0	0	0	0
23	0	0	0	0	53	0	0	0	0
24	0	0	0	0	54	0	0	0	0
25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0
30	0	0	0	0	60	0	0	0	0

AVERAGE OPACITY FOR HIGHEST PERIOD	0
NUMBER OF READINGS ABOVE	0 % WERE 0
RANGE OF OPACITY READINGS MINIMUM	0
MAXIMUM	0
OBSERVER'S NAME (PRINT)	S. Andrews
OBSERVER'S SIGNATURE	
DATE	11/15/17
ORGANIZATION	AZR
CERTIFIED BY:	
DATE	
VERIFIED BY:	
DATE	

COMMENTS

I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS
SIGNATURE

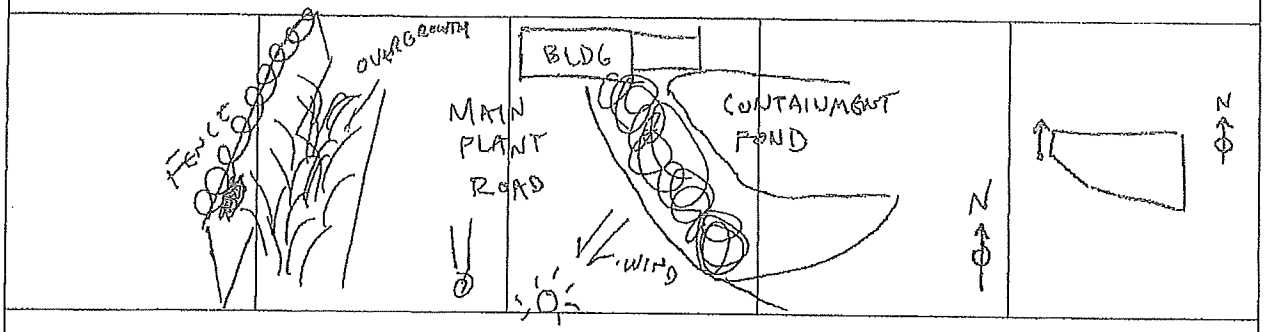
TITLE

DATE

FUGITIVE OR SMOKE EMISSION INSPECTION
OUTSIDE LOCATION – METHOD 22

Company Horsehead Corporation (Chicago Plant)	**Observer** S Andrews
Location Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	**Affiliation** AER
Company Rep. Shannon Andrews	**Date** 11/15/17
Sky Conditions Cloudy	**Wind Direction** West
Precipitation None	**Wind Speed** 12 mph
Industry Secondary Refining of Non Ferrous Metals	**Process Unit** Property Line (6/8)

Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.



OBSERVATIONS

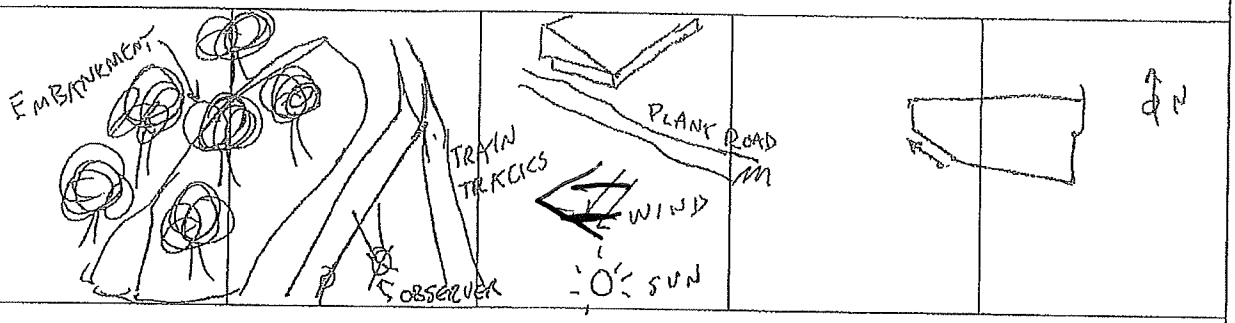
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
Begin Observation	1455	2min	0
	1457		
	1459		
	1500		
	1503		
End Observation	10min		

Total Sample Time:	10 min
Total Emission Time:	0
Emission Frequency: (Total Emission Time/Total Sample Time) x 100%	0

FUGITIVE OR SMOKE EMISSION INSPECTION
OUTSIDE LOCATION – METHOD 22

Company Horsehead Corporation (Chicago Plant)	Observer S. Andrews
Location Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	Affiliation AZR
Company Rep. Shannon Andrews	Date 11/15/17
Sky Conditions Clouds	Wind Direction West
Precipitation Slight Misting	Wind Speed 12 mph
Industry Secondary Refining of Non Ferrous Metals	Process Unit Property Line (5/8)

Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.



OBSERVATIONS

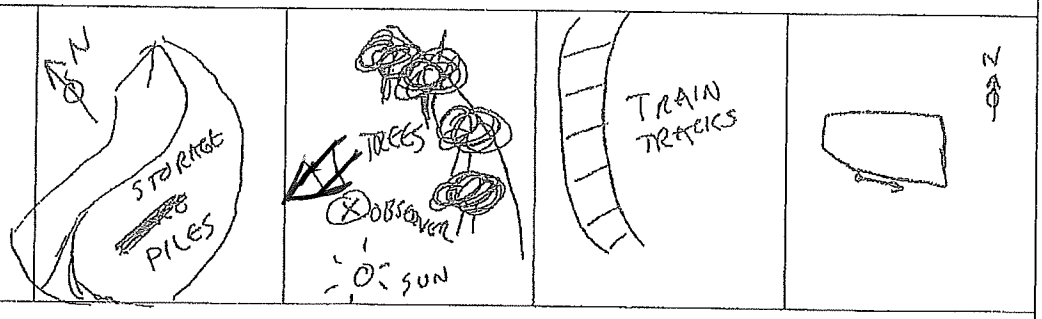
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
Begin Observation	1440	2 min	0
	1442		
	1444		
	1446		
	1448		
	1450		
End Observation			

Total Sample Time:	10 min
Total Emission Time:	0
Emission Frequency: (Total Emission Time/Total Sample Time) x 100%	0

FUGITIVE OR SMOKE EMISSION INSPECTION
OUTSIDE LOCATION – METHOD 22

Company Horsehead Corporation (Chicago Plant)	Observer S. Andrews
Location Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	Affiliation AZR
Company Rep. Shannon Andrews	Date 11/15/17
Sky Conditions Cloudy	Wind Direction West
Precipitation None	Wind Speed 12 mph
Industry Secondary Refining of Non Ferrous Metals	Process Unit Property Line (N/E)

Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.



OBSERVATIONS

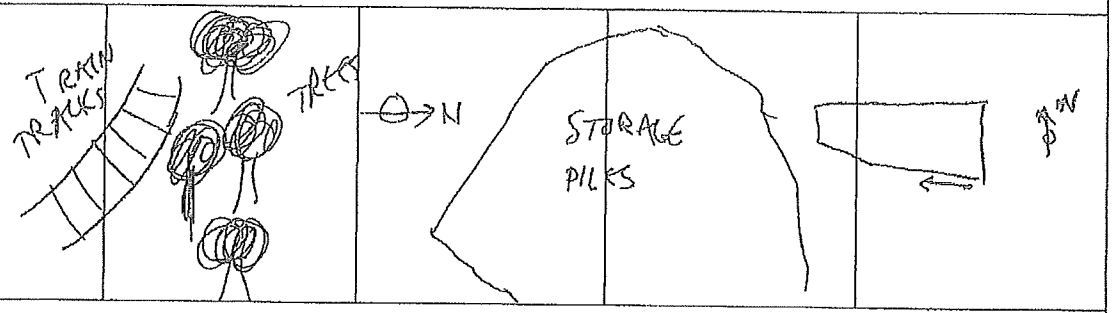
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
Begin Observation	1420	2 min	0
	1422	↓	↓
	1424		
	1426		
	1428		
	1430		
End Observation			

Total Sample Time:	10 min
Total Emission Time:	0
Emission Frequency: (Total Emission Time/Total Sample Time) x 100%	0

FUGITIVE OR SMOKE EMISSION INSPECTION
OUTSIDE LOCATION – METHOD 22

Company Horsehead Corporation (Chicago Plant)	Observer S. Andrews
Location Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	Affiliation AZR
Company Rep. Shannon Andrews	Date 11/15/17
Sky Conditions Cloudy	Wind Direction West
Precipitation None	Wind Speed 12 mph
Industry Secondary Refining of Non Ferrous Metals	Process Unit Property Line (3/4)

Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.



OBSERVATIONS

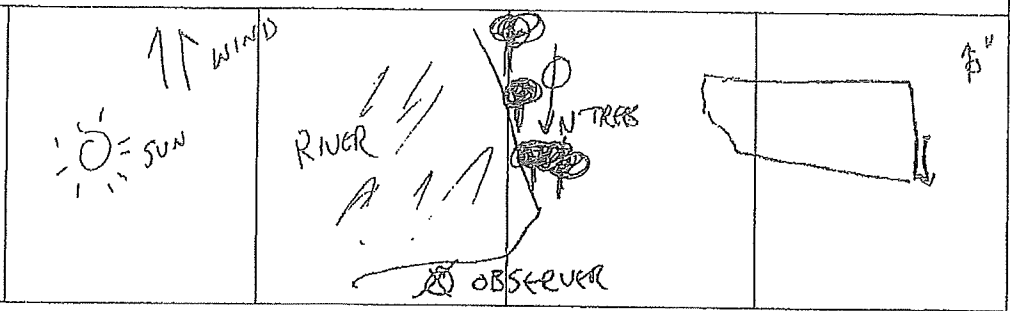
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
Begin Observation	1400	~~12~~ 2 min	0
	1402	↓	↓
	1404		
	1406		
	1408		
	1410		
End Observation	10 min		

Total Sample Time:	10 min
Total Emission Time:	0
Emission Frequency: (Total Emission Time/Total Sample Time) x 100%	0

FUGITIVE OR SMOKE EMISSION INSPECTION
OUTSIDE LOCATION – METHOD 22

Company Horsehead Corporation (Chicago Plant)	**Observer** S. Andrews
Location Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	**Affiliation** AZR
Company Rep. Shannon Andrews	**Date** 11/15/17
Sky Conditions Cloudy	**Wind Direction** West
Precipitation Drizzle	**Wind Speed** 12 mph
Industry Secondary Refining of Non Ferrous Metals	**Process Unit** Property Line (2/8)

Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.



OBSERVATIONS

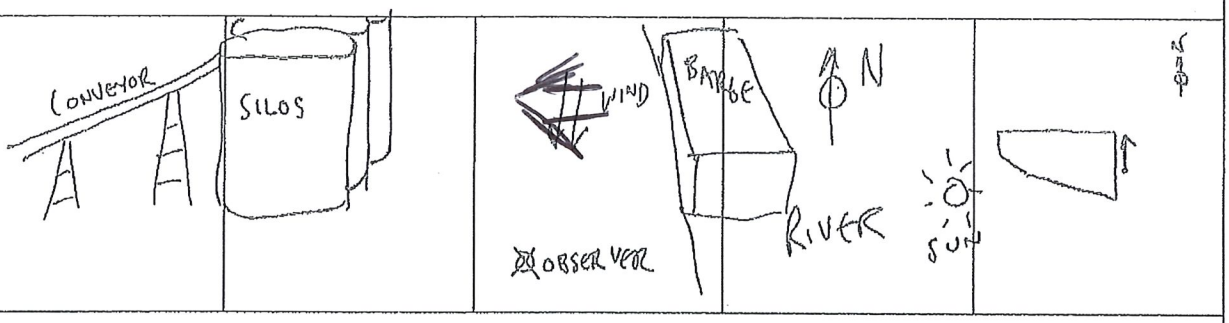
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
Begin Observation	1340	2 min	0
	1342		
	1344		
	1346		
	1348		
	1350		
End Observation			

Total Sample Time:	10 min
Total Emission Time:	0
Emission Frequency: (Total Emission Time/Total Sample Time) x 100%	0

FUGITIVE OR SMOKE EMISSION INSPECTION
OUTSIDE LOCATION – METHOD 22

Company Horsehead Corporation (Chicago Plant)	**Observer** S. Andrews
Location Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	**Affiliation** AZR
Company Rep. Shannon Andrews	**Date** 11/15/17
Sky Conditions Cloudy	**Wind Direction** West
Precipitation Drizzle	**Wind Speed** 12 mph
Industry Secondary Refining of Non Ferrous Metals	**Process Unit** Property Line (1/8)

Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.



OBSERVATIONS

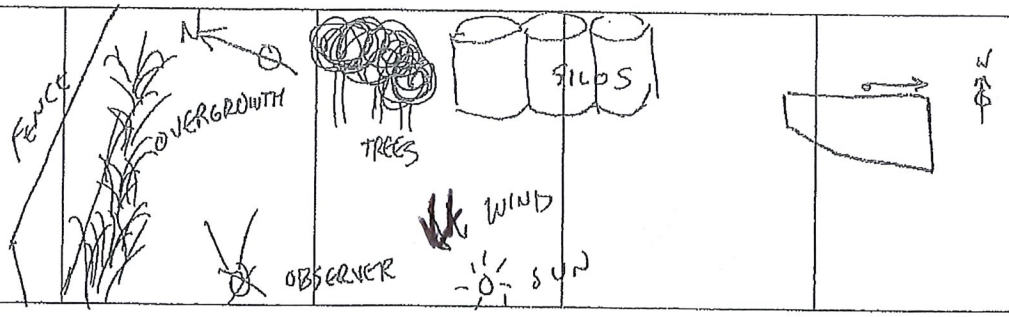
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
Begin Observation	1320	2 min	0
	1322		
	1324		
	1326		
	1328		
	1330		
End Observation	10 min		

Total Sample Time:	10 min
Total Emission Time:	0
Emission Frequency: (Total Emission Time/Total Sample Time) x 100%	0

FUGITIVE OR SMOKE EMISSION INSPECTION
OUTSIDE LOCATION – METHOD 22

Company Horsehead Corporation (Chicago Plant)	**Observer** S. Andrews
Location Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	**Affiliation** AZR
Company Rep. S. Andrews	**Date** 11/15/17
Sky Conditions Cloudy	**Wind Direction** West
Precipitation Slight	**Wind Speed** 12 mph
Industry Secondary Refining of Non Ferrous Metals	**Process Unit** Property line (B/B)

Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.



OBSERVATIONS

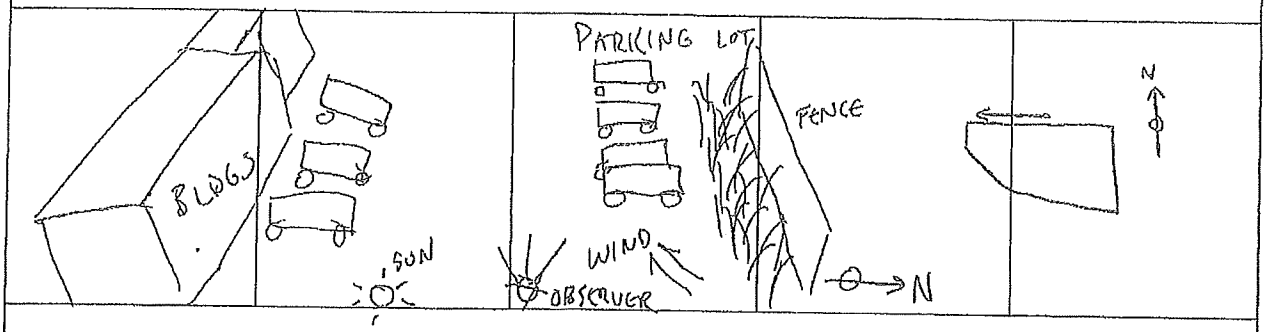
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
Begin Observation	13:00	2 min	00:00
	1302		
	1304		
	1306		
	1308		
	1310		
End Observation	10 min		

Total Sample Time:	10 min
Total Emission Time:	
Emission Frequency: (Total Emission Time/Total Sample Time) x 100%	0

FUGITIVE OR SMOKE EMISSION INSPECTION
OUTSIDE LOCATION – METHOD 22

Company Horsehead Corporation (Chicago Plant)	Observer S. Andrews
Location Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	Affiliation AZR
Company Rep. Shannon Andrews	Date 11/15/17
Sky Conditions Cloudy	Wind Direction West
Precipitation Misting	Wind Speed 12 mph
Industry Secondary Refining of Non Ferrous Metals	Process Unit Property line (7/8)

Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.



OBSERVATIONS

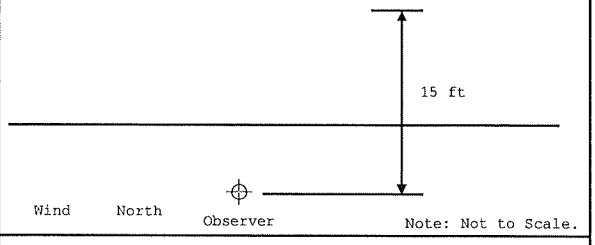
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
Begin Observation	1510	2 min	0
	1512		
	1514		
	1516		
	1518		
	1520		
End Observation			

Total Sample Time:	10 min
Total Emission Time:	0
Emission Frequency: (Total Emission Time/Total Sample Time) x 100%	0

Method 9 Visual Emissions Observation Record Form

Paved and Unpaved Roadways

Company: AZR	Provide sketch of observer's position relative to the source:
Address: 2901 E. 114th St Chicago	
Facility ID:	
Date: 11/15/17	
Location Description: Unpaved 114th St	
Control Device: H_2O Truck	
Hours of Observation: 60 min	
Observer's Name: S. Andrews	
Certification Date of Observer:	Observer's Affiliation:
Point of Emissions: **Roadway/Tire Interface**	Height of Discharge Point: **0 ft**



CLOCK TIME	Initial	Final
OBSERVER LOCATION		
Distance to discharge	15 ft	15 ft
Direction from discharge	90 degrees	90 degrees
Height of observation point	4 ft	4 ft
BACKGROUND DESCRIPTION	plants / sky	plants / sky
WEATHER CONDITIONS		
Wind Direction	From the S	From the S
Wind Speed	12 mph	12 mph
Ambient Temperature	50 F	50 F
SKY CONDITIONS (e.g., clear, overcast, % clouds, etc.)	Cloudy / Drizzle	Cloudy / Drizzle.
PLUME DESCRIPTION		
Color	None	None
Distance Visible	7 miles	7 miles
OTHER INFORMATION		

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity (%)	
	Start - End	Sum	Average
1	900 - 906	0	0
2	906 - 912	0	0
3	912 - 918	0	0
4	918 - 925	0	0

Readings ranged from 0 to 0 % opacity.

Average of 12 readings: 0

Method 9 Visual Emissions Observation Record Form

Paved and Unpaved Roadways (Cont.)

Company AZR Observer S. Andrews

Location Chicago, IL Facility Type Industrial

Point of emissions **Roadway/Tire Interface**

Vehicle Pass #	Seconds			Vehicle Type
	0	5	10	
1	0	0	0	TRUCK
2	0	0	0	TRUCK
3	0	0	0	CAR
4	0	0	0	CAR

Description of Road (Paved/Unpaved, Dry/Wet): wet, moist

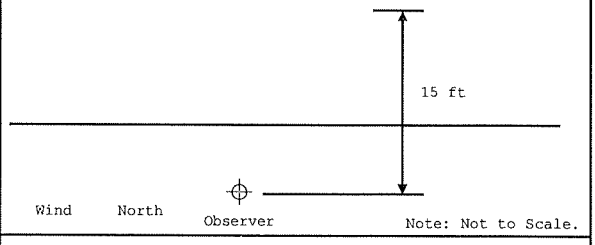
Observer Signature

11/15/17
Date

Method 9 Visual Emissions Observation Record Form

Paved and Unpaved Roadways

Company: AZR	Provide sketch of observer's position relative to the source:
Address: 2701 E. 114th St Chicago	
Facility ID:	
Date: 11/15/17	
Location Description: Parking Lot	
Control Device: H_2O Truck (As Needed)	
Hours of Observation: 1 hr.	
Observer's Name: S. Andrews	
Certification Date of Observer:	Observer's Affiliation:
Point of Emissions: Roadway/Tire Interface	Height of Discharge Point: 0 ft



CLOCK TIME	Initial	Final
OBSERVER LOCATION		
Distance to discharge	15 ft	15 ft
Direction from discharge	90 degrees	90 degrees
Height of observation point	4 ft	4 ft
BACKGROUND DESCRIPTION	Sky, Grass	Sky, Grass
WEATHER CONDITIONS		
Wind Direction	From the S	From the S.
Wind Speed	mph 12	12 mph
Ambient Temperature	F 50	50 F
SKY CONDITIONS (e.g., clear, overcast, % clouds, etc.)	Drizzle, Cloudy	Drizzle, Cloudy
PLUME DESCRIPTION		
Color	None	None
Distance Visible	miles	miles
OTHER INFORMATION		

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity (%)	
	Start - End	Sum	Average
1	9:35 - 9:41	0	0
2	9:41 - 9:47	0	0
3	9:47 - 9:53	0	0
4	9:53 - 9:59	0	0

Readings ranged from 0 to 0 % opacity.

Average of 12 readings: 0

Method 9 Visual Emissions Observation Record Form

Paved and Unpaved Roadways (Cont.)

Company AZR Observer S. Andrews

Location Chicago, IL Facility Type INDUSTRIAL

Point of emissions **Roadway/Tire Interface**

Vehicle Pass #	Seconds			Vehicle Type
	0	5	10	
1	0	0	0	CAR
2	0	0	0	CAR
3	0	0	0	CAR
4	0	0	0	TRUCK

Description of Road (Paved/Unpaved, Dry/Wet): WET, DRIZZLE

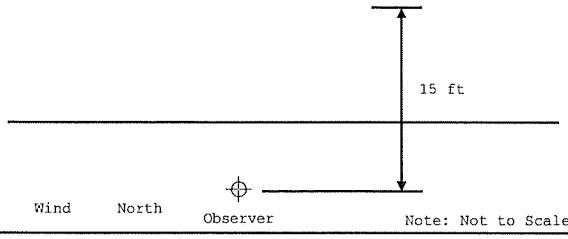
Observer Signature

11/15/17
Date

Method 9 Visual Emissions Observation Record Form

Paved and Unpaved Roadways

Company: AZR	Provide sketch of observer's position relative to the source:
Address: 2701 E. 11th St	
Facility ID:	
Date: 11/15/17	
Location Description: MAIN truck road	
Control Device: H_2O Truck	
Hours of Observation: 1	
Observer's Name: S. Andrews	
Certification Date of Observer:	Observer's Affiliation:
Point of Emissions: **Roadway/Tire Interface**	Height of Discharge Point: **0 ft**



CLOCK TIME	Initial	Final
OBSERVER LOCATION		
Distance to discharge	**15 ft**	**15 ft**
Direction from discharge	**90 degrees**	**90 degrees**
Height of observation point	**4 ft**	**4 ft**
BACKGROUND DESCRIPTION	Trees / Sky	Trees / Sky
WEATHER CONDITIONS		
Wind Direction	**From the** S	**From the** S
Wind Speed	**mph** 12	**mph** 12
Ambient Temperature	**F** 50	**F** 50
SKY CONDITIONS (e.g., clear, overcast, % clouds, etc.)	Cloudy, Drizzle	Cloudy, Drizzle
PLUME DESCRIPTION		
Color	None	None
Distance Visible	**miles**	**miles**
OTHER INFORMATION		

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity (%)	
	Start - End	Sum	Average
1	1000 - 1006	0	0
2	1006 - 1012	0	0
3	1018 - 10:18	0	0
4	10:18 - 10:24	0	0

Readings ranged from 0 to 0 % opacity.

Average of 12 readings: 0

Method 9 Visual Emissions Observation Record Form

Paved and Unpaved Roadways (Cont.)

Company AZR Observer S. Andrews

Location Chicago, IL Facility Type Industrial

Point of emissions **Roadway/Tire Interface**

Vehicle Pass #	Seconds			Vehicle Type
	0	5	10	
1	0	0	0	Truck
2	0	0	0	Forklift
3	0	0	0	Truck
4	0	0	0	Truck

Description of Road (Paved/Unpaved, Dry/Wet): Wet

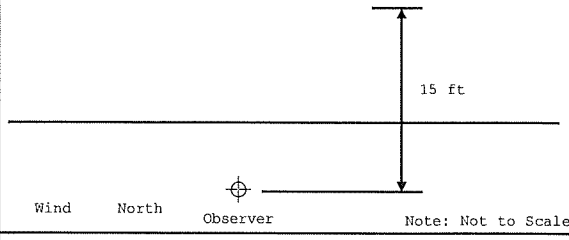
Observer Signature

11/15/17
Date

Method 9 Visual Emissions Observation Record Form

Paved and Unpaved Roadways

Company: AZR	Provide sketch of observer's position relative to the source:
Address: 2701 E. 114th St Chicago, IL	
Facility ID:	
Date: 11/15/17	
Location Description: paved Rd to IRM	
Control Device: H_2O truck	
Hours of Observation:	
Observer's Name: S. Andrews	
Certification Date of Observer:	Observer's Affiliation:
Point of Emissions: **Roadway/Tire Interface**	Height of Discharge Point: **0 ft**



CLOCK TIME	Initial	Final
OBSERVER LOCATION		
Distance to discharge	**15 ft**	**15 ft**
Direction from discharge	**90 degrees**	**90 degrees**
Height of observation point	**4 ft**	**4 ft**
BACKGROUND DESCRIPTION	Trees / Sky	Trees / Sky
WEATHER CONDITIONS		
Wind Direction	**From the** S	**From the** S
Wind Speed	**mph** 12	**mph** 12
Ambient Temperature	**F** 50	**F** 50
SKY CONDITIONS (e.g., clear, overcast, % clouds, etc.)	Cloudy, rain	Cloudy - rain
PLUME DESCRIPTION		
Color	None	None
Distance Visible	**miles**	**miles**
OTHER INFORMATION		

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity (%)	
	Start - End	Sum	Average
1	1030 - 1036	0	0
2	1036 - 1042	0	0
3	1042 - 1048	0	0
4	1048 - 1054	0	0

Readings ranged from 0 to 0 % opacity.

Average of 12 readings: 0

40 CFR 60, App. A, Method 9

Method 9 Visual Emissions Observation Record Form

Paved and Unpaved Roadways (Cont.)

Company AZR Observer S. Andrews

Location paved road to Jan Facility Type Industrial

Point of emissions **Roadway/Tire Interface**

Vehicle Pass #	Seconds			Vehicle Type
	0	5	10	
1	0	0	0	Truck
2	0	0	0	Truck
3	0	0	0	Forklift
4	0	0	0	Truck

Description of Road (Paved/Unpaved, Dry/Wet): wet

Observer Signature

11/5/17
Date

Certification of Visible Opacity Reading

Shannon Andrews

qualified to conduct EPA Method 9 Tests for visible opacity in accordance with the methods established for such qualification in 40 CFR Part 60 Appendix A.

Certification Date: October 24, 2017

Trey Beauchamp

Expiration Date: April 24, 2018

AeroMet Instructor: Trey Beauchamp

AEROMET ENGINEERING INC. CERTIFIES THAT
Shannon Andrews
has qualified as a CERTIFIED VISIBLE EMISSIONS READER per Title 40 Part 60 Appendix A USEPA Method 9
Issued: 10/24/2017 Expires: 04/24/2018
Questions? Call 573.636.6393