September 2, 2014

City of Chicago, Department of Public Health Attn: Environmental Permitting and Inspections 333 South State Street, Room 200 Chicago, IL 60604

Re: Horsehead Corporation Variance Request

To Whom It May Concern:

Thank you for the opportunity to comment on the application of Horsehead for variances from the Department of Health's Rules and Regulations for Control of Emissions from the Handling and Storage of Bulk Material Piles ("Rules"). These comments are submitted on behalf of the Natural Resources Defense Council ("NRDC") and our nearly 10,000 members and activists in the City of Chicago, including those who reside on the Southeast Side in the Calumet area, as well as the Southeast Environmental Task Force ("SETF"), an active community group dedicated to improving the Calumet neighborhood's environment. For the reasons set forth below, the application is incomplete and fails to demonstrate that the requested variances will not have an adverse impact on the community and environment, and thus the request should be denied.

According to information derived from the demographic feature of U.S. EPA's ECHO database, there are 4,116 people who live within a one mile radius of the applicant's facility. More than 82% of the people who live within this one mile radius are Hispanic (73.62%) or African-American (8.53%). U.S. EPA's ECHO database also indicates a total of 1,267 households in this one mile radius, with a total population of 1,235 children 17 years and younger.

The applicant's facility is located adjacent to the Calumet River. The Calumet River is used extensively by recreational watercraft. Traffic to-and-from the applicant's facility must use Torrence Avenue, a busy public road that connects residential areas in South Deering to residential areas in Hegewisch. Torrence Avenue is also the dividing line between industrial properties including Horsehead to the east and the Indian Ridge Marsh and Big Marsh natural areas to the west.

On April 14, 2014, the U.S. EPA – Region 5 issued a Notice of Violation to Horsehead Corporation alleging several categories of violations of particulate matter standards. These violations include the failure to develop and implement a fugitive particulate matter control plan, the failure to comply with PM10 contingency measures plan required by the facility permit, the failure to have any fugitive controls for Iron Rich Material piles on the property and the failure to have an operating permit for the Iron Rich Material storage piles. Consistent with Horsehead's existing Title V Permit, the NOV identifies the following four sources of fugitive particulate emissions at the facility – facility roadways, carbon storage pile, carbon handling by a conveyor and iron-rich material handling. A copy of this Notice of Violation is attached to these comments. In addition

to Iron Rich Material, Horsehead also acknowledges storing petcoke and metcoke in outdoor piles.

Industrial Impacts to City Residents and Environment

Earlier this year, the City adopted the new Rules to help address the problem of harmful dust pollution from industrial sources. Dust pollution can cause permanent harm to people's lungs, significantly limit the uses and enjoyment (and so market values) of private property as well as public parks, and inhibit the growth of plants and wildlife. While a significant impetus for the Rules was the clouds of petroleum coke and coal dust from several handlers along the Calumet River, the City appropriately sought to reduce dust from bulk materials more generally, adopting rules that apply city-wide to handlers of a range of bulk materials. This action represented a much-needed update to the City's existing measures to combat dust.

We continue to believe that the Rules are too lax in some areas; however, they represent a significant step forward in providing increased protections to Chicago communities. Moreover, as set forth below in more detail, we believe it is imperative that the Commissioner stringently assess applications for variances to ensure the purposes of the Rules are not circumvented on a case-by-case basis.

Objections to Variance Provisions

In our prior comments on the City's proposed dust rules, we noted significant concerns with both the scope of the variance provision and the lack of procedural safeguards for making variance determinations.² We urged the City to dispense with the variance provision altogether, or at minimum to include additional safeguards both in terms of substance and process. The City responded by adding requirements for variance applications, an opportunity for public comment, and criteria for reviewing a variance application.³ With these improvements, the Commissioner is empowered to hold applicants' demonstrations to high standards and to pay close attention to the interests of the public articulated through their written comments.

At the outset, we provide two general comments to guide this review. First, the area of fugitive dust regulation generally is plagued by a history of poor emissions estimates, overblown claims of control efficiencies, and vague requirements. As such, it is especially important that applications for variances are supported by detailed, site-specific information, robust technical demonstrations, and specific, enforceable proposed requirements. Second, obligations and costs above what the facility would have borne under prior city, state and federal obligations are to be expected under this new set of

¹ Comments of NRDC et al. ("Comments") at 3-7, available at <a href="http://www.cityofchicago.org/content/dam/city/depts/cdph/environmental_health_and_food/PetCoke_Public_Comments/NRDC_SETF_Alliance_for_the_Great_Lakes_ELPC_Faith_in_Place_RHAMC_and_Sierra_Club_Recvd_2-7-14.pdf.

² Comments at 38-40.

³ Rules Section 8.0

regulations. Mere reference to some increase in burden should not qualify as grounds for a variance.

CDPH Must Deny The Applicant's Request To Avoid Installing PM Monitors

The scope of the Commissioner's authority and responsibility is broad, extending to "...any matter, material or substance susceptible to being windborne and for the handling, transportation, disposition or other operation with respect to any material subject to being windborne." Municipal Code of Chicago 11-4-770. As pointed out by CDPH in its March 13, 2014 Response To Public Comments, the intent in establishing regulations is to protect public health and the environment from activities that have the potential to cause windborne dust, even "...existing businesses that are lawfully operating under current Chicago land use laws." City of Chicago Department of Public Health, Official Response to Public Comments on the Proposed Rules and Regulations For The Handling and Storage of Bulk Material Piles, March 13, 2014, at 3. As asserted by CDPH, there are four categories of material and handling and storage activities that its own experts concluded can create airborne dust as part of the outdoor storage of materials - bulldozing and grading, material dropping operations, equipment travel on the surfaces of stockpiles and vehicle travel on paved roads. Id. at 4.

Consistent with the MCC, CDPH appropriately requires that these facilities have the capacity to prevent, detect and respond to potential releases of windborne material. To this end, CDPH mandates the development and implementation of a proactive fugitive dust plan. Every fugitive dust plan must contain some required elements, but CDPH also expressly allows flexibility for businesses to develop plans that make the most sense based on their unique operations. Id. at 21. However, the actual success of a fugitive dust plan is not left to guesswork. For CDPH, the most reliable means to demonstrate the success of a fugitive dust plan for operators, regulators and residents is through uniform, empirically verifiable PM monitoring. It is not an exaggeration to state that PM monitoring is the lynchpin of the new CDPH protocol. As stated by CDPH:

The requirement for fugitive dust monitoring is a critical component of the regulations to ensure that the facility's dust control measures are working. CDPH inspectors cannot observe facility operations on a daily basis. And facility workers who are occupied in doing their jobs may not always realize when there is a dust problem. Therefore, the PM monitors are important for alerting facility operators when there might be an issue with their dust control systems. They are also important to ensure compliance with the fugitive dust prohibition, as well as to give neighbors a level of comfort in knowing the air is being monitored. Id. at 23.

Because of the importance of PM monitoring, the variance standard is the most difficult of any requirement in the CDPH regulations. In addition to the exacting variance standards in Section 8.0, the standard for a variance from PM monitoring is also addressed in Section 3.0(4), which establishes the following threshold criteria:

Unless...the Facility Owner or Operator establishes that the Facility's operations

do not result in off-site fugitive dust emissions, the Facility Owner or Operator must install, operate, and maintain, according to manufacturer's specifications, permanent, continuous Federal Equivalent Method (FEM) real-time PM 10 monitors around the perimeter of the facility...

Simply, the applicant in this case must establish its operations do not result in off-site fugitive dust emissions as a result of any of its activities, for example, bulldozing and grading, material dropping operations, equipment travel on the surfaces of stockpiles and vehicle travel on paved roads. The applicant must establish these kinds of operations do not result in off-site fugitive dust emissions over the full range of weather and operating conditions. The applicant must establish "no off-site fugitive dust emissions" for every compass point around the perimeter of its facility, be it a waterway, public road, or residential neighborhood. If the applicant fails to establish "no fugitive off-site dust emissions", it cannot be granted a variance from the requirement to establish a PM monitoring system in accordance with the regulations.

This does not mean a variance is impossible; instead, it means the applicant cannot meet this exacting standard now. Without irony, we would point out that the best way for the applicant to attempt to demonstrate there are no off-site fugitive dust emissions is to establish the PM monitoring network now required by the regulations. If PM monitoring establishes there are "no off-site fugitive dust emissions" (at the locations and in the range of particle sizes measured by the monitors) over a representative period of time and range of conditions, then this is the point at which to seek a variance from an ongoing obligation to continue this monitoring. The monitoring would establish an objective empirical basis for the variance that would have credibility for regulators, other regulated entities and residents. In the meantime, in the event the monitoring system detects off-site dust emissions not anticipated by the applicant, it will provide a basis for further refinement of its fugitive dust plan. In any event, it is much more likely the task of developing and implementing a fugitive dust plan will be taken seriously if the results are verified by perimeter PM monitors, operated according to a uniform regulatory protocol.

The Applicant Has Not Met The Standard for Receiving A Variance From Several Operational Requirements

In addition to its variance request from PM monitoring requirements, the applicant also requests variances from several other requirements of the CDPH regulations. In some instances, the applicant requests extensions to achieve compliance (in most cases within 90 days; in one instance – the construction of the infrastructure to implement a site-wide dust suppression system - by December 31, 2014). The applicant bears the burden of demonstrating why it needs this additional time. It has not provided an adequately detailed demonstration of need, nor a justification for a specific, near term, enforceable alternative.

In another case, the applicant seeks a "conditional" variance from the requirement to utilize wheel wash stations and rumble strips. According to the applicant, because 114th Street is not paved, there is little value in removing material from vehicles as they exit the Horsehead property. As to this request, NRDC and SETF underscore the importance of

controlling the release of material that originates from the Horsehead property and unpaved portions of 114th Street, a public roadway that serves the primary (perhaps single) purpose of ingress and egress to Horsehead. Ideally, this would include allowing Horsehead to install wheel washing stations and rumble strips as close to Torrence Avenue as possible. If this is not possible, we emphasize there is a distinction between the material that collects on vehicles as they travel through an industrial site like Horsehead (its operations include iron rich materials, petcoke, metcoke, electric arc furnace dust, waelz oxide and related materials), and the kind of material that would accumulate by virtue of a short trip over an unpaved public roadway. Wheel washing and rumble strips at the point vehicles exit the applicant's property should be required to avoid the release of residuals of bulk materials the applicant is storing and handling.

There are two other variance requests that NRDC and SETF oppose. The first is a request for a variance from requirements related to the pooling of water, and the second is a request to avoid operating dust suppression systems during cold weather. These requests should be denied because they are directly contrary to the purpose of the regulations and do not meet the standard for the issuance to a variance.

In its variance application, the applicant must describe the process or activity for which the variance is sought, and demonstrate why the variance will not result in a public nuisance or "adversely impact the surrounding area, the surrounding, environment, or surrounding property values." The applicant also must explain why compliance would impose an arbitrary or unreasonable hardship.⁵ In turn, in making a determination on a variance application, the Commissioner is to consider public comments, and give particular consideration to, among other things, whether a demonstration has been made that any adverse impacts will be minimal. Because the application falls short in many respects, we urge the Commissioner to deny the variance requests related to water pooling and cold weather dust suppression.

As to the pooling requirements, CDPH's regulations serve the critical purpose of ensuring that rainfall and snowmelt that come into contact with industrial materials do

⁴ Rules Section 8.0(2)(b) and (d).

⁵ Id. at (e)(i). While Section 8 does not lay out additional guidance on what constitutes an arbitrary or unreasonable hardship, guidance may be found in the City's parallel criteria for review of a variation from the zoning ordinance, as summarized in City of Chicago, Dept. of Housing and Economic Development, "Zoning Board Rules and Regulations," August 2011, at 12-13, available at

http://www.cityofchicago.org/content/dam/city/depts/zlup/Administrative Reviews and Approvals/Publications/ZBA Rules and Regulations.pdf. ⁶ See Rules Section 8.0(3)(a).

⁷ See Rules Section 8.0(3)(b). At most, the Commissioner should only grant the portions of the variance for which the applicant has provided the requisite supporting information and require supplemental information to be provided moving forward, upon which the variance is conditioned. Id. at (3)(c) ("The Commissioner may grant a variance in whole or in part, and may attach reasonable conditions to the variance to ensure minimization of any adverse impacts.")

not create pools of polluted leachate. For water that doesn't percolate through material piles, pools are an indication of poorly controlled stormwater runoff. Pooling is an indication of inadequate controls, and creates a mechanism through which pollutants can be released into soil, subsurface, groundwater, surface water and sediment. Pooling also encourages vectors. The existence of pooling is directly contrary to a well-managed and hygienic site, and is an indication of broader water management problems. By contrast, the applicant's request is based on broad, largely unsupported assertions of "zero discharge". Even if this unsupported, unsubstantiated claim is generally accurate, it overlooks that pools of leachate and runoff threaten surface soil, subsurface materials and groundwater, encourage vectors, and may have complex hydrologic and hydrogeologic pathways into surface waters like the Calumet River. As to this request, the lack of supporting data and calculations renders the application incomplete on its face. The request is directly contrary to the purposes of the CDPH regulations. CDPH must deny this variance request.

Similar problems plague the applicant's request for a variance from dust suppression requirements when temperatures drop below 32 degrees F. As CDPH itself acknowledges, the highest average wind speed in Chicago occurs over the winter months. City of Chicago Department of Public Health, Official Response to Public Comments on the Proposed Rules and Regulations For The Handling and Storage of Bulk Material Piles, March 13, 2014, at 9. Yet, this is the very period for which the applicant is seeking a variance from operating its dust suppression system. CDPH further states that higher wind periods account disproportionately for annual emissions. Id. at 10. Even so, in part because of comments by Horsehead, CDPH broadened the allowable approaches to dust suppression, stating that "as long as a facility is applying water or another solution in a manner that effectively suppresses fugitive dust, it does not matter whether they use a hose, a cannon, a mister or another technology." Id. at 13. CDPH further accommodated regulated entities by removing requirements for wind barriers. Id. at 21.

Despite these accommodations, the applicant contends it cannot maintain a dust suppression system when temperatures drop below 32 degrees F. This is contrary to the City's direct assertion that dust suppressant systems must be operable (not necessarily dispensing) at all times. Id. at 24. It is unclear why the applicant cannot maintain an operable dust suppression system, apart from broad claims that its system is not compatible with water heating and chemical stabilizers. At the same time, Horsehead acknowledges it is in the process of designing and building out its water suppression system. The applicant also acknowledges it uses spray trucks. It is unclear why its system expansion (for which it seeks a variance) or its use of spray trucks (another technology it admits to deploying) cannot address dust suppression in freezing conditions. As to this request, the lack of supporting data and calculations renders the

⁸ Whether the applicant has given such material to the City or other permitting agency in some other submission is moot for purposes of the concerns here – without including this information in a complete variance application, the public cannot meaningfully comment.

application incomplete on its face. The request is directly contrary to the purposes of the CDPH regulations. CDPH must deny this variance request.

For these reasons, we respectfully request that the Commissioner deny this application for a variance. Please do not hesitate to contact us if you have any questions.

Sincerely,

Cette Harley
Keith Harley

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⁹ Whether the applicant has given such material to the City or other permitting agency in some other submission is moot for purposes of the concerns here – without including this information in a complete variance application, the public cannot meaningfully comment.

Menu



Detailed Facility Report

Facility Summary

HORSEHEAD CORP 2701 E. 114TH ST., CHICAGO, IL 60617

Facility Information (FRS)

FRS ID: 110000434352 EPA Region: 05 Latitude: 41.68764 Longitude: -87.55444

Industry:

Indian Country: N

Regulatory Interests

Clean Air Act: Operating Major (1703101199)

Clean Water Act: No Information

Resource Conservation and Recovery Act: Active SQG (ILD040891368)

Safe Drinking Water Act: No Information

Also Reports

Air Emissions Inventory (EIS): 7337011 Greenhouse Gas Emissions (eGGRT): 1004427 Toxic Releases (TRI): 60617HRSHD2701E

Enforcement and Compliance Summary

Statute	Insp (5 Years)	Date of Last Inspection	Current Compliance Status	Qtrs in NC (of 12)	Qtrs in Significant Violation	Informal Enforcement Actions (5 years)	Formal Enforcement Actions (5 years)	Penalties from Formal Enforcement Actions (5 years)	EPA Cases (5 years)	Penalties from EPA Cases (5 years)
CAA 2		02/06/2013	Significant Violation	2 2		2		-		
CWA I		07/22/2010					-		_	
EPCRA I		08/03/2010				_	_	_	-	_
RCRA 2		07/20/2010	No Violation	0 0		_		-	-	-
TSCA 1		08/05/2010	-			-	-	-		-

Facility/System Characteristics

Facility/System Characteristics

Statute	Identifier	Universe	Status	Arcas	Permit Expiration Date	Indian Country	Latitude	Longitude
	110000434352	-		-	-	N	41.68764	-87.55444
CAA	1004427	Direct Emitter	Active	Total Facility Emissions in metric tons CO2e (excluding Biogenic CO2): 118804	-	N	41.68764	-87.55444
CAA	1703101199	Major	Operating	SIP, PSD, TITLE V PERMITS	-	N	41.687222	-87.5575
CAA	7337011	-	Operating	=	-	N	41.68764	-87.55444
EP313	60617HRSHD2701E						41.68764	-87.55444
RCRA	ILD040891368	SQG	Active	-		N	41.653221	-87.557244

Facility Contact Information

System	Identifier	Facility Name	Facility Address
FRS	110000434352	HORSEHEAD CORP	2701 E. 114TH ST., CHICAGO, IL 60617
GHG 2011	1004427	Horsehead Corp Chicago	2701 E. 114TH ST., CHICAGO, IL 60617
AFS	1703101199	HORSEHEAD CORP	2701 E 114TH ST, CHICAGO, IL 60617
FIS 2011	7337011	Horsehead Corp	2701 E 114th St, Chicago, IL 60617
IRI	60617HRSHD2701E	HORSEHEAD CORP	2701 E 1141H SI, CHICAGO, IL 60617
RCR	ILD040891368	HORSEHEAD CORP	2701 E 114TH ST. CHICAGO, IL 60617

Facility SIC Codes

System	Identifier	SIC Code	SIC Desc
FS	1703101199	2816	
	60617HRSHD2701E	2116	
1	60617HRSHD2701E	3341	-

Facility NAICS Codes

System	Identifier	NAICS Code	NAICS Desc
GHG 2011	1004427	331492	Secondary Smelting, Refining, And Alloying Of Nonferrous Metal(Except Copper And Aluminum)
\FS	1703101199	325130	-
RI	60617HR5HD2701E	325000	-
RI	60617HRSHD2701E	325100	
RI	60617HRSHD2701E	331000	
rri	60617HRSHD2701E	331492	Secondary Smelting, Refining, And Alloying Of Nonferrous Metal(Except Copper And Aluminum)
IS 2011	7337011	331492	Secondary Smelting, Refining, And Alloying Of Nonferrous Metal(Except Copper And Aluminum)
RCR	ILD040891368	331492	Secondary Smelting, Refining, And Alloving Of Nonferrous Metal(Except Copper And Aluminum)

Facility Tribe Information

Tribal Name	EPA Tribal ID	Distance to Tribe (miles)	
No data records returned			

Enforcement and Compliance

Compliance Monitoring History (5 years)

Statute	Source ID	System	Inspection Type	Lead Agency	Date	Finding
CWA / §311	1800120655	ICIS	Evaluation	EPA	07/22/2010	
EPCRA / §304	2200004626	ICIS	Evaluation	FPA	08/03/2010	
TSCA / §6	2200018170	ICIS	PCB	EPA	08/05/2010	
CAA	1703101199	AFS	EPA PCE/ON-SITE	EPA	0 01/2012	14
CAA	1703101199	AFS	TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE	State	10/10/2012	Findings: IN VIOLATION;
RCRA	ILD040891368	RCR	COMPLIANCE EVALUATION INSPECTION ON SITE	EPA	07/20/2010	Undetermined, Agency May Still be Determining
RCRA	ILD040891368	RCR	COMPLIANCE EVALUATION INSPECTION ON-SITE	State	05/12/2010	No Violations Or Compliance Issues Were Found
CAA	1703101199	AFS	STATE CONDUCTED FCE-ON-SITE	State	02/06/2013	
CAA	1703101199	AFS	STATE PCE/ON-SITE	State	11/22/2013	-
CAA	1703101199	AFS	TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE	State	08/12/2009	Findings: IN COMPLIANCE:
CAA	1703101199	AFS	TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE	State	09/17/2012	Findings: IN VIOLATION;
CAA	1703101199	AFS	EPA PCE OFF-SITE	EPA	05/25/2011	•-
CAA	1703101199	AFS	EPA PCE/OFF-SITE	EPA	08/29/2012	-
CAA	1703101199	AFS	EPA PCE/ON-SITE	EPA	03/31/2014	
CAA	1703101199	AFS	TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE	State	05/13/2010	Findings: IN COMPLIANCE;
CAA	1703101199	AFS	TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE	State	07/17/2014	Findings: IN VIOLATION;
CAA	1703101199	AFS	EPA PCE/OFF-SITE	EPA	02/09/2013	-
CAA	1703101199	AFS	TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE	State	06/05/2013	Findings: IN COMPLIANCE,
CAA	1703101199	AFS	EPA PCE/OFF-SITE	EPA	05/26/2011	-
CAA	1703101199	AFS	TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE	State	05/16/2011	Findings: IN COMPLIANCE:
CAA	1703101199	AFS	EPA PCE ON-SITE	EPA	08/03/2010	-
CAA	1703101199	AFS	STATE CONDUCTED FCE/ON-SITE	State	11/12/2010	
CAA	1703101199	AFS	EPA PCE/OFF-SITE	EPA	12/20/2013	-
CAA	1703101199	AFS	STATE PCE/ON-SITE	State	08/01/2012	* -
CAA	1703101199	AFS	FPA PCE OFF-SITE	EPA	05/20/2013	

Entries in italics are not considered inspections in official counts.

Compliance Summary Data

Statute	Source ID	Current SNC/HPV	Description	Current As Of	Qtrs in NC (of 12)
CAA	1703101199	Yes	VIOLATION UNADDRESSED	08/92/2014	2
RCRA	ILD040891368	No	-	08/02/2014	0

Three Year Compliance Status by Quarter

Statute Program/Pollutant/Violation	Туре	TR 1	QIR 2	QTR 3	QIR 4	QTR 5	QIR 6	QTR 7	QTR 8	QTR 9	QIR 10	QTR 11	QTR 12
CAA (Source ID: 1703101199		01-09/30 10 2011	/01-12/31 2011	2012	04/01-06/3 2012	0 07/01-09/3 2012	0 10/01-12/3 2012	1 01/01-03/3 2013	1 04/01-06/30 2013	07/01-09/30 2013	10/01-12/31 2013	01/01-03/31 2014	04/01-06/30 2014
Facility-Level Status	No Vi	ol No	iol No	Viol	No Viel	No Viel	No Viol	No Viol	No Viol	No Viol	No Viol	HPV	HPV
HPV History	-											Unaddr-State	Unaddr-State
Program/Pollutant in Current Vic	lation												
CAA SIP	-		4.0					-			-	V-EM&PRO	V-EM&PRO
FACILITY-WIDE PERMIT REQUIREMENTS			-			22	-	-	-		-		V-EM&PRO
CAA PSD	-	-	4-7						-	-	-	-	
AA TITLE V PERMITS			-			10.0							
Statute Program Pollutant Violation Type	QTR 1	QTR 2	QTR	3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12
RCRA (Source ID: ILD040891368)	07/01-09/30 2011	10/01-12/3 2011	1 01/01-0 2013		/01-06/30 2012	07/01-09/30 2012	10/01-12/31 2012	01/01-03/31 2013	04/01-06/30 2013	07/01-09/30 2013	10/01-12/31 2013	01/01-03/31 2014	04/01-06/30 2014
RCRA Facility-Level Status								-	-	-			

Informal Enforcement Actions (5 Years)

Statute	Source ID	Type of Action	Lead Agency	Date
CAA	1703101199	NOV ISSUED	FPA	04/14/2014
CAA	1703101199	STATE NOV ISSUED	State	01/10/2014

Formal Enforcement Actions (5 Years)

Statute	Source ID	Type of Action	Lead Agency	Date	Penalty	Penalty Description
data records returned						

ICIS Case History (5 years)

Primary Law Section	Case No.	Case Type	Lead Agency	Case Name	Issued/Filed Date	Settlement Date	Federal Penalty	State/Local Penalty	SEP Cost	Comp Action Cost
Ne data records returned										

Environmental Conditions

Water Quality

Permit ID	Watershed (HUC 8)	Watershed Name (HUC 8)	Watershed (HUC 12)	Watershed Name (HUC 12)	Receiving Waters	Impaired Waters	Combined Sewer System?
110000434352	04040001	LITTLE CALUMET-GALIEN	040400010603	Calumet River-Frontal Lake Michigan	-	No	-

Air Quality

	Non-Attainment Area?	Pollutant(s)	
Yes		Ozone	
No		Lead	
Yes		Particulate Matter	

Pollutants

TRI History of Reported Chemicals Released in Pounds per Year at Site

TRI Pollution Prevention Report TRI Facility ID Vera Total Air Emissions Surface Water Discharges Off-Site Transfers to POTWs Underground Injections Releases to Land Total On-site Releases 60617HRSHD2701E 2004 \$988 0 0 - - \$988 60617HRSHD2701E 2005 9.007 0 0 0 - 9.007

60617HR5HD2701E	2005 9,097	0	0			9,097	-
60617HRSHD2701E	2006 9,043	0	0		-	9,043	-
60617HRSHD2701E	2007 9,269	0	0	-	-	9,269	492,448
60617HRSHD2701E	2008 8,766		0		-	8,766	-
60617HRSHD2701E	2009 9,264		0			9,264	
60617HR\$HD2701E	2010 13,072	-	0	44	-	13,072	
60617HRSHD2701E	2011 5,489	-	0	22	-	5,489	-
60617HRSHD2701E	2012 6,282	-	0	-	-	6,282	-

TRI Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name	2004	2005	2006	2007	2008	2009	2010	2011	201
BARIUM COMPOUNDS	_		-	-			-		
CADMIUM COMPOUNDS	-		-			14			**
CHROMIUM COMPOUNDS(EXCEPT CHROMITE ORE MINED IN THE TRANSVAAL REGION)			-	-					-
COPPER COMPOUNDS	·		-		-				
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0	0	0	0	0	0	0	0	
LEAD COMPOUNDS	361	365	447	37,475	434	458	454	406	443
MANGANESE COMPOUNDS	417	421	414	15,486	401	424	484	522	544
MERCURY COMPOUNDS	183	185	182	187	177	187	213	200	215
NICKEL COMPOUNDS	_	-					-	-	6
ZINC COMPOUNDS	8,027	8,126	8,000	448,569	7,754	8,195	11.921	4.361	5.074

Demographic Profile

Demographic Profile of Surrounding Area (1 Mile)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 US Census and American Community Survey data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table (LRT) when available.

Radius of Area:	1	Land Area:	95%	Household	s in Area:	1,26	
Center latitude:	41.68764	Water Area:	5%	Housing Uni	ts in Area:	1,37	
Center Longitude:	-87.55444	Population Density:	1,391/sq.mi.	Households on Pu	blic Assistance:	17	
Total Persons:	4,116	Percent Mmority:	82%	Persons Below I	Poverty Level:	2,06	
Race Break	down	Persons (%)		Age Breakdown	P	ersons (%)	
White:		2,398 (58.26%)		Child 5 years and younger:	316 (7.68%)		
African-Ame	erican;	351 (8.53%)		Minors 17 years and younger:	1,235 (30%)		
Hispanic-Or	rigin:	3,030 (73.62%)		Adults 18 years and older:	2,831 (70%)		
Asian Pacific I	slander:	18 (.44%)		Seniors 65 years and older:	483 (11.73%)		
American In	dian:	47 (1.14%)					
Other/Multir	ncial:	1,302 (31.63%)					
Edu	cation Level (Persons 25 &	older)	Persons (%)	Income Breakdown	Hous	eholds (%)	
	Less than 9th Grade:	54	4 (20.85%)	Loss than \$15,000:	120 (8.82%)		
	9th through 12th Grade:	36	3 (13.91%)	%) \$15,000 - \$25,000:		178 (13.09%)	
High School Diploma:		79	6 (30.51%)	35) \$25,000 - \$50,000:		341 (25.07%)	
Some College 2-yr:		63	7 (24.42%)	\$50,000 - \$75,000:	297 (21 84%)		
	B.S./B.A. or More:	26	9 (10.31%)	Greater than \$75,000:	424 (31.18%)		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

APR 14 2014

REPLY TO THE ATTENTION OF:

<u>CERTIFIED MAIL</u> <u>RETURN RECEIPT REQUESTED</u>

John Marta Plant Manager Horsehead Corporation 2701 E. 114th Street Chicago, Illinois 60617

Re:

Notice and Finding of Violation

Horsehead Corporation

Chicago, Illinois

Dear Mr. Marta:

The U.S. Environmental Protection Agency is issuing the enclosed Notice and Finding of Violation (NOV/FOV) to Horsehead Corporation (you) under Section 113(a) of the Clean Air Act, 42 U.S.C. § 7413(a). We find that you are violating the Illinois State Implementation Plan at your Chicago, Illinois facility.

Section 113 of the Clean Air Act gives EPA several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

We are offering you an opportunity to confer with us about the violations alleged in the NOV/FOV. The conference will give you an opportunity to present information on the specific findings of violation, any efforts you have taken to comply and the steps you will take to prevent future violations. In addition, in order to make the conference more productive, we encourage you to submit to us information responsive to the NOV/FOV prior to the conference date.

Please plan for your facility's technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.

The EPA contact in this matter is Alexandra Letuchy. You may call her at (312) 886-6035 to request a conference. You should make the request within 10 calendar days following receipt of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely,

George T. Czemiak

Director

Air and Radiation Division

cc: Eric Jones

Manager of the Compliance Unit

Bureau of Air

Illinois Environmental Protection Agency

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5

IN THE MATTER OF:)	
)	
Horsehead Corporation) NOTICE	AND FINDING OF
Chicago, Illinois) VIOLAT	ION
)	
) . EPA-5-14	-IL-10
Proceedings Pursuant to)	
the Clean Air Act) .	
42 U.S.C.§ § 7401 et seq) .	

NOTICE AND FINDING OF VIOLATION

The U.S. Environmental Protection Agency (EPA) is issuing this Notice and Finding of Violation (NOV/FOV) to Horsehead Corporation (Horsehead) to notify you that we have found violations of the Clean Air Act, 42 U.S.C. §§ 7401-7671q (CAA), and the Illinois State Implementation Plan (SIP) at the facility located at 2701 East 114th Street, Chicago, Illinois (Facility). The relevant statutory and regulatory background, factual background, notice and finding of violations, and environmental impact of these violations are set forth in detail below.

This NOV/FOV is issued in accordance with Section 113(a)(1) and (a)(3) of the Act, 42 U.S.C. § 7413(a)(1) and (a)(3), which authorize the Administrator to take certain enforcement actions after notifying a person that it is in violation of the Act. The authority to issue this NOV/FOV has been delegated by the Administrator to the Regional Administrator and re-delegated to the Director of the Air and Radiation Division for Region 5 of the EPA.

Relevant Statutory and Regulatory Background

Title V Requirements

- 1. Title V of the Act, 42 U.S.C. §§ 7661-7661f, established an operating permit program for major sources of air pollution. Section 502(d) of the Act, 42 U.S.C. § 7661a (d), provides that each state must submit to the EPA a permit program meeting the requirements of Title V.
- 2. In accordance with Section 502(b) of the Act, 42 U.S.C. § 7661a (b), the EPA promulgated regulations implementing Title V of the Act. See 57 Fed. Reg. 32295 (July 21, 1992). Those regulations are codified at 40 C.F.R. Part 70.
- 3. Section 502(a) of the Act, 42 U.S.C. § 7661a (a), and 40 C.F.R. § 70.7(b) provide that, after the effective date of any permit program approved or promulgated under Title V of the Act, no source subject to Title V may operate except in compliance with a Title V permit. See also 40 C.F.R. § 70.7(b).

- 4. Section 503 of the CAA, 42 U.S.C. § 7661c (a), requires that each Title V permit include enforceable emission limitations and standards, a schedule of compliance, and other conditions necessary to assume compliance with applicable requirements, including those contained in a state implementation plan.
- 5. The rule at 40 C.F.R. § 70.6(b)(1) provides that Title V permits are federally enforceable and that all terms and conditions of a Title V permit are enforceable by the EPA.
- 6. The rule at 40 C.F.R § 70.2 defines "major source" as, among other things, any stationary source belonging to a single major industrial grouping and that directly emits or has the potential to emit greater than 100 tons per year (tpy) or more of any air pollutant subject to regulation. See also 42 U.S.C. § 7661(2)(A).
- 7. The rule at 40 C.F.R. § 70.5(a) provides that "for each part 70 source, the owner or operator shall submit a timely and complete permit application in accordance with this section."
- 8. The rule at 40 C.F.R. § 70.5(c) specifies the information to be provided in a permit application for that application to be considered complete. The required information includes all emissions of pollutants for which the source is major, and all emissions of regulated air pollutants. A permit application shall describe all emissions of regulated air pollutants emitted from any emissions unit, except where such units are exempted under this paragraph (c) of this section. For insignificant activities which are exempted because of size or production rate, a list of such insignificant activities must be included in the application.
- 9. The rule at 40 C.F.R. § 70.5(d) requires that the permit application contain a certification by a responsible official of its truth, accuracy, and completeness.
- 10. The EPA approved of the Illinois' Title V program on December 4, 2001. 66 Fed. Reg. 62946. The approved Illinois Title V program is known as the Illinois Clean Air Act Permit Program (CAAPP).

Title V Permit

11. The Illinois Environmental Protection Agency (IEPA) issued a CAAPP Permit, Application No.: 96030189 (Title V Permit), to Horsehead on May 15, 2002.

12. The significant emission units in the Title V Permit and their associated emission capture equipment that are relevant to this FOV/NOV are:

Emission Unit	Description	-Commenced Construction	Emission Control Equipment
Process Emission	Carbon Material Pneumatic	11/93	Bag Collector 15
Source	Displacement Transfer System		e e
	Carbon Material Bin	11/93 .	Bag Collector 16
	Curing and Blending Building	1/92	Bag Collectors 11A, 11B, and 12
	Feed Handling System	3/87	Bag Collectors 2, 7, 8, 9, and 13
	Crude Zinc Oxide Bin	3/87	Bag Collectors 5, 6
	lron Rich Material Transfer Area	6/93	-Bag Collector 14
	lron-Rich Material Kilns Discharge Area	4/87	Bag Collector 1
Waelz Kiln System	Rotary Kiln 1 and 2	Kiln 1 3/42 Kiln 2 4/93	Product Collectors 3 and 10
Fugitive Particulate	Facility Roadways		
Emissions	Carbon Storage Pile		
	Carbon Handling by a Conveyor		
	lron-Rich Material Handling		

- 13. Condition 5.1.1. of the Title V Permit states that Horsehead is a major source of NOx emissions as defined by Title V of the CAA.
- 14. Condition 5.2.3.a. of the Title V Permit states that the facility shall operate under the provisions of a fugitive particulate matter operating program prepared by the Permittee and submitted to Illinois EPA for its review.
- 15. Condition 5.2.3.b. of the Title V Permit states that the fugitive particulate matter operating program shall be amended from time to time by the Permittee so that the operating program is current.

- 16. Condition 5.2.8. of the Title V Permit states that the facility is required to prepare and submit a contingency measure plan reflecting the PM₁₀ emission reductions as set forth in 35 Illinois Administrative Code (IAC) 212.703.
- 17. Condition 7.1.5. of the Title V Permit states that the Permittee shall operate and maintain bag collectors controlling the process emission sources, including periodic inspection, routine maintenance, and prompt repair of defects, if any, that assures compliance with the conditions of the process emission sources section.
- 18. Condition 7.1.6. of the Title V Permit states that the particulate matter (PM) emission limits for the Curing and Blending building are 1.0 lb/hr and 4.4 tpy. This condition also states: "the above limitation was established in permit 85120055, pursuant to Title I of the CAA, Major Stationary Sources Construction and Modification and 40 C.F.R. 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to these rules."
- 19. Condition 7.1.6. of the Title V Permit also states that the total emissions limit for the carbon material pneumatic displacement transfer system, carbon material bin, feed handling system, crude zinc oxide bin, iron-rich material transfer area, and the iron-rich material kilns discharge area shall not exceed 35.1 tons per year. This condition also states that "the above limitations are being established in this permit pursuant to Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modifications and/or 40 C.F.R. 52.21, PSD. The source has requested that the IEPA established emissions limitation and other appropriate terms and conditions in this permit that limit the PM emission from the affected process emission source operation below the levels that would trigger the applicability of these rules, consistent with the information provided in the CAAPP application."
- 20. Condition 7.1.9.a.i. of the Title V Permit states that the permittee shall maintain records of periodic inspection of the bag collectors with the date, name of individual performing the inspection, and the nature of the inspection for the bag collectors controlling the process emission sources.
- 21. Conditions 7.1.9.a.ii. of the Title V Permit states that the permittee shall maintain records of prompt repair of defects of the bag collectors controlling process emissions with the identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
- 22. Condition 7.1.9.b. of the Title V Permit states that the permittee shall maintain records of the inlet flow rates per respective bag collector controlling process emissions.
- 23. Condition 7.1.12.a. of the Title V Permit states that compliance with Condition 7.1.6. for the process emission units shall be based on an emissions calculation that accounts for bag collector inlet flow rate and bag collector efficiency.

- 24. Condition 7.2.9. e.i. of the Title V Permit states that the permittee shall maintain records of prompt repair of defects of the bag collectors controlling emissions from Kilns 1 and 2 with the identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
- 25. Conditions 7.2.9.e.ii. of the Title V Permit states that the permittee shall maintain records of prompt repair of defects of the bag collectors controlling emissions from Kiln 1 and Kiln 2 with the identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
- 26. Condition 7.4.2. of the Title V Permit states that the sources of fugitive emissions are facility roadways, carbon storage piles, carbon-handling by a conveyor and iron-rich material handling.

PSD Requirements

- 27. The PSD provisions of Part C of Title I of the Act require preconstruction review and permitting of stationary sources in attainment/unclassifiable areas. 42 U.S.C. §§ 7470-7492. Pursuant to applicable regulations, if a major stationary source located in an attainment area is planning to make a major modification, then that source must obtain a PSD permit before beginning actual construction. 40 C.F.R. § 52.21. To obtain this permit, the source must, among other things, undergo a technology review and apply Best Available Control Technology (BACT), perform a source impact analysis, perform an air quality analysis and modeling, submit appropriate information and conduct additional impact analyses as required.
- 28. Section 165(a) of the Act, 42 U.S.C. § 7475(a) prohibits the construction and subsequent operation of a "major emitting facility" in an area designated as attainment or unclassifiable unless a permit has been issued that is consistent with the requirements of Section 165 and the facility employs BACT for each pollutant subject to regulation under the Act that is emitted from the facility.
- 29. On June 19, 1978, EPA issued regulations implementing the federal PSD program at 40 C.F.R. § 52.21. 43 Fed. Reg. 26,388, 26, 403 (June 19, 1978) (federal PSD program). Since that time, the federal PSD regulations have been revised, with subsequent revisions incorporated under 40 C.F.R. § 52.21et seq.
- 30. Sections 110(a) and 161 of the CAA, 42 U.S.C. §§ 7410(a) and 7471, require each state to adopt a state implementation plan (SIP) that contains emission limitations and such other measures as may be necessary to prevent significant deterioration of air quality in areas designated as attainment or unclassifiable.
- 31. The requirements of 40 C.F.R. §52.21(j) through (r) apply to the construction of any new major stationary source or the major modification of any existing major stationary source, except as this section otherwise provides. 40 C.F.R. § 52.21(a)(2)(ii).

- 32. The rule at 40 C.F.R. § 52.21(r)(1) states that any owner or operator who constructs or operates a source or modification not in accordance with the application submitted pursuant to this section or with the terms of any approval to construct, or any owner or operator of a source or modification subject to this section who commences construction after the effective date of these regulations without applying for and receiving approval hereunder, shall be subject to appropriate enforcement action.
- 33. "Major Stationary Source" for the purpose of PSD means any of the stationary sources of air pollution in 40 C.F.R. § 52.21(b)(1)(iii) which emits, or has the potential to emit, 100 tpy or more of a regulated NSR pollutant. 40 C.F.R. § 52.21(b)(1)(i)(a).
- 34. "Major modification" means any physical change in or change in the method of operation of a major stationary source that would result in a significant emissions increase of a regulated NSR pollutant and a significant net emissions increase of that pollutant from the major stationary source. 40 C.F.R. § 52.21(b)(2)(i).
- 35. "Net emissions increase" means, with respect to any regulated NSR pollutant emitted by a major stationary source, the amount by which the sum of the following exceeds zero:

 (a) The increase in emissions from a particular physical change or change in the method of operation at a stationary source as calculated pursuant to 40 C.F.R. § 52.21(a)(2)(iv); and (b) Any other increases and decreases in actual emissions at the major stationary source that are contemporaneous with the particular change and are otherwise creditable. 40 C.F.R. § 52.21(b)(3)(i).
- 36. "Significant emissions increase" means, for a regulated NSR pollutant, an increase in emissions that is significant for that pollutant. 40 C.F.R. § 52.21(b)(40).
- 37. "Significant" means, in reference to a net emissions increase or the potential of a source to emit a rate of emissions that would equal or exceed any of the following rates: PM, 25 tpy; PM₁₀, 15 tpy; and PM2.5, 10 tpy. 40 C.F.R § 52.21(b)(23)(i).

Additional Illinois SIP Provisions

- 38. The rule at 35 IAC 201.144 states that no person shall cause or allow the operation of any existing emission source or any existing air pollution control equipment without first obtaining an operating permit from the Agency.
- The rule at 35 IAC 212.324(a)(1)(B) states that this section shall apply to any process emission unit located in an area in the vicinity of Lake Calumet in Cook County.
 - 40. The rule at 35 IAC 212.324(f) states that for any process emission unit subject to 35 IAC 212.324(a), the owner or operator shall maintain and repair all air pollution control equipment in a manner that assures that the emission limits and standards in this Section shall be met at all times. Proper maintenance shall include visual inspections of air pollution control equipment; maintenance of an adequate inventory of spare parts, and expeditious repairs.

41. The rule at 35 IAC 212. 324(g)(1) requires written records of inventory and documentation of inspection, maintenance, and repairs of all air pollution control equipment kept in accordance with 35 IAC 212.324(f).

Relevant Factual Background

- 42. Horsehead owns and operates an EAF dust processing facility located at 2701 East 114th Street in Chicago, Illinois (the Facility). The facility operates two Waelz kilns that convert EAF dust at high temperatures to crude zinc oxide and iron rich material.
- 43. Horsehead is located in Cook County, Illinois, and is located in the vicinity of Lake Calumet. The Lake Calumet Area was designated as a PM10 nonattainment area prior to September 8, 2005. On that date, EPA redesignated the area as attainment for PM10. See also 70 Fed. Reg. 55612.
- 44. On August 1, 2012, and again on March 31, 2014, EPA conducted inspections of the facility.
- 45. On November 14, 2012, EPA issued an information request to the Company pursuant to Section 114 of the CAA, 42 U.S.C. § 7414.
- 46. In response to the information request, Horsehead failed to provide a copy of current and past fugitive particulate matter operating program. Horsehead stated in the 2011 CAAPP Compliance Report that the facility was in the process of developing the program to be submitted to IEPA and was out of compliance with the requirements at Condition 5.2.3.a. of the Title V Permit. EPA obtained a copy of the operating program for fugitive particulate matter control in May of 2013.
- 47. Horsehead stated in the 2011 CAAPP Compliance Report that the facility was out of compliance with the PM₁₀ contingency measure plan requirements at Condition 5.2.8. of the Title V Permit.

48. In response to the information request, Horsehead stated that the company manually records the differential pressure readings at the bag collectors on a weekly basis. The records showed that the normal operating range is a 4 – 8 inches water column at each bag collector. The table below, from May 1, 2009 to November 26, 2012, provides: the percentage of weekly differential pressure readings missed and the percentage of daily differential pressure readings that deviated from the normal operating range. No information was provided for bag collector 15.

Bag Collector	% of Missed Readings	% of Out of Range Readings
1	6.9	88.4
11A	6.9	64.3
11B	6.9	81.5
16	. 6.9	100.0
2	18.3	100.0
12 .	18.6	100.0
14	18.6	100.0
3	15.5	21.3
10 .	15.5	69.7
7	5.8	97.1
8	5.8	42.0
17	5.8	99.6
9 .	19.2	96.4
13	18.8	87.1

- 49. In response to the information request, Horsehead provided measured inlet volumetric flow rates for each bag collector controlling process emission sources. Horsehead also provided baghouse capacities and fan capacities for each bag collector. Horsehead did not provide inlet volumetric flow rates for bag collector 15 or 16. The measured inlet volumetric flow rates for each bag collector were significantly lower than the baghouse capacity and fan capacity for each bag collector.
- 50. In response to the information request, Horsehead provided records of inspections and repairs for the bag collectors and product collectors. From May 1, 2009 to November 26, 2012, only one inspection was conducted on bag collectors 3, 10, 9, 13, and 8. No documented inspections have occurred on the remaining bag collectors. The records provided did not contain the name of the individual performing the inspections or the nature of the inspections.
- 51. The repair records provided did not contain the effect on emissions or the date of repairs. The records also did not consistently contain the identification and description of defects and nature of repairs.
- 52: During the EPA inspection on August 1, 2012, Horsehead personnel stated that iron rich material was stored in piles on the property and that there were no fugitive controls for the piles.

Notice and Finding of Violations

Violations of the Title V Permit and the Illinois SIP

- 53. By failing to prepare a fugitive particulate matter operating program, operate according to the program, and periodically amend the program, Horsehead violated Condition 5.2.3.a. of the Title V Permit.
- 54. By failing to submit a PM10 contingency measure plan, Horsehead violated Condition 5.2.8. of the Title V Permit.
- By failing to inspect the bag collectors on a periodic basis, by failing to operate the bag collectors within a differential pressure range that indicates normal operation, failing to measure differential pressure on a weekly basis, and failing to repairs defects at the bag collectors indicated by differential pressure, Horsehead violated Condition 7.1.5. of the Title V Permit and 35 IAC 212.324(f).
- 56. By failing to include all required elements in the inspection records, Horsehead violated Conditions 7.1.9.a.i. and 7.2.9.e.i. of the Title V Permit and 35 1AC 212.324(g)(1).
- 57. By failing to include all required elements in the maintenance records, Horsehead violated Conditions 7.1.9.a.ii. and 7.2.9.e.ii. of the Title V Permit.
- 58. From at least 2010 to 2012, Horsehead has exceeded the PM emission limits in Condition 7.1.6., as evidenced by the bag collector efficiency in the Title V Permit and the discrepancies between the measured inlet flow rates and the bag collector capacities and fan capacities.
- 59. By failing to include the Iron Rich Material storage piles in the 1996 and 2006 permit applications and failing to submit correct information, Horsehead violated 40 C.F.R. § 70.5(a), 70.5(c), and 70.5(d).
- 60. By failing to obtain an operating permit for the Iron Rich Material storage piles, Horsehead violated and 35 IAC 201.144.

Violations of PSD

61. From at least 2010 to 2012, Horsehead's operation of the process emission sources has resulted in a significant net emissions increase of PM in violation of 40 C.F.R. § 52.21, as evidenced by the bag collector efficiency in the Title V Permit and the discrepancies between the measured inlet flow rates and the bag collector capacities and fan capacities.

Environmental Impact of Violations

- 62. These violations have caused excess emissions of PM. PM, especially fine particulates contains microscopic solids or liquid droplets, which can get deep into the lungs and cause serious health problems. PM exposure contributes to irritation of the airways, coughing, and difficulty breathing, decreased lung function, aggravated asthma, chronic bronchitis, irregular heartbeat, nonfatal heart attacks and premature death in people with heart or lung disease.
- 63. These violations have also likely resulted in increased emissions of Hazardous Air Pollutants (HAPs), including, but not limited to, manganese, lead, and cadmium. Chronic inhalation exposure of manganese results impacts the nervous systems and results in slower visual reaction time and impaired eye-hand coordination. Inhalation exposure also causes respiratory effects such as bronchitis, dyspnea during exercise, and an increase susceptibility to infectious lung disease. In children, low levels of lead in the blood can result in permanent damage to the brain and nervous system, leading to behavior and learning problems, lower IQ, hearing problems, slowed growth, and anemia. In adults, lead has nervous system effects, cardiovascular effects, and causes decreased kidney function. The acute affect on cadmium inhalation causes bronchial and pulmonary irritation. Chronic inhalation can cause kidney disease, bronchiolotis, and emphysema. HAP emissions may also cause harmful environmental and ecological effects.

A/14/12.

George T. Czerniak Director

Air and Radiation Division

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Notice and Finding of Violation, EPA-5-14-IL-10, by Certified Mail, Return Receipt Requested, to:

John A. Marta Plant Manager Horsehead Corporation 2701 East 114th Street Chicago, Illinois 60617

I also certify that I sent copies of the Notice of Violation by first-class mail to:

Eric Jones, Manager Compliance Unit Bureau of Air Illinois Environmental Protection Agency P.O. Box 19506 Springfield, Illinois 62794

On the 14 day of APRIL 2014.

Loretta Shaffer Program Technician AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER:

7009 1680 0000 7676 2632