

BEFORE THE NEBRASKA DEPARTMENT OF ENVIRONMENTAL QUALITY

THE CASE OF ASARCO INCORPORATED,)	
a New Jersey corporation)	Case No. 1520
authorized to do business in)	
Nebraska,)	
)	AMENDED COMPLAINT AND
)	COMPLIANCE ORDER
Respondent.)	

There is now in effect a Final Complaint and Compliance Order of June 9, 1995, as modified on January 22, 1996, for extension of certain deadlines. On November 15, 1995, the Respondent, Asarco Incorporated, announced a change in configuration of its plant in Omaha, Nebraska, and requested that the Complainant, Nebraska Department of Environmental Quality, modify the Order of June 9, 1995. Upon consideration by the Department portions of the previous Orders which are affected by the change in configuration have been amended; portions which are not affected are ratified and remain in force as previously promulgated. In this document the paragraphs and subparagraphs identified by underlined numbers and letters denote the ratified portions of the previously promulgated Order. New requirements are not underlined. The previously promulgated provisions are included for clarification and convenience by collecting all requirements in one document. The issuance of this document is not intended to alter the status of the previously promulgated provisions.

PRELIMINARY STATEMENT

The Complaint, Compliance Order and Notice of Opportunity for Hearing are issued pursuant to Neb. Rev. Stat. §81-1507(1)

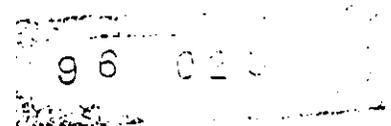
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(Reissue 1994) of the Nebraska Environmental Protection Act, Neb. Rev. Stat. §81-1501 et seq. (Reissue 1994). The Complainant is Randolph Wood, Director of the Nebraska Department of Environmental Quality (hereinafter referred to as NDEQ). The Respondent is Asarco Incorporated, a New Jersey corporation, authorized to do business in the State of Nebraska. The Respondent at all times material herein operates a smelter of lead and other non-ferrous metals at 500 Douglas Street, Omaha, Nebraska (hereinafter the Omaha plant). The Complainant has determined that the Respondent has violated the Nebraska Environmental Protection Act by causing pollution, placing wastes in a location where they are likely to cause pollution, and by violating an air quality standard established by the Nebraska Environmental Quality Council, specifically the lead standard. The Complaint below establishes the violation.

COMPLAINT

1. The Complainant incorporates herein by reference the allegations contained in its preliminary statement. The terms "person", "air pollution", and "wastes" as used in this complaint are defined by Neb. Rev. Stat. §81-1502 (Reissue 1994).

2. Pursuant to Neb. Rev. Stat. §81-1506 (Reissue 1994), it is unlawful for any person to cause pollution of the air of the State, to place wastes in a location where they are likely to cause pollution of any air of the State, or to discharge or emit wastes into the air of the State which reduce the quality of such air below the air quality standards established by the Council.



Pursuant to Neb. Rev. Stat. §81-1505(1)(Reissue 1994) the Environmental Quality Council duly adopted an air quality standard related to lead emissions and promulgated the same as Title 129, Chapter 4, Section 006, Nebraska Air Pollution Control Rules and Regulations, Nebraska Administrative Code, in the following terms:

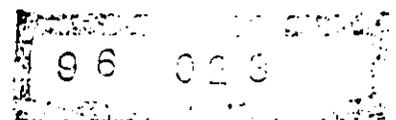
"Primary and secondary standard 1.5 micrograms per cubic meter calendar quarter arithmetic mean."

3. In the normal course of its business, Respondent causes emissions of airborne lead particles by refining, smelting, storage, transport, and various other activities.

4. Lead is a substance which is toxic and hazardous to human health.

5. The Respondent has polluted the air of the State and has violated the State's air quality standard for lead by causing the arithmetic mean of the ambient air adjacent to the outside boundaries of the Omaha plant to exceed 1.5 micrograms per cubic meter, and thereby reduced the quality of the air of the state below the air quality standard for lead expressed in Title 129, Chapter 4, Section 006, in the calendar quarters ending March 1988, September 1988, December 1988, March 1989, September 1989, December 1989, March 1990, December 1990, March 1991, December 1991, March 1992, June 1992, September 1992, December 1992, March 1993, September 1993, December 1993, and March 1994.

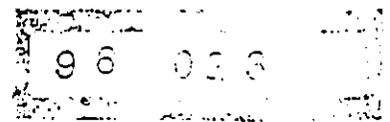
6. The Respondent has, on a continuous basis since January 1, 1988, placed wastes in a location where they are likely to cause pollution of the air of the State by storage of lead-bearing waste material in the open, exposed to the ambient air; and, the



defendant has, on a continuous basis since January 1, 1988, caused dust and lead particles from its refining and other operations at the Omaha plant to escape and pollute the ambient air of the state.

7. Pursuant to Neb. Rev. Stat. §81-1504 (25) (Reissue 1994) the Department has the power and duty to develop and enforce compliance schedules under such conditions as the director may prescribe to prevent, control or abate pollution. The measures set forth below in the compliance order are reasonably likely to prevent, control and abate pollution.

8. Pursuant to Neb. Rev. Stat. §81-1504(4) (Reissue 1994) the Department of Environmental Quality is authorized and required to act as the state air pollution agency for all purposes of the Federal Clean Air Act as amended 42 U.S.C 6901 et seq. Section 172(c) of the Clean Air Act authorizes the control measures and associated schedule contained herein by virtue of the respondent's location within, and contribution to, an area designated as non-attainment for lead by the Administrator of the U.S. Environmental Protection Agency. Said control measures and associated schedule are reasonably available control measures to be implemented as expeditiously as practicable (including such reductions in emissions of existing sources in the area as may be obtained through the adoption, at a minimum of reasonably available control technology) in order to attain the national ambient air quality standard for lead.



COMPLIANCE ORDER

9. IT IS THEREFORE ORDERED that the Respondent shall complete the following schedule and requirements. These represent control measures which are reasonably available considering technological and economic feasibility in accordance with Section 172(c) (1) of the Clean Air Act.

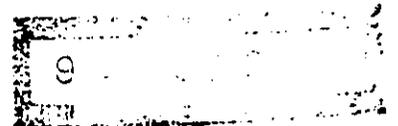
(a) Liquation Block Exchange Project:

Liquation block exchanges shall not be conducted in the residue kettle. Prior to, but not after, December 31, 1996, liquation block exchanges may be conducted in a refinery kettle. After December 31, 1996, liquation block exchanges shall only be conducted in the bismuth de-leading kettles which shall be specially equipped and operated with local exhaust ventilation vented to the softener baghouse.

(b) Application of Dust Suppressants:

Asarco's existing programs for street sweeping and application of dust suppressants shall be continued, as follows:

i. Lignosulfonate, or an equivalent, shall be used to stabilize all unpaved areas within the plant premises; a mixture of lignosulfonate and an insoluble latex binder, or equivalent (such as tarps), shall be used to stabilize all outside piles of slags, drosses and refractory bricks. These measures shall be performed in accordance with Asarco's work practice manual. Dust



stabilization compounds may be changed only after notification to NDEQ and the City of Omaha's Air Quality Division.

ii. A Johnston regenerative air type sweeper, or equivalent, which is also equipped with a wet sweeping system, shall be used six hours per day, Monday through Saturday, on all paved roadways within the plant premise. Asarco shall maintain files, available upon request to NDEQ or its designee, which include the following information:

a. The date with starting and completion times of each street sweeping.

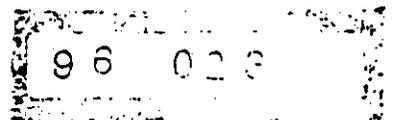
b. Justification for deviating from the standard street sweeping schedule.

c. The daily rainfall recorded on Asarco's on-site rain gauge.

d. The date, composition, and total amount of dust suppressants applied to the surfaces of stock piles and unpaved areas on each occasion; the placement and removal of tarps including the condition of tarps.

e. The date, time and findings of each inspection conducted for the purpose of determining the need for dust suppressant applications.

(c) Outdoor Material Handling and Road Dust Control Project (1):



From and after June 1, 1994 outdoor stockpiles of exchange slag, cupola slag, reverb slag, tin skims, matte, used refractory brick, dore slag, bismuth dross, lead chloride, and all other materials containing greater than 1% lead (excluding formed metal) shall be contained using concrete road barriers, or equivalent methods, as approved by the Director of NDEQ. The total of stockpiles of such materials containing greater than 1% lead (excluding metal ingots) shall not exceed 32,198 cubic yards or 54,737 total tons. The barriers shall be designed and maintained to ensure stockpile integrity and the barrier system shall be effective in controlling spillage, track-out and wash-out onto roadways. Asarco shall maintain documentation of sampling procedures and laboratory assay results for any outdoor stockpiles not contained by concrete barriers or an approved equivalent method, and for all outdoor stockpiles if the total volume or tonnage exceeds 90% of the allowable limits in this paragraph.

(d) Bismuth Cupel Furnace Ventilation Project (1):

- i. Use of the automatic temperature control system installed in January 1993 shall continue. This system shall be operated to eliminate furnace overheating and over pressurizing.
- ii. On or before July 1, 1994, automatic dampers shall be installed and operated in the cupel furnace ventilation flues. These dampers shall be set to

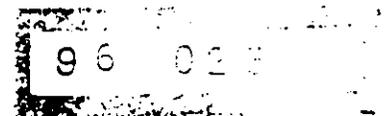
automatically maintain a static pressure level that is adequate for effective furnace ventilation.

iii. Use of the water-cooled vibrating table shall be continued. This equipment shall be operated and maintained such that litharge skimming occurs at a slow, steady rate. Litharge shall be cooled as quickly as is reasonably possible after it contacts the water-cooled table; and then it shall be conveyed directly into portable containers.

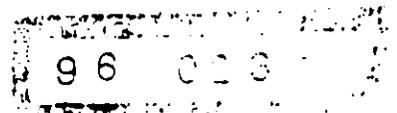
iv. On or before July 1, 1994, the existing ventilation hoods and ductwork for the cupel furnaces shall be eliminated and replaced with an alternative system. Instead of capturing emissions at the point of escape, the new system shall be designed and operated for maximum control of furnace pressure and minimization of the escape of emissions.

(e) Baghouse Dust Unloading Project:

i. Asarco shall implement the following measures to reduce emissions during dust unloading. The maximum wind speed at which dust unloading may occur at the smelter baghouse is 15 mph. The maximum wind speed at which dust unloading may occur at the softener baghouse is 12 mph. Compliance with the baghouse unloading wind speed limitations shall be determined on the basis of a 15 minute rolling average. No wind speed limitation applies when the cellar doors are closed and dust unloading occurs through the vacuum ports. On or before



August 1, 1994, Asarco shall install windbreaks at the smelter baghouse. The windbreaks shall be at least 10 feet in height, and gated to span the area between the flood wall and baghouse building on both the north and south sides of the baghouse. The windscreen/gate ends shall be equipped with rubber flaps to seal the space between gate and floodwall. During unloading, these swinging windscreen/gates shall be closed, and, with the flood wall (west) and baghouse building (east), shall produce a completely surrounded unloading operation. Asarco shall maintain a log, available upon request to NDEQ or its designee, recording the times and duration of occasions when the smelter or softener baghouse doors are open. The log shall also contain continuous windspeed recordings from a new wind gauge and continuous recorder, approved by NDEQ, which shall be installed by Asarco at a location representative of wind speeds in the vicinity of the baghouse doors on or before August 1, 1994. The Heartland Park meteorological station shall continue to be maintained and operated according to the June 14, 1991 document ASARCO Incorporated Meteorological Program Monitoring and Quality Assurance Plan, Omaha, Nebraska until further action by the Director of NDEQ. Digitized meteorological data including temperature, wind direction, wind speed, and sigma theta data from the park site and precipitation from the plant site shall be



provided to the Department within 60 days of the Department's request. Asarco may discontinue the operation of this meteorological station upon approval by the NDEQ, when five consecutive years of data of sufficient completeness and quality for modeling purposes have been obtained.

ii. Asarco shall, on or before August 1, 1994, install vacuum ports in the cellar doors of the softener and smelter baghouses. These ports shall be no larger than necessary to accept a sliding pipe through which baghouse dust can be vacuumed. When not in use the ports shall remain closed. Only when all of the fume that can be captured by the vacuum system is withdrawn may the doors be opened to allow a vacuum truck to enter the cellar to pick up remaining fume.

(f) Antimony stack extension Project:

On or before September 1, 1994, Asarco shall install a 20-foot vertical discharge stack on each of the horizontal ducts for exhaust gases from antimony product baghouses #1-4. In addition, Asarco shall, on or before September 1, 1994, install 50-foot stack extensions on antimony kettle stacks #1 and 2.

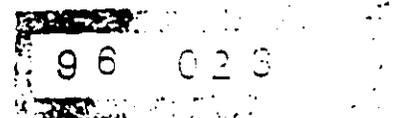
(g) Dore Kettle Stack Project:

On or before December 1, 1994, the four existing dore liquation kettle exhausts shall be vented to the existing 178-foot black stack.

(h) Cupola Furnace & Residue Kettle Improvements (1):



- i. On or before April 1, 1995, the Respondent shall install a secondary hood and new duct work to the cupola furnace for fugitive emissions produced during charging and smelting. This hood shall be ventilated as specified in Paragraph 16. New hoods shall be installed to capture emissions from tapping of the cupola furnace including the tap hole, settler, slag pot, lead pot and button mold; these additional new hoods shall be ventilated as specified in Paragraph 16.
- ii. On or before April 1, 1995, the Respondent shall replace or modify the residue kettle hood to further enclose the operations and to be effective in reducing emissions from the kettle charging and operations. In addition, combustion gases evolved from the residue kettle shall be vented to the smelter baghouse. Exhaust ventilation from these combined sources shall be as specified in Paragraph 16; and the exhaust shall be vented to the smelter baghouse.
- iii. On or before April 1, 1995, the cupola furnace lead pots shall be further enclosed to the maximum extent feasible.
- iv. On or before April 1, 1995, bunkers shall be constructed in the residue building and used to store materials to be smelted in the residue building. All softener skims shall be handled and stored in these bunkers or other indoor storage areas in the residue building.



v. On or before April 1, 1995, the smelter baghouse capacity shall be increased to 100,000 acfm. In addition, the smelter baghouse discharge stacks shall be increased in height to 91 feet above ground level. The smelter baghouse shall serve the following sources during operation of the cupola furnace and residue kettle: cupola process gas, cupola tapping hoods, residue kettle hood, low grade processes (after December 31, 1996), and residue kettle combustion gas. The cupola secondary hood shall be vented through the residue vent baghouse.

(i) Outdoor Material Handling and Road Dust Control Project (2):

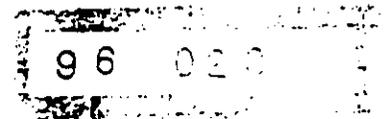
No softener skims or tin skims shall be stored or dumped outdoors after April 1, 1995.

(j) Bismuth Cupel Furnace Ventilation Project (2):

i. On or before December 31, 1996, the exhaust ventilation volume supplied to the cupel furnaces shall be increased as specified in Paragraph 16. The additional ventilation shall be supplied by the softener baghouse.

ii. On or before December 31, 1996, combustion gases evolved from the six bismuth kettles shall be vented to the softener baghouse.

(k) Burning of Baghouse Dust:



Asarco shall not at any time, in any location within the plant, engage in intentional burning of baghouse dust.

(l) Outdoor Material Handling and Road Dust Control Project (3,4,5):

i. No purchase drosses, copper drosses or caustic skims shall be dumped outdoors subsequent to December 31, 1996.

ii. The outdoor dumping of exchange slag and dore slag/bismuth dross will be limited to a maximum of one time.

(m) Process Weight Limitations

i. On or before December 31, 1996, Asarco shall cease all production operations in the refinery building and in the dore building.

ii. On and after December 31, 1996, Asarco shall limit production in the bismuth, residue and antimony oxide facilities. During each calendar quarter, Asarco shall operate the Omaha plant in compliance with any one of the following six operating scenarios:

Production Facility	Operating Parameter	Operating Scenarios					
		#1	#2	#3	#4	#5	#6
Antimony Oxide	Tons Antimony Oxide Produced Per Quarter	0	375	375	375	0	0
Residue	Tons Residue Lead Produced Per Quarter	6000	2000	3000	4000	3000	4000
Bismuth	Tons Lead Chloride	0	850	650	400	760	505

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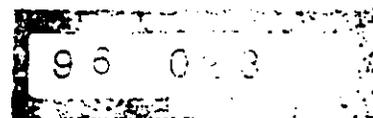
Produced Per
Quarter

Cupeling Hours 0 2500 1900 1170 2240 1490
per Quarter
(total for two
cupels)

Softener 0 1250 950 585 1120 745
Baghouse
Operating
Hours per
Quarter

(n) Respondent shall install test ports in all ducts to which a minimum air flow requirement is associated. The test ports shall be installed for the purpose of conducting physical measurements of air flow through the ducts. Test ports shall be located in accessible areas and at locations which will allow accurate air flow measurements to be made. If reasonable, ready, access for test port locations cannot be provided, or if the respondent elects, continuous automatic air flow instruments shall be installed; and continuous readouts of air flow measurements shall be provided for inspection. At each test port location Asarco shall, not less than once every 14 days, conduct an air flow test to determine compliance with the ventilation requirements of this order according to 40 CFR Part 60, Appendix A, Method 2, or an alternative method approved by the Director. Asarco shall retain a record of the results of each such test for three years and make the same available to NDEQ upon request.

(o) Cupola Furnace and Residue Kettle Improvements(2):



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Source Description	Source #	Lead Emission Rate (lb/hr.)
Bismuth Power Roof Ventilator	30002.1	.22 **
Bismuth Power Roof Ventilator	30002.2	.22 **
Brick Stack	40000	0.082
Smelter Baghouse Stack	40003	0.35
Smelter Baghouse Stack	40004	0.35
Softener Baghouse Stacks	10001-10006	0.98

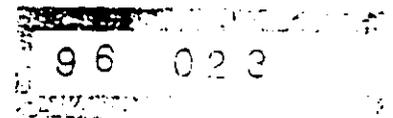
** test using either the same technique used in preparing the baseline inventory for the control strategy, or according to EPA approved methods in which case, if Asarco chooses, one bismuth power roof ventilator may be tested as representative of the remaining power roof ventilator.

Source identification numbers are from the post-control emission inventory submitted with Asarco's SIP revision proposal dated November 16, 1995.

Asarco shall provide an additional lead monitor at a location within the current non-attainment area at a location approved by NDEQ and as close to the area of predicted maximum lead concentration as feasible. The location of this monitor shall satisfy applicable siting criteria. It shall be installed and operational no later than August 1, 1994. This monitor shall be operated as a State and Local Monitoring Station (SLAMS), and it shall be in operation every other day.

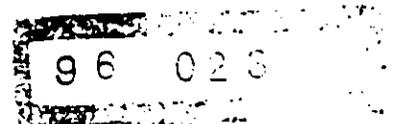
11. In accordance with Section 172(c)(2) of the Clean Air Act, Asarco shall complete the following schedule of activities as set forth in more detail in item 9 hereof:

<u>Project</u>	<u>Completion Date</u>
Liquation Block Exchange Restriction	10/1/93
Application of Dust Suppressants	10/1/93



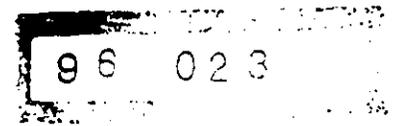
i. On or before December 31, 1996, exhaust gases from the low grade processes shall be vented to the smelter baghouse instead of the low grade baghouse.

10. Compliance with the emission rates contained in this paragraph shall be demonstrated to NDEQ by Asarco through tests, conducted at Asarco's expense, by an independent testing firm, acceptable to NDEQ, according to 40 CFR Part 60 Appendix A, Method 12, or alternative methods as proposed by Asarco and approved by NDEQ. All emission limits are one hour averages. Compliance with these limits is to be demonstrated by at least 3 test runs of not less than one hour and not more than two hours or such longer period as accepted by NDEQ on a case by case basis. The minimum sample volume shall be .85 dscm (30 dscf). During each test run the affected sources shall be operated at their maximum allowable production rates. Emission tests or retests may be conducted at production rates less than maximum allowable production rates; in which case the production rate at the time of such tests or retests, assuming compliance is demonstrated, shall be the maximum allowable production rate, as designated by NDEQ, for such processes. Emission rates will be determined by the arithmetic average of each acceptable run expressed in pounds per hour. Testing shall be conducted before May 1, 1997. Asarco shall notify NDEQ of the proposed test dates and provide a copy of the test protocol to NDEQ for review and approval at least 30 days prior to testing. Test reports will be submitted to NDEQ within 60 days of the completion of tests. The following emission rates shall be achieved:



Outdoor Material Handling and Road Dust Project (1)	6/1/94
Cupel Furnace Ventilation Project (1)	7/1/94
Baghouse Dust Unloading Project	8/1/94
Antimony Stack Extension	9/1/94
Dore' Kettle Stack Project	12/1/94
Cupola Furnace & Residue Kettle Improvements	4/1/95
Outdoor Material Handling Road Dust Control Project (2)	4/1/95
Cupel Furnace Ventilation Project (2)	12/31/96
Outdoor Material Handling and Road Dust Control Project (3,4,5)	12/31/96
Process Weight Limits	12/31/96
Cupola Furnace and Residue Kettle Improvements(2)	12/31/96

12. Asarco shall, to the extent consistent with this order, adhere to its existing Work Practices Manual, attached hereto and incorporated herein by reference as Appendix A, as the same may be modified from time to time. Work practices for unloading baghouse dust from each baghouse shall be included in the Work Practices Manual. In the case of any baghouse for which work practices have not been developed, work practices for such baghouse shall be developed and submitted to NDEQ for approval and inclusion in the Work Practices Manual within three months of the date of this order. 90 days prior to any demolition or excavation on the plant site Asarco shall develop a work practice to minimize lead emissions which may result from such activities and submit the same to NDEQ for approval. New work practices and work practices which are not referenced in the work practice manual may not be introduced or modified without the approval of NDEQ. Asarco shall give NDEQ or its designee at least 7 days prior notice of all construction on its premises, which may affect emission or dispersion of lead, whether or not in such instance a construction permit is required; and in each instance when engineers or architects plans have been produced for such construction,



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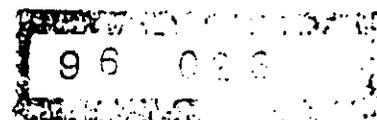
demolition, or remodeling they shall be furnished to NDEQ or its designee prior to commencement of such activity. Asarco shall in no respect deviate from the physical designs which were used as assumptions in the modeling exercise submitted to NDEQ in Asarco's demonstration of attainment dated November 16, 1995, without the prior written approval of NDEQ.

13. In the debismuthing process the formation of dry dross shall not occur. During the debismuthing process lead-containing bismuth shall be concentrated in a molten salt reagent phase and transferred to the next process vessel as a slag-like material.

14. Asarco shall continue to use and maintain the existing fabric filter systems to control emissions from the packaging; separator discharge, storage hoppers, blender, bucket elevators, hood cleaning station and associated equipment in the antimony oxide building.

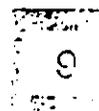
15. Asarco shall prominently post the area between the floodwall and the river with "no trespassing" signs; and Asarco shall patrol said area to discourage trespassing.

16. Asarco shall report to NDEQ within fifteen (15) days of the date it accomplishes each milestone set forth in item 11 of this order. Asarco shall maintain a file which states for each calendar quarter: the residue lead produced (tons of lead content), the lead chloride produced, the antimony oxide produced, the total cupeling hours, and the softener baghouse operating hours. Asarco shall maintain a file which sets forth the date, time and findings of each inspection that it conducts of each fabric filter system in use in the plant, together with a report



of the date, time and description of any repairs to the fabric filter systems. Asarco shall keep all records or files required by this order, in its entirety, and the work practice plan, at its plant for at least two years subsequent to the occurrence recorded, and such records or files shall be made available to NDEQ or its designee upon request.

The minimum air flow requirements of this order shall apply only at such times as the equipment to be ventilated is in operation, and shall not apply to such equipment (1) during periods of malfunction, but no longer than reasonably necessary to achieve repairs (2) during periods of necessary maintenance which could not reasonably be scheduled when operations are not occurring and (3) or necessary baghouse bag repair. In addition, the minimum flow requirements herein shall be suspended at the cupel furnaces during tapping and at the ventilation controlling cupola furnace tapping emissions at such times as the cupola furnace is banked. In no event shall flows during baghouse unloading decrease by more than 25% of the minimum air flow. There are certain minimum air flow requirements for ventilation set forth in this order which are subject to modification by designation of the Director of a lower minimum air flow in the event that, during a compliance test conducted in accordance with this order, emission limits are met and effective capture of fugitive emission occurs at ventilation rates lower than expressed herein. In such instances, the Director will fix the new ventilation rates at those used during the test used for



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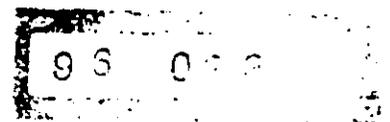
demonstration of compliance. The minimum air flow requirements of this order are, in acfm:

Source	Minimum Air Flow Requirement (acfm)
1. Cupola furnace charging, para. 9(h)(i)	20,000
2. Cupola furnace tapping, para. 9(h)(i)	14,000
3. Residue kettle and Residue kettle combustion gas, para. 9(h)(ii)	
a. charging buttons; skimming; dipping	3,000
b. holding; melting buttons	9,000
c. charging molten metal; mixing; reagent addition	15,000
4. Cupel furnaces, para. 9(j)(i)	9,000 per furnaces

Alternatively, Asarco is offered the option of measuring all flows and demonstrating compliance with the fugitive dust collection efficiency represented by Asarco as necessary to demonstrate compliance in its submittal to the State of the 1995 Revision To The Nebraska Implementation Plan For Lead.

17. After December 31, 1996, Asarco shall produce no emissions from the "Black Stack", also known as emission inventory source number 20000.

18. In accordance with Section 172(c) (9) of the Clean Air Act, Asarco shall implement the following contingency measures if

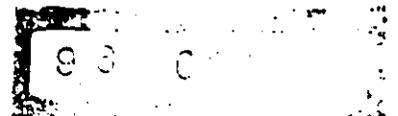


it fails to meet the reasonable further progress schedule contained in item 11 of this order or if there is a failure to attain the ambient air quality standard for lead subsequent to January 1, 1997. EPA and/or the state will make such a determination. The State will notify Asarco within 5 days of such determination. Upon notification by the state, Asarco shall begin to implement the applicable contingency measures listed below as expeditiously as practicable but not later than 60 days from the date of notification. The contingency measures are:

(a) In the event of a failure to meet any of the deadlines for reasonable further progress contained in the table set forth in item 11 of this order, then Asarco shall increase street cleaning frequency as required in item (9)(b)(ii) of this order to a minimum of 12 hours per day, 7 days per week, until such time as the failure is cured by completion of all delinquent control measures.

(b) In the event of failure to be in attainment with the lead standard by January 1, 1997, or at any time thereafter, then Asarco shall also increase street cleaning frequency as required in item 9 (b) (ii) of this order to a minimum of 12 hours per day, 7 days per week, until alternative pollution control measures are approved by NDEQ and implemented by Asarco.

(c) In the event of failure to be in attainment with the lead standard at any time after January 1, 1997, and while operating under the production limits set forth in



paragraph 9(m) above, then upon written notice from NDEQ, Asarco shall reduce the production of all products for which this order imposes production limits by ten percent (10%) of the amount required under paragraph 9(m) in the first full calendar quarter following receipt of such notice. Likewise, if after a ten percent (10%) reduction in production as required herein, there is again a failure to attain the lead standard, there shall be a series of such progressive and additive 10% reductions of production until attainment with the lead standard is achieved. Any reduction imposed pursuant to this subparagraph (c) shall remain in effect until alternative pollution control measures are approved by NDEQ and implemented by Asarco.

~~19. Notwithstanding any other provision of this order, subsequent to January 1, 1997, Asarco shall operate its plant so as to cause no violation of the ambient air standard for lead.~~

20. This Document is intended to be a complete statement of all requirements imposed by NDEQ on Asarco as part of the State Implementation Plan for Lead, both previously promulgated and newly revised. Those requirements of the June 9, 1995, Final Complaint and Compliance Order not contained in this document are hereby annulled.

NOTICE OF OPPORTUNITY FOR HEARING

21. Pursuant to Neb. Rev. Stat. § 81-1507(1) (reissue 1994) the provisions of this order, with the exceptions of the



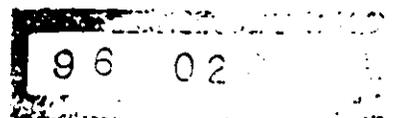
previously promulgated provisions which are final and not subject to further hearing, shall become final unless the respondent requests in writing a hearing before the director not later than thirty days after receipt of this order.

PENALTY AND INJUNCTIVE PROVISIONS

22. This Final Complaint and Compliance Order does not preclude NDEQ from pursuing enforcement in a court of appropriate jurisdiction for injunctive relief or civil and criminal penalties as provided in the Nebraska Environmental Protection Act with respect to any past or future violations.

June 6, 1996
Date

Randolph Wood
Randolph Wood, P.E., Director
NEBRASKA DEPARTMENT OF
ENVIRONMENTAL QUALITY



Appendix A - Work Practices Manual

The work practice manual consists of the following work practice procedures as required by paragraph 12 of the Amended Complaint and Compliance Order in case number 1520.

<u>Procedure</u>	<u>Date of Revision</u>
Dore Baghouse Dust Unloading	July 1, 1994
Residue Vent Baghouse Dust Unloading	July 1, 1994
Antimony Baghouse Dust Unloading	July 1, 1994
Antimony Oxide Continuous Offgrade Baghouse Dust Unloading	July 1, 1994
Antimony Oxide Intermittent Offgrade Baghouse Dust Unloading	July 1, 1994
Softener Baghouse Dust Unloading	May 22, 1996
Smelter Baghouse Dust Unloading	May 22, 1996
Street Sweeping, Application of Dust Suppressants, and Stockpile Tarping	May 22, 1996
Omaha Spill Control Plan to Minimize Lead Emissions	May 30, 1996
Omaha Dust Control Plan for Construction Projects	March 22, 1994

WORK PRACTICE PROCEDURE
DORE' BAGHOUSE DUST UNLOADING
ASARCO - Omaha Plant

I. OBJECTIVE

The Dore' baghouse services the Dore' Department. Prior to discharge, emissions from the Dore' Department processes pass through the dore' baghouse where particulate matter is filtered and collected in one of six dust hoppers (#1-#6). Periodically, the collected dust must be removed from the hoppers and transported to the Residue Department for storage prior to further processing. During the unloading activity, fugitive dust emissions containing lead can be created.

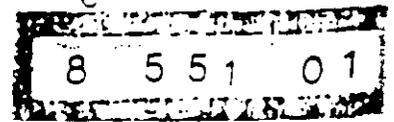
The objective of the following work practice procedure is to minimize, control and prevent the escape of fugitive dust emissions during the removal, transportation and subsequent unloading of the Dore' baghouse dust. This will be accomplished through the utilization of special equipment and the implementation of work practice procedures described below.

II. RESPONSIBILITY

The Environmental Services Department supervisor shall be responsible for assuring that Dore' baghouse dust unloading is conducted according to the stated procedure. Dust shall not be removed from the Dore' baghouse without authorization from the Residue Department supervisor or higher management. The Environmental supervisor will also be responsible for procuring the required equipment and for training of hourly employees and contract employees. Training shall be conducted periodically as necessary and shall include all activities and procedures required by this work practice procedure, as well as by safety and health policies and programs.

III. SUPERVISION AND ENFORCEMENT

On each shift that dust is unloaded from the Dore' baghouse, the Environmental Services Department supervisor shall be responsible for insuring compliance with the procedures described herein. These procedures will be strictly enforced. Failure to comply with the required procedures may result in formal disciplinary action for the offending employee(s). Depending on the severity and frequency of the violation, the offending employee(s) will be disciplined by means of an oral or written warning, time-off without pay, transfer to an alternate job and/or employment termination.



IV. WEATHER CONDITIONS

This baghouse is not subject to wind speed limitations during unloading.

V. EQUIPMENT

An auger will be used to transfer the dust from each hopper into a barrel. The discharge point of the auger will have a shroud attached that extends into the barrel. This shroud will help minimize fugitive emissions as the dust is transferred into from the barrel. A vacuum truck will be used to withdraw dust from the barrel and to subsequently transport the dust to the Residue Department. This truck shall also be utilized to perform housekeeping activities both during, if necessary, and after completion of the unloading procedure. At a minimum, the vacuum truck shall be equipped with a totally enclosed hopper except the vacuum exhaust which shall be filtered by means of a baghouse prior to discharge.

VI. UNLOADING PROCEDURE

The procedure described herein below shall be utilized to perform Dore' baghouse dust unloading. This operation will be conducted by a minimum of two employees; one vacuum truck operator and one baghouseman. The six Dore' baghouse hoppers shall be unloaded using the following procedures:

- A. After positioning the vacuum truck near the Dore' baghouse, the operator shall inspect and prepare the truck to assure proper operation, particularly the hopper seals and vacuum exhaust baghouse.
- B. If any malfunction is detected prior to or during the course of unloading, the operation shall be immediately discontinued and shall not be resumed until the malfunction is corrected.
- C. In the Dore' baghouse control room, close the damper of the section to be unloaded and lock the control room door.
- D. Activate the vacuum truck blower and place the vacuum hose in the dust barrel.
- E. Activate the hopper auger to transfer the dust to the barrel.
- F. Open the hopper knife gate to allow the dust to enter the auger chamber.

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Asarco Order

- G During vacuuming, the truck operator shall monitor the dust level in the truck to prevent overfilling.
- H. Once the hopper for the particular section is empty, close the knife gate, unlock the control room door and open the section damper.
- I. Repeat Steps C, F & H for each of the remaining baghouse sections.
- J. Once the truck hopper is filled, the auger shall be de-activated, the vacuum hose emptied by aspirating with air and subsequently left in place.
- K. The vacuum blower shall then be turned off and the vacuum hose disconnected from the trunk.
- L. After the truck has transported the dust to the enclosed Residue fume bin, the rear hopper door of the truck shall be unlatched and the dust slowly dumped into the bin by slowly tilting the hopper.
- M. When empty, lower the hopper, relatch the hopper door and sweep off any excess dust from the rear of the truck.
- N. Repeat previous Steps A through M until the entire baghouse is empty.
- O. Upon completion or if the unloading operation is discontinued, deactivate the auger, remove the vacuum hose from the barrel and thoroughly vacuum any visible baghouse dust in the area.
- P. Reseal the knife gates on each of the six section hoppers.
- Q. Empty all dust from the truck hopper as described above in Steps L & M.
- R. After completion and prior to leaving the plant, the vacuum truck hopper, exterior and undercarriage shall be thoroughly washed with high-pressure water, or vacuumed if inclement weather prevents washing.
- S. The used vacuum hose shall always be stored at the plant.

VII. RECORD KEEPING

The Environmental Services Department supervisor shall be responsible for maintaining a baghouse unloading inspection log. The log shall be retained by the Environmental Sciences Department for at least two years following the date recorded.

The Environmental Services Department supervisor shall make an entry in the baghouse unloading inspection log (attached) on the shift that Dore' baghouse unloading is conducted. Such entry shall include the day and date, time vacuuming started, name of baghouse unloaded, time vacuuming ceases, results of the inspection, name of inspector and any other pertinent comments. If baghouse unloading is discontinued for any reason, the reason(s) why it was discontinued shall be logged. Wind speed data for this baghouse is not required.

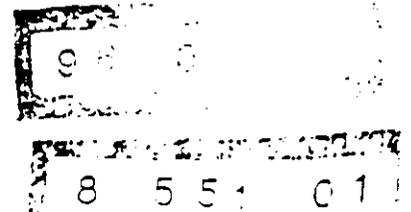
VIII. CHANGE IN PROCEDURE

All Dore' baghouse unloading shall be conducted in accordance with the procedures described above, unless written approval is first obtained from the NDEQ. If any deviations from these procedures become necessary, the Environmental Sciences Department shall be immediately notified. The Environmental Sciences Department shall then apply for the necessary approval.

IX. FORCE MAJEURE

The provisions of this work practice procedure shall be subject to the doctrine of force majeure.

Dated: July 1, 1994



WORK PRACTICE PROCEDURE

RESIDUE VENT BAGHOUSE DUST UNLOADING ASARCO - Omaha Plant

I. OBJECTIVE

The Residue vent baghouse (or Residue ventilation baghouse) provides ventilation for the cupola furnace and reverb furnace tap/skim hoods in the Residue Department. Prior to discharge, emissions captured by these hoods pass through the Residue vent baghouse where particulate matter is filtered and collected in one of two dust hoppers (east and west). The collected dust is continuously removed from the hoppers into covered containers which are periodically transported to the Residue Department for storage prior to further processing.

The objective of the following work practice procedure is to minimize, control and prevent the escape of fugitive dust emissions during the removal and transportation of the Residue vent baghouse dust. This will be accomplished through the implementation of work practice procedures described below.

II. RESPONSIBILITY

The Environmental Services Department supervisor or Residue Department supervisor shall be responsible for assuring that Residue vent baghouse dust unloading is conducted according to the stated procedure. The Environmental Services Department supervisor and Residue Department supervisor will also be responsible for training of hourly employees. Training shall be conducted periodically as necessary and shall include all activities and procedures required by this work practice procedure, as well as by safety and health policies and programs.

III. SUPERVISION AND ENFORCEMENT

On each shift that dust is transported via covered containers from the Residue vent baghouse, the Environmental Services Department supervisor or Residue Department supervisor shall be responsible for insuring compliance with the procedures described herein. These procedures will be strictly enforced. Failure to comply with the required procedures may result in formal disciplinary action for the offending employee(s). Depending on the severity and frequency of the violation, the offending employee(s) will be disciplined by means of an oral or written warning, time-off without pay, transfer to an alternate job and/or employment termination.

IV. WEATHER CONDITIONS

This baghouse is not subject to wind speed limitations during unloading.

V. EQUIPMENT

A rotary valve will be used on each hopper to continuously transfer the dust into a covered fume container. The discharge point of the rotary valves will have shrouds attached that extend into the fume containers. These shrouds will minimize the fugitive emissions generated as the dust is transferred into the containers.

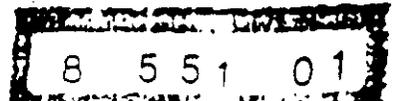
VI. UNLOADING PROCEDURE

The Residue vent baghouse is designed to continuously transfer dust from the hoppers into covered fume containers. Once the fume containers are full, they are transferred to the Residue Department to be emptied. The following procedure is to be followed when transferring the fume containers.

- A. Deactivate the rotary valve on each hopper.
- B. Connect both fume containers to a tractor and leaving the covers on the containers, transfer them to the Residue craneway.
- C. Remove the covers and connect the crane bail to the containers.
- D. Once both containers are emptied, replace the covers and transport them back to the Residue vent baghouse.
- E. Position a container under each hopper, making sure the cloth shroud extends through the opening in the container cover.
- F. Activate the rotary valve on each hopper.

VII. RECORD KEEPING

The Environmental Services Department supervisor or Residue Department supervisor shall be responsible for maintaining a baghouse unloading inspection log. The log shall be retained by the Environmental Sciences Department for at least two years following the date recorded.



VII. RECORD KEEPING

The Environmental Services Department supervisor shall be responsible for maintaining a baghouse unloading inspection log. The log shall be retained by the Environmental Sciences Department for at least two years following the date recorded.

The Environmental Services Department supervisor shall make an entry in the baghouse unloading inspection log (attached) on the shift that Dore' baghouse unloading is conducted. Such entry shall include the day and date, time vacuuming started, name of baghouse unloaded, time vacuuming ceases, results of the inspection, name of inspector and any other pertinent comments. If baghouse unloading is discontinued for any reason, the reason(s) why it was discontinued shall be logged. Wind speed data for this baghouse is not required.

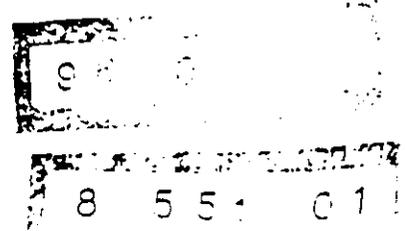
VIII. CHANGE IN PROCEDURE

All Dore' baghouse unloading shall be conducted in accordance with the procedures described above, unless written approval is first obtained from the NDEQ. If any deviations from these procedures become necessary, the Environmental Sciences Department shall be immediately notified. The Environmental Sciences Department shall then apply for the necessary approval.

IX. FORCE MAJEURE

The provisions of this work practice procedure shall be subject to the doctrine of force majeure.

Dated: July 1, 1994



WORK PRACTICE PROCEDURE
ANTIMONY BAGHOUSE DUST UNLOADING
ASARCO - Omaha Plant

I. OBJECTIVE

The Antimony baghouse provides ventilation to the antimony crystallizing kettles located in the Refinery building (Sb kettle floor). Prior to discharge, emissions from the crystallizing kettles pass through the Antimony baghouse where particulate matter is filtered and collected in dust hoppers. Periodically, the collected dust must be removed from the hoppers and transported to the Residue Department for storage prior to further processing. During the unloading activity, fugitive dust emissions containing lead can be created.

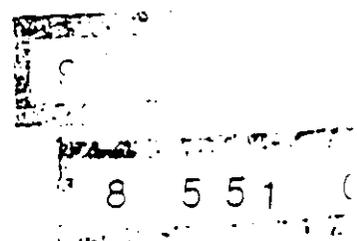
The objective of the following work practice procedure is to minimize, control and prevent the escape of fugitive dust emissions during the removal, transportation and subsequent unloading of the Antimony baghouse dust. This will be accomplished through the utilization of special equipment and the implementation of work practice procedures described below.

II. RESPONSIBILITY

The Environmental Services Department supervisor shall be responsible for assuring that Antimony baghouse dust unloading is conducted according to the stated procedure. Dust shall not be removed from the Antimony baghouse without authorization from the Residue Department supervisor or higher management. The Environmental supervisor will also be responsible for procuring the required equipment and for training of hourly employees and contract employees. Training shall be conducted periodically as necessary and shall include all activities and procedures required by this work practice procedure, as well as by safety and health policies and programs.

III. SUPERVISION AND ENFORCEMENT

On the shift that dust is unloaded from the Antimony baghouse, the Environmental Services Department supervisor shall be responsible for insuring compliance with the procedures described herein. These procedures will be strictly enforced. Failure to comply with the required procedures may



result in formal disciplinary action for the offending employee(s). Depending on the severity and frequency of the violation, the offending employee(s) will be disciplined by means of an oral or written warning, time-off without pay, transfer to an alternate job and/or employment termination.

IV. WEATHER CONDITIONS

This baghouse is not subject to wind speed limitations during unloading.

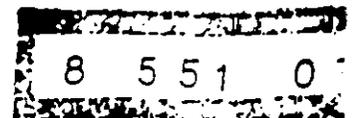
V. EQUIPMENT

A vacuum hopper is used to collect the dust from each hopper in the baghouse. A vacuum truck will be used to withdraw dust from the vacuum hopper and to subsequently transport the dust to the Residue Department. This truck shall also be utilized to perform housekeeping activities both during, if necessary, and after completion of the unloading procedure. At a minimum, the vacuum truck shall be equipped with a totally enclosed hopper except the vacuum exhaust which shall be filtered by means of a baghouse prior to discharge.

VI. UNLOADING PROCEDURE

The procedure described herein below shall be utilized to perform Antimony baghouse dust unloading. This operation will be conducted by a minimum of two employees; one vacuum truck operator and one baghouseman. The Antimony baghouse hoppers shall be unloaded using the following procedures:

- A. After positioning the vacuum truck near the Antimony baghouse, the operator shall inspect and prepare the truck to assure proper operation, particularly the hopper seals and vacuum exhaust baghouse.
- B. If any malfunction is detected prior to or during the course of unloading, the operation shall be immediately discontinued and shall not be resumed until the malfunction is corrected.
- C. Open the doors on the east side of the Antimony baghouse to gain access to the hoppers.
- D. Attach the vacuum hose to the vacuum hopper.
- E. In the Antimony baghouse control room, close the damper on one of the four sections.
- F. Position the vacuum hopper under the baghouse hopper to be unloaded.

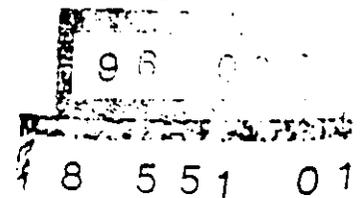


- G. Activate the vacuum truck blower and open the lever on the baghouse hopper. This will allow the dust to enter the vacuum hopper.
- H. Once the baghouse hopper is empty, close the baghouse hopper lever.
- I. Repeat Steps F - H until each of the hoppers in the section are empty.
- J. In the Antimony baghouse control room, open the section damper.
- K. Repeat Steps E - J until the entire baghouse is empty.
- L. Once vacuuming is completed, the vacuum hose shall be emptied by aspirating with air.
- M. The vacuum blower shall then be turned off and the vacuum hose disconnected from the truck.
- N. Close the hopper access door on the east side of the baghouse.
- O. After the truck has transported the dust to the enclosed Residue fume bin, the rear hopper door of the truck shall be unlatched and the dust slowly dumped into the bin by slowly tilting the hopper.
- P. When empty, lower the hopper, relatch the hopper door and sweep off any excess dust from the rear of the truck.
- Q. After completion and prior to leaving the plant, the vacuum truck hopper, exterior and undercarriage shall be thoroughly washed with high-pressure water, or vacuumed if inclement weather prevents washing.
- R. The used vacuum hose shall always be stored at the plant.

VII. RECORD KEEPING

The Environmental Services Department supervisor shall be responsible for maintaining a baghouse unloading inspection log. The log shall be retained by the Environmental Sciences Department for at least two years following the date recorded.

The Environmental Services Department supervisor shall make an entry in the baghouse unloading inspection log (attached) during the shift that Antimony baghouse unloading is conducted. Such entry shall include the day and date, time vacuuming started, name of baghouse unloaded, time vacuuming ceases, results of the inspection, name of inspector and any other pertinent comments.



If baghouse unloading is discontinued for any reason, the reason(s) why it was discontinued shall be logged. Wind speed data for this baghouse is not required.

VIII. CHANGE IN PROCEDURE

All Antimony baghouse unloading shall be conducted in accordance with the procedures described above, unless written approval is first obtained from the NDEQ. If any deviations from these procedures become necessary, the Environmental Sciences Department shall be immediately notified. The Environmental Sciences Department shall then apply for the necessary approval.

IX. FORCE MAJEURE

The provisions of this work practice procedure shall be subject to the doctrine of force majeure.

Dated: July 1, 1994

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WORK PRACTICE PROCEDURE
ANTIMONY OXIDE CONTINUOUS
OFFGRADE BAGHOUSE DUST UNLOADING
ASARCO - Omaha Plant

I. OBJECTIVE

The Antimony Oxide continuous offgrade baghouse provides ventilation for the slag pot and premelt kettle hoods in the Antimony Oxide Department. Prior to discharge, emissions from these hoods pass through the continuous offgrade baghouse where particulate matter is filtered and collected in one of two dust hoppers (north and south). The collected dust is periodically removed from the hoppers and transported to the Residue Department for storage prior to further processing.

The objective of the following work practice procedure is to minimize, control and prevent the escape of fugitive dust emissions during the removal and transportation of the continuous offgrade baghouse dust. This will be accomplished through the implementation of work practice procedures described below.

II. RESPONSIBILITY

The Residue Department supervisor shall be responsible for assuring that continuous offgrade baghouse dust unloading is conducted according to the stated procedure. The Residue Department supervisor will also be responsible for training of hourly employees. Training shall be conducted periodically as necessary and shall include all activities and procedures required by this work practice procedure, as well as by safety and health policies and programs.

III. SUPERVISION AND ENFORCEMENT

On each shift that dust is removed from the continuous offgrade baghouse, the Residue Department supervisor shall be responsible for insuring compliance with the procedures described herein. These procedures will be strictly enforced. Failure to comply with the required procedures may result in formal disciplinary action for the offending employee(s). Depending on the severity and frequency of the violation, the offending employee(s) will be disciplined by means of an oral or written warning, time-off without pay, transfer to an alternate job and/or employment termination.

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IV. WEATHER CONDITIONS

This baghouse is not subject to wind speed limitations during unloading.

V. EQUIPMENT

The continuous offgrade baghouse dust hoppers are located inside the Antimony Oxide building. A rotary valve will be used on each hopper to transfer the dust into a covered fume container. The discharge points of the rotary valves will have a hose attached that extends into the fume containers. These hoses will minimize the fugitive emissions generated as the dust is transferred into the containers.

VI. UNLOADING PROCEDURE

The procedure described below shall be utilized to perform continuous offgrade baghouse unloading for both of the sections.

- A. Position a covered container under the hopper of the section to be unloaded, making sure the hose extends through the opening in the container cover.
- B. Open the knife gate on the dust hopper.
- C. Activate the rotary valve on the hopper. This will transfer the dust into the fume container.
- D. Once the hopper is empty, deactivate the rotary valve and close the knife gate.
- E. Connect the fume container to a tractor and leaving the cover on the container, transfer it to the Residue craneway.
- F. Remove the cover and connect the crane bail to the container so it can be emptied.
- G. Repeat Steps A - F for the other section.
- H. Once both hoppers are empty, return the container to its storage location.

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VII. RECORD KEEPING

The Residue Department supervisor shall be responsible for maintaining a baghouse unloading inspection log. The log shall be retained by the Environmental Sciences Department for at least two years following the date recorded.

The Residue Department supervisor shall make an entry in the baghouse unloading inspection log (attached) during each shift the continuous offgrade baghouse is unloaded. Such entry shall include the day and date, time unloading started, name of baghouse, time unloading completed, results of the inspection, name of inspector and any other pertinent comments.

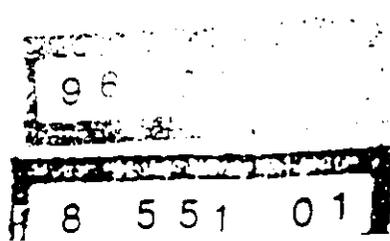
VIII. CHANGE IN PROCEDURE

All continuous offgrade baghouse unloading shall be conducted in accordance with the procedures described above, unless written approval is first obtained from the NDEQ. If any deviations from these procedures become necessary, the Environmental Sciences Department shall be immediately notified. The Environmental Sciences Department shall then apply for the necessary approval.

IX. FORCE MAJEURE

The provisions of this work practice procedure shall be subject to the doctrine of force majeure.

Dated: July 1, 1994



WORK PRACTICE PROCEDURE
ANTIMONY OXIDE INTERMITTENT
OFFGRADE BAGHOUSE DUST UNLOADING
ASARCO - Omaha Plant

I. OBJECTIVE

The Antimony Oxide intermittent offgrade baghouse provides ventilation for the crystal hopper, hood cleaning station and button mould hoods in the Antimony Oxide Department. Prior to discharge, emissions from these areas pass through the intermittent offgrade baghouse where particulate matter is filtered and collected in a dust hopper. The collected dust is periodically removed from the hopper and transported to the Residue Department for storage prior to further processing.

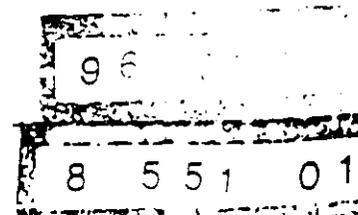
The objective of the following work practice procedure is to minimize, control and prevent the escape of fugitive dust emissions during the removal and transportation of the intermittent offgrade baghouse dust. This will be accomplished through the implementation of work practice procedures described below.

II. RESPONSIBILITY

The Residue Department supervisor shall be responsible for assuring that intermittent offgrade baghouse dust unloading is conducted according to the stated procedure. The Residue Department supervisor will also be responsible for training of hourly employees. Training shall be conducted periodically as necessary and shall include all activities and procedures required by this work practice procedure, as well as by safety and health policies and programs.

III. SUPERVISION AND ENFORCEMENT

On each shift that dust is removed from the intermittent offgrade baghouse, the Residue Department supervisor shall be responsible for insuring compliance with the procedures described herein. These procedures will be strictly enforced. Failure to comply with the required procedures may result in formal disciplinary action for the offending employee(s). Depending on the severity and frequency of the violation, the offending employee(s) will be disciplined by means of an oral or written warning, time-off without pay, transfer to an alternate job and/or employment termination.



IV WEATHER CONDITIONS

This baghouse is not subject to wind speed limitations during unloading.

V. EQUIPMENT

The intermittent offgrade baghouse dust hopper is located inside the Antimony Oxide building. A rotary valve will be used on the hopper to periodically transfer the dust into a portable covered fume container. The discharge point of the rotary valve will have a shroud attached that extends into the fume container. This shroud will minimize the fugitive emissions generated as the dust is transferred into the containers.

VI. UNLOADING PROCEDURE

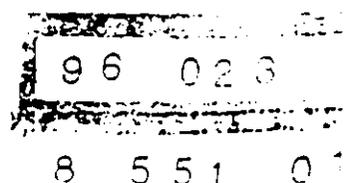
The procedure described below shall be utilized to perform intermittent offgrade baghouse unloading.

- A. Activate the rotary valve on the hopper. This will transfer the dust into the fume container.
- B. Once the hopper is empty, deactivate the rotary valve.
- C. Transport the container to the fume bin with a fork truck.
- D. Once the container is emptied, transport it back to the intermittent offgrade baghouse.
- E. Position the container under the hopper, making sure the cloth shroud extends through the opening in the container cover.

VII. RECORD KEEPING

The Residue Department supervisor shall be responsible for maintaining a baghouse unloading inspection log. The log shall be retained by the Environmental Sciences Department for at least two years following the date recorded.

The Residue Department supervisor shall make an entry in the baghouse unloading inspection log (attached) during each shift the intermittent offgrade baghouse is unloaded. Such entry shall include the day and date, time unloading started, name of baghouse, time unloading completed, results of the inspection, name of inspector and any other pertinent comments.



VIII. CHANGE IN PROCEDURE

All intermittent offgrade baghouse unloading shall be conducted in accordance with the procedures described above, unless written approval is first obtained from the NDEQ. If any deviations from these procedures become necessary, the Environmental Sciences Department shall be immediately notified. The Environmental Sciences Department shall then apply for the necessary approval.

IX. FORCE MAJEURE

The provisions of this work practice procedure shall be subject to the doctrine of force majeure.

Dated: July 1, 1994

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WORK PRACTICE PROCEDURE
SOFTENER BAGHOUSE DUST UNLOADING
ASARCO - Omaha Plant

I. OBJECTIVE

The softener baghouse (or baghouse #5) services the Bismuth cupel furnaces, the Bismuth premelt and deleading kettles, and the Refinery Department. Prior to discharge, emissions from these sources pass through the softener baghouse where particulate matter is filtered and collected in one of six dust cellars (#1 - #6). Periodically, the collected dust must be removed from the cellars and transported to the Residue Department for storage prior to further processing. During unloading, fugitive dust emissions containing lead can often be created.

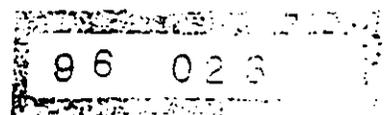
The objective of the following Work Practice Procedure is to minimize, control, and prevent the escape of fugitive dust emissions during the removal, transportation, and subsequent unloading of the softener baghouse dust. This will be accomplished through the utilization of special equipment and the implementation of work practice procedures described below.

II. RESPONSIBILITY

The Environmental Services Department Supervisor shall be responsible for assuring that softener baghouse dust unloading is conducted according to the stated procedure. Dust shall not be removed from the softener baghouse without authorization from the Residue Department Supervisor or higher management. The Environmental Supervisor will also be responsible for procuring the required equipment and for training of hourly employees and contract employees. Training shall be conducted periodically as necessary and shall include all activities and procedures required by this Work Practice Procedure, as well as by safety and health policies and programs.

III. SUPERVISION AND ENFORCEMENT

On each shift that dust is unloaded from the softener baghouse, the Environmental Services Department Supervisor shall be responsible for insuring compliance with the procedures described herein. These procedures will be strictly enforced. Failure to comply with the required



procedures may result in formal disciplinary action for the offending employee(s). Depending on the severity and frequency of the violation, the offending employee(s) will be disciplined by means of an oral or written warning, time-off without pay, transfer to an alternate job and/or employment termination.

IV. WEATHER CONDITIONS

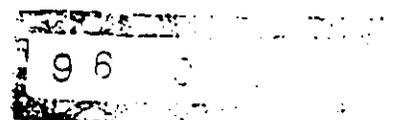
The maximum average wind speed at which dust unloading may occur at the softener baghouse is 12 mph. This is based on a 15 minute rolling average; i.e. after 15 minutes the average is updated every minute. No wind speed limitation applies when vacuuming dust through the vacuum ports that are installed on each cellar door.

V. EQUIPMENT

A vacuum truck will be used to withdraw dust from the softener baghouse cellars and to subsequently transport the dust to the Residue Department. This truck shall also be utilized to perform housekeeping activities both during, if necessary, and after completion of the unloading procedure. At a minimum, the vacuum truck shall be equipped with a totally enclosed hopper except the vacuum exhaust which shall be filtered by means of a baghouse prior to discharge.

On or before August 1, 1994, Asarco shall install vacuum ports in the cellar doors of the softener baghouse. These ports shall be no larger than necessary to accept a sliding pipe through which baghouse dust can be vacuumed. When not in use, the ports shall remain closed.

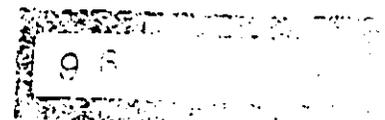
On or before August 1, 1994, Asarco shall install a new wind speed gauge located proximate to the smelter and softener baghouses. This gauge, which shall be calibrated annually, shall be connected to a data logger which will record the 15 minute average wind speed. A visual and audio alarm shall be located at the softener baghouse which will provide a warning once the 15 minute average wind speed reaches 11.9 mph. This will enable shut down procedures to commence prior to the 12 mph wind speed threshold being exceeded. The warning system will be activated and deactivated by a toggle switch located at the softener baghouse. The data logger will continuously update the 15 minute average once a minute, even when the warning system is deactivated. When the system is activated, the wind speed data is saved for downloading and, if the wind speed threshold was exceeded during the most recent 15 minute



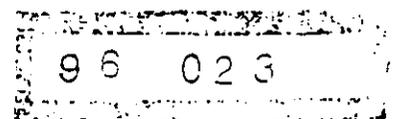
time period, the alarm will be triggered. This eliminates the need to wait 15 minutes before the cellar doors can be opened.

VI. UNLOADING PROCEDURES

- The procedures described herein shall be utilized to perform softener baghouse dust unloading. This operation will be conducted by a minimum of two employees - one vacuum truck operator and one baghouseman. The six softener baghouse cellars shall be unloaded one at a time using the following procedures.
- A. After positioning the vacuum truck near the cellar to be unloaded, the operator shall inspect and prepare the truck to assure proper operation, particularly the hopper seals and vacuum exhaust baghouse.
- B. If any malfunction is detected prior to or during the course of unloading, the operation shall be immediately discontinued and shall not be resumed until the malfunction is corrected.
- C. In the softener baghouse control room, close the damper to the cellar to be unloaded. Follow all lockout/tagout procedures as outlined in the plant program.
- D. Initially, the cellar shall be vacuumed through the ports on the cellar door. This shall continue until all of the fume that can be captured by vacuuming through the ports is removed.
- E. Activate the wind speed recorder and alarm system by turning the toggle switch located at the softener baghouse to the on position. If at any time during dust unloading the alarm system is triggered, proceed to Step O.
- F. Remove the sand from the bottom of the cellar doors.
- G. Immediately vacuum any cellar dust that may spill out onto the unloading apron.



- H. Vacuum the cellar dust starting from the front of the cellar and working back.
- I. During vacuuming, the truck operator shall monitor the dust level in the truck to prevent overfilling.
- J. Once the truck hopper is filled, the vacuum hose shall be emptied by aspirating with air and subsequently left in place.
- K. The vacuum blower shall then be turned off and the vacuum hose disconnected from the truck.
- L. After the truck has transported the dust to the enclosed Residue fume bin, the rear hopper door of the truck shall be unlatched and the dust slowly dumped into the bin by slowly tilting the hopper.
- M. When empty, lower the hopper, relatch the hopper door, and sweep off any excess dust from the rear of the truck.
- N. Repeat previous Steps A, B, and H - M until the baghouse cellar is empty.
- O. Upon completion or if the unloading operation is discontinued, remove the vacuum equipment from the cellar and thoroughly vacuum any dust visible on the unloading apron.
- P. Close the cellar doors and deactivate the wind speed recorder by turning the toggle switch to the off position.
- Q. Reseal the door edges and replace the sand at the bottom of the cellar doors.
- R. In the control room, open the damper of the cellar that was unloaded.
- S. Empty all dust from the truck hopper as described above in Steps L and M.



- T. After completion and prior to leaving the plant, the vacuum truck hopper, exterior, and undercarriage shall be thoroughly washed with high-pressure water, or vacuumed if inclement weather prevents washing.
- U. The used vacuum hose shall always be stored at the plant.
- V. If the wind speed data logger or warning system equipment malfunctions, baghouse unloading shall not be conducted with the cellar doors open until the equipment is repaired or until NDEQ approves an alternate unloading method.

VII. RECORDKEEPING

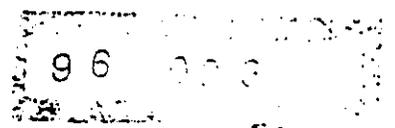
The Environmental Services Department Supervisor shall be responsible for maintaining a baghouse unloading inspection log. The log and wind speed data shall be retained by the Environmental Sciences Department for at least two years following the date recorded.

The Environmental Services Department Supervisor shall make an entry in the baghouse unloading inspection log (attached) during each shift that softener baghouse unloading is conducted. Such entry shall include the day and date, time vacuuming started, whether vacuuming was only conducted through the vacuum ports, name of baghouse unloaded, times and duration the cellar doors were open, time vacuuming ceases, results of the inspection, name of inspector, and any other pertinent comments. If baghouse unloading is discontinued for any reason, the reason(s) why it was discontinued shall be logged.

For any shift in which the cellar doors were opened, the wind speed data from the data logger for the period in which the doors remained open shall be attached to the log. If vacuuming was conducted only through the vacuum ports, then wind speed data is not required and shall not be attached.

VIII. CHANGE IN PROCEDURE

All softener baghouse unloading shall be conducted in accordance with the procedures described herein, unless written approval is first obtained from the NDEQ. If any deviations from these procedures become necessary, the Environmental Sciences Department shall be immediately

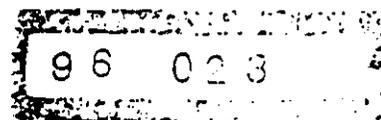


notified. The Environmental Sciences Department shall then apply for the necessary approval.

IX. FORCE MAJEURE

The provisions of this Work Practice shall be subject to the doctrine of force majeure.

Revised: May 22, 1996



WORK PRACTICE PROCEDURE
SMELTER BAGHOUSE DUST UNLOADING
ASARCO - Omaha Plant

I. OBJECTIVE

The smelter baghouse (or north baghouse or baghouse #2) services the Residue Department. Prior to discharge, emissions from the Residue Department processes pass through the smelter baghouse where particulate matter is filtered and collected in one of four dust cellars (#1 - #4). Periodically, the collected dust must be removed from the cellars and transported to the Residue Department for storage prior to further processing. During unloading, fugitive dust emissions containing lead can often be created.

The objective of the following Work Practice Procedure is to minimize, control, and prevent the escape of fugitive dust emissions during the removal, transportation, and subsequent unloading of the smelter baghouse dust. This will be accomplished through the utilization of special equipment and the implementation of work practice procedures described below.

II. RESPONSIBILITY

The Environmental Services Department Supervisor shall be responsible for assuring that smelter baghouse dust unloading is conducted according to the stated procedure. Dust shall not be removed from the smelter baghouse without authorization from the Residue Department Supervisor or higher management. The Environmental Supervisor will also be responsible for procuring the required equipment and for training of hourly employees and contract employees. Training shall be conducted periodically as necessary and shall include all activities and procedures required by this Work Practice Procedure, as well as by safety and health policies and programs.

III. SUPERVISION AND ENFORCEMENT

On each shift that dust is unloaded from the smelter baghouse, the Environmental Services Department Supervisor shall be responsible for insuring compliance with the procedures described herein. These procedures will be strictly enforced. Failure to comply with the required

procedures may result in formal disciplinary action for the offending employee(s). Depending on the severity and frequency of the violation, the offending employee(s) will be disciplined by means of an oral or written warning, time-off without pay, transfer to an alternate job and/or employment termination.

IV. WEATHER CONDITIONS

The maximum average wind speed at which dust unloading may occur at the smelter baghouse is 15 mph. This is based on a 15 minute rolling average; i.e. after 15 minutes the average is updated every minute. No wind speed limitation applies when the cellar doors are closed and dust unloading occurs through the vacuum ports that are installed on each cellar door.

V. EQUIPMENT

A vacuum truck will be used to withdraw dust from the smelter baghouse cellars and to subsequently transport the dust to the Residue Department. This truck shall also be utilized to perform housekeeping activities both during, if necessary, and after completion of the unloading procedure. At a minimum, the vacuum truck shall be equipped with a totally enclosed hopper except the vacuum exhaust which shall be filtered by means of a baghouse prior to discharge.

On or before August 1, 1994, Asarco shall install vacuum ports in the cellar doors of the smelter baghouse. These ports shall be no larger than necessary to accept a sliding pipe through which baghouse dust can be vacuumed. When not in use, the ports shall remain closed.

On or before August 1, 1994, Asarco shall install windbreaks at the smelter baghouse. The windbreaks shall be at least 10 feet in height and gated to span the area between the flood wall and baghouse building on both the north and south sides of the baghouse. The windscreen/gate ends shall be equipped with rubber flaps to seal the space between the gate and flood wall. During unloading with the baghouse cellar doors open, these swinging windscreen/gates shall be closed, and, with the flood wall (west) and baghouse building (east), shall produce a completely surrounded unloading operation.

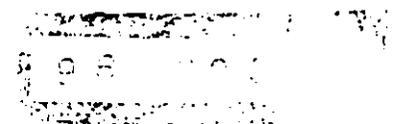
On or before August 1, 1994, Asarco shall install a new wind speed gauge located proximate to the smelter and softener baghouses. This gauge,

which shall be calibrated annually, shall be connected to a data logger which will record the 15 minute average wind speed. A visual and audio alarm shall be located at the smelter baghouse which will provide a warning once the 15 minute average wind speed reaches 14.9 mph. This will enable shut down procedures to commence prior to the 15 mph wind speed threshold being exceeded. The warning system will be activated and deactivated by a toggle switch located at the smelter baghouse. The data logger will continuously update the 15 minute average once a minute, even when the warning system is deactivated. When the system is activated, the wind speed data is saved for downloading, and, if the wind speed threshold was exceeded during the most recent 15 minute time period, the alarm will be triggered. This eliminates the need to wait 15 minutes before the cellar doors can be opened.

VI. UNLOADING PROCEDURES

The procedures described herein shall be utilized to perform smelter baghouse dust unloading. This operation will be conducted by a minimum of two employees - one vacuum truck operator and one baghouse man. The four smelter baghouse cellars shall be unloaded one at a time using the following procedures.

- A. After positioning the vacuum truck near the cellar to be unloaded, the operator shall inspect and prepare the truck to assure proper operation, particularly the hopper seals and vacuum exhaust baghouse.
- B. If any malfunction is detected prior to or during the course of unloading, the operation shall be immediately discontinued and shall not be resumed until the malfunction is corrected.
- C. In the smelter baghouse control room, close the damper to the cellar to be unloaded and turn off the air supply to the damper controller. Follow all lockout/tagout procedures as outlined in the plant program.
- D. Initially, the cellar shall be vacuumed through the ports on the cellar door. This shall continue until all of the fume that can be captured by vacuuming through the ports is removed.



- E. Activate the wind speed recorder and alarm system by turning the toggle switch located at the smelter baghouse to the on position. If at any time during dust unloading the alarm system is triggered, proceed to Step Q.
- F. The wind screen gates on both ends shall be closed, and, with the flood wall (west) and baghouse building (east), a completely surrounded unloading operation will be provided.
- G. Remove the sand from the bottom of the cellar doors.
- H. Immediately vacuum any cellar dust that may spill out onto the unloading apron.
- I. Vacuum the cellar dust starting from the front of the cellar and working back.
- J. During vacuuming, the truck operator shall monitor the dust level in the truck to prevent overfilling.
- K. Once the truck hopper is filled, the vacuum hose shall be emptied by aspirating with air and subsequently left in place.
- L. The vacuum blower shall then be turned off and the vacuum hose disconnected from the truck.
- M. Open the wind screen gate to allow removal of the truck from the enclosure and immediately close the gate.
- N. After the truck has transported the dust to the enclosed Residue fume bin, the rear hopper door of the truck shall be unlatched and the dust slowly dumped into the bin by slowly tilting the hopper.
- O. When empty, lower the hopper, relatch the hopper door, and sweep off any excess dust from the rear of the truck.
- P. Repeat previous Steps A, B, F, and I - O until the baghouse cellar is empty.
- Q. Upon completion or if the unloading operation is discontinued, remove the vacuum equipment from the cellar and thoroughly vacuum any dust visible on the unloading apron.

- R. Close the cellar doors and deactivate the wind speed recorder by turning the toggle switch to the off position.
- S. Reseal the door edges and replace the sand at the bottom of the cellar doors.
- T. In the control room, open the damper of the cellar that was unloaded and open the air supply valve for the damper controller.
- U. Empty all dust from the truck hopper as described above in Steps N and O.
- V. After completion and prior to leaving the plant, the vacuum truck hopper, exterior, and undercarriage shall be thoroughly washed with high-pressure water, or vacuumed if inclement weather prevents washing.
- W. The used vacuum hose shall always be stored at the plant.
- X. If the wind speed data logger or warning system equipment malfunctions, baghouse unloading cannot be conducted with the cellar doors open until the equipment is repaired or until NDEQ approves an alternate unloading method.

VII. RECORDKEEPING

The Environmental Services Department Supervisor shall be responsible for maintaining a baghouse unloading inspection log. The log and wind speed data shall be retained by the Environmental Sciences Department for at least two years following the date recorded.

The Environmental Services Department Supervisor shall make an entry in the baghouse unloading inspection log (attached) during each shift that smelter baghouse unloading is conducted. Such entry shall include the day and date, time vacuuming started, whether vacuuming was only conducted through the vacuum ports, name of baghouse unloaded, times and duration the cellar doors were open, time vacuuming ceases, results of the inspection, name of inspector, and any other pertinent comments. If baghouse unloading is discontinued for any reason, the reason(s) why it was discontinued shall be logged.

For any shift in which the cellar doors were opened, the wind speed data from the data logger for the period in which the doors remained open shall be attached to the log. If vacuuming was conducted only through the vacuum ports, then wind speed data is not required and shall not be attached.

VIII. CHANGE IN PROCEDURE

All smelter baghouse unloading shall be conducted in accordance with the procedures described herein, unless written approval is first obtained from the NDEQ. If any deviations from these procedures become necessary, the Environmental Sciences Department shall be immediately notified. The Environmental Sciences Department shall then apply for the necessary approval.

IX. FORCE MAJEURE

The provisions of this Work Practice shall be subject to the doctrine of force majeure.

Revised: May 22, 1996

WORK PRACTICE PROCEDURE
STREET SWEEPING, APPLICATION OF DUST SUPPRESSANTS, AND
STOCKPILE TARPING
ASARCO - Omaha Plant

I. OBJECTIVE

Land at the ASARCO - Omaha Plant that is not occupied by buildings or structures is comprised of areas which are either paved, graveled, or otherwise exposed. Most of these areas are subject to the deposition of process materials and airborne particulates. The entrainment of such materials and particulates can be induced by wind erosion and vehicular traffic, and thus fugitive lead emissions can be created. Fugitive lead emissions can also be created from outside storage piles of drosses, slags, and other lead-bearing materials which are subject to entrainment by wind erosion and handling.

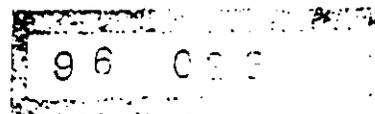
The object of the following Work Practice Procedure is to minimize, control, and prevent the escape of fugitive lead emissions induced by wind erosion and vehicular traffic. This shall be accomplished through the utilization of special equipment and the implementation of Work Practice Procedures described below.

II. RESPONSIBILITY

The Services Department Supervisor shall be responsible for assuring that street sweeping, dust suppressant applications, and stockpile tarping are conducted according to the stated procedure. The supervisor shall also be responsible for procuring the necessary dust suppressants and tarps, maintaining the required equipment, and for training of applicable employees. Training shall be conducted periodically as necessary and shall include all activities, procedures, and frequencies required by this Work Practice Procedure, as well as by safety and health considerations.

III. SUPERVISION AND ENFORCEMENT

At least once per week, the Environmental Engineer or Services Department Supervisor shall inspect all outside stockpiles, paved areas, graveled areas, and otherwise exposed areas for compliance with the procedures described herein. All procedures described herein shall be strictly enforced. Failure to comply with these procedures may result in



formal disciplinary action for the offending employee(s). Depending on the severity and frequency of the violation, the offending employee(s) shall be disciplined by means of an oral or written warning, time-off without pay, transfer to an alternate job and/or employment termination.

IV. SUSPENSION OF PROCEDURE

A. Adverse Weather

The procedures described herein may be suspended during the period of November 1 to April 1, and during any other period when the temperature is less than 35°F. In addition, the application of dust suppressants shall be suspended during precipitation.

B. Equipment Maintenance and Repair

Street sweeping and dust suppressant applications may also be suspended during those periods necessary to perform maintenance and repairs of equipment essential to the respective activity. Any maintenance and repair work shall be completed as soon as possible, and upon completion, the respective activity shall be immediately resumed in accordance with the stated procedure.

C. Suspension of Production Operations

In the event that all production operations, with the exception of the Antimony Oxide Department, are suspended and shut down, street sweeping and dust suppressant applications may be suspended for the duration of such period.

V. EQUIPMENT AND MATERIALS

A. Street Sweeping

Street sweeping shall be conducted with a regenerative air or vacuum type sweeper. Air discharged from a vacuum type sweeper shall be filtered by a baghouse or equivalent before discharge, while no air is discharged from a regenerative air type sweeper.

B. Dust Suppressants

A mobile spray truck shall be used to apply dust suppressants to stockpiles and unpaved areas. The spray truck shall be equipped with two or more storage tanks, spray hose(s), spray nozzle(s), and high pressure spray pump(s). With this equipment, lignosulfonate, or equivalent, shall be applied to unpaved areas (both graveled and otherwise exposed), while a mixture of lignosulfonate and a water-insoluble latex binder, or equivalent, shall be applied to stockpiles that are not tarped and to the exposed surfaces of stockpiles that are partially tarped.

C. Stockpile Tarps

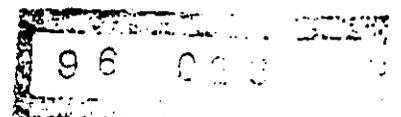
In lieu of applying dust suppressant to stockpiles, they may be tarped. These tarps shall be fabricated from plastic, nylon, canvas, or a combination. The tarping material must be able to withstand temperature extremes.

VI. PROCEDURES

The procedures described below shall be utilized to conduct street sweeping, dust suppressant applications, and stockpile tarp placement.

A. Street Sweeping

1. At the beginning of each day, the sweeper truck operator shall inspect and prepare the sweeper to assure proper operation. In particular and if applicable, the dust hopper, hopper seals, water tanks, spray nozzles, pick-up head flaps, and filtration system shall be inspected.
2. If any sweeper truck malfunction is detected prior to or during the course of sweeping, the operation shall be immediately discontinued and shall not be resumed until the malfunction is corrected.
3. Under normal circumstances, street sweeping shall be conducted for at least six hours each day, except Sundays and holidays. Access permitting, all paved areas shall be subject to street sweeping with emphasis on those areas subject to heavy dust accumulations and vehicular traffic.



4. When the sweeper hopper is filled, wet sweepings shall be unloaded into the equipment wash facility, while dry sweepings shall be dumped inside the enclosed Residue fume bin. In both cases, the hopper seals shall be inspected and cleaned, if necessary, before resealing the hopper door(s).

B. Dust Suppressants

1. Unpaved Areas

A dust suppressant shall be applied at least once every 14 days to all unpaved areas, both graveled and otherwise exposed. In the event a water soluble dust suppressant is utilized, dust suppressant applications shall also be repeated following the cumulative measurement of rainfall totaling 0.25 inches or greater. In such cases, the dust suppressant shall be applied as soon as possible after the surface has dried, except that dust suppressants need not be applied on Saturdays, Sundays, and holidays. The magnitude of rainfall shall be determined by an on-site rain gauge operated by the Environmental Sciences Department. Rainfall measurements and surface dryness assessments shall be conducted each day except Saturdays, Sundays, and holidays.

2. Stockpiles

A dust suppressant shall be applied to the surface of all untarped outside stockpiles of drosses, skims, slags (except softener skim bin) and refractory bricks. All such piles shall be inspected each day, excluding Saturdays, Sundays, and holidays, to determine the need for dust suppressant applications. Based on these inspections, a dust suppressant shall be applied as soon as possible after the surface of the pile(s) has dried and following stockpile creation, addition, subtraction, and as otherwise necessary to maintain a surface seal.

C. Stockpile Tarps

1. Tarps may be used to cover outside stockpiles of drosses, skims, slags (except the softener skim bin), and refractory bricks. These tarps shall be of sufficient size to cover the entire stockpile and be secured to prevent it from blowing off. If the tarp does not cover the entire stockpile, the exposed surfaces will be sprayed with dust suppressants. Prior to adding to or removing material from the stockpile, the tarp shall be pulled back to expose the stockpiled material. Once the material transfer is complete, the tarp shall be pulled back into place and secured. If material that has been added to a stockpile is still hot, the tarp shall not be replaced until the material cools. This shall be noted in the comments section of the tarping log.

VII. RECORDKEEPING

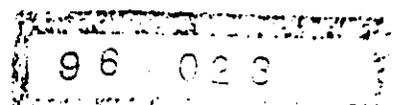
The Environmental Sciences Department shall be responsible for maintaining and retaining the following records. Such records shall be retained for at least two years following the date recorded.

A. Street Sweeping Log

The operator, Environmental Engineer, or Services Department Supervisor shall make an entry in the street sweeping log (attached) each day, excluding Sundays and holidays, except that no entry need be made during the period November 1 through April 1 unless street sweeping is conducted. Each entry shall include the date, starting and ending times (disregarding coffee and lunch periods), type of sweeper operated, name of person reporting, and any pertinent comments. In the event sweeping was not conducted for at least six hours per day, the specific reason(s) why it was not must be recorded along with any corrective action(s).

B. Dust Suppressant Log

The spray truck operator, Environmental Engineer, or Services Department Supervisor shall make an entry in the dust suppressant log (attached) each day, excluding Saturdays, Sundays, and holidays, except that no entry need be made during the period November 1 through April 1 unless dust suppressants are applied.



Each entry shall include the date; rainfall measurement, and name of person reporting. When dust suppressant inspections are conducted, the entry shall also include the time of inspections, surface condition of unpaved areas (e.g. wet, damp, dusty, sealed, etc.), whether the stockpiles require resealing, and any other pertinent comments. On each occasion that dust suppressants are applied, the type(s) utilized (e.g. ligno, ligno/latex, etc.), total amount applied, and any pertinent comments shall be recorded. In the event that dust suppressant inspections or applications are not conducted at the required frequency, the specific reason(s) why must be recorded along with any corrective action(s).

C. Stockpile Tarping Log

The front-end loader operator, Environmental Engineer, Services Department Supervisor, or Residue Department Supervisor shall make an entry in the stockpile tarping log each day, excluding Saturdays, Sundays and holidays. Each entry shall include the date, stockpiled material that is tarped, time the tarp was removed, time the tarp was replaced, the reason why the tarp was not replaced, and the tarp condition.

VIII. CHANGE IN PROCEDURE

All street sweeping dust suppressant applications and stockpile tarping shall be conducted in accordance with the procedures described herein, unless written approval is first obtained from the NDEQ. If any deviations from these procedures become necessary, the Environmental Sciences Department shall be immediately notified. The Department shall then apply for the necessary approval.

IX. FORCE MAJEURE

The provisions of this Work Practice shall be subject to the doctrine of force majeure.

Revised: May 22, 1996

OMAHA SPILL PREVENTION PLAN TO MINIMIZE LEAD EMISSIONS

1.0 GENERAL

- 1.1 This work practice program is designed to minimize lead emissions that could occur from spills that may occur as a result of transporting lead bearing materials from one location to another within the Plant.
- 1.2 A spill is the abnormal accumulation of any lead bearing material that results from normal activities of transporting or movement of materials outside (not within buildings and covered structures), which continue to cause lead emissions.
- 1.3 The work program covers two types of activities that may result in spillage of lead bearing materials, namely work related to transporting material on unpaved surfaces, and transporting material on paved surfaces.

2.0 SPILLS THAT OCCUR ON UNPAVED SURFACES

- 2.1 Whenever a spill occurs on an unpaved surface within the Plant, the spilled material shall be cleaned up as soon as practicable by the employee who caused the spill. At times, a spill may occur that was not noticed by the employee transporting the material. In this situation, once the spill is discovered, it shall be cleaned up as soon as practicable but in no case greater than 32 hours later by Services Department personnel or other personnel assigned by the Residue Department Supervisor. Once the spill is cleaned up, limerock or some other non-lead bearing material shall be placed over the spill site.

3.0 SPILLS THAT OCCUR ON PAVED SURFACES

- 3.1 Whenever a spill occurs on a paved surface within the Plant, the spilled material shall be cleaned up as soon as practicable by the employee who caused the spill. At times, a spill may occur that was not noticed by the employee transporting the material. In this situation, once the spill is discovered, it shall be cleaned up as soon as practicable but in no case greater than 32 hours later by the Services Department personnel or other personnel assigned by the Residue Department Supervisor. The Services Department will vacuum the area of the spill with the street sweeper, weather permitting, according to the regular street sweeping schedule.

OMAHA DUST CONTROL PLAN FOR CONSTRUCTION PROJECTS

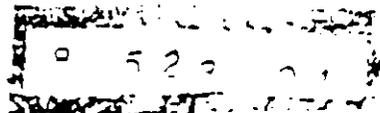
1.0 GENERAL

- 1.1 At all times during the contract work, the Contractor shall provide methods and equipment for controlling and suppressing dust resulting from his work. If the work is completed by ASARCO, then the plant shall follow this program.
- 1.2 The procedures outlined herein are to be considered as minimum requirements in the Contractor's dust control plan. The Contractor shall amplify or supplement these procedures, or develop alternate procedures, as required by the specific site conditions and/or the Contractor's construction methods. Such revised or alternate procedures shall be submitted to ASARCO.
- 1.3 Prior to commencement of on-site work, the Contractor shall submit to ASARCO a detailed, written plan of the methods and equipment for dust control that the Contractor plans to use.

2.0 PRE-CONSTRUCTION CLEANING

Prior to commencement of construction, the Contractor shall or ASARCO will complete the following preparatory work to eliminate or minimize dust emissions during construction. ASARCO will decide if this work is to be done by a contractor or by ASARCO.

- 2.1 Clear and clean up the construction areas to the maximum extent practicable.
- 2.2 Remove settled metallurgical dust from surfaces that will be affected by construction activities.
 - 2.2.1 Affected surfaces may include: area grades, whether paved or unpaved; floors, decks, walkways; building structures, including curbs, foundations, beams, columns, trusses; piping and conduit runs; and machinery and equipment, including pedestals. Such surfaces may be adjacent to, as well as within, the main constructions areas.
 - 2.2.2 Settled dust shall be removed from surfaces by vacuum cleaning. High-pressure water washdown methods may supplement vacuum

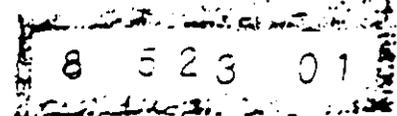


cleaning as required (e.g. in inaccessible areas).

2.3 Transport and deposit collected dust at designated places within the plant.

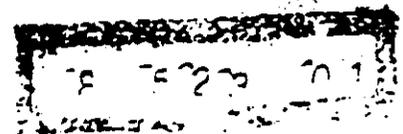
3.0 DUST CONTROL

- 3.1 The Contractor shall thoroughly moisten dry soils and excavated materials during excavation, loading, transporting, dumping, backfilling, grading or other earthmoving activities. Moisturizing shall be applied to exposed and disturbed surfaces of cuts, openings, fills, embankments and stockpiles during these activities. Moisturizing shall be applied continuously or as necessary to essentially eliminate or minimize dust emissions.
- 3.2 To achieve dust control with minimum water usage, low-volume, high-pressure water fogging nozzles with adjustable water application rates should be considered.
- 3.3 In addition to moisturizing techniques, and when feasible and necessary for dust control, the Contractor shall isolate dust-generating activities with temporary screens and enclosures.
- 3.4 The Contractor shall maintain his traffic areas in a wetted-down condition or provide roadway sweeping during construction activities, to the extent possible, in order to minimize dust emissions.
- 3.5 When transporting excavated or dust-laden materials, the Contractor shall minimize spillage and wind dispersal of dust. In addition to properly moisturizing the materials, the Contractor shall adequately cover materials, if necessary, during transporting. Spillages shall be cleaned up immediately.
- 3.6 During nonworking periods, including weekends and holidays, the Contractor shall furnish, install, maintain and secure suitable and adequate means to prevent wind dispersal of dust from cut, opened, exposed or disturbed surfaces of stockpiles and earthwork activities. For material containing $\geq 1.0\%$ lead the material shall be contained with concrete highway barriers at a location selected by the plant Environmental Engineer, and the contained material shall be subject to the provisions of ASARCO's dust suppressant program for stockpiles.



- 3.7 Should the Contractor's vehicles or equipment be operated in areas containing metallurgical dust, or be used in handling such dust, the vehicles or equipment must be cleaned prior to moving off site. At a minimum, wheels, undercarriages and any parts of the equipment (e.g. truck beds, loader buckets) that come in contact with metallurgical dust shall be washed down at a designated on-site truck wash station.

In addition, the Contractor shall clean his vehicles and equipment as often as necessary during the contract work to minimize tracking, spreading, and dispersing metallurgical dust in or beyond the construction areas.



Asarco Order

EPA Rulemakings

CFR: 40 C.F.R. 52.1420(c)(45)(i)(A)
FRM: 62 FR 13329 (3/20/97)
PRM: 61 FR 64304 (12/4/96)
State Submission: 8/26/96
State Proposal: 4/11/96
State Final: 6/6/96
APDB File: NE-27
Description: EPA approved Amended Complaint and Compliance Order Case No. 1520 and accompanying work practice manual in Appendix A. This order replaces Administrative Order 753.

Note: All previous versions of the order are obsolete; the record of prior rulemakings is shown below for historical purposes only.

CFR: 40 C.F.R. 52.1420(c)(35)
FRM: 52 FR 28694 (8/3/87)
PRM: 52 FR 5554 (2/25/87)
State Submission: 2/2/87
State Proposal: 9/27/85 (10/21/85); 9/30/86
State Final: 8/22/85; 5/9/86; 11/12/86
APDB File: NE-13
Description: EPA approved Administrative Order No. 753 (8/22/85) as amended on May 9, 1986, and November 12, 1986, issued by the state to Asarco, Inc. in conjunction with a revised lead attainment demonstration.

CFR: 40 C.F.R. 52.1420(c)(30)
FRM: 50 FR 4510 (1/31/85)
PRM: 48 FR 57323 (12/29/83); 49 FR 24149 (6/12/84)
State Submission: 8/1/84
State Proposal: 6/4/84
State Final: 6/12/84
APDB File: NE-13
Description: EPA approved an administrative order issued by the state to Asarco, Inc. in conjunction with the Omaha lead SIP, but withheld action on whether the overall control measures in the order were adequate to assure attainment.

Difference Between the State and EPA-Approved Regulation

EPA did not approve paragraph 19 of Amended Complaint and Compliance Order Case No. 1520.