Report Prepared By:

City of Chicago
Department of Environment

Regarding:

H. KRAMER AND COMPANY
1345 WEST 21ST STREET
CHICAGO, ILLINOIS

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Executive Summary

H. Kramer and Company (H. Kramer) is a secondary smelter and scrap metal refiner located at 1345 West 21st Street in Chicago's Pilsen neighborhood. Because of the heavy nature of H. Kramer's industrial activities and the age of H. Kramer's facility, the City of Chicago Department of Environment (DOE) has always kept close watch over the facility. Since 1998, DOE has inspected the facility 126 times. When those inspections revealed environmental violations or other concerns, DOE has taken action. DOE's actions included issuing citations for violations of the Chicago Municipal Code and making referrals to United States and Illinois Environmental Protection Agencies (USEPA and IEPA).

In an effort to comply with city, state and federal requirements, H. Kramer has made extensive improvements to its infrastructure. H. Kramer has replaced aged furnaces with new electric induction furnaces; repaired its walls and roof; installed new baghouses and a mist eliminator to control emissions; increased the capture efficiency of pour hood of one of its rotary furnaces by enlarging it and positioning it closer to the pouring area; installed automatic enclosed oxide collection system and modified design of furnace controls to reduce human error. In addition, H. Kramer plans to separate two of its baghouses and dedicate them to fugitive emissions from rotary furnaces; install new flue lines to four baghouses to maximize airflow and reduce ambient air inclusion; and replace two baghouses if necessary.

Regulatory Background

H. Kramer receives two types of authorization to operate. It has installation permits and a certificate of operation from DOE (DOE permits) and construction and lifetime operating permit (air permits) from the USEPA and the IEPA (collectively the Environmental Protection Agencies).

The Environmental Protection Agencies issue air permits pursuant to the Illinois Environmental Protection Act and the federal Clean Air Act. (The federal government delegates authority to enforce the Clean Air Act to IEPA.) The Environmental Protection Agencies' permits contain detailed requirements for the operation and specification of H. Kramer's equipment, and also set numerical limits for the emissions of various pollutants.

DOE permits serve a different purpose from state and federal air permits. DOE's permitting scheme is focused on two things: preventing environmental nuisances (such as smoke, odors, and particulate emissions) and ensuring equipment that creates or controls emissions is properly installed and documented. (Copies of H. Kramer's recent installation permits and certificate of operation are enclosed in Appendix A.)

The DOE enforcement program focuses on the same issues as its permitting program. DOE seeks to ensure H. Kramer is not emitting undue smoke, odors, and particulate matter. The City, however, does not and cannot enforce the emissions limitations contained in H. Kramer's lifetime operating permit. The City's only responsibility is to enforce applicable provisions of the Chicago Municipal Code.

Introduction:

On November 2, 2004, a non-binding referendum was placed on the ballot. 420 votes were in favor and 22 against. The non-binding referendum stated:

> Shall our elected officials, especially Alderman Daniel Solis, insist that the H. Kramer and Co. brass foundry at 1345-47 W. 21st Street be investigated by the Chicago Department of the Environment and the Illinois Environmental Protection Agency for repeated incidents of contamination of the air in Pilsen. And shall a public report be produced and made available at the Rudy Lozano branch library no later than July 1, 2005?

In a subsequent letter dated January 31, 2005, the Pilsen Environmental Rights and Reform Organization (PERRO) presented a list of issues to be addressed in the proposed report by DOE (attached in Appendix B). DOE requested a meeting with PERRO to discuss the January 31, 2005 letter. During a meeting held on February 2, 2005, DOE informed PERRO that some of the issues listed were outside DOE's jurisdiction and would best be addressed by other agencies. To assist PERRO, DOE identified which agency was best suited to address those issues outside DOE's jurisdiction. In a letter to PERRO dated April 11, 2005, DOE clearly identified issues it could address and issues other agencies could potentially address. This letter is attached in Appendix B. DOE also provided PERRO with other agencies' contact information. Sections 1 through 15 of this report attempt to answer PERRO's concerns in the order they were presented and as stated in a list of questions attached to DOE's April 11, 2005 letter.

This report is aimed at addressing those issues within DOE's jurisdiction. It covers such issues as the plant operations, history of complaints, DOE's inspection and enforcement activities, and H. Kramer's efforts in mitigating identified emission problems at its facility. It also suggests some voluntary measures H. Kramer could embark on to educate its neighbors on its operation and showcase its commitment to be a good corporate citizen that safeguards the environment.

DOE is happy to provide this report to PERRO and to the Pilsen community at large. DOE's mission is to serve the citizens of Chicago by protecting human health and the environment, improving the urban quality of life, and promoting economic development. DOE looks forward to a continuing dialogue with all Chicagoans. Contact DOE via its website at www.cityofchicago.org/environment, by telephone at (312) 744-7606, or by visiting or sending mail to our office at 30 North LaSalle Street, Suite 2500. Environmental complaints should be phoned in to our hotline at (312) 744-7672.

1. Briefly describe H. Kramer's production process and pollutants released during that process.

H. Kramer is a secondary smelter and scrap metal refiner. It was incorporated in 1888 and has been located at 1345 West 21st Street since the 1920s. Its primary business is producing brass (zinc-alloyed copper) and bronze (tin-alloyed copper) ingots.

H. Kramer receives scrap metals from many sources and in various forms including solids, wire, borings and grindings. It sorts scrap metals into grades and melts them down using three different types of furnaces (Rotary, Coreless, and Channel). Slag produced as a result of impurities from the melted scraps is then skimmed off the molten metal alloy. Next, the molten metal alloy is poured into molds. The slag produced from these three different types of furnaces is collected and shipped to customers for further recycling.

Figure 1 shows the various stages of production from raw materials (scraps) to the finished products (brass and bronze alloy and phosphor-copper alloy). Figures 2 and 3 are pictures of the various types of raw materials (scrap) that H. Kramer smelts and refines into brass and bronze alloy or phosphor- copper alloy.

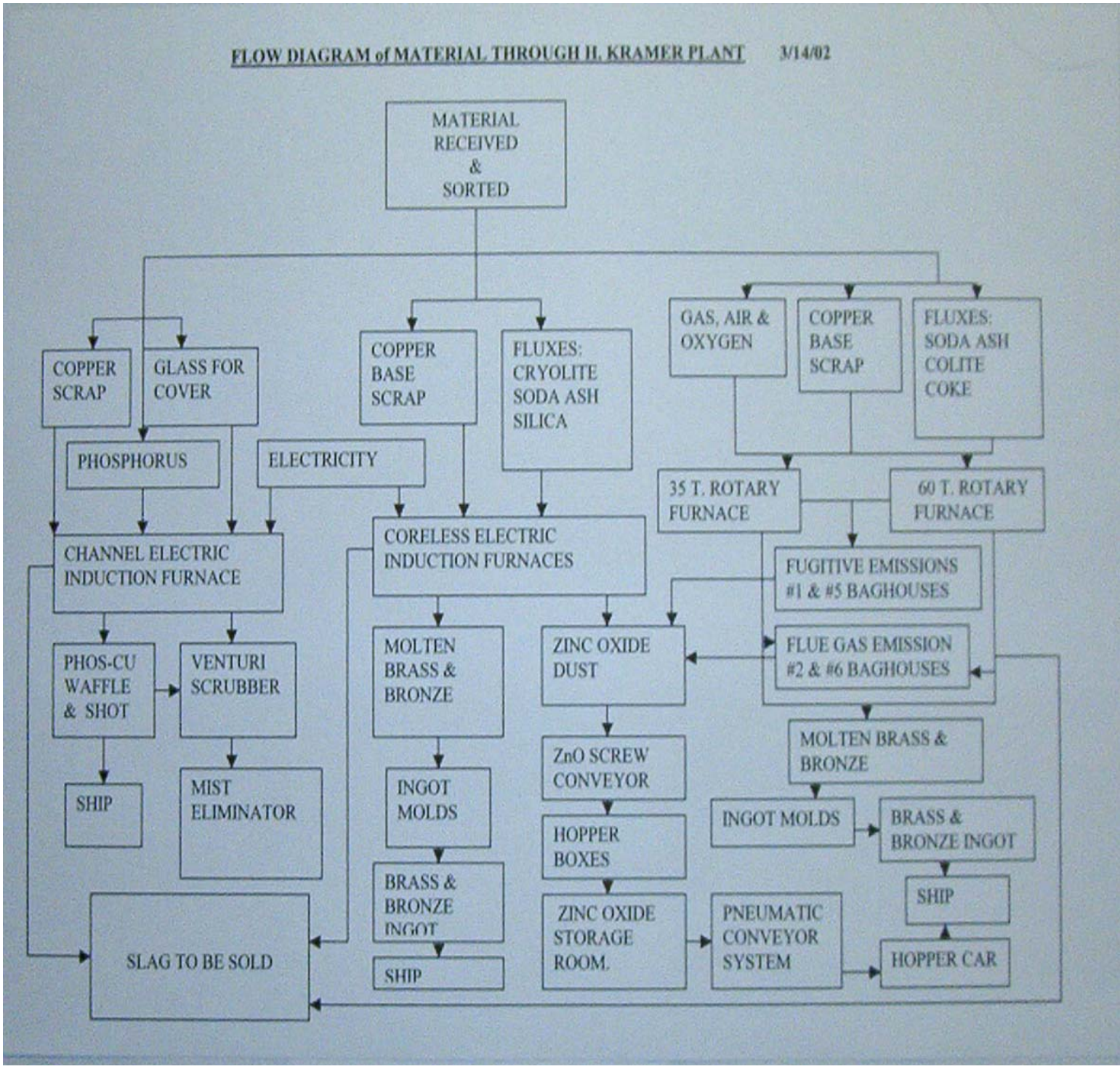

Figure 1: Combined Process Flow Diagram.

Figure 2: Pure Cooper Scrap

Figure 3: Bales of Crushed Radiators

Production Process:

H. Kramer's production process begins with the receipt of scrap from various suppliers. The scrap is then sorted into various categories according to its grade of purity (see Appendix A for details). Depending on its grade, the sorted raw scrap is then charged into three different types of furnaces (gas-fired rotary furnaces, coreless electric induction furnaces and electric induction furnaces).

1) Gas- Fired Rotary Furnaces:

The briquettes, bales, and loose scrap are charged into two rotary gas-fired furnaces (Figures 4 and 5) where they are melted down into molten brass and bronze.

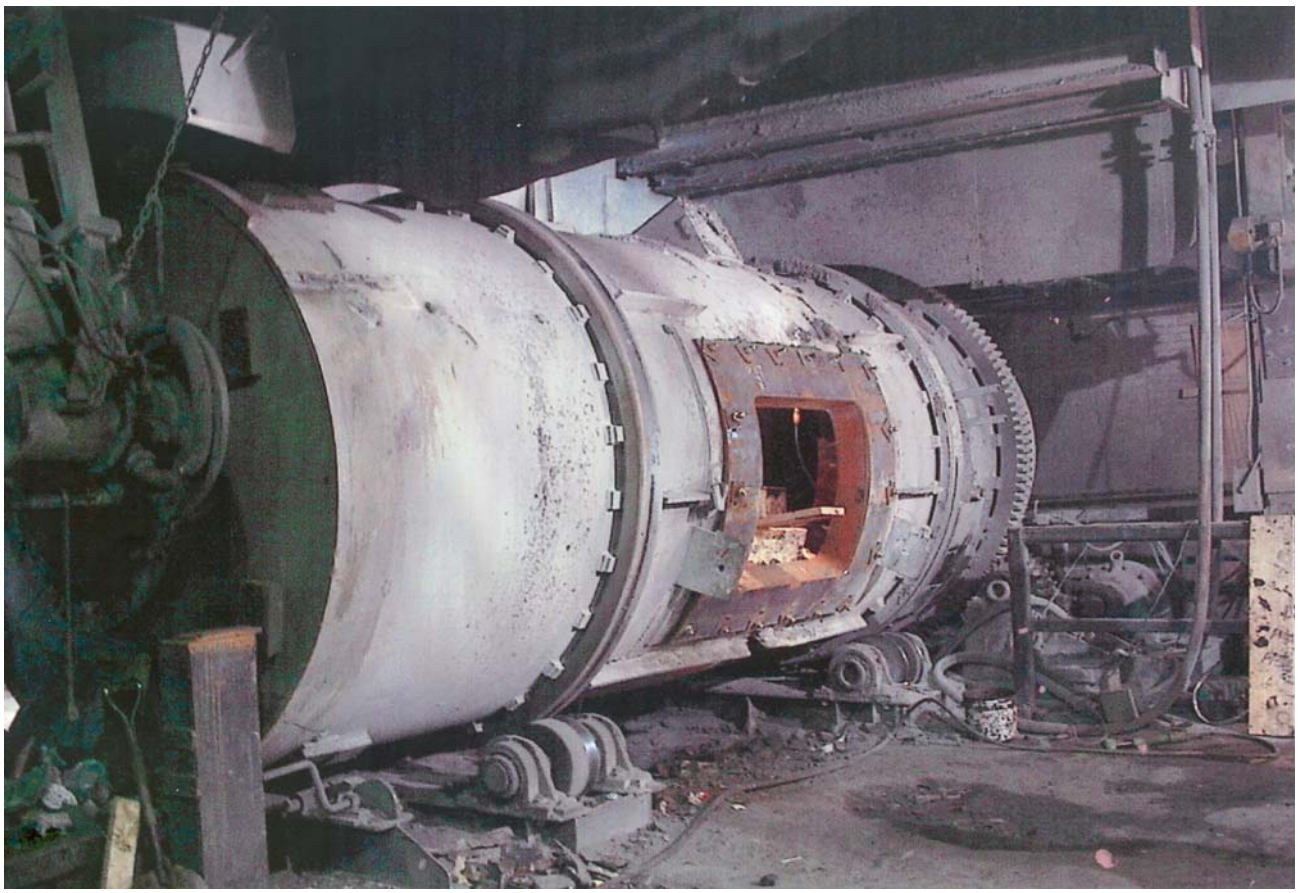

Figure 4: Rotary Furnace

The slag formed on top of the melted metal is skimmed off, and the molten metal is then poured into a ladle and transferred into ingot molds (Figure 8).

Water is poured on the hot ingots to cool them. The cooling operation generates steam that is vented through a stack. Figure 6 is a picture of steam generated as a result of the cooling process.

Figure 5: Rotary Pouring

Figure 6 **Steam from Cooling Operation**

Emissions from this process include byproducts of fuel combustion and metallic dusts and fumes. Emissions generated from Rotary Furnaces 1 and 2 are controlled by Baghouses 2 and 6. Fugitive emissions from these furnaces are captured and routed to Baghouses 1 and 5.

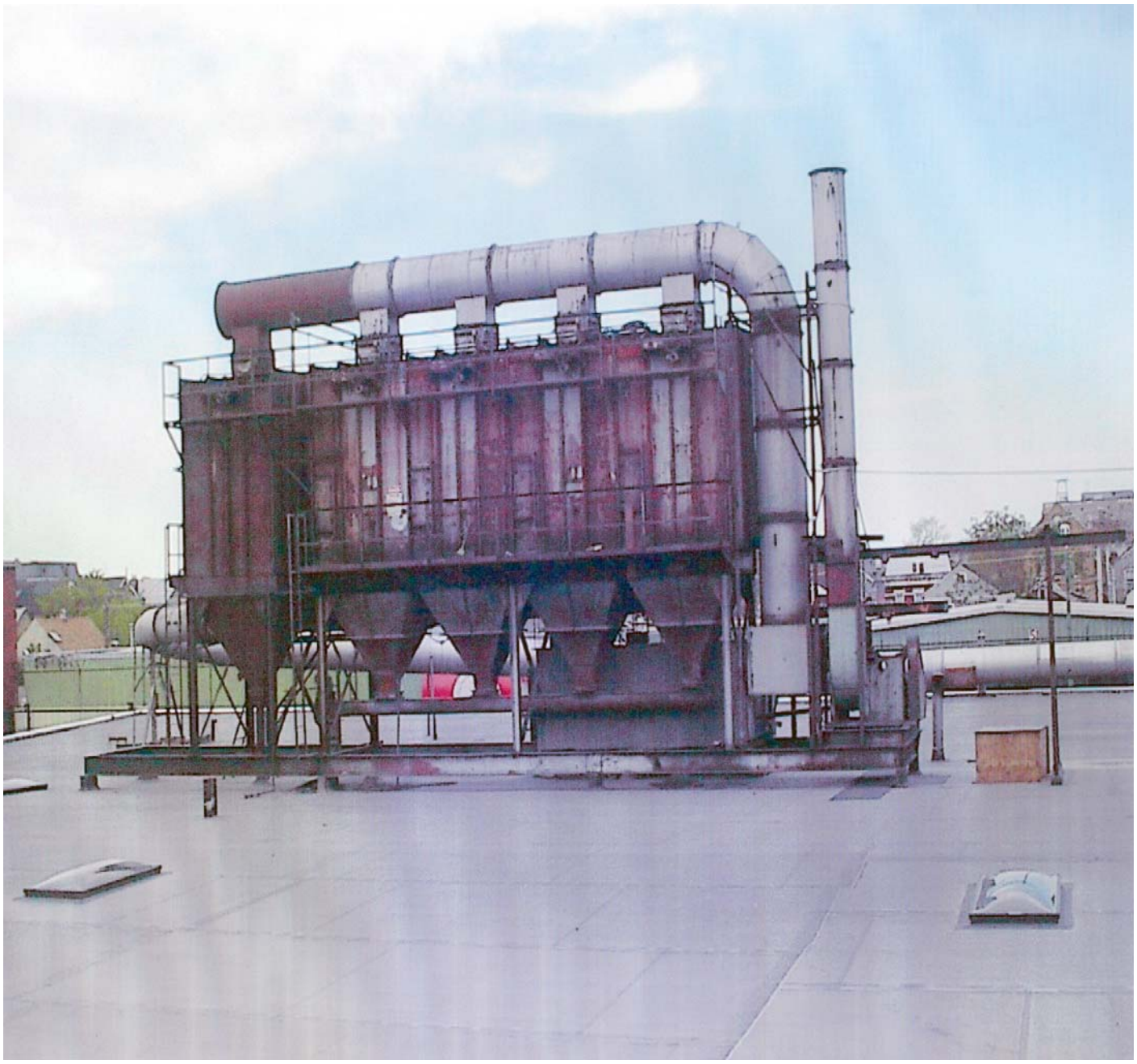

Figure 7: Baghouses Controlling Furnace and Fugitive Emissions

2) Coreless Electric Induction Furnaces:

Some of the copper base scrap, soda ash, and silica are placed into three coreless electric induction furnaces (see Appendix A for a picture of a coreless furnace), and melted down to produce molten brass and bronze alloy and zinc oxide dust. The molten brass and bronze alloy is poured into ingot molds to produce brass and bronze ingots. (See Figure 8 below.)

The zinc oxide dust produced as a result of this process is first conveyed to a storage room and later blown into hopper cars for shipment through a pneumatic conveyor system. The emissions from the coreless furnaces are controlled by Baghouse 4.

3) Channel Electric Induction Furnaces:

Pure copper scrap is charged into two channel electric induction furnaces along with phosphorus to produce "phos-copper" alloy and shipped to customers. The emissions from the channel furnaces are controlled by a venturi scrubber and a mist eliminator.

Figure 8: Ingot Molds (Finished product)

2. Do the emissions coming out through the brick facade of H. Kramer's building pose a threat to the environment?

PERRO requested information about the emissions coming out through the brick facade of H. Kramer's building, which are normally referred to as "fugitive emissions." USEPA defines fugitive emission as "all released air that is not released through a confined air stream." Fugitive emissions usually occur as a result of equipment leaks, process malfunctions, aging equipment, lack of maintenance, or equipment damage.

The threat posed by fugitive emissions to the environment depends on the nature of the pollutants associated with the emission stream, the amount of the emissions, and the nature of nearby land uses.

In 1999, DOE identified H. Kramer's fugitive emissions were the result of aged equipment, leaking ducts, and a leaking roof.

H. Kramer addressed these fugitive emissions by replacing aged furnaces and replacing or repairing most of its roof. It installed a mist eliminator to control the fugitive emissions. New baghouses were also installed and the leaking ducts were replaced or repaired. A complete list of measures H. Kramer took to mitigate emissions from its facility is provided in the section on inspection outcomes.

DOE believes that emissions from H. Kramer are currently under control and thus do not pose a substantial threat to human health or the environment. Occasional problems, however, may still occur, and DOE urges any citizen who observes fugitive emissions to call DOE's complaint line (312-744-7672).

3. Provide a complete list of past complaints against H. Kramer made to DOE. What is DOE's process for investigating a complaint? What were the outcomes or results of the complaints?

A: Historical List of Complaints.

Below is a tabulation of the complaints against H. Kramer that DOE received and the result of DOE inspections of the facility.

Also attached in Appendix B is a database printout providing the dates and times of actual complaints, inspections, and enforcement actions taken against H. Kramer from March 1993 to May 2005.

Between 1998 and May 31, 2005, DOE received a total of 51 complaints against H. Kramer. Each complaint was investigated within two days of receipt. Most complaints triggered multiple inspections resulting in follow-ups and referrals by DOE inspectors to DOE engineers. DOE engineers have better understanding of the technical processes involved in H. Kramer's operations.

Table 1: Compilation of complaints, Inspection and Notice of Violations.

Year	Complaints	Inspections	Notice of Violations
1998	4	7	0
1999	17	37	6
2000	5	13	1
2001	4	8	1
2002	8	17	1
2003	4	22	2
2004	5	14	0
2005 (05/13/2005)	4	8	0
Total	**51**	**126**	**11**

DOE received the greatest number of complaints against H. Kramer in 1999. A total of 17 complaints were received. DOE staff inspected the facility 37 times and issued 6 citations. These citations prompted major infrastructure changes, which are discussed below. In 2002, DOE logged 8 complaints against the company, but less than 5 complaints in all other years since 2000. Most of the complaints reported after 1999 resulted in findings of no Municipal Code violations. The complaints were primarily steam emissions from the cooling operation that were mistaken for smoke emissions.

DOE has been prompt and responsive to citizen complaints it received regarding H. Kramer. Every complaint received against the company triggered at least two responses from DOE. In cases where DOE believed the company might be violating its IEPA permit conditions or provisions of the Resource Conservation and Recovery Act (RCRA), DOE referred the company to IEPA or USEPA.

Historical Comparison of Complaints, Inspections and Enforcement

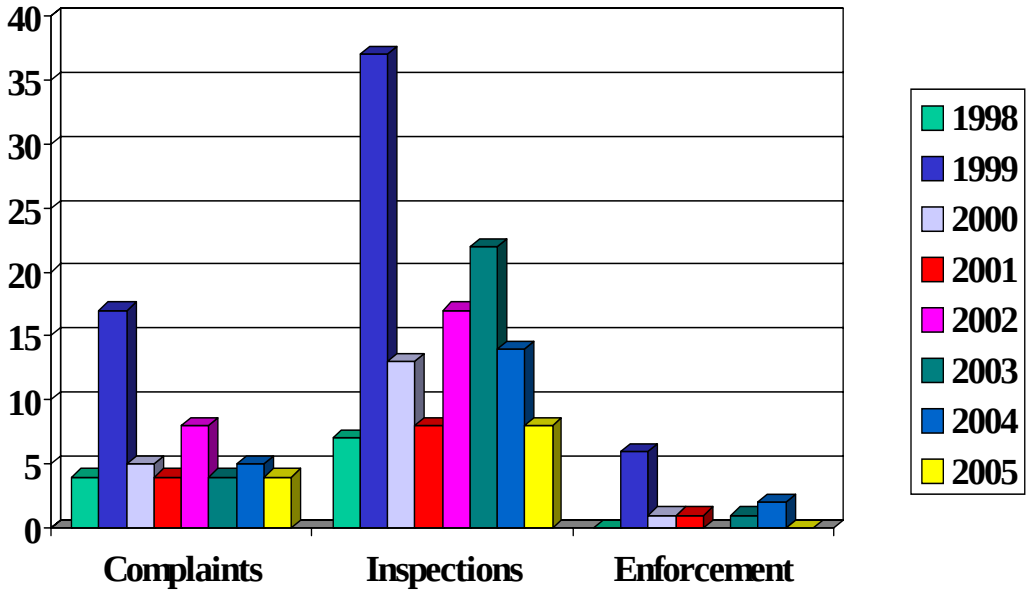

Figure 9: **Compilation of Complaints, Inspections, and Enforcement**

B: DOE Complaint Investigation Process:

DOE receives complaints directly from citizens and from referrals from agencies like IEPA and USEPA. Each complaint is first logged into a DOE complaint database and assigned to an inspector or engineer depending on the nature and source of the complaint. The inspector or engineer must then investigate the complaint to validate its veracity. The inspector or engineer must visit the complaint location, interview the owners or operators of the facility, walk through the facility to identify the source of any nuisance, and take pictures to support his or her findings. If the complaint's contact information is available, the complainant is contacted and informed of DOE's findings and of what is being done to mitigate the nuisance. The inspector or engineer writes a report that documents findings. The report is then forwarded to a DOE supervisor for review.

If the complaint is verified, a "Notice of Violation" (citation) or warning is given to the owner or operator of the facility depending on the seriousness of the violation or the nature of the nuisance. The report is then entered into both the complaint and inspection databases to close out the complaint. If a notice of violation is issued, the report is forwarded to City of Chicago Department of Administrative Hearings for prosecution.

C: DOE Inspection History of H. Kramer

In addition to inspections prompted by complaints, DOE inspects H. Kramer at least once a year to evaluate the company's compliance with its certificate of operation and determine whether re-issuance of the certificate of operation is warranted. This annual inspection is also aimed at ensuring the facility is operating in compliance with the Municipal Code. The inspection process involves a review of the company files to identify particular areas of operation on which to focus during the actual plant visit. The inspection process also involves a pre-inspection interview with the plant manager to review operational and maintenance logs and to learn about changes made since the last visit. In addition, the inspection involves a walk through of the facility, and an exit interview to inform plant management of potential problems and to issue warnings or Notices of Violation (NOV) as appropriate. DOE has conducted a full annual inspection of H. Kramer every year from the formation of the Department to date. DOE inspected the facility 126 times between 1998 and 2005.

Outcome of DOE Inspections (Enforcement History)

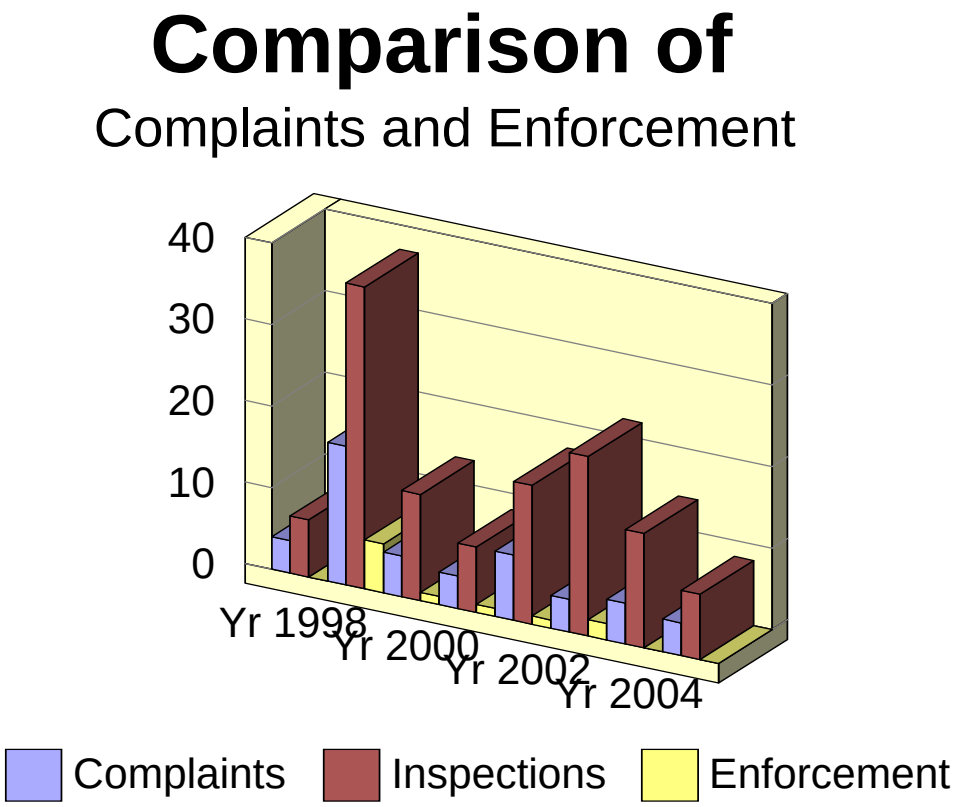

Figure 10: Illustration of the DOE responses to complaints

D. Enforcement Actions Against H. Kramer

DOE has issued 14 citations to H. Kramer since 1991. The citations were primarily for atmospheric pollution and general nuisance (Municipal Code §7-28-080, and §11-4-630). H. Kramer was found liable in 13 counts of these citations. No citations have been issued since 2003. DOE referred the site to USEPA twice, in 1999 and 2001.

United States Environmental Protection Agency (USEPA) Air Enforcement Actions

On September 19, 1990, USEPA issued a "Finding of Violation" to H. Kramer. USEPA found that the roof vents above its rotary furnace on the west side of the facility were a source of visible particulate emissions. H. Kramer violated the opacity limits in its IEPA air permit.

On August 27, 1996, USEPA issued a "Notice of Violation" alleging that H. Kramer violated the opacity limits set forth in the Illinois Pollution Control Board Regulations. On September 18, 1997, USEPA issued an "Administrative Complaint and Notice of Proposed Order Assessing a Penalty." In the order, USEPA proposed a $29,482 civil penalty.

In the Fall of 1999, DOE and USEPA jointly performed site surveillance. Based on the inspection findings, USEPA issued a notice to H. Kramer. Pursuant to a 1999 USEPA request for information pursuant to the Clean Air Act, in March 2000[1], H. Kramer performed an emission stack test on the venturi scrubber that controls emissions generated by the electric induction furnace. The stack test results showed that the emissions were within permitted limits.

In October 18, 2001, DOE accompanied a joint IEPA and USEPA inspection that USEPA led. As a result of the inspection, USEPA issued H. Kramer a notice requiring it provide USEPA information regarding its processes. The information was used to assess whether H. Kramer's operation was classified as a secondary lead smelter and if it was thereby subject to recently promulgated regulations. USEPA concluded that the site was not a secondary lead smelter.

Results of Enforcement Actions

In November 1997, USEPA issued an order requiring H. Kramer do the following:

1) Implement managerial controls to reduce fugitive emissions;
2) Implement institutional controls to reduce the fugitive emissions from emissions sources that are routed to the Baghouse 5;
3) Reconstruct Baghouse 6;
4) Increase the capture efficiency of pour hood of Rotary Furnace 2 by enlarging it and if possible positioning it closer to the pouring area;
5) Complete a survey of duct work disturbances and leaks and complete repairs; and
6) Develop a maintenance schedule, based on the current predictive maintenance program.

In addition to these compliance measures, H. Kramer agreed to install a mist eliminator as a supplemental environmental project. Upon installation, H. Kramer found that the equipment failed to function as promised by the manufacturer. For the last two years however, the mist eliminator has been working effectively.

In addition to the infrastructure changes mentioned above, H. Kramer has undertaken the following compliance measures in an effort to bring their facility into compliance:

1) Replacing older flue ducts;
2) Modifying hoods to Rotary furnaces;
3) Installing an automatic oxide collection system;
4) Modifying furnace controls to reduce human error;
5) Installing dampers;
6) Repairing roofs and walls;

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[1] H. Kramer first ran the test in February 2000. The test results indicated emissions were in excess of H. Kramer's permitted limits. H. Kramer, however, found that the test was not run in conformance with USEPA's approved "Proposed Source Test Protocol For Electric Furnaces" H. Kramer submitted. As a result, a second stack test was completed in March 2000. All results were in compliance with permitted and regulatory limits.

7) Hiring a consultant to optimize the venturi scrubber;
8) Installing four new baghouses,
9) Installing computer assisted controls for scrubber operation; and
10) Replacing three coreless furnaces.

(Source, H. Kramer letter dated November 15, 2004 and field inspections). H. Kramer claims it spent $5.6 million in recent years to improve environmental compliance.

4. Who at DOE issues certificates of operation and installation permits for H. Kramer and how are they issued?

DOE's Pollution Prevention Unit of the Permitting and Enforcement Division is responsible for issuing installation permits and certificates of operation to H. Kramer in accordance with the City of Chicago Environmental Code §11-4-240 and §11-4-260.

Pursuant to the Municipal Code, installation permits are generally required for air pollution sources and control. Installation permits are issued after the applicant completes and submits an appropriate Installation Permit Application Form and pays the required fees. This is a registration process designed to help DOE keep account of the types and quantity of equipment installed and operated in the City of Chicago. Installation permits do not, however, generally stipulate operating conditions for the equipment and never specify numerical emission limits. The IEPA specifies these kinds of numerical emission limits in its construction and operating permits.

If during the permit review process DOE determines that a process has a potential to cause an environmental nuisance (such as particulate emissions, noise, odor, etc), DOE requests installation of an adequate control device before the installation permit is issued. The Pollution Prevention Unit thereby ensures that every system is given the necessary controls required to mitigate potential environmental nuisances before the facility is operational. See Appendix B for a copy of H. Kramer's recent installation permits.

Certificates of operation are issued annually after DOE Engineers inspect the facility and verify the company is operating as permitted by the installation permit. See Appendix B for a copy of the certificate of operation issued to H. Kramer in 2004.

5. Does DOE take environmental impacts into account before amending certificates of operation or issuing new installation permits (collectively "DOE Permits") to account for a change in production volume? Does the community have the right to challenge a modification or new DOE Permit? If so, how is this done?

DOE's mission is to ensure that facilities are operated in a way that is not detrimental to public health and the environment. Every program DOE designs and runs is aimed at achieving this mission. The installation permit and certificate of operation programs are managed with DOE's mission in mind.

The Installation Permit Program, as earlier stated, is a registration process and does not require public input before issuance.

Certificates of operation are rarely amended. If there is ever a need to do so, it is normally done to reflect changes in the plant capacity as permitted by IEPA. IEPA is responsible for issuing construction and operating permits to a facility, and it sets the conditions under which a facility is

operated.

IEPA solicits public comments before certain draft permits are finalized and issued. During this period, IEPA may hold community meetings and IEPA encourages citizens to submit comments on the draft permit.

6. What does DOE specifically inspect during routine inspections?

DOE uses a baseline inspection technique in its inspections. Essentially, DOE tries to identify any changes in a facility's operation based on data from the previous year. DOE tries to determine why the changes occurred and the effects on the environment and public health.

During a routine plant inspection, DOE requests information from the facility about plant operations, personnel changes, equipment operations and malfunctions, and operation and maintenance logs. DOE personnel also physically walk through the facility to observe equipment operations and to verify compliance with the Municipal Code.

7. Does DOE prioritize polluters like H. Kramer for more thorough inspections?

Since it is impossible for DOE to inspect every facility in the City every year due to staffing constraints, DOE categorizes facilities that generate air emissions into four different classes, based on their potential and actual yearly air emissions[2].

Class A1: Facilities with potential and actual emission of 100 tons or more per year.

Class A2: Facilities with potential emissions of 100 tons or more per year but actual emissions that are less than 100 tons per year.

Class B: Facilities with actual emissions of less than 100 tons per year.

Class C: Facilities with actual emissions of less than 10 tons per year.

DOE endeavors to inspect every year those facilities with the highest potential to emit pollutants into the air. Every year DOE also inspects facilities with chemical emissions that are considered hazardous to the environment and public health.

H. Kramer is classified as an A1 facility and thus has been inspected every year since DOE's formation. From 1991 to date, DOE staff has visited this facility more than 120 times, either as a result of complaints or for routine inspections. Prior to DOE's formation, Department of Consumer Services inspected the facility for air emission compliance.

8. What pollution control equipment does H. Kramer currently use, and is the equipment state-of-the-art?

The efficiency or effectiveness of a control device is dependant on the nature and type of pollutants being controlled.

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[2] Categories are based on the total amount of all pollutants generated at the facility and not on a single pollutant.

For particulate emissions, control devices such as cyclones, baghouses, electrostatic precipitators (ESPs) are common. Each of these devices works differently and the choice of which device is best depends on the size and characteristics of the particulate matter being controlled.

The emissions at H. Kramer are primarily fine particulate matter. Baghouses are normally the equipment of choice for such emissions. H. Kramer has 6 baghouses with 10 compartments controlling the facility's various emissions. In addition to the baghouses, H. Kramer voluntarily installed a mist eliminator that controls its fugitive emissions. This equipment is state of the art for controlling these types of emissions.

9. What is the process by which lead emissions are generated at H. Kramer & Company?

Lead emissions are the result of the melting operation. As the scrap is placed into the furnace and subjected to intense heat to melt down the metal, some metal vaporizes and is emitted as particulate matter in the form of dust and oxide fumes**.** Constituents of the fumes include zinc, lead, tin, copper, cadmium, silicon and carbon. As much as 98% of the particulate matter contained in furnace stack gases may be zinc oxide and lead oxide depending on the composition of the alloy."[3]

10. What recommendations can you make to improve any threats to the environment caused by the emissions at H. Kramer? Is there technology available that can be employed to allow the plant to continue operating without producing harmful emissions? Are there any indirect methods that could be employed, for example, planting trees to absorb any toxicity?

H. Kramer has a history of undertaking voluntary projects to go beyond the basic requirements of compliance. DOE would like to see H. Kramer's top management continue to demonstrate its commitment to infrastructure improvements and administrative changes necessary to keep the facility in compliance with all applicable environmental rules and regulations.

In addition, a beautification program, although not required, could go a long way in demonstrating H. Kramer's commitment to the environment and the community. It is therefore suggested that H. Kramer plant trees to give its facility a more friendly ambience instead of the current rugged steel appearance. Trees also can improve the air quality around them as well as mitigate the urban heat island effect. Erecting a wall around the facility with a good choice of paint color could make the facility less conspicuous and less distracting to the neighbors.

Most of the residents of Pilsen are not aware of what goes on in H. Kramer or of the company's commitment to protect the environment. The company's management should embark on a public outreach campaign to educate the residents. H. Kramer should look for opportunities to tell its own story to the neighbors by participating in or sponsoring neighborhood programs.

11. If Chicago receives state or federal funding for companies like H. Kramer to be located here, is there a way to receive concomitant funding to make sure they are operating within the bounds of health and environmental safety?

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[3] Secondary Brass and Bronze Melting Process
By Charles A. Licht,
Air Pollution Engineering Manual, 2nd Edition, pg 627

To DOE's knowledge, the City does not receive federal or state funding to support the operations of facilities like H. Kramer in the City.

12. Does the City have the responsibility to reduce the allowable emissions if it is found that the releases have negative health and environmental effects to the surrounding community?

The thrust of DOE programs is to protect public health and the environment. Any threat to public health and the environment is taken seriously by DOE. DOE will therefore work with the appropriate agencies to ensure that no facility in the City is operated in a manner that is detrimental to public health and the environment.

As stated earlier, however, IEPA has the responsibility for setting emissions limits at H. Kramer and similar facilities. The construction and lifetime operating permit IEPA issues stipulates the conditions under which a facility can operate, including numerical emissions limits. If DOE finds out that a facility is exceeding its emissions limits or that the emissions have negative health and environmental effects on the surrounding community, DOE would not hesitate in referring the facility to the appropriate agency responsible for regulating that facility.

13. The Clinton administration put into effect the Environmental Justice Initiative to protect people regardless of race or income from unfair negative environmental impacts. Does the City follow this initiative in Pilsen?

"Environmental justice" means the fair treatment of all people in the adaptation and implementation of environmental laws and policies. DOE is committed to the concept of environmental justice and makes environmental justice an important part of its permitting, enforcement, and policy programs. DOE also has agreed to consider environmental justice as it carries out grant obligations.

The Federal Environmental Justice Initiative, however, applies only to *federal* agencies and *federal* programs and thus has no application to most of DOE's activities.

14. What strategy will Department of Environment propose to reduce the amount of pollution in Pilsen? Is there any limit to the number of companies that are allowed to operate and pollute in the Pilsen area? Are there City regulations in place to ensure the health and safety concerns an industrial corridor poses to nearby residents and the land itself?

Air emissions do not recognize barriers and boundaries such as neighborhoods or wards and, therefore, DOE continues to work on a regional level to address air quality. These regional efforts include Clean Air Counts, a northeastern Illinois regional initiative to reduce ozone-causing emissions, thereby improving air quality and enabling economic development. It is a collaborative effort between the Metropolitan Mayors Caucus, City of Chicago, USEPA Region 5, and IEPA. This multi-year initiative seeks to achieve specific and significant reductions in targeted smog-forming pollutants and major reductions in energy consumption.

DOE also participates in Partners for Clean Air (a coalition committed to improving air quality through voluntary actions), Clean Cities (a voluntary organization dedicated to encouraging the use of clean fuel vehicles in the Chicago metropolitan area), the Chicago Climate Exchange (a multi-national and multi-sector market for reducing and trading greenhouse gas emissions) and the Chicago Solar Partnership (an organization committed to promoting and installing solar power).

Additionally, DOE has begun an education campaign to the trucking industry in Pilsen aimed at minimizing engine idling. This campaign, called the Chicago Diesel Engine Initiative, assists companies that have large diesel engine fleets with strategies to minimize idling while maximizing vehicle performance. DOE has also assisted the Chicago Public School (CPS) system in obtaining grant funds to retrofit up to half of the CPS fleet with emission control devices. Many of these buses serve schools in Pilsen. DOE also assisted the Fleet Department in obtaining funds to retrofit garbage trucks with emission control devices. Some of these trucks as well may serve the Pilsen area.

As has been mentioned in this report, DOE continues to monitor air emissions sources to ensure equipment is working properly.

15. Can and will the City monitor H. Kramer more closely for compliance with DOE permit conditions? Could a temporary 24-hour camera outside the plant be instituted?

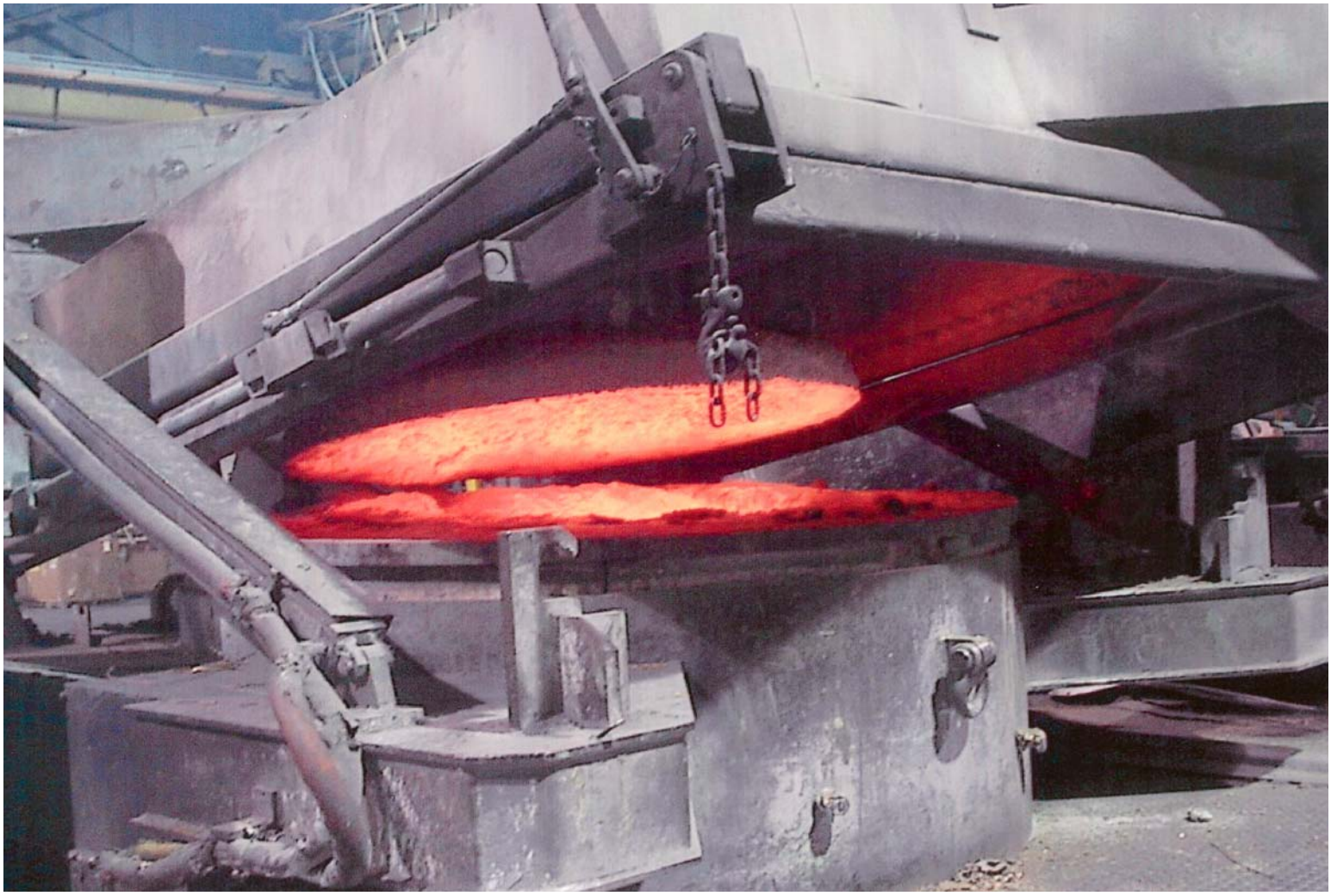
DOE has always monitored H. Kramer for compliance and will continue to monitor the facility in the future. Should the company become lax in its operation or should the amount of valid complaints against the company increase or should a pattern develop indicating questionable operation, then DOE would increase the number of routine inspections.

DOE also will respond to complaints from the public on as-needed basis. Additional well founded complaints will trigger additional inspections.

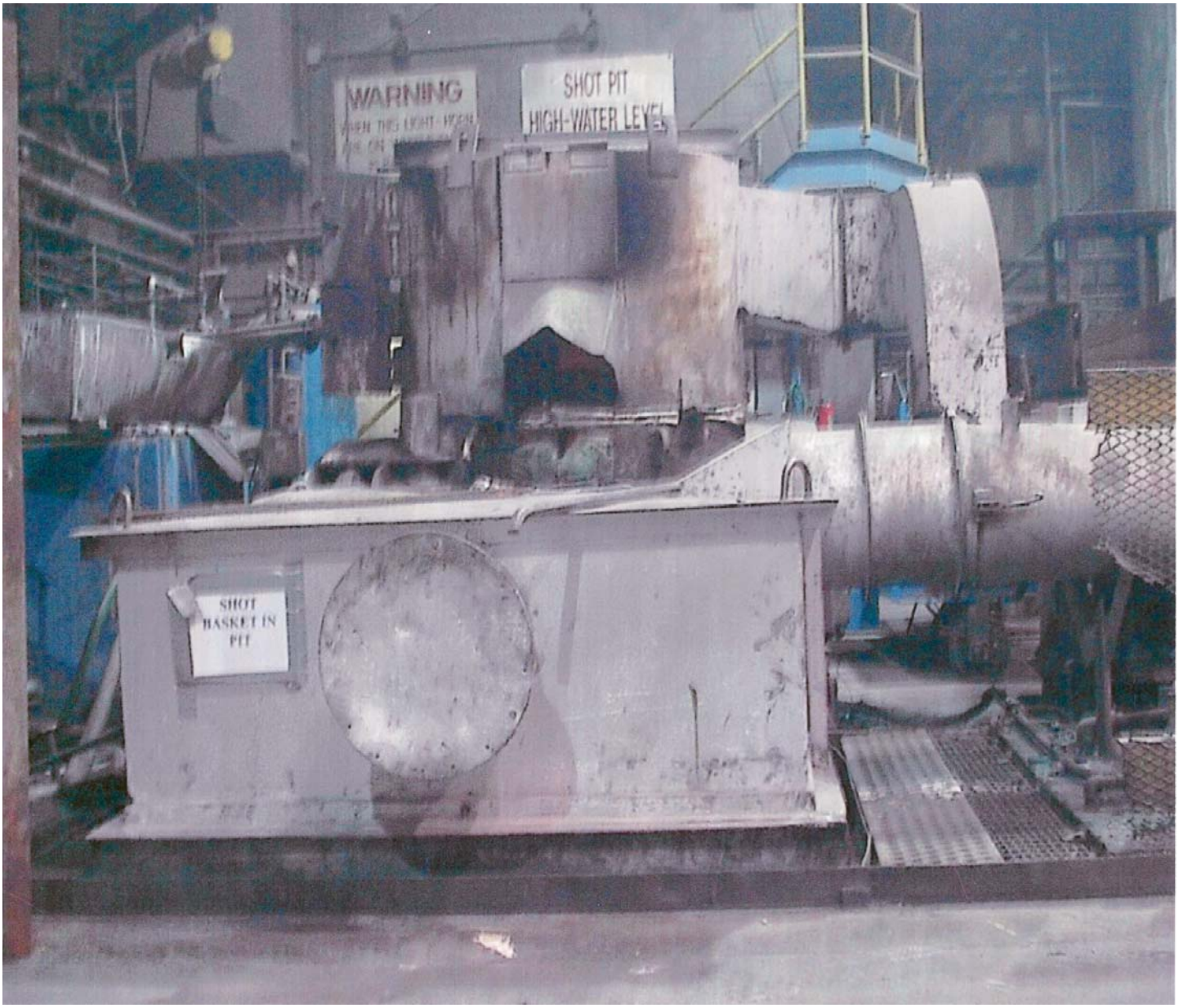
This report answered all the questions submitted by PERRO to DOE that are within the jurisdiction of DOE. It is DOE's understanding that IEPA took some soil samples at H Kramer and is analyzing them for lead contamination. This report did not address the result of such samples or soil contamination at H Kramer.

APPENDIX A

FURNACES



Coreless Furnace



Electric Channel Furnace

Rotary Furnace showing pouring operation

GRADES OF SCRAP

INSTALLATION PERMITS AND CERTIFICATE OF OPERATION

APPENDIX B

CORRESPONDENCE WITH PERRO

DATABASE PRINTOUT OF COMPLAINTS, INSPECTIONS AND ENFORCEMENT

TEST REPORT:

PARTICULATE, LEAD, AND OPACITY EMISSIONS TEST ON BAGHOUSE EXHAUST STACK CONTROLLING ROTARY FURNACES 1 AND 2