

September 15, 2009



BRIEFING

Final Decision and Response to comments for Selection of remedial Alternative for Refined Metals Corporation, Beech Grove, Indiana.

BACKGROUND INFORMATION

Refined Metals Corporation is located at 3700 South Arlington Avenue in Marion County, Beech Grove, Indiana, approximately four miles south-southeast of downtown Indianapolis. In 1968, the property was developed as a secondary lead smelter by National Lead. National Lead operated the facility from 1968 through 1980, when it was sold to Exide Corporation. In 1985, the site was purchased from Exide Corporation by RMC. RMC continued to operate the facility until the cessation of operations on December 31, 1995. From April 14, 1995 through December 31, 1995, operations were reduced to enriching and casting lead ingots from off-specification lead products. Since 1996, no operations have taken place at the facility. Soil and groundwater in several areas at the facility are contaminated at levels above appropriately protective risk-based screening thresholds. Offsite contamination has also been reported north of the facility and in a drainage ditch east of the facility and at the adjacent Citizen's Gas Property west of the facility.

Remedial Alternative Selected

Following the conclusion of the facility investigations, a Statement of Basis was issued for public review and comment from June 27, 2008 to August 11, 2008. The Proposed remedies consisted of excavation of highly contaminated soils and sediments, incorporation of the excavated soils and sediments in an onsite Containment Cell, placement of institutional control on the facility and monitored natural attenuation. We received a number of written comments from the Citizens Gas Energy Group and the City of Beech Grove, Indiana. We have prepared responses to all these concerns and comments. In sum, one substantive change to the Statement of Basis was made. The proposed remedy was modified to address concerns regarding the location of the proposed Containment Cell. The attached Final Decision and Response to Comments describes in detail received comments, our responses and the selected remedy for the Refined Metals Corporation facility.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
FINAL DECISION AND RESPONSE TO COMMENTS
FOR SELECTION OF REMEDIAL ALTERNATIVE**

**FOR
REFINED METALS CORPORATION FACILITY
BEECH GROVE, INDIANA**

September, 2009

**FINAL DECISION AND RESPONSE TO COMMENTS
SELECTION OF FINAL REMEDIAL ALTERNATIVE
FOR
Refined Metals Corporation Facility
Beech Grove, Indiana**

Introduction

This Final Decision and Response to Comments (FD/RC) is presented by the Environmental Protection Agency (EPA) for the Refined Metals Corporation (RMC) Facility located in Beech Grove, Indiana. The FD/RC includes, as Attachment I, the previously issued Statement of Basis. The Statement of Basis outlined potential remedial alternatives at the Facility as well as EPA's proposed remedy and was made available for public review and comment from June 27, 2008 to August 11, 2008. This FD/RC selects the final remedy to be implemented at the Refined Metals Corporation Facility based on the Administrative Record and public comments. EPA's Response to Comments addresses substantive comments received on the Statement of Basis during the 45 day public comment period.

Assessment of the Site

The response action documented in this FD/RC is necessary to protect human health and the environment.

Selected Remedy

EPA has selected the following remedial components as the remedy to address contaminated soil, groundwater and sediment at the Refined Metals Corporation Facility:

For lead in onsite soils and sediments, as well as offsite soils along the Arlington Avenue right-of-way, the railroad right-of-way, and the Big Four Road right-of-way, RMC will implement the following tasks as described in the Statement of Basis:

- Excavation of the most highly contaminated soils and sediments,
- Demolition of the Material Storage Building, Battery Breaker Building, Filter Press Building, Waste Water Treatment Building and Surface Impoundment, and
- Placement of institutional controls to restrict the use of the property to only commercial/industrial land use.

To assure safe and effective long-term management of the excavated soils and sediments as well as debris and rubble generated from the excavation and demolition, RMC will implement the following tasks as described in the Statement of Basis, except that the location of the Containment Cell has been changed:

- Construction of a Containment Cell that will be located in the northwest portion of the RMC property, north of the former operational area and parking areas, and west of the drainage ditch,
- Placement of excavated soils and sediments, as well as the debris and rubble from the building demolition in an onsite Containment Cell,
- Encapsulation of the excavated soils and sediments beneath an impermeable geomembrane cap covering the entire footprint of the Containment Cell and a vegetative cover above the geomembrane,
- Establishment of long-term operation, maintenance and groundwater monitoring of the Containment Cell including existing monitoring wells, and
- Placement of institutional controls on the Containment Cell to prevent any disturbance, excavation, or other activity that might result in a release of any materials contained in the cell.

To manage any excavated soils and sediments as well as any demolition debris or rubble that is not safely managed in the onsite containment cell, RMC will implement the following task:

- Shipment of these materials offsite to another facility for recycling or disposal in accordance with all applicable Federal, State and local regulations.

For Lead in soils at the offsite Citizens Gas property: The commercial/industrial cleanup standards are applicable to this property, and EPA agrees that no remediation is warranted provided that the future land use is restricted to commercial/industrial. Thus, the selection of this final remedy requires implementation of a deed restriction on the Citizens Gas property to ensure that its use is restricted to only commercial/industrial. Citizens Gas and RMC have reached an agreement regarding the land use restriction and the majority of comments raised by Citizens Gas on EPA's draft statement of basis have been rendered moot. Some construction work will be performed under this agreement between RMC and Citizens Gas, but independent of this final remedy.

For On-site Groundwater: To prevent human consumption of groundwater at the Facility, RMC will place a deed restriction preventing the installation of potable groundwater wells at the Facility. Institutional controls are also necessary to prohibit the use of shallow on-site groundwater as a drinking water source and restrict construction activities in on-site areas where humans may come in direct contact with shallow groundwater. In addition, Monitored Natural Attenuation (MNA) will be implemented as the principal means of restoring the on-site contaminated groundwater at the Facility. Monitored natural attenuation (MNA) is the stabilization and long-term shrinking of a contaminant plume by natural processes such as microbial degradation. The major component of MNA as a remedial alternative would be the long-term monitoring program to provide initial and continuing confirmation that the predicted

biological activity and/or reductions in contaminant concentrations occur and remain effective. Monitored Natural Attenuation must demonstrate reduction or stabilization of lead within 10 years of this Final Decision. Within this reasonable time frame (10 years), we expect that monitored natural attenuation will restore the on-site groundwater such that it would be available for use as a source of commercial or residential drinking water.

Documents to be submitted:

RMC shall submit to EPA for review and approval within 60 days of this Final Decision a Corrective Measures Implementation (CMI) workplan for the excavation and off-site treatment/disposal, the building demolition, and the construction of the Containment Cell for lead contaminated soils and sediments. The design work consists of the design plans and specifications, proposed remediation objectives, construction cost estimate, construction quality assurance objectives, waste disposal requirements, project schedule, quality assurance project plan, Community Relations Plan, sampling and analysis plan, an air deposition management plan and health and safety plan. RMC shall implement the approved final design, incorporating EPA comments. Remedy construction must be completed within one year of this Final Decision, and a Construction Completion Report and O&M Plan must be submitted to EPA for review and approval at that time. In the report, a registered professional engineer and the RMC Project Manager shall certify that the remedy for lead-contaminated soils and sediments from these areas have been conducted in accordance with the EPA-approved final design and specifications, to the best of their knowledge, and cleanup objectives have been attained. The report shall include as-built drawings signed and stamped by a registered professional engineer. RMC must implement any approved final O&M Plan, incorporating EPA comments.

The operation and termination of the MNA remedy must also be described in the CMI workplan to be submitted by RMC for approval by EPA. In the CMI workplan, RMC will propose for EPA approval the criteria for measuring satisfactory progress. Every 2 years after the workplan approval, RMC must submit a report assessing whether MNA is progressing satisfactorily. If after 10 years the comprehensive groundwater monitoring program does not demonstrate that MNA is performing as expected, then RMC must propose an alternate remedy for EPA approval, and then implement the approved alternate remedy to achieve the corrective action objectives for the groundwater remediation.

Other Certification, Monitoring, Reporting, Institutional Control, and Financial Assurance Requirements.

As part of the Corrective Action, RMC will:

- Provide certification by a responsible corporate officer or duly authorized representative of all documents submitted pursuant to this Final Decision, as required in the Consent Decree entered in this matter.
- Implement institutional controls for the land, soil, and groundwater portions of the RMC Facility that are the subject of this Final Decision. The institutional controls shall ensure

that RMC property use remains industrial/commercial; the soil and onsite Containment Cell at the facility are not disturbed in a manner that poses a risk to workers or interferes with the implementation of the final remedy; groundwater monitoring wells are maintained until the MNA criteria approved in the CMI workplan are achieved; and the wells are approved for abandonment by EPA.

- Within 30 days of receipt of this Final Decision, provide detailed estimate of capital costs for implementing the final remedy.
- Obtain financial assurance for completion of the final remedy, including operation and maintenance (O&M), within 90 days of the Final Decision.
- Submit CMI monthly progress reports to EPA during the design and construction phases detailing work performed to date, data collected, problems encountered, project schedule, and percent project completed. Progress reports are due by the 15th day of each month following the Final Decision. Submit CMI progress reports semiannually for O&M activities upon approval of the Construction Completion Report.

The final remedy selected by EPA meets the threshold criteria that reflect the performance standards that must be achieved, including:

- Protect Human Health and the Environment
- Attain Media Cleanup Standards Set by EPA
- Control the Sources of Releases
- Comply with Any Applicable Standards for Management of Wastes

The final remedy also considers balancing criteria that represent a combination of technical measures and management controls that helped identify the best remedy, including:

- Long-term Reliability and Effectiveness
- Short-term Effectiveness
- Reduction in the Toxicity, Mobility, or Volume of Wastes
- Implementability
- Cost

Public Participation and Comments

A forty-five (45) day public comment period was held from June 27, to August 11, 2008. Comments were received from Citizens Gas and the City of Beech Grove, Indiana during the public comment period.

Public Comments and EPA's Response to Comments

Comments received on the proposed remedy from the Citizens Gas/Citizens Energy Group and

City of Beech Grove were considered and addressed in the final remedy. As a result, the proposed remedy was modified by EPA to address concerns regarding whether the location of the Containment Cell for consolidation of remediation wastes ensured proper storm water management and potential future development of the RMC facility.

The following narrative summarizes written comments on the proposed remedy and EPA's response to each comment. Each comment is numbered and presented in italicized type. Citizens Gas, a neighboring property owner, raised a number of issues regarding the Statement of Basis in a September 9, 2008, letter. After reaching an agreement with Refined Metals Corporation, Citizens Gas withdrew all of its comments except the following:

1. Citizens Gas requested that the containment cell be located in the northwest portion of the Refined Metals Property, north of the former operational and parking areas and west of the drainage ditch.

Response: EPA agrees that the proposed location of the containment cell could have had some adverse impacts on Citizens' property. The original location was proposed based upon EPA guidance which suggested that it is appropriate to manage waste in its place rather than transfer it to another location. However, the policy allows, under certain conditions, hazardous wastes may be moved within such areas without triggering RCRA land disposal restrictions. Since the location proposed by Citizens Gas is not an uncontaminated area requiring further analysis and approval, the containment cell will be relocated.

2. Citizens Gas requested that Refined Metals be required to develop a storm water management plan both during and following construction of the corrective measures to prevent contaminated storm water from migrating onto Citizens Gas property.

Response: The relocation of the containment cell, as described above, and proper engineering design, should alleviate runoff from the Refined Metals property. The final design plan will be submitted to EPA for approval and the design will be properly engineered and aesthetically acceptable.

3. Citizens Gas requested that Refined Metals be required to develop an air deposition management plan that will prevent contaminants from becoming airborne during Refined Metals' implementation of its corrective measures.

Response: EPA agrees that airborne particulate matter generated during the excavation process should be addressed. EPA will require that RMC include a plan to prevent airborne particulate matter in its Corrective Measures Implementation (CMI) Plan.

City of Beech Grove Comments

The City of Beech Grove provided comments which focused on the future development potential of the property, specifically that the design, location, and timing of the action and the involvement of the City are critical. The following comments were raised:

1. *The City requested that the following be considered in the decision regarding the containment cell:*
 - a. *Minimizing the volume of the contaminated media contained onsite (and thus the size of the cell) to the extent possible considering that off-site disposal is a viable option;*
 - b. *Locating the containment cell in a manner that maximizes the acreage for development purposes, particularly indicating that locating along the boundary of Citizens Gas facility would be good from future reuse options;*
 - c. *Sizing the containment cell in a manner that does not detract from the visual aesthetics of the site for potential future redevelopment (balancing vertical and horizontal dimensions); and*
 - d. *Establishing a perimeter, access points, and access control for the containment cell to not limit future redevelopment.*

Response: As described above, EPA has agreed to relocate the containment cell to the northwest corner of the RMC property. The Containment Cell will not be any larger than necessary, and the design will be properly engineered and aesthetically acceptable. These issues will be addressed in the CMI workplan to be submitted to EPA for approval.

2. *The City requested that EPA expedite the Workplan process so that implementation of the corrective measures can commence.*

Response: EPA will work as expeditiously as possible to review and approve the Workplan for implementation of the Final Remedy. The Consent Decree related to this matter requires Refined Metals to submit to EPA for approval a Corrective Measures Implementation Program Plan within 60 days of receiving notification of the selected corrective measures.

3. *The City requested that it be designated as a corresponding party in the Workplan development process and implementation of corrective measures activities, and that a standard and a process for ongoing communication with the City be incorporated into the Workplan.*

Response: EPA has an entered Consent Decree with Refined Metals that outlines the requirements for communication regarding the development of plans and implementation of measures. EPA will keep the City informed about the process of implementing the Final Decision. EPA can share publicly available documents including workplans, reports, and correspondence. As part of the Corrective Measures, Refined Metals will prepare and implement

a Community Relations Plan (CRP). The CRP will designate a public repository for information regarding the site.

Future Actions

On August 31, 1998, the United States District Court for the Southern District of Indiana entered a Consent Decree in the matter of U.S. v. Refined Metals Corporation. The Consent Decree requires RMC to implement this Final Decision. The Consent Decree also requires RMC to provide financial assurance for the corrective action work. The future actions, beginning with submission of the CMI Work Plan, will begin as described earlier in this Final Decision.

Corrective Action Complete Determination

Once RMC believes it has met its corrective measures obligations, it may send a request to EPA Regional office for consideration for a Corrective Action Complete Determination (CACD). This request should include a written explanation justifying how RMC has satisfied the criteria for the CACD, based on the information outlined in the February 23, 2005 EPA guidance on CACD.

Administrative Record

The Administrative Record upon which the final remedy was selected is available at the Beech Grove Public Library, 1102 Main Street, Beech Grove, Indiana and the 7th Floor Records Center at EPA Region 5, 77 W. Jackson Blvd., Chicago, IL.

Declaration

Based on the Administrative Record compiled for this corrective action, EPA has determined that the selected remedy selected for the RMC Facility is appropriate and is protective of human health and the environment.



Margaret Guerriero Director
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U.S. Environmental Protection Agency
Region 5

Date September 17, 2009

Attachments