Imperial Refining Superfund Site
Ardmore, Carter County, Oklahoma

(CERCLIS ID OK0002024099)

United States Environmental
Protection Agency
Region 6
Superfund Division

May 2013
Close Out Report

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I. INTRODUCTION

This Final Close-out Report documents that the U.S. Environmental Protection Agency (EPA) has determined in accordance with Close-Out Procedures for National Priorities List Sites (OSWER Directive 9320.2-22, May 2011) that all appropriate response actions at the Imperial Refining Superfund Site (Site) have been successfully implemented by EPA and the Oklahoma Department of Environmental Quality (ODEQ), in accordance with the December 26, 2007, Record of Decision and the February 20, 2009, Record of Decision Amendment.

II. SUMMARY OF SITE CONDITIONS

Site Background

The Site is the location of a former petroleum refinery that operated from 1917 to 1934. The legal description for the property is SE ¼, NE ¼, Section 20, and SW ¼, NW ¼, Section 21, T4S, R2E, Indian Meridian, which is located within the northeastern portion of the City of Ardmore, Carter County, Oklahoma (Figure 1). The Site is divided into three parcels: the West (36.5 acres), East (14.5 acres) and East Railroad (21 acres). The Site covers approximately 72 acres and is bisected by U.S. Highway 142 and railroad tracks operated by the BNSF Railway Company. Numerous tanks and buildings were present on the Site during refinery operation, but all of the tanks and most of the buildings were dismantled sometime between 1934 and 1948 leaving the property in much the same condition as it is in today, mixed wooded areas and open fields.

The adjacent property to the north and east of Hwy 142 is occupied by a facility that manufactures roofing shingles. Waste-water processing lagoons operated by Valero Refining are located west of the Site, and the rest of the immediately adjacent property is largely undeveloped. Several small businesses, Valero’s active oil refinery, and a small residential area with about a dozen houses (along the streets of Brooks, Akron, Commerce and Industrial) are located within ¼ mile north of the Site. An estimated 23,000 people live within a 4-mile radius of the Site. Because waste remains in-place, the Site is restricted to industrial use. The Site is owned by a private land owner and currently is not being used (Figure 2).

Land and Resource

The Site is mixed woods and open areas. The trees include oaks, poplars, hickories, and cedars and the open areas are generally covered by a mixture of grasses. The dominant natural topographic features on the Site are a central, northwest/southeast-trending central ridge with east-flowing intermittent drainages on the flanks of the ridge near both the northern and southern Site boundaries. Drainage from the Site flows east to Sand Creek which, in turn, flows south to north in the East Railroad Parcel. Sand Creek has been identified as a Category 4a, impaired or
threatened waterbody for one or more designated uses. Sand Creek is an intermittent stream; activities around Sand Creek are expected to be limited to wading. No drinking water intakes are present within 15 miles downstream of the Site; however, three irrigation intakes are identified within this segment. No municipal wells are identified in the area. Ardmore's municipal water system supplies drinking water to people living in the residential area north of the Site. All of the City of Ardmore's municipal water is supplied by surface water resources. In 1969, Ardmore relied on two sources for its water supply; Ardmore City Lake located four miles north of Ardmore and Ardmore Mountain Lake, located approximately 21 miles northwest of the Site. After 1969, Lake Jean Neustadt, located six miles northwest of Ardmore, and Lake Scott King were constructed to supplement Ardmore's water supply. A new water treatment plant was constructed in 1979, and Lake of the Arbuckles, located approximately 15 miles north of the Site, was put on line to provide additional capacity and storage for the City of Ardmore. Currently, there are no identified future uses of ground water within the vicinity of the Site.

History of Contamination

The Imperial Refining Company began operations at the Site in 1917. The eastern portion of the property was purchased in April 1917, and the western portion was purchased three months later. Imperial Refining Company remained active for 17 years until it went bankrupt in 1934. Due to the absence of environmental regulations during the operational period, no permits, violations, inspections, or facility operation documentation have been identified, and no records have been found that describe the types of activities that took place on the Site. There were numerous pits, piles, and water impoundments contaminated with metals and polynuclear aromatic hydrocarbons (PAHs).

The waste material was found in 12 distinct piles across the Site, one vertical tank remnant, and one underground storage tank (UST). The average thickness of the waste piles was approximately 1 foot (ft), and the benzo(a)pyrene concentrations range from 2.5 milligrams per kilogram (mg/kg) to 570 mg/kg. In addition to the waste material, surface soil (0-1 ft below ground surface) and sediment (0-1 ft below ground surface) had elevated concentrations of benzo(a)pyrene and arsenic. The soil concentrations ranged from 1 mg/kg to 90 mg/kg for arsenic and 0.04 mg/kg to 10.2 mg/kg for benzo(a)pyrene. The exposure routes of concern were direct contact and ingestion. Sediments in onsite intermittent drainages were indistinguishable from Site soils except by their location within drainages; therefore, the drainage sediments were considered soils for the remedial action. The sediment concentrations range from 4.7 mg/kg to 33.4 mg/kg for arsenic and 0.062 mg/kg to 1.3 mg/kg for benzo(a)pyrene.

Initial Response

The ODEQ conducted a Preliminary Assessment in September 1997 and a Site Inspection (SI) in July 1998. During the SI and Removal Assessment, investigators noted 12 waste piles containing an asphalt-like material scattered throughout the property. Soil, sediment, waste pile, and surface water samples were collected. Based on the results, elevated levels of benzene, ethylbenzene, toluene, xylenes and polycyclic aromatic hydrocarbons were present. ODEQ referred the property to the EPA for further action. EPA conducted a Removal Assessment in 1998 to determine the absence/presence of hazardous materials and the types and concentrations
of hazardous substances and a second Removal Assessment in 1999 to estimate waste pile volumes and evaluate disposal options. Based on these results, the Site was proposed to the NPL on May 11, 2000, (Federal Register: May 11, 2000 [Volume 65, No. 92, Page 30489-30495]) and was finalized on July 27, 2000 (Federal Register: July 27, 2000 [Volume 65, Number 145, Page 46096-46104]). A Removal Action to install a perimeter fence to secure the Site was conducted by EPA from June 29, 2004, through July 23, 2004.

**Remedial Investigation and Feasibility Study (RI/FS)**

The EPA and ODEQ negotiated a Cooperative Agreement under which the ODEQ was the lead agency for the Remedial Investigation/Feasibility Study (RI/FS) with EPA acting as the supporting agency. From early 2005 through early 2007, contractors for the ODEQ conducted a RI/FS including field sampling and investigation activities of soil, sediment, surface water, ground water, and animal tissue. The RI/FS identified the types, quantities, and locations of contaminants found in these samples and developed ways to address the contamination. A Human Health Risk Assessment and an Ecological Risk Assessment were performed to determine the current and future effects of contaminants on human health and the environment.

Onsite contamination included waste material, soil and sediment. Arsenic and benzo(a)pyrene are the primary contaminants of concern. The primary sources of contaminants are waste in an underground storage tank and waste piles characterized as dry, asphalt-like material. The waste material is found throughout the Site, and the benzo(a)pyrene concentrations range from 2.5 mg/kg to 570 mg/kg. In addition to the waste material, surface soil (0-1ft below ground surface) and sediment (0-1 ft below ground surface) have elevated concentrations of benzo(a)pyrene and arsenic. The soil concentrations range from 1 mg/kg to 90 mg/kg for arsenic and 0.04 mg/kg to 10.2 mg/kg for benzo(a)pyrene. Sediments in onsite intermittent drainages are indistinguishable from Site soils except by their location within drainages; therefore, the drainage sediments are considered soils for the remedial action as these remain dry most of the year.

**Record of Decision Findings**

A proposed plan for the Site was issued in September 2007, presenting the preferred alternative of excavation and offsite disposal for the waste, contaminated soil, and contaminated sediment at the Site. The Record of Decision (ROD) was signed on December 26, 2007. Remedial Action Objectives (RAOs) were developed for Site soil, sediment, and waste material and are listed below.
Remedial Objectives

Surface Soil

• Prevent exposure to current and future human and ecological receptors through ingestion, dermal contact, and inhalation of contaminated soil containing arsenic and benzo(a)pyrene concentrations in excess of $5 \times 10^{-5}$ and $2.5 \times 10^{-5}$ excess cancer risk, respectively.

Pond and Creek Sediment

• Prevent exposure to current and future human receptors through ingestion, dermal contact, and inhalation of contaminated sediment containing arsenic concentrations in excess of $5 \times 10^{-5}$ excess cancer risk.

• Prevent exposure to current and future ecological receptors through direct contact, food chain uptake, and incidental ingestion of contaminated sediment containing benzo(a)pyrene concentrations in excess of levels that are protective of ecological receptors.

Waste Material

• Prevent exposure to human and ecological receptors through ingestion and dermal contact.

• Prevent further migration of waste material contamination.

In order to achieve these RAOs, numerical risk-based cleanup levels were established for each environmental medium based on the residential scenario. Table 1 in the Appendix contains a summary of the cleanup levels in the ROD.

Remedial Design

The remedy selected was excavation and offsite disposal of soil, sediment, and waste material. The soil cleanup levels were based on a residential scenario, 20 mg/kg for arsenic and 1.55 mg/kg for benzo(a)pyrene. The sediment cleanup levels were 20 mg/kg for arsenic and 0.782 mg/kg for benzo(a)pyrene. These cleanup levels are in line or below the latest toxicity toxicological benchmarks. Two rounds of confirmation sampling results from the east and west ponds collected during the remedial action were reviewed. The results were all below sediment cleanup levels and show that the remedy remains protective. A value engineering evaluation and the remedial design and remedial action (RA) work plan were completed on January 30, 2008.
 Remedial Construction Activities

The EPA began onsite Remedial Action construction on February 13, 2008. During remedial action, a total of approximately 104,493.5 cubic yards of waste/soil and approximately 1699.5 cubic yards of sediment were removed from the Site and shipped to an offsite landfill. As excavation activities progressed, waste was found to exist in locations where removal would be both impracticable and dangerous. Excavated areas were backfilled, graded and seeded after confirmation sampling indicated that cleanup levels have been met.

ROD Amendment

A ROD amendment proposed plan for the Site was issued in November 2008, presenting an additional containment component to the remedy selected in the ROD in areas of the Site where excavation would be impracticable and potentially dangerous to the original excavation and offsite disposal remedy. On February 20, 2009, the EPA Superfund Division Director for Region 6 signed a ROD amendment.

During the remedial action, waste was found along the borders of the property, throughout the ponds, and surrounding a high pressure gas line. Excavation and removal of waste along the borders was not feasible, safe or practical due to its proximity to sloped areas supporting the highway, the rail line, and business property, as well as its depth under significant volumes of uncontaminated overburden. Based on excavation activities and delineation pits throughout the east and west ponds, surface sediment exceeding the ecological cleanup numbers was completely removed. Due to the presence of 18 inches of uncontaminated overburden, the complete removal of surface sediment exceeding the ecological cleanup numbers, and the unknown locations at depth throughout the remaining areas of the ponds, no further excavation will occur in the ponds. Excavation in close proximity to the high pressure gas line was not recommended or considered safe; therefore, waste remains around the gas line within the easement boundaries.

Because waste remains in-place, cleanup levels for the Site were reevaluated and changed from residential to industrial land use. The soil cleanup level for benzo(a)pyrene changed to 5.27 mg/kg. The soil cleanup level is still in line with the latest toxicity toxicological benchmarks. The soil cleanup level for arsenic did not change, and no change was made to sediment cleanup levels. The Site is restricted to industrial use through the enforcement of institutional controls (ICs). The vapor intrusion pathway is incomplete since there are no buildings at the Site. No human exposure under the indoor air pathway is expected. If reuse and construction is proposed, this pathway should be considered.

The remedy activities included in this ROD Amendment to supplement the 2007 ROD remedy of Excavation and Offsite Disposal included material being left in-place, the use of institutional controls, and the implementation of long-term monitoring are listed below.

Ponds: Due to the presence of uncontaminated overburden, the complete removal of surface sediment exceeding the ecological cleanup numbers, and the unknown locations of waste at depth throughout the remaining areas of the ponds, no further excavation occurred. Excavated areas were backfilled with clean material, and an IC was placed on the ponds through a deed
notice over the whole site. Operation and Maintenance (O&M) activities will be conducted by ODEQ and five-year reviews will be conducted by EPA and ODEQ.

**Northern Site Boundary with Atlas Roofing, Inc.:** An engineering evaluation identified suitable slope stabilization and construction activities and an appropriate backfill material for placement on the waste. As backfill material was imported, a slope of no greater than 3 feet vertical to 1 foot horizontal was maintained along this border to minimize erosion and facilitate slope support, drainage control, and re-vegetation. Atlas Roofing, Inc. placed an IC on the property, O&M activities will be conducted by ODEQ, and five-year reviews will be conducted by EPA and ODEQ.

**Site Boundaries with Hwy 142:** An engineering evaluation identified suitable slope stabilization and construction activities and backfill material for placement on the waste. As backfill material was imported, a slope of no greater than 3 feet vertical to 1 foot horizontal was maintained along this border to minimize erosion and facilitate slope support, drainage control, and revegetation. The Oklahoma Department of Transportation placed an IC on Hwy 142 and its associated utility easements. O&M activities will be conducted by ODEQ in coordination with the Oklahoma Department of Transportation, and five-year reviews will be conducted by EPA and ODEQ.

**Northern and Western Boundaries with Valero Refinery property:** Backfill of the excavated areas and areas above the waste material provides for slope control, drainage control, and establishment of vegetation. As backfill was placed, the drainage along this boundary was re-directed away from these waste areas in an effort to mitigate erosion, ensure drainage control, and facilitate revegetation. Valero Refinery placed an IC on the property. At this time, Valero is working with the DEQ’s Brownfields program to develop plans related to the waste that remains on their property. O&M activities will be conducted by ODEQ, and five year-reviews will be conducted by EPA and ODEQ.

**Oneok Gas Pipeline:** Excavation in close proximity to the high-pressured gas line was unsafe so the waste was left around the gas pipeline. As backfill material was imported, a gentle slope was maintained along this border to minimize erosion and facilitate slope support, drainage control, and re-vegetation. The clay backfill was placed on either side of the pipeline and clay overburden, at a depth of approximately two feet, was placed along the top of the gas line to provide a barrier for the pipeline and promote surface water runoff. An IC was placed on the property by Oneok, ODEQ will conduct O&M activities in coordination with Oneok, and five year-reviews will be conducted by EPA and ODEQ.

**Site Boundary with BNSF Railway:** Excavation in close proximity to the rail line may have altered the stability and integrity of the rail line so the waste was left in place. Backfill of the excavated areas and areas above the waste material provides for slope control, drainage control, and establishment of vegetation. BNSF placed an IC on the railroad right-of-way. O&M activities will be conducted by ODEQ in coordination with BNSF, and five year-reviews will be conducted by EPA and ODEQ to ensure protectiveness.
Containment

The ROD Amendment required the placement of a clay barrier over waste material left in place. The materials left in place are identified as non-hazardous waste and all data indicate that the leaching potential of this material is below regulatory limits for characteristic hazardous waste categories and land disposal restrictions. The backfill material is identified as clayey sand and is expected to have a low hydraulic conductivity (within the range of 1 x 10^-3 centimeters per second to 1 x 10^-5 centimeters per second). As such, backfill of the excavated areas and areas above the waste material eliminates the potential for direct contact, ingestion, and migration as well as provides for slope control, drainage control, and the establishment of vegetation.

All threats at the Site have been addressed through isolation and capping of non-hazardous materials, installation of fencing, posting of warning signs, and implementation of institutional controls.

Reuse/Development

Currently the Site is owned by a private landowner and there are no residential or industrial activities occurring on the Site. There is no community interest in the Site, and no reuse is currently planned for the Site.

Erosion Mitigation

The Site is monitored routinely for areas of erosion and lack of vegetative growth. Actions that have been implemented to address identified erosion areas include seeding, fertilization, silt fencing, area grading, wood mulching, rip-rap placement, and water discharge management control. In December 2010, a Draft Erosion Mitigation Evaluation report was submitted for Agency (EPA) review. A Draft Erosion Mitigation Design report with the selected alternative was submitted in April 2011 for Agency (EPA) review. A team meeting was held at the Site on July 14, 2011, between EPA, ODEQ, the Oklahoma Department of Transportation, the City of Ardmore, and the Chickasaw Telephone Company to discuss the design in the field and provide additional comment and clarification. On August 19, 2011, a Final Erosion Mitigation Design Document was submitted and accepted as final by EPA on August 26, 2011. Erosion Mitigation field work began November 28, 2011. Field work related to channel construction, erosion mitigation, and surface water drainage was completed in February 2012. These elements are inspected to monitor and assess continued functionality.

Operational and Functional Period

During the Operational and Functional (O&F) phase, multiple actions were taken in order to mitigate the erosion issues on the Site and promote the growth of vegetation due to heavy rains (reportedly 10 inches in a 24-hour period) in May 2009. The Final O&F Activities Technical Memorandum documenting all O&F erosion Mitigation actions, including as-built drawings and final survey results, was completed on October 31, 2012.
Final Inspection

On October 18, 2012, the final inspection was completed by ODEQ and EPA. During the inspection, it was determined that the soil excavation and disposal component of the remedy had been completed. Backfill and grading operations continue to be effective in controlling site drainage. The stability and integrity of the soil cover within the areas where waste remains has been maintained with no visual signs of erosion or damage. The vegetative cover was well established and other erosion control measures continue to be effective. Sediment sampling data was reviewed, and all results are below the site cleanup levels. In addition, ICs have been filed for all portions of the Site, current land use of the Site meets the requirements of the ICs, and current zoning of the Site and surrounding areas remain unchanged. The ODEQ and EPA finalized the O&M Plan in October 2012.

Table 3 in the Appendix contains a summary of the differences between the ROD and the ROD Amendment including costs. The final remedial cost for the site was $6,977,206.

III. MONITORING RESULTS

The Final Remedial Action Report documents the results of soil and sediment sampling of waste removed from the Site, and the levels of contamination of wastes left on site. The sample results demonstrate that the Remedial Action Objectives were met. Appendix B in the Final Remedial Action Report contains the sample results.

IV. ATTAINMENT OF GROUNDWATER RESTORATION CLEANUP LEVELS

No ground water remedial actions were taken at the Site and therefore there are no monitoring results of these media to report.

V. SUMMARY OF OPERATION & MAINTENANCE REQUIRED

The key to long-term protectiveness is maintenance and repair to the implemented remedial systems. An O&M plan for the Site is in effect and is required because waste has been left in place and the Site has been restricted to industrial use. ODEQ is responsible for conducting O&M activities on annual basis or more frequently if necessary. O&M activities include Site inspections for erosion, property uses, and enforcement of the ICs. This activity may also include maintenance of the slopes through grading, seeding, or importing of backfill that may be needed. Maintenance of these slopes will provide continued slope support, continued drainage control, and continued vegetation growth. Areas of primary interest will include the slopes along Hwy 142, Atlas Roofing Inc., Oneok Gas Pipeline, BNSF Railway, and Valero Refining. Site operational and functional activities were conducted by EPA until ODEQ took over site O&M in December 2012.
Institutional Controls

All administrative tools have been implemented at the Imperial Refining Superfund Site. Seven deed notices/covenants identifying restrictions were filed with the Carter County Clerk from June 2009 to August 2011. Appendix N of the Final Remedial Action Report contains copies of each deed notice/covenant.

The deed restrictions include the following requirements and information:

- No residential land use,
- No digging below 5 feet where waste remains in place,
- No activities that will disturb or cause erosion of the sediments within the ponds located on the site,
- No excavations causing erosion,
- No excavation below base material of the road bed (State Highway 142) roadway and right-of-way, and
- No ground water taken or well drilling allowed.

VI. DEMONSTRATION OF CLEANUP ACTIVITY QA/QC

The EPA and ODEQ reviewed the remedial action contract and the construction work for compliance with quality assurance and quality control (QA/QC) protocols. Construction activities at the Site were determined to be consistent with the ROD and adhered to the approved quality assurance plan which incorporated all EPA and State requirements. Confirmatory inspections, independent testing, audits, and evaluations of materials and workmanship were performed in accordance with the technical specifications and plans. The EPA Remedial Project Manager and State regulators visited the site during construction activities to review construction progress and evaluate and review the results of QA/QC activities. No deviations or non-adherence to QA/QC protocols, or specifications were identified.

The quality assurance project plan incorporated all EPA and State QA/QC procedures and protocols. All monitoring equipment was calibrated and operated in accordance with the manufacturer’s instructions. The EPA analytical methods were used for all confirmation and monitoring samples during RA activities. Contract laboratory program-like procedures and protocol were followed for soil, sediments, and water analyses during the RA using a private laboratory.

The EPA contract for the remedial action contained provisions for performing sampling during all remedial activities in order to verify that remedial objectives were met, to ensure quality control and assurance for all excavation and construction activity, and to ensure protection and safety of the public, the environment, and the onsite worker. Non-hazardous wastes were sent to the Waste Connection Landfill in Alex, Oklahoma. Sampling was conducted in accordance with the Site Field Sampling Plan and all analytical results are below the established cleanup levels for an industrial reuse scenario. In addition, all backfill confirmation sample results met the established cleanup levels for an industrial reuse scenario. All analytical data was independently
validated, and the EPA and the State determined that analytical results were accurate to the degree needed to assure satisfactory execution of the RA.

FIVE-YEAR REVIEW

Five-Year Reviews are statutorily required because hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure. The first five-year review was conducted at the Site in February 2013. The implemented action taken at the Imperial Refining Superfund Site was found to be protective of human health and the environment in the long-term. The Imperial Refining Superfund Site’s first Five-Year Review Report protectiveness determination follows:

The selected remedy for the Site currently protects human health and the environment because the remedy is performing as intended and institutional controls are in place restricting land and groundwater use. The remedy will remain protective of human health and the environment in the long-term provided O&M activities continue, and the institutional controls remain in place.

The next Five-Year Review will be performed in 2018. The annual O&M costs, from the Five-Year Review for the Site are $9632.70.

VII. SITE COMPLETION CRITERIA

The implemented remedy achieves the degree of cleanup or protection specified in the 2007 ROD and the 2009 ROD Amendment for all pathways of exposure. All selected removal and remedial action objectives and associated cleanup goals are consistent with agency policy and guidance. This Site meets all the site completion requirements as specified in OSWER Directive 9320.2-22, Close-Out Procedures for National Priorities List Sites. All remedial activities at the Imperial Refining Superfund Site are complete and the Site poses no unacceptable risk to human health or the environment. The only remaining CERCLA activities to be performed at the Site are O&M and five-year reviews. Therefore, EPA has determined that no further response is necessary at the Imperial Refining Superfund Site.

Approved By:

[Signature]

Carl Edlund,
Director
Superfund Division
Bibliography

Record of Decision, Imperial Refining Company Superfund Site, Ardmore, Carter County Oklahoma, OK0002024099, December 26, 2007.


Record of Decision Amendment, Imperial Refining Company Superfund Site, Ardmore, Carter County Oklahoma, OK0002024099, February 20, 2009.

Remedial Action Report for Imperial Refining Company Superfund Site, Ardmore, Carter County Oklahoma, OK0002024099, December 12, 2012.

Five-Year Review Report for Imperial Refining Company Superfund Site, Ardmore, Carter County Oklahoma, OK0002024099, February 20, 2013.
APPENDIX

Figure 1 – Site Location Map

Figure 2 – Site Map

Table 1 – Cleanup Levels 2007 ROD

Table 2 – Cleanup Levels 2009 ROD Amendment

Table 3 – Summary of the Differences Between the ROD and ROD Amendment
LOCATION MAP OF THE IMPERIAL REFINERY SUPERFUND SITE
ARDMORE, CARTER COUNTY, OKLAHOMA
Figure 2 Site Map
Table 1 – Cleanup Levels for Contaminants of Concern under a Residential Scenario 2007 ROD

<table>
<thead>
<tr>
<th>Media: Soil</th>
<th>Site Area: West and East Parcel</th>
<th>Available Use: Residential</th>
<th>Chemical of Concern</th>
<th>Cleanup Level</th>
<th>Basis for Cleanup Level</th>
<th>Risk at Cleanup Level</th>
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<tr>
<td></td>
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<td>Arsenic</td>
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<td>Benzo(a)pyrene</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Benzo(a)pyrene</td>
<td>0.782 mg/kg</td>
<td>Ecological Risk Assessment Invertebrate Toxicity Test Results</td>
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Note: mg/kg: milligrams per kilogram
N/A: Not Applicable
Table 2 – Cleanup Levels for Contaminants of Concern under an Industrial Scenario 2009 ROD Amendment

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<td>Benzo(a)pyrene</td>
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Note: mg/kg: milligrams per kilogram
N/A: Not Applicable
### Table 3: Comparisons of the Differences Between the 2007 ROD and RA Construction

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<td>1.55 mg/kg benzo(a)pyrene</td>
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