

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
11201 RENNER BOULEVARD
LENEXA, KS 66219

JUL 02 2014

OFFICE OF
THE REGIONAL ADMINISTRATOR

The Honorable Thomas V. Schilly
Mayor, City of Crystal City
130 Mississippi Avenue
Crystal City, Missouri 63019

Dear Mayor Schilly:

This letter concerns the U.S. Environmental Protection Agency's ongoing efforts to address the coal combustion residual waste at the Rotary Drilling Supply, Inc. site and the settlement reached between the EPA and Rotary Drilling Supply, Inc.

Based on comments received during the public notice period and the August 22, 2013, public meeting in Crystal City, the EPA conducted additional sampling in and around the Site to confirm that the CCR waste placed on the Site did not present a human health risk. Based on all of the data collected, the EPA has concluded that there does not appear to be any public health impact from the public use of Willers Lake, including swimming, boating, fishing, and fish consumption as a result of the disposal of the CCR waste. Attached are the EPA's responses to public comments received during the comment periods.

As a result of the EPA's findings, and in response to the comments we received, the EPA also made revisions to the Administrative Order on Consent attached herein. These revisions include the EPA's approval of Rotary Drilling's proposed remedy to cap the pile of CCR waste which will be designed to isolate and prevent the spread of CCR constituents. The AOC also allows for future commercial development at the Site with requirements that the EPA must first approve such development plans assuring that future development will not allow for the migration of CCR constituents into surface waters. Finally, the monitoring provisions of the AOC have been revised to require a minimum of five years of monitoring while giving the EPA authority to require additional monitoring if warranted.

I hope that you will agree that this settlement represents a success for the EPA and Crystal City because it simultaneously protects human health and the environment, provides redress for environmental impacts and allows for economic growth in the community.

If you have any questions or wish to discuss the settlement further, please contact Donald Toensing, Chief, Waste Enforcement and Materials Management Branch, at (913) 551-7446.

Sincerely,

Karl Brooks

Enclosures (2)

cc: Mr. Jason M. Eisenbeis, City Administrator



US EPA ARCHIVE DOCUMENT



Region 7 Response to Public Comments

Iowa
Kansas
Missouri
Nebraska
Nine Tribal Nations

June 2014

Administrative Order on Consent (AOC) for Rotary Drilling Site Rotary Drilling Supply, Inc., Crystal City, Jefferson County, Missouri

INTRODUCTION

In May 2014, Rotary Drilling Supply, Inc. (Rotary) entered into an Administrative Order on Consent (AOC) to abate environmental impacts caused by the unauthorized disposal of coal combustion residuals (CCR) in wetlands and streams on property owned by Rotary (the Site). This order requires Rotary to abate impacts of the CCR disposal by placing a protective cap over the piles and installing controls on the Site to prevent the continued migration of CCR constituents into wetlands and other surface waters.

ADDITIONAL TESTING AT SITE

Comments received during the public comment period expressed concerns about the potential human health impacts resulting from the CCR disposal. As a result of these comments, EPA performed additional surface water and fish tissue sampling in December 2013. The samples were taken at Willers Lake, located adjacent to the Rotary Drilling Supply, Inc. property.

EPA risk assessors reviewed the sample results and evaluated them for potential human health threats from the ingestion of surface water and fish and determined that there does not appear to be any public health impact from the disposal of CCR at the Site.

The risk assessors compared the surface water analysis results against EPA's health-based screening levels for tap water, even though Willers Lake is not used as a drinking water supply, which yielded an extremely conservative or health-protective comparison. The tap water values account for ingestion of drinking water, inhalation of volatiles released into the indoor air during household water use, and dermal contact while showering/bathing.

The only constituent that was found at levels slightly above the drinking water standard is lead; however, the concentrations of lead in the actual CCR pile were lower than background concentrations, signifying there are additional sources of lead within the area.

Although not detected in surface water or fish tissue, the laboratory detection limits exceeded EPA's screening levels for antimony, thallium, and hexavalent chromium. However, sampling results from the CCR pile did not detect antimony or thallium, indicating that they are not likely to be present at the Site at levels of concern. With respect to hexavalent chromium, EPA has determined that even if it had been present at concentrations which could have been detected by the laboratory, those concentrations would still not present an unacceptable health risk.

No other contaminants were identified in the surface water at concentrations which exceed EPA's health based screening levels.

The risk assessors also compared the fish tissue analysis results with EPA's health-based screening levels for the consumption of fish tissue and no contaminants were identified in fish tissue at concentrations which exceed EPA's health based screening values.

WILLERS LAKE

Comments received during the public comment period expressed concerns about the impacts on the public use of Willers Lake. Based on EPA's review of surface water and fish tissue sampling results, there does not appear to be any public health impact from the public use of Willers Lake; including swimming, boating, fishing, and fish consumption, as a result of the CCR disposal located adjacent to Willers Lake.

CAPPING VS. REMOVAL

Comments were received during the public comment period wondering why EPA chose to cap the CCR piles rather than removing them altogether.

A Removal Site Evaluation and Preliminary Assessment (RSE/PA) was conducted by EPA in April 2011. The purpose of the RSE/PA was to determine if a release of a hazardous substance, pollutant, or contaminant has occurred at the Site. One of the report's recommendations was that EPA should evaluate the data to determine whether the place of CCR at the Site warranted a removal action.

Sample results from the on-site investigation were evaluated by EPA risk assessors and concluded that the placement of these CCRs resulted in ecological endangerment but not human health endangerment. The ecological risk assessment portion concluded that the unique wetland characteristics of the Site may be irreplaceable and for any kind of ecological

habitat to be restored re-vegetation is imperative.

Since the ecological risk assessment concluded that irreversible environmental damage has occurred, EPA concluded that a removal action was not warranted on the basis that it would not reverse the damage that has already occurred and the levels and extent of contamination at the Site do not present an unacceptable risk that warrants a removal action. Also, EPA was concerned that removal of the CCR could result in further disturbance and dispersal of CCR constituents.

As a result, EPA approved the Respondent's proposed remedy of the capping of the CCR pile which is designed to isolate and prevent the spread of the CCR constituents.

Capping is a widely-used and EPA-approved method for addressing large volumes of materials with low-levels of contamination and has been used at many sites across the country, including several CCR fill sites. EPA requires a high strength, impermeable cover that will be designed to prevent future contamination by reducing future surface water infiltration, preventing contact with contaminated soil, and limit contaminant mobility further protecting ground water.

MIGRATION OF CCR CONSTITUENTS AND WATER QUALITY

There were several comments inquiring how the abatement work will assure that CCR constituents will not continue to migrate to other properties and restore water quality in the affected areas.

Capping involves, at a minimum, placing an impermeable cover (cap) over contaminated material, in this case the CCR pile. The cap will be designed to isolate and prevent the spread of constituents in several ways: stop rain and snowmelt from seeping throughout the material and carrying constituents to the groundwater, keep storm water runoff from carrying constituents' offsite or into lakes and

streams, prevent wind from blowing material offsite, and keep people and wildlife from coming into contact and track the material offsite.

The order requires a maintenance plan for the cap, subject to EPA's approval, to ensure its long-term stability and ability to prevent CCR constituent migration.

In addition to the cap, the Order requires the unnamed tributary to Plattin Creek to be re-routed or piped to eliminate any contact with the CCR pile, institutional controls that prevent floodwaters from further destabilization and/or erosion, as well as, surface water monitoring on at least an annual basis for a minimum of 5 years to assure all the abatement efforts are adequate to prevent off-site migration of CCR constituents.

GROUNDWATER

Comments were received during the public comment period inquiring whether the constituents have reached groundwater and whether there will be an effect on well water users.

In December 2013, EPA attempted to collect groundwater samples in order to evaluate whether the constituents of the CCR pile had mobilized into the underlying groundwater. At all sampling points the EPA field team encountered a tight clay formation that did not yield enough water for sample collection and analysis, making it unlikely that any constituents in groundwater under the Site would be able to migrate to down-gradient drinking water wells.

According to the Missouri Department of Natural Resources (MDNR) Certified Wells database, there are 3 domestic wells within the 0.5-1-mile radius range. According to the database, these wells are located in deep aquifers, ranging from 240 to 657 feet deep. The field team, during the December 2013 groundwater sampling event, encountered the shallow water table between 18 and 22 feet

depth. The tight clay formation did not yield enough water for sample collection and analysis.

Because of the distance of these wells from the Site, the placement of these wells in much deeper aquifers, and the probability that the local soil/clay matrix would likely constrain the mobilization of any metal constituents, it is unlikely that these wells would be impacted by constituents from the CCR pile.

PUBLIC WATER SUPPLIES

The City of Crystal City has three municipal wells that provide drinking water to its citizens. The wells are located in deep aquifers, ranging from 90 feet deep to 750 feet deep. The field team, during the December 2013 groundwater sampling event, encountered the shallow water table between 18 and 22 feet depth within a tight clay formation that did not yield enough water for sample collection and analysis. The City's water supply is derived from much deeper bedrock aquifers. The bedrock geology and clay matrix overburden would likely constrain the mobilization of any metal constituents. Due to these factors, it is unlikely that the local public water supply wells would be impacted by the CCR pile.

MONITORING

In response to several comments, EPA is requiring surface water sampling to be completed on a yearly basis for at least five years to evaluate if the approved work is adequate to prevent off-site migration of CCR constituents. If the sample results indicate that the cap is preventing the off-site migration of CCR constituents for five years, Rotary Drilling may request to terminate submission of monitoring data. If the results of the sampling indicates that the work performed is not adequately preventing off-site migration of CCR constituents then EPA has the authority to require additional sampling.

POTENTIAL FOR FUTURE DEVELOPMENT

Many comments showed concern about whether commercial development would be allowed on the Site after commencement of the remediation plan. Because the potential for human health risks from the CCR disposal is extremely low, the finalized AOC will allow future land development on the capped area with certain limitations and requirements. Under the terms of the AOC, the Respondent must certify that any future development over the cap will not result in disturbance of the underlying CCR. Also, EPA will require that a deed restriction, under the Missouri Uniform Environmental Covenants Act, be placed over the property to ensure that future landowners adhere to terms prohibiting the disturbance of the underlying CCR. The deed restriction will ensure the long-term effectiveness of the cap and institutional controls and will include requirements for: site monitoring, sampling and analysis, preparing reports and recordkeeping, cap maintenance, and site supervision.

If future monitoring data indicates that CCR constituents are migrating from the capped area, EPA has the authority under the AOC and federal law to compel the Respondent to take additional action to eliminate the further migration of CCR.

RULEMAKING AND REGULATIONS

Public comments inquired about the EPA's role in ongoing disposal of CCR and the regulation of beneficial use of CCR in Missouri.

EPA is currently developing regulations concerning the disposal of CCRs. Public comments were received concerning the rulemaking between June 2010 and September 2013. Under its proposed rulemaking, EPA may regulate CCR as a "special waste" subject to Subtitle C regulations found in the Resource Conservation and Recovery Act (RCRA) or may classify CCR as a non-hazardous waste

subject to Subtitle D regulations. EPA plans to release the Final Rule in December 2014, providing regulations for disposal in landfills and surface impoundments, as well as, beneficial use of CCRs.

Currently, CCR is classified as a solid waste under both federal and state regulations. Since CCR is a solid waste and not a hazardous waste, its disposal and beneficial use is regulated by the Missouri Department of Natural Resources (MDNR).

Under the Clean Water Act, EPA and the U.S. Army Corps of Engineers (Corps) regulate the placement of fill material into waters of the United States (U.S.), which include navigable waters and their tributaries plus wetlands adjacent to those waters. Placement of CCR in a water of the U.S. is a violation of the Clean Water Act. If, as in this case, CCR is placed in a water of the U.S., EPA or the Corps may initiate an enforcement action against the violator.

RESPONDENTS

Public comments inquired why not all parties that were associated with the CCR disposal were on the Order. Union Electric Company d/b/a Ameren Missouri (Ameren), Mineral Resource Technologies, Inc. (MRT) and Rotary Drilling Supply, Inc. were all parties to the negotiations in this matter. However, Rotary ultimately agreed to be solely responsible for the required work at the Site. EPA understands that all parties agreed to a separate arrangement concerning mitigation for lost wetlands functions as a result of the CCR placement.

AOC DOCUMENTS ONLINE

Public comments suggested that EPA establish a single point where the public can review documents regarding the Site. Documents about site activities, including the AOC and all amendments, test results, fact sheets and response to comments will be

placed on a public accessible EPA web site at:
www.epa.gov/region7/cleanup/rotary-drilling

ADDITIONAL INFORMATION

If you have questions or need additional information, please contact:

Emily Albano

Community Involvement Coordinator

Office of Public Affairs

U.S. EPA Region 7

11201 Renner Blvd.

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Toll Free: 800-223-0425

Email: albano.emily@epa.gov

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 RENNER BOULEVARD
LENEXA, KANSAS 66219

2014 MAY 28 PM 3:04

IN THE MATTER OF:)
)
ROTARY DRILLING SUPPLY, INC.)
)
)
Respondent) Docket No. RCRA-07-2012-0028
)
) ADMINISTRATIVE ORDER
Proceedings under Section 7003 of the Resource)
Conservation and Recovery Act as amended,) ON CONSENT
42 U.S.C. Section 6973)

I. INTRODUCTION

1. This Administrative Order on Consent (AOC) is entered into voluntarily by the United States Environmental Protection Agency (EPA) and Respondent Rotary Drilling Supply, Inc. ("Rotary," or "Respondent"). This AOC provides for the installation of short term and long term measures to stabilize the Site and manage stormwater runoff, including but not limited to, the installation of sediment and erosion controls and capping of the approximately 140,000 tons of coal combustion residue (CCR) in approximately ten acres of wetlands and approximately 500 linear feet of stream by Respondent at property located at 1150 Truman Boulevard, Crystal City, Missouri 63028. In entering into this AOC, the mutual objectives of EPA and Respondent are to identify, investigate, remedy, and/or prevent the potential endangerment to human health and/or the environment, and to insure that the Work ordered by EPA be designed and implemented to protect human health and/or the environment. Respondent shall finance and perform the Work in accordance with this AOC, plans, standards, specifications and schedules set forth in this AOC or developed by Respondent and approved by EPA pursuant to this AOC.
2. The EPA has determined that by the handling, transportation and disposal of various waste materials, including CCR, Respondent has contributed or are contributing to the past or present handling, storage, treatment, transportation or disposal of solid waste that may present an imminent and substantial endangerment to health or the environment.
3. The EPA has notified the State of Missouri of this action pursuant to Section 7003(a) of RCRA, 42 U.S.C. § 6973(a).
4. Respondent's participation in this AOC shall not constitute or be construed as an admission of liability. Respondent neither admits nor denies any factual allegations and legal conclusions set forth in this AOC.
5. The EPA and Respondent acknowledge that this AOC has been negotiated by the parties in good faith and that this AOC is fair, reasonable, and in the public interest.

II. JURISDICTION

6. This AOC is issued under the authority vested in the Administrator of EPA by Section 7003 of RCRA, which authority has been delegated to the Regional Administrators of EPA by Delegations 8-22-A and 8-22-C (April 20, 1994), and redelegated to the Region 7 Director of the Air and Waste Management Division by EPA Delegation Nos. R7-8-022-A and R7-8-022-B dated March 20, 1985.
7. Respondent agrees to undertake and complete all actions required by the terms and conditions of this AOC. In any action by EPA or the United States to enforce the terms of this AOC, Respondent consents to and agrees not to contest the authority or jurisdiction of the EPA Region 7 Director of the Air and Waste Management Division to issue or enforce this AOC, and agrees not to contest the validity of this AOC or its terms or conditions.

III. PARTIES BOUND

8. This AOC shall apply to and be binding upon EPA, and on Respondent and Respondent's officers, directors, employees, agents, successors, assigns, heirs, trustees, receivers, and upon all persons, including but not limited to contractors and consultants, acting on behalf of Respondent, as well as upon subsequent purchasers of the Site. Respondent is responsible for carrying out all actions required of them by this AOC. Any change in the ownership or corporate status of Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter Respondent's responsibilities under this AOC.
9. Respondent shall provide a copy of this AOC to any subsequent owners or successors before a controlling interest in ownership rights, stock, assets, or the Site is transferred. Respondent shall be responsible for and liable for completing all of the activities required pursuant to this AOC, regardless of whether there has been a transfer of ownership or control of the Site or whether said activities are to be performed by employees, agents, contractors, subcontractors, laboratories, or consultants of Respondent. Respondent shall provide a copy of this AOC within seven days of the Effective Date of this AOC, or the date that such services are retained, to all contractors, subcontractors, laboratories, and consultants that are retained to conduct or monitor any portion of the Work performed pursuant to this AOC. Respondent shall condition all contracts or agreements with contractors, subcontractors, laboratories, and/or consultants in connection with this AOC, on compliance with the terms of this AOC. Respondent shall ensure that its contractors, subcontractors, laboratories, and consultants comply with this AOC.
10. Not later than 60 days prior to any voluntary transfer by Respondent of any interest in the Site or the operation of the facility, Respondent shall notify EPA of the proposed transfer. In the case of a voluntary transfer through a bankruptcy, Respondent shall notify EPA within 24 hours of the decision to transfer property. Respondent shall notify EPA of any involuntary transfers immediately upon Respondent's initial receipt of notice of any involuntary transfer. Not later than three days after any transfer, Respondent shall submit copies of the transfer documents to EPA.

IV. DEFINITIONS

11. Unless otherwise expressly provided herein, terms used in this AOC that are defined in the RCRA statute shall have the meaning assigned to them in that statute. Whenever the terms listed below are used in this AOC, the following definitions apply:

"AOC" shall mean this Administrative Order on Consent, any amendments thereto, and any documents incorporated by reference into this AOC.

"CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*

"CCR" shall mean fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste, generated from the combustion of coal, as described in 40 C.F.R. § 261.(b)(4).

"Corps" shall mean the U.S. Army Corps of Engineers.

"Data Quality Objectives" shall mean those qualitative and quantitative statements derived from the outputs of a scientific and legally defensible data collection planning process.

"Day" shall mean a calendar day unless expressly stated otherwise.

"Effective Date" shall be the date on which EPA signs this AOC following the public comment period which is held pursuant to Section XXVIII (Public Comment on this AOC).

"RCRA" shall mean the Resource Conservation and Recovery Act (also known as the Solid Waste Disposal Act), as amended, 42 U.S.C. § 6901, *et seq.*

"Site" shall mean the Rotary Drilling Supply, Inc., property, 1150 Truman Boulevard, Crystal City, Missouri 63028.

"Work" shall mean all the activities and requirements specified in this AOC including, but not limited to those set forth in Section VIII (Work To Be Performed) of this AOC and any approved Work Plan incorporated into this AOC.

V. FINDINGS OF FACT

12. Respondent Rotary Drilling Supply, Inc., is the owner of property near Section 7, Township 40 North, Range 6 East, Jefferson County, Missouri and has a mailing address of 1150 Truman Boulevard, Crystal City, Missouri 63028 (hereinafter, the "Site").
13. Between October 2004 and September 2009, Respondent Rotary contracted with Kleinschmidt Trucking, Inc. to dispose of approximately 140,000 tons of CCR at the Site, including a portion

of an unnamed tributary to Plattin Creek, adjacent wetlands to the tributary and a southeast portion of Willers Lake.

14. Prior to 2004, Respondent disposed of various other wastes at the Site, including construction debris and concrete.
15. On January 12, 2010, the Corps visited the Site and documented the disposal of various wastes, including CCR, at the Site.
16. On March 1, 2010, the Corps issued a Notice of Violation to Rotary Drilling Supply, Inc., after determining that the disposal of CCR and other various wastes at the Site impacted a tributary to Plattin Creek and adjacent wetlands, as well as a portion of Willers Lake.
17. On April 15, 2010, Corps and EPA personnel visited the Site and confirmed the disposal of CCR and other various wastes at the Site.
18. Documented releases of CCR into the environment have resulted in extensive and persistent harm to the environment.
19. Arsenic is a metalloid. Many common arsenic compounds can dissolve in water. Plants absorb arsenic fairly easily and it accumulates in plant-eating freshwater organisms. High concentrations of arsenic in fish enhance alteration of genetic materials and results in arsenic poisoning and death in birds eating fish. Common effects to species include death, inhibition of growth, photosynthesis and reproduction, and behavioral effects.
20. Copper is a metal that does not break down in the environment. Soil with excess copper yields few growing plants. The high copper level inhibits root elongation and branching, reducing the ability for plants to explore the soil for water and nutrients. The decomposition of organic matter slows down in soils with high copper levels because it negatively influences the activities of microorganisms and earthworms. Copper poisoning in mammals can cause a reduction in growth and food intake, development of anemia, and liver, kidney, brain, and muscle degeneration, often resulting in death.
21. Nickel is a metal with alloy forming properties when combined with other metals. A large part of nickel released into the environment is absorbed into sediment or soil particles. A high concentration of nickel in sandy soil inhibits plant growth and high concentrations in surface water can diminish the growth rates of algae. The presence of nickel may cause growth decline in microorganisms. In animals, an exceeded tolerable maximum amount of nickel is dangerous and can cause various kinds of cancers.
22. Chromium is a transition metal. Chromium is deposited into the soil and water. In organisms, chromium is toxic and can alter genetic materials and cause cancer. Chromium can be detrimental to plant growth and development. In animals, chromium can cause respiratory problems, a low ability to fight disease, birth defects, infertility, and tumor formation.
23. Barium is a metallic alkaline earth metal. Barium compounds can last a long time in the environment. Fish and aquatic organisms can accumulate barium. Animals that drink in barium over long periods can have kidney damage, decreases in body weight, and death.

24. Beryllium is a brittle metal whose compounds are very toxic. Emissions of beryllium typically settle into the soil. Beryllium may cause cancer and changes to DNA in animals.
25. Boron is a non metallic element. Plants absorb boron. The male reproductive organs of animals are affected by large amounts and long periods of boron absorption. Offspring may suffer from birth defects or delayed development when animals are exposed to boron during pregnancy. Boron also causes nose irritation in animals that breathe in the element.
26. Cobalt may enter surface water through run-off and settles on land through wind-blown dust. Cobalt cannot be destroyed once it has entered the environment, but may react with other particles or absorb into soil. Cobalt accumulates in plants and the bodies of animals. Eating plants where high concentrations of cobalt exist can cause negative health effects in animals. An inhalation of cobalt can cause lung cancer and inflammation in the respiratory tract of animals. Over-exposure to cobalt is associated with decreased reproductive output in ruminants, and can cause damage to testicular tissue and fertility in males. On aquatic life, cobalt has high chronic toxicity.
27. Iron is a mineral that persists in the environment. Iron toxicity can cause DNA and membrane change in vertebrates. In aquatic animals, iron effects survival, reproduction, and behavior.
28. Selenium is a nonmetal. Insoluble forms of selenium will remain in soil, but soluble forms are very mobile and may enter surface water from soils. Selenium may accumulate up the food chain when animals digest plants that have absorbed large amounts of selenium. Animal studies have shown that very high amounts of selenium can be absorbed in animals and can affect sperm production, female reproductive cycle and cause birth defects.
29. Vanadium is a ductile and malleable transition metal. Vanadium is abundant in soils and is taken up by plants. In animals, vanadium suppresses certain enzymes causing neurological effects. Vanadium can also cause breathing disorders, paralyzes, and negative effects on the liver and kidneys in animals. Testing has shown that vanadium can harm the reproductive system of males and accumulates in female placenta. Also, some DNA alteration in animals can occur from vanadium exposure.
30. Antimony is a semimetallic chemical element that primarily pollutes soils, but can travel through groundwater great distances towards surface waters. Tests have shown that eye irritation, hair loss, lung damage, and heart problems are caused in animals breathing in small amounts of antimony - particularly dogs may experience heart problems when exposed to low levels of antimony. Animals that breathe in high levels of antimony have shown to have experienced lung, heart, and kidney damage. Death is caused by animals breathing in very high levels of antimony. Studies have also revealed that extended exposure to antimony may cause fertility problems in animals.
31. Zinc is a brittle and crystalline metal that is fairly reactive. Zinc builds up in fish and other organisms. The metal can move into groundwater, lakes, streams, and rivers-where it does not dissolve and can be accumulated in fish bodies. Once in the bodies of these fish, antimony is able to bio magnify up the food chain. Additionally, zinc may increase the acidity of waters. In soil, large quantities of zinc can lead to an absorption in animals that is damaging to their health, and plants often uptake levels of zinc that their systems cannot handle. Soils with high levels of zinc do not have a high rate of plant survival. Moreover, zinc can disrupt the activity in soils, leading

to negative impacts on microorganisms and earthworms, which causes a slowdown in the breakdown of organic material.

32. Thallium is a soft and malleable metal that is absorbed by plants and enters the food chain. One effect of thallium is an inhibition of nitrification by soil bacteria. Intake of thallium in plants, through roots in thallium rich soil, causes color changes in leaves and growth declines. Thallium may affect the gastrointestinal tract in seed-eating animals and cause a loss of dorsal feathers in ducks, loss of salivation from the nose and mouth in cattle, and a reduced growth in hens, sheep, and steers. Thallium also builds up in fish and shellfish.
33. Cadmium is a ductile and very malleable metal. Cadmium does not break down in the environment, but binds strongly to soil particles and is taken up by fish, plants, and animals. Animals dependent upon plants that uptake cadmium have potential dangers such as high blood-pressure, liver disease, and nerve or brain damage. In earthworms and other soil organisms, cadmium poisoning can lead to death at low concentrations because such organisms are extremely susceptible. Thus, the whole soil ecosystem is affected as the soil processes of microorganisms are threatened by cadmium influence.
34. On February 14 and 15, 2011, EPA-authorized representatives conducted sampling of the unnamed tributary to Plattin Creek and the CCR piles at the Site. Sample results indicate that elevated levels of CCR constituents have migrated, and continue to migrate, from the CCR piles into the unnamed tributary to Plattin Creek and adjacent wetlands.
35. The Corps has identified the impacted wetlands at the Site as "Palustrine Emerging Wetland" and "Palustrine Forested Wetland." Approximately 10 acres of wetland have been disturbed at the Site as a result of waste disposal activities. The Corps also identified the impacted tributary at the Site as Riverine (Cowardin Class) with intermittent stream flow and estimated that approximately 500 linear feet of stream were impacted by the disposed wastes.
36. Willer's Lake, also known as Elks Lodge Lake, is owned by the Festus-Crystal City chapter of the Elks Lodge. The lake is primarily used for fishing and contains channel catfish, flathead catfish, and yellow bass.
37. According to the Missouri Department of Conservation, species common to wetlands and stream habitats in the Mississippi bottoms, the area where the Site is located, include:
 - Plants: box elder, silver maple, cottonwood, Johnson grass, fescue, and musk thistle
 - Birds: indigo buntings, redwings, grackles, and song sparrows
 - Mammals: raccoon, opossum, and deer.
38. A stream study of Plattin Creek conducted by the Missouri Department of Conservation determined that the following fish species are in relative abundance in Plattin Creek: bluntnose minnow, Ozark minnow, striped shiner, bleeding shiner, stoneroller, longear sunfish, rock bass, and rainbow darter.
39. On March 27, 2012, EPA developed an ecological-risk screening that made the following observations concerning the direct impacts from placement of CCR at or near the Site based on the above-referenced sampling:
 - The "direct physical impact to the wetland environment results in a total loss of ecological habitat."

- Wetlands functions have been altered to the extent that "the site may be irreplaceable" unless the CCR is removed from the Site.
- Potential for natural revegetation is "extremely limited" due to the placement of CCR.
- Extremely high levels of boron make it "highly unlikely that revegetation of the wetland is ... achievable due to boron toxicity ... and that irreversible environmental damage has occurred."
- Sample results of the CCR piles at the Site showed metals exceeding EPA-promulgated Ecological Soil Screening Levels (Eco-SSLs) for plants, soil invertebrates, birds and mammals, as described in the following table:

Table 1: Sample results from CCR piles at Rotary Drilling Supply, Inc., Site (parts per million)

CCR Constituent	Eco-SSL for Plants	Eco-SSL for Soil Invertebrates	Eco-SSL for Birds	Eco-SSL for Mammals	No. of Locations (out of 9) exceeding ECO-SSL	Range of Exceedances
Antimony	5.0	78	N/A	0.27	9	5.2-8.3
Arsenic	18	60	43	46	4	18.2-56.2
Barium	500	330	N/A	2000	8	2200-4350
Boron	0.5	N/A	N/A	N/A	8	269 - 590
Cadmium	32	140	0.77	0.36	9	0.43-0.89
Chromium	1.0	0.4	26	34	8	22.1-59.1
Cobalt	13.0	N/A	120	230	7	13.5-19.3
Copper	70	80	28	49	8	75.4-142
Lead	120	1700	11	56	7	19.4-58.9
Nickel	38	280	210	130	4	41.9-50.7
Selenium	0.52	4.1	1.2	0.63	9	3.0-6.0
Thallium	1.0	N/A	N/A	N/A	9	2.2-3.4
Vanadium	N/A	2.0	7.8	280	8	108-167
Zinc	160	120	46	79	7	52.8-80.7

40. The above-referenced ecological-risk screening made the following observations concerning off-site aquatic impacts caused by the leaching of metals from the CCR piles on the Site to the unnamed tributary to Platin Creek and to Willer's Lake:
- The leaching of metals "may lead to chronic impairment of the aquatic system over time."
 - The CCR "appears to be gradually contributing to metal contamination in Willer's [Lake] and the drainage to Platin Creek ... potentially toxic to aquatic life."
 - Sediment concentrations in the unnamed tributary and Willer's Lake were compared to background sediment locations and to EPA-adopted Threshold Effect Concentrations (TECs) (MacDonald, Ingersoll and Berger, "Development and Evaluation of consensus-based sediment quality guidelines for freshwater ecosystems," 2000). Samples indicated exceedances as described in Table 2.

- Off-site impacts to aquatic life were evaluated by reviewing surface water concentrations compared to EPA-promulgated National Ambient Water Quality Criteria. Samples indicated exceedances as described in Table 3.

Table 2: Sample results from surface waters in and around Rotary Drilling Supply, Inc., Site

Sediment concentration screened against background. Concentrations exceed background, and are similar to or less than ash concentration.	Barium, Beryllium, Boron, Cobalt, Iron, Selenium, Vanadium
Sediment concentration screened against TEC, exceeds TEC, and is similar to fly ash concentration.	Arsenic, Copper, Nickel
Sediment concentration screened against TEC, does not exceed TEC, and is similar to fly ash concentration.	Chromium

Table 3: Sample results from surface waters exceeding Chronic Water Quality Criteria (ppm)

CCR Constituent	Chronic Water Quality Criteria Screening Level	No. of Locations (out of 7) exceeding Water Quality Criteria	Range of Exceedances
Barium	3.9	7	95 -309
Boron	43.7 (average background)	7	119-4040
Chromium	10.0	1	15.0
Cobalt	3.0	1	3.4
Copper	11	1	23.8
Lead	2.5	1	31.1
Manganese	80	5	222-641
Selenium	5.0	1	25.7
Vanadium	19	1	51.0

41. On April 18, 2012, MDNR issued a Notice of Violation to Respondent for violations of the coal combustion byproducts general beneficial use solid waste disposal area permit exemptions. The NOV assert MDNR's determination that the "placement of fly ash in a wetland is not a permit exempt beneficial reuse and constitutes the illegal dumping of solid wastes without a permit."
42. Due to the presence of the presence of CCR that Respondent handled and disposed of, and the continued migration of contaminants into surface waters and adjacent wetlands, conditions at the Site present an imminent and substantial endangerment to human health and/or the environment due to the complete loss of wetlands and stream functions in the area where wastes were disposed; as well as the continued migration of waste constituents into surface waters.
43. This potential endangerment stems from the past handling, transportation and disposal of solid waste.
44. Respondent is a person who has contributed to such handling, transportation and disposal.
45. This AOC is necessary to protect public health and/or the environment.

VI. CONCLUSIONS OF LAW AND DETERMINATIONS

46. Based on the Findings of Fact set forth above, and an administrative record supporting this AOC, EPA has determined that:
- a. Respondent is a "person" as defined in Section 1004(15) of RCRA, 42 U.S.C. §6903(15).
 - b. Respondent is responsible for the handling, storage, treatment, transportation or disposal of solid waste, as described in Section 7003(a) of RCRA, 42 U.S.C. §6973(a).
 - c. The CCR at the Site is discarded material that was not disposed of for beneficial use as determined by the State of Missouri and, thus, a "solid waste" as defined in Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).
 - d. The past "handling," "transportation," "storage," "treatment," and/or "disposal" of CCR at the Site may present an imminent and substantial endangerment to human health and/or the environment within the meaning of Section 7003(a) of RCRA, 42 U.S.C. §6973(a).
 - e. Respondent has contributed to the handling, storage, treatment, transportation, or disposal by contracting for, and executing, the transportation and disposal of CCR at the Site. The actions required by this AOC are necessary to protect human health and/or the environment.

VII. ORDER ON CONSENT

47. Based upon the administrative record for the Site and the Findings of Fact (Section V) and Conclusions of Law and Determinations (Section VI) set forth above, and in consideration of the promises set forth herein, the following is hereby agreed to and ordered. Respondent shall comply with all provisions of this AOC, including, but not limited to, all appendices to this AOC and all documents incorporated by reference into this AOC.
48. Respondent shall finance and perform the Work in accordance with this AOC, plans, standards, specifications and schedules set forth in this AOC or developed by Respondent and approved by EPA pursuant to this AOC.

VIII. WORK TO BE PERFORMED

49. Short-Term Work Plan: As soon as practicable, but no later than 15 days after the effective date of this Order, Respondent shall install and maintain appropriate soil erosion and sediment controls to prevent the further migration of CCR-related contaminants off-Site. As soon as Respondent determines the appropriate controls to be installed at the Site, Respondent shall provide EPA a Short-Term Work Plan describing the controls to be implemented at the Site to prevent further migration of fill material. The Short-Term Work Plan is subject to EPA approval as outlined in Section IX.
50. Long-Term Work Plan: Respondent shall submit a Work Plan describing the abatement of impacts due to disposal of CCR at the Site and mitigation for the impacted wetlands. The Work Plan shall be submitted to EPA's Project Manager for approval no later than 30 days after the effective date of this AOC. The Work Plan shall include a schedule of the Work to be performed, including, but not limited to, the following:

- a. The unnamed tributary to Plattin Creek will be either be re-routed or piped to eliminate any contact with CCR.
- b. The waste materials and CCR will be capped in such a way that eliminates stormwater contact and further migration of CCR constituents into surface waters, including the unnamed tributary to Plattin Creek and Willers Lake. Further, the Work Plan will contain a plan to maintain the cap in perpetuity to ensure its long-term stability and ability to prevent CCR constituent migration. The maintenance plan shall comply with the attached Statement of Work (Attachment A).
- c. Controls that prevent contamination with floodwaters and prevent further destabilization and/or erosion due to flooding.
- d. Respondent will comply with the environmental covenant (Attachment B) pursuant to the Missouri Uniform Environmental Covenants Act that prohibits excavation or disturbance of the cap without EPA approval, prevents exposure to the underlying CCR, and requires maintenance of the cap to prevent off-Site migration of CCR constituents.
- e. Respondent will mitigate for lost wetlands functions.

Following EPA's approval or modification of the Work Plan pursuant to Section IX, Respondent shall implement the Work Plan in accordance with the schedule and provisions approved by EPA. Once approved by EPA, the Work Plan shall be incorporated into the terms of this AOC.

51. Project Coordinator. On or before the Effective Date of this AOC, Respondent shall designate its Project Coordinator. Respondent shall notify EPA in writing within five days of the Effective Date of this AOC of the name, address, phone number, electronic mail address and qualifications of its Project Coordinator. The EPA Project Coordinator will be Nicole Moran, 11201 Renner Boulevard, Lenexa, Kansas 66219, (913) 551-7641, *moran.nicole@epa.gov*, EPA may also designate an Alternate Project Coordinator. Each Project Coordinator shall be responsible for overseeing the implementation of this AOC. EPA and Respondent have the right to change their respective Project Coordinators. The other party must be notified in writing at least 10 days prior to the change.
52. The EPA will approve/disapprove of Respondent's Project Coordinator (original or replacement) based upon the person's qualifications and ability to effectively perform this role. The qualifications of the persons undertaking the Work for Respondent shall be subject to EPA's review, for verification that such persons meet minimum technical background and experience requirements of the EPA. All persons under the direction and supervision of Respondent's Project Coordinator must possess all necessary professional licenses required by federal and state law.
53. The EPA Project Coordinator shall be EPA's designated representative for the Site. Unless otherwise provided in this AOC, all reports, correspondence, notices, or other submittals relating to or required under this AOC shall be in writing and shall be sent to the EPA Project Coordinator at the address specified in Paragraph 51, unless notice is given in writing to Respondent of a change in address. Reports, correspondence, notices or other submittals shall be delivered by U.S. Postal Service, private courier service or electronic mail. All correspondence shall include a reference to the case caption EPA Docket No. RCRA-07-2012-0028.
54. Respondent shall undertake and complete all of the Work to the satisfaction of EPA, pursuant to RCRA § 7003, 42 U.S.C. § 6973. All of the Work performed under this AOC shall be under the

direction and supervision of Respondent's Project Coordinator and shall be in accordance with the terms of this AOC. Within five days of the Effective Date of this AOC, Respondent shall notify EPA in writing of the names, titles and qualifications of the personnel, including agents, contractors, subcontractors, consultants and laboratories, to be used in carrying out the Work.

55. Respondent's obligation to perform the Work will begin on the Effective Date of this AOC.
56. The Work undertaken pursuant to this AOC shall be conducted in compliance with all applicable EPA guidance, policies and procedures, and with this AOC, and is subject to EPA approval.
57. Completion Report. Once the Work identified in Paragraphs 49 and 50 has been completed, Respondent shall submit photographic evidence, copies of relevant documents, sampling evidence indicating that waste and CCR constituent runoff has been eliminated, and a signed statement indicating that the Work is complete.
58. Monitoring Reports. Respondent shall submit annual reports to EPA beginning after the first anniversary of the completion of the Work required by the Work Plan. These reports shall include photos of the Property, a description of the status of the Property, any corrective actions, if any, that will be taken to correct deficiencies to maintain the cap and other surface water controls, surface water sampling evidence indicating that CCR constituent runoff has been eliminated, and all other criteria identified in the Work Plan. All surface water monitoring shall comply with the terms of the attached Statement of Work (Attachment A). These annual reports shall be submitted to EPA by December 1st of each year. Respondent shall submit annual reports to EPA for a minimum period of five years. If the sampling evidence contained in the annual reports shows that CCR constituent runoff has been eliminated, then Respondent may request, in writing to EPA, that it be allowed to discontinue submitting annual reports. EPA, in its sole discretion, may allow Respondent to discontinue submitting annual reports. Alternatively, EPA may, in its discretion, require additional reporting. If sampling indicates continued migration of CCR constituents into surrounding surface water, Respondent shall submit a Work Plan to EPA within 30 days of receipt of sample results describing how Respondent will eliminate migration of CCR constituents. The Work Plan shall be subject to EPA approval as outlined in Section IX. Respondent shall also submit annual reports as described in this paragraph for an additional period as directed by EPA.
59. Health and Safety Plan. Respondent shall develop a Health and Safety Plan and it shall be implemented during the Work performed under this AOC. The Health and Safety Plan shall comply with applicable Occupational Safety and Health Administration (OSHA) regulations.
60. Future Development of Site. Once the site has been capped pursuant to Respondent's approved Work Plan, there shall be no excavations or penetrations of the cap without the prior written approval of EPA. Based on the potential hazards associated with excavations, EPA may require additional surface water sampling and reporting to determine if CCR constituents are migrating from the Property, or may deny a request to conduct an excavation, or may require other protective actions before allowing excavations to occur.

IX. EPA APPROVAL OF DELIVERABLES

61. Deliverables required by this AOC shall be submitted to EPA for approval or modification pursuant to this section. All deliverables must be received at EPA by the due date specified in this AOC or by schedules developed pursuant to this AOC.
62. After review of any deliverable that is required pursuant to this AOC, EPA will: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that Respondent modify the submission; or (e) any combination of the above. However, EPA will not modify a submission without first providing Respondent at least one notice of deficiency and an opportunity to cure within 10 days, except where EPA determines that to do so would cause serious disruption to the Work or where EPA has disapproved previous submission(s) due to material defects and EPA determines that the deficiencies in the submission under consideration indicate a bad faith lack of effort to submit an acceptable deliverable.
63. In the event of approval, approval upon conditions, or modification by EPA, pursuant to Paragraph 61, Respondent shall proceed to take any action required by the deliverable, as approved or modified by EPA subject only to Respondent's right to invoke the Dispute Resolution procedures set forth in Section XVII (Dispute Resolution) with respect to the modifications or conditions made by EPA. In the event that EPA modifies the submission to cure the deficiencies pursuant to Paragraph 61 and EPA determines the submission has a material defect, EPA retains its right to seek stipulated penalties, as provided in Section XVIII (Penalties).
64. Resubmission of Deliverable. Upon receipt of a notice of disapproval, in whole or in part, pursuant to Paragraph 61, Respondent shall, within 10 days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the deliverable for approval. Any stipulated penalties applicable to the submission, as provided in Section XVIII (Penalties), shall accrue during the 10-day opportunity to cure period or otherwise specified period but shall not be payable unless the resubmission is disapproved or modified due to a material defect as provided in Paragraphs 65 and 66.
65. Notwithstanding the receipt of a notice of disapproval pursuant to Paragraph 61, Respondent shall proceed, at the direction of EPA, to take any action required by any non-deficient portion of the submission. Implementation of any non-deficient portion of a submission shall not relieve Respondent of any liability for stipulated penalties for the deficient portion of the deliverable under Section XVIII (Penalties).
66. In the event that a resubmitted deliverable, or portion thereof, is disapproved by EPA, EPA may again require Respondent to correct the deficiencies, in accordance with the preceding Paragraphs. The EPA also retains the right to modify or develop the plan, report or other item. Respondent shall implement any action as required in a deliverable which has been modified or developed by EPA, subject only to Respondent's right to invoke the procedures set forth in Section XVII (Dispute Resolution).
67. If upon resubmission, a deliverable is disapproved or modified by EPA due to a material defect, Respondent shall be deemed to have failed to submit such deliverable timely and adequately unless Respondent invokes the dispute resolution procedures set forth in Section XVII (Dispute

Resolution) and EPA's action to disapprove or modify a deliverable is overturned pursuant to that Section. The provisions of Section XVII (Dispute Resolution) and Section XVIII (Penalties) shall govern the implementation of the Work and accrual and payment of any stipulated penalties during Dispute Resolution. If EPA's disapproval or modification is upheld, stipulated penalties shall accrue for such violation from the date on which the initial submission was originally required, as provided in Section XVIII (Penalties).

68. All deliverables required to be submitted to EPA under this AOC, shall, upon approval or modification by EPA, be incorporated into and be enforceable under this AOC. In the event EPA approves or modifies a portion of a deliverable required to be submitted to EPA under this AOC, the approved or modified portion shall be enforceable under this AOC.

X. MODIFICATION OF THE WORK PLAN

69. If at any time during the implementation of the Work, Respondent identifies a need for a compliance date modification or revision of the Work Plan, Respondent shall submit a memorandum documenting the need for the modification or revision to the EPA Project Coordinator. The EPA in its discretion will determine if the modification or revision is warranted and may provide written approval or disapproval. Any approved modified compliance date or Work Plan modification is incorporated by reference into this AOC.
70. Emergency Response. In the event of any action or occurrence during the performance of the Work that constitutes an emergency situation or may present an immediate threat to human health and the environment. Respondent shall immediately take all appropriate action to minimize such emergency or threat, and shall immediately notify the EPA's Project Coordinator. Respondent shall take such immediate and appropriate actions in consultation with EPA's Project Coordinator. Respondent shall then submit to EPA written notification of such emergency or threat at the Site within three (3) calendar days of such discovery. Respondent shall thereafter submit to EPA for approval, within 20 days, a plan to mitigate this threat. EPA will approve or modify this plan, and Respondent shall implement this plan as approved or modified by EPA. In the case of an extreme emergency, Respondent may act as it deems appropriate, at its own risk, to protect human health or the environment.

XI. QUALITY ASSURANCE

71. As part of the Work Plan, Respondent shall include a Quality Assurance Project Plan (QAPP), for EPA review and approval. The QAPP shall address quality assurance, quality control, and chain of custody procedures for all sampling, monitoring, and analytical activities. Respondent shall follow "EPA Requirements for Quality Assurance Project Plans (QA/R-5)" (EPA/240/B-01/003, March 2001 (Reissued May 2006)), "Guidance for Quality Assurance Project Plans (QA/G-5)" (EPA/240/R-02/009, December 2002), and "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/b-01/002, March 2001) as well as other applicable documents identified by EPA.
72. As part of the Work Plan, Respondent shall include Data Quality Objectives for any data collection activity to ensure that data of known and appropriate quality is obtained and that the data is sufficient to support their intended use as required by this AOC.

73. Respondent shall ensure that laboratories used by Respondent for analysis perform such analysis according to the latest approved edition of "Test Methods for Evaluating Solid Waste (SW-846)" or other methods approved by EPA. If methods other than EPA methods are to be used, Respondent shall specify all such protocols in the applicable Work Plan. EPA may reject any data that does not meet the requirements of the approved Work Plan and EPA analytical methods and may require resampling and additional analysis.
74. Respondent shall ensure that all the laboratories it uses for analyses participate in a quality assurance/quality control (QA/QC) program equivalent to the program that EPA follows. Respondent shall, upon EPA's request, make arrangements for EPA to conduct a performance and QA/QC audit of the laboratories chosen by Respondent, whether before, during, or after sample analyses. Upon EPA's request, Respondent shall have its laboratories perform analyses of samples provided by EPA to demonstrate laboratory QA/QC and performance. If the audit reveals deficiencies in a laboratory's performance or QA/QC, Respondent shall submit a plan to address the deficiencies and EPA may require resampling and additional analysis.
75. The EPA reserves the right to require a change in laboratories for reasons which may include, but shall not be limited to, QA/QC, performance, conflict of interest, or confidential agency audit information. In the event EPA requires a laboratory change, Respondent shall propose two alternative laboratories within 30 calendar days. Once EPA approves of the laboratory change, Respondent shall ensure that laboratory service shall be made available within 15 calendar days.

XII. ADMINISTRATIVE DOCUMENTATION

76. The EPA retains the responsibility for the issuance of any decision documents related to the Site.
77. The EPA will provide Respondent with copies of all decision documents for the Site.
78. Submission of Documentation. The EPA will determine the contents of the administrative record file for selection of the remedial action. Respondent shall submit to EPA documents developed during the course of performing the work upon which selection of the response action may be based. EPA will maintain an administrative record file. The administrative record supporting this AOC and the Work to be performed shall be available for public review at the EPA Region 7 office, 11201 Renner Boulevard, Lenexa, Kansas, 66219 during regular business hours.

XIII. DOCUMENT CERTIFICATION

79. Any report or other document submitted by Respondent pursuant to this AOC which makes recommendations as to whether or not further actions are necessary, or makes any representation concerning Respondent's compliance or noncompliance with any requirement of this AOC shall be certified by a responsible corporate officer of Respondent. A responsible corporate officer means: a president, secretary, treasurer, or vice-president in charge of a principal business function, or any other person who performs similar policy or decision-making functions.
80. The certification required by Paragraph 78 above, shall be in the following form:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel

properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to be the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:
Name:
Title:
Date:

XIV. SAMPLING, ACCESS AND DATA AVAILABILITY

81. All results of sampling, testing, modeling or other data generated (including raw data if requested) by Respondent, or on Respondent's behalf, during implementation of this AOC shall be validated by Respondent and submitted to EPA within 30 days of Respondent's receipt of the data. Respondent shall tabulate data chronologically by media. EPA will make available to Respondent data generated by EPA for the purposes of oversight of the Work unless it is exempt from disclosure by any federal or state law or regulation.
82. Respondent shall orally notify EPA at least 20 days prior to conducting field sampling, At EPA's request, Respondent shall allow split or duplicate samples to be taken by EPA or EPA's representative.
83. Site Access. Pursuant to RCRA § 3007(a), 42 U.S.C. § 6927(a), Respondent shall provide access to the Site at reasonable times to EPA, EPA's contractors and oversight officials. Respondent shall also provide access at reasonable times to EPA, EPA's contractors and oversight officials to all records and documentation in its possession or control, including those records and documents in the possession or control of Respondent's contractors and employees, related to the conditions at the Site and the actions conducted pursuant to this AOC. Respondent shall use best efforts to gain access to areas owned by or in the possession of someone other than Respondent, as necessary to implement this AOC, as described in Paragraph 84. Such access shall be provided to EPA, its contractors and oversight officials. These individuals shall be permitted to move freely about the Site and appropriate off-Site areas in order to conduct actions that EPA determines to be necessary. The EPA, its contractors and oversight officials shall notify Respondent of its presence on the Site by presenting their credentials. All parties with access to the Site under this paragraph shall comply with all approved health and safety plans and regulations.
84. Pursuant to this Section, any denial of access at reasonable times to any portion of the Site property where a request for access was made for the purposes of enforcing the requirements of RCRA or this AOC shall be construed as a violation of the terms of this AOC subject to the penalty provisions outlined in Section XVIII (Penalties) of this AOC.
85. Access Agreements. Where action under this AOC is to be performed in areas owned by, or in possession of, someone other than Rotary, Rotary shall use best efforts to obtain all necessary access agreements within 45 days of approval of any Work Plan for which access is necessary or as otherwise specified, in writing, by the EPA Project Coordinator. Any such access

agreement shall provide for access by EPA and its representatives to move freely in order to conduct actions that EPA determines to be necessary. The access agreement shall specify that Respondent is not EPA's representatives with respect to any liabilities associated with activities to be performed. Respondent shall provide EPA's Project Coordinator with copies of any access agreements. Respondent shall immediately notify EPA if after using Respondent's best efforts it is unable to obtain such agreements within the time required. Best efforts as used in this paragraph shall include, at a minimum, a certified letter from Respondent to the present owner of such property requesting access agreements to permit Respondent, EPA, and EPA's authorized representatives to enter such property, and the offer of payment of reasonable sums of money in consideration of granting access. Respondent shall, within 10 days of its receipt of a denial of access, submit in writing, a description of its efforts to obtain access. EPA may, at its discretion, assist Respondent in obtaining access. In the event EPA obtains access, Respondent shall undertake the Work on such property and Respondent shall reimburse EPA for all costs and attorney fees incurred by the United States in obtaining such access.

86. Confidential Business Information. Respondent may assert a claim of business confidentiality covering part or all of the information submitted to EPA pursuant to the terms of this AOC under 40 C.F.R. § 2.203 in the manner described at 40 C.F.R. § 2.203(b) and substantiated with the information described at 40 C.F.R. § 2.204(e)(4). Information EPA determines is confidential will be given the protection specified in 40 C.F.R. Part 2. If no such claim or substantiation accompanies the information when it is submitted to EPA, it may be made available to the public by EPA or the state without further notice to Respondent. Respondent agrees not to assert confidentiality claims with respect to any data related to Site conditions, sampling, monitoring or the Work performed pursuant to this AOC.
87. Privileged Documents. Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondent asserts such a privilege in lieu of providing documents, Respondent shall provide EPA with the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the author's name and title; (4) the name and title of each addressee and recipient; (5) a description of the contents; and (6) the privilege asserted by Respondent. However, no documents, reports or other information created or generated pursuant to the requirements of this AOC shall be withheld on the grounds that they are privileged.
88. All data, information, and records created or maintained relating to any Solid or Hazardous Waste found at the Site shall be made available to EPA upon request unless Respondent asserts a claim that such documents are legally privileged from disclosure. Respondent shall have the burden of demonstrating to EPA by clear and convincing evidence that such privilege exists.
89. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.
90. Nothing in this AOC shall be construed to limit EPA's right of access, entry, inspection, and information gathering pursuant to applicable law, including but not limited to RCRA and CERCLA.

XV. COMPLIANCE WITH OTHER LAWS

91. Respondent shall perform all actions required pursuant to this AOC in accordance with all applicable local, state, and federal laws and regulations. Respondent shall obtain or cause its representatives to obtain all permits and approvals necessary under such laws and regulations in a timely manner so as not to delay the Work required by this AOC.

XVI. RECORD RETENTION

92. Respondent shall preserve all documents and information, including raw data, relating to the Work performed under this AOC, or relating to any solid waste or hazardous waste found at the Site, for 10 years following completion of the Work required by this AOC.
93. Respondent shall acquire and retain copies of all documents that relate to the Site that are in the possession of its employees, agents, accountants, contractors or attorneys.
94. Respondent shall make available to EPA all employees and persons, including contractors, who engage in activities under this AOC and ensure its cooperation with EPA with respect to this AOC.
95. After the 10 year retention period and 90 days before any document or information is destroyed, Respondent shall notify EPA that such documents and information are available to EPA for inspection, and upon request, shall provide the originals or copies (at no extra cost) of such documents and information to EPA. Notification shall be in writing and shall reference the effective date, caption, and docket number of this AOC and shall be addressed to the Chief of Waste Enforcement and Materials Management Branch, EPA Region 7, 11201 Renner Boulevard, Lenexa, Kansas 66219. In addition, Respondent shall provide documents and information retained under this Section at any time before expiration of the 10 year retention period at the written request of EPA.
96. All documents pertaining to this AOC shall be stored by Respondent in a centralized location at the Site, or an alternative location mutually approved by Respondent and EPA, to promote easy access by EPA or its representatives.

XVII. DISPUTE RESOLUTION

97. Respondent shall raise any disputes concerning the Work required under this AOC to EPA (excluding any decision document(s) issued by EPA), in writing, within 15 days after receiving written notice from EPA regarding any aspect of the Work required under this AOC that Respondent disputes. The EPA and Respondent shall expeditiously and informally attempt to resolve any disagreements. The EPA and Respondent Project Coordinators shall first confer in an effort to resolve the dispute. If the Project Coordinators are unable to informally resolve the dispute within three days of the first conference, Respondent shall notify EPA, within five days, in writing of its objections. Written objections shall identify Respondent's objections, state the basis for those objections, and provide all data, analyses and information relied upon by Respondent. The EPA and Respondent then have an additional 14 days from EPA's receipt of the objections to reach agreement. If an agreement is not reached within the 14 days, Respondent may request in writing, within five days, a

determination resolving the dispute by EPA's Director of the Air and Waste Management Division. The request should provide all information that Respondent believes is relevant to the dispute. If such request is submitted within five days, the Division Director shall issue a determination in writing. EPA's final decision shall be incorporated into and become an enforceable part of this AOC and shall no longer be subject to dispute pursuant to this AOC. Respondent shall proceed in accordance with the Division Director's decision regarding the matter in dispute, regardless of whether Respondent agrees with the decision. If Respondent does not agree to perform or does not actually perform the Work in accordance with EPA's decision, EPA reserves the right in its sole discretion to conduct the Work itself, seek reimbursement from Respondent, seek enforcement of this AOC, seek stipulated penalties, and/or any other appropriate relief. Any disputes arising under this AOC are not subject to judicial review until such time as EPA seeks to enforce this AOC.

98. If EPA and Respondent reach agreement on the dispute at any stage, the agreement shall be set forth in writing and shall, upon signature of both parties, be incorporated into and become an enforceable part of this AOC.
99. The existence of a dispute and EPA's consideration of matters placed in dispute shall not excuse, toll, or suspend any compliance obligation or deadline required pursuant to this AOC during the pendency of the dispute resolution process except as agreed by EPA in writing. The invocation of dispute resolution does not stay the accrual of stipulated penalties under this AOC.

XVIII. PENALTIES

100. Stipulated Penalties. Any time Respondent fails to comply with any requirement of this AOC, Respondent shall be liable for stipulated penalties in the amounts set forth in this section unless a Force Majeure event has occurred as defined in Section XIX (Force Majeure) and EPA has approved the extension of a deadline as required by Section XIX (Force Majeure). Compliance with this AOC by Respondent shall include completion of an activity or any matter under this AOC in accordance with this AOC, and within the specified time schedules approved under this AOC.

<u>Period of Noncompliance</u>	<u>Penalty per Violation per Day</u>
1st to 5 th Day	\$250.00
5th to 30th Day	\$1,000.00
31st to 60th Day	\$2,500.00
more than 60 Days	\$5,000.00

101. Penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of correction of the violation or completion of the activity. Payment shall be due within 30 days of receipt of a demand letter from EPA. Nothing herein shall prevent the simultaneous accrual of separate stipulated penalties for separate violations of this AOC, even where those violations concern the same event (e.g., submission of a Work Plan that is late and is of unacceptable quality).
102. If payment is not made within 30 days of the date of Respondent's receipt from EPA of a written demand for payment of the penalties or of the date of agreement or decision resolving

the dispute, interest shall begin to accrue on any unpaid stipulated penalty balance beginning on the first day after Respondent's receipt of EPA's demand letter, or the date of the agreement or decision resolving the dispute, and will accrue until such penalties and interest have been paid in full. Interest shall accrue at the Current Value of Funds Rate established by the Secretary of the Treasury. An additional penalty of six percent (6 %) per annum on any unpaid principal shall be assessed for any stipulated penalty payment which is overdue for ninety (90) days or more. The applicable rate of interest shall be the rate in effect at the time the interest accrues pursuant to 31 U.S.C. § 3717.

103. Respondent shall make payments by money order, certified check, company check, electronic funds transfer, or cashier's check payable to the Treasurer of the United States within 30 days of Respondent's receipt of EPA's request, and shall be submitted to the following address:

U.S. Environmental Protection Agency
Fines and Penalties
Cincinnati Finance Center
P.O. Box 979077
St. Louis, Missouri 63197-9000.

104. Docket No. RCRA-07-2012-0028 should be clearly typed on the check to ensure proper credit. Respondent shall send simultaneous notices of such payments, including copies of the money order, certified check, company check, electronic funds transfer, or cashier's check to the following:

Chief of Waste Enforcement and Materials Management Branch
U.S. EPA, Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219.

105. Respondent may dispute an EPA determination that it failed to comply with this AOC by invoking the dispute resolution procedures under Section XVII (Dispute Resolution) unless the matter has already been in or is the subject of dispute resolution. Penalties shall accrue but need not be paid during the dispute resolution period. If Respondent does not prevail upon resolution, all penalties shall be due to EPA within 30 days of resolution of the dispute. If Respondent prevails upon resolution, no penalties shall be paid. In the event that Respondent prevails in part, penalties shall be due on those matters in which Respondent did not prevail.
106. Neither the invocation of dispute resolution nor the payment of penalties shall alter in any way Respondent's obligation to comply with the terms and conditions of this AOC. The stipulated penalties set forth in this Section do not preclude EPA from pursuing any other remedies or sanctions which may be available to EPA by reason of Respondent's failure to comply with any of the terms and conditions of this AOC.
107. No payments under this Section shall be deducted for federal tax purposes.
108. Notwithstanding any other provision of this section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this AOC.

109. Civil Penalties. Violation of this AOC may subject Respondent to civil penalties of at least seven thousand five hundred dollars (\$7,500.00) per violation per day. The assessment of penalties are provided for in Section 7003(b) of RCRA, 42 U.S.C. § 6973(b), as adjusted pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, as amended by the Debt Collection Improvement Act of 1996, 28 U.S.C. § 2461 note. Should Respondent violate this AOC or any portion hereof, EPA may carry out the required actions unilaterally, pursuant to any applicable authorities, and/or may seek judicial enforcement of this AOC.

XIX. FORCE MAJEURE

110. Respondent agrees to perform all requirements under this AOC within the time limits established under this AOC, unless the performance is delayed by a force majeure. For purposes of this AOC, a force majeure is defined as any event arising from causes beyond the control of Respondent, or any entity controlled by Respondent or Respondent's contractors, which delays or prevents performance of any obligation under this AOC despite Respondent's best efforts to fulfill the obligation. The requirement that the Respondent exercises "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any potential force majeure event: (1) as it is occurring, and (2) following the potential force majeure event, such that the delay is minimized to the greatest extent possible. Force majeure does not include financial inability to complete the Work, increased cost of performance, changes in Respondent's business or economic circumstances, or inability to attain media cleanup standards.
111. If any event occurs or has occurred that may delay the performance of any obligation under this AOC, whether or not caused by a force majeure event, Respondent shall orally notify EPA within 48 hours of when Respondent knew or should have known that the event might cause a delay. Such notice shall: (1) identify the event causing the delay, or anticipated to cause delay, and the anticipated duration of the delay; (2) provide Respondent's rationale for attributing such delay to a force majeure event; (3) state the measures taken or to be taken to prevent or minimize the delay; (4) estimate the timetable for implementation of those measures; and (5) state whether, in the opinion of Respondent, such event may cause or contribute to an endangerment to public health or the environment. Respondent shall undertake best efforts to avoid and minimize the delay. Failure to comply with the notice provision of this paragraph and to undertake best efforts to avoid and minimize the delay shall waive any claim of force majeure by Respondent. Respondent shall be deemed to have notice of any circumstances of which its contractors had or should have had notice.
112. If EPA determines that a delay in performance or anticipated delay in fulfilling a requirement of this AOC is or was attributable to a force majeure, then the time period for performance of that requirement will be extended as deemed necessary by EPA. If EPA determines that the delay or anticipated delay has been or will be caused by a force majeure, then EPA will notify Respondent, in writing, of the length of the extension, if any, for performance of such obligations affected by the force majeure. Any such extensions shall not alter Respondent's obligation to perform or complete other tasks required by this AOC which are not directly affected by the force majeure.

113. If EPA disagrees with Respondent's assertion of a force majeure, then Respondent may elect to invoke the dispute resolution provision, and shall follow the procedures set forth in Section XVII (Dispute Resolution). In any such proceeding, Respondent shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that Respondent's best efforts were exercised to avoid and mitigate the effects of the delay, and that Respondent complied with the requirements of this section. If Respondent satisfies this burden, then EPA will extend the time for performance as EPA determines is necessary.

XX. RESERVATION OF RIGHTS

114. Notwithstanding any other provisions of this AOC, the United States retains all of its authority to take, direct, or order any and all actions necessary to protect public health or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants, or contaminants, or hazardous or solid waste or constituents of such wastes, on, at, or from the Site, including but not limited to the right to bring enforcement actions under RCRA, CERCLA, and any other applicable statutes or regulations.
115. The EPA reserves all of its statutory and regulatory powers, authorities, rights, and remedies, both legal and equitable, which may pertain to Respondent's failure to comply with any of the requirements of this AOC, including without limitation the assessment of penalties under Section 7003 of RCRA, 42 U.S.C. § 6973.
116. This AOC shall not be construed as a covenant not to sue, release, waiver, or limitation of any rights, remedies, powers, claims, and/or authorities, civil or criminal, which EPA has under RCRA, CERCLA, or any other statutory, regulatory, or common law authority of the United States.
117. This AOC is not intended to be nor shall it be construed to be a permit. Respondent acknowledges and agrees that EPA's approval of the Work and/or Work Plan does not constitute a warranty or representation that the Work and/or Work Plans will achieve the required cleanup or performance standards. Compliance by Respondent with the terms of this AOC shall not relieve Respondent of its obligations to comply with RCRA or any other applicable local, state, or federal laws and regulations.
118. Respondent agrees not to contest any action or decision by EPA pursuant to this Order, including without limitation, decisions of the Regional Administrator, the Waste Enforcement and Materials Management Branch Chief, the Director of the Air and Waste Management Division, or any authorized representative of EPA prior to EPA's initiation of a judicial action to enforce this Order, including an action for penalties or an action to compel Respondent's compliance with the terms and conditions of this Order.

XXI. OTHER CLAIMS

119. By issuance of this AOC, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The United States or EPA will not be deemed a party to any contract, agreement or other

arrangement entered into by Respondent or its officers, directors, employees, agents, successors, assigns, heirs, trustees, receivers, contractors, or consultants in carrying out actions pursuant to this AOC.

120. Respondent waives all claims against the United States relating to or arising out of conduct of this AOC, including, but not limited to, contribution and counterclaims.
121. Respondent shall bear its own litigation costs and attorney fees.
122. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive or other appropriate relief relating to the Site, Respondent shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been raised in the present matter.

XXII. INSURANCE

123. Prior to commencing the on-Site Work under this AOC, Respondent shall secure, and shall maintain in force for the duration of this AOC and for two years after the completion of all activities required by this AOC, comprehensive general liability insurance and automobile insurance with limits of \$2 million dollars, combined single limit, naming EPA as an additional insured. Prior to commencement of the Work under this AOC, and annually thereafter on the anniversary of the Effective Date of this AOC, Respondent shall provide EPA with certificates of such insurance and a copy of each insurance policy. If Respondent demonstrates by evidence satisfactory to EPA that its contractors and subcontractors maintain insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondent need provide only that portion of the insurance described above which is not maintained by the contractors and subcontractors.
124. For the duration of this AOC, Respondent shall satisfy, or shall ensure that its contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of employer's liability insurance and worker's compensation insurance for all persons performing the Work on behalf of Respondent, in furtherance of this AOC.
125. At least seven days prior to commencing the Work under this AOC, Respondent shall certify to EPA that its contractors and subcontractors have obtained the required insurance.

XXIII. COST ESTIMATES AND FINANCIAL ASSURANCE

126. Cost Estimates. Within 30 days after the Effective Date of this AOC, Respondent shall submit to EPA a detailed written initial estimate, in current dollars, of the cost of hiring a third party to perform the Work described in Section VIII (Work to be Performed). A third party is a party who: (i) is neither a parent nor a subsidiary of Respondent, and (ii) does not share a common parent or subsidiary with Respondent. The initial cost estimate must account for the total costs of the work activities described in Section VIII (Work to be Performed) for the entire period of this AOC, including any necessary long term costs, such as operation and maintenance costs, monitoring costs, and institutional controls. The cost estimate must not incorporate any salvage value that may be realized from the sale of wastes, facility structures or equipment, land or other assets associated with the Site. Concurrent with the submission of any Work Plan(s) for additional work required under Section XXVI (Additional Work), Respondent shall submit revised detailed written estimate(s), in current dollars, of the cost of hiring a third party to perform the Work.
127. Respondent must annually adjust the cost estimate(s) for inflation within 30 days after the close of Respondent's fiscal years until the Work required by this AOC is completed. In addition, Respondent must adjust the cost estimate if EPA determines that any additional work is required, pursuant to Section XXVI (Additional Work), or if any other conditions increase the cost of the Work to be performed under this Consent Order.
128. Respondent shall submit each cost estimate to EPA for review, pursuant to Section IX (EPA Approval of Deliverables).
129. Assurances of Financial Responsibility for Completing the Work. In order to secure the completion of the Work in accordance with this AOC, Respondent shall establish financial assurance in the form of a trust fund administered by a trustee who has the authority to act as a trustee under federal or state law and whose trust operations are regulated and examined by a U.S. federal or state agency and that is acceptable in all respects to the EPA. The trust agreement shall provide that the trustee shall make payments from the fund only for the costs of performing the Work required under this AOC, and only after EPA has advised the trustee that the Work has been performed in accordance with the requirements of the approved Work Plans. The trust agreement shall further provide that the trustee shall not refund to the grantor any amounts from the fund unless and until EPA has advised the trustee that the Work under this AOC has been successfully completed.
130. Respondent shall submit a draft trust agreement to EPA for review pursuant to Section IX (EPA Approval of Deliverables) within 30 days after the Effective Date of this AOC, concurrently with Respondent's submission of the initial cost estimate required by Paragraph 125. The trust agreement shall be in form and substance satisfactory to EPA, determined in EPA's sole discretion.
131. Within 30 days after EPA's approval of both the initial cost estimate and the draft trust agreement, whichever date is later, Respondent shall establish a trust fund in an amount at least equal to the initial cost estimate approved by EPA.

132. Respondent shall submit an original copy of the trust agreement to Chris Muehlberger, Assistant Regional Counsel, US EPA Region 7, 11201 Renner Boulevard, Lenexa, Kansas 66219.
133. Whenever the annually adjusted estimate for the cost of completing the remaining Work exceeds the amount of financial assurance already provided pursuant to this Section, Respondent shall, within 30 days thereafter, increase the amount of the trust fund to cover such cost increase. In addition, in the event that EPA determines at any time that the financial assurances provided pursuant to this AOC are inadequate (including, without limitation, the trust agreement or the trustee), Respondent shall, within 30 days after receipt of notice of EPA's determination, correct the inadequacy. Furthermore, if at any time EPA notifies Respondent that the anticipated cost of completing the Work has increased, then, within 30 days after receipt of such notification, Respondent shall increase the amount of the trust fund to cover such cost increase.
134. Respondent's inability to post financial assurance for completion of the Work shall in no way excuse performance of any other requirements of this AOC, including, without limitation, Respondent's obligation to complete the Work in strict accordance with the terms of this AOC.
135. Reduction of Amount of Financial Assurance. If Respondent believes that the estimated cost to complete the remaining Work has diminished below the amount covered by the existing financial assurance provided under this AOC, Respondent may, on any anniversary date of the Effective Date of this AOC, or at any other time agreed to by EPA and Respondent, submit a written proposal to EPA to reduce the amount of the financial assurance provided under this Section to the estimated cost of the remaining Work to be performed. The written proposal shall specify, at a minimum, the cost of the remaining Work to be performed and the basis upon which such cost was calculated. The decision whether to approve a proposal to reduce the amount of financial assurance shall be within EPA's sole discretion and EPA shall notify Respondent of its decision regarding such a proposal in writing. Respondent may reduce the amount of the financial assurance only after receiving EPA's written decision and only in accordance with and to the extent permitted by such written decision. In the event of a dispute, Respondent may reduce the amount of the financial assurance required by this Section only in accordance with a final administrative decision resolving such dispute under Section XVII (Dispute Resolution) of this AOC.
136. Release of Financial Assurance. Respondent may submit a written request to the Director, Air and Waste Management Division, EPA Region 7, that EPA release Respondent from the requirement to maintain financial assurance under this Section at such time as EPA has provided written notice, pursuant to Section XXVII (Termination and Satisfaction) that Respondent has demonstrated that all the terms of this Order have been addressed to the satisfaction of EPA. The Director, Air and Waste Management Division, shall notify both Respondent and the Trustee in writing that Respondent is released from all financial assurance obligations under this AOC.

XXIV. INDEMNIFICATION

137. Respondent agrees to indemnify, save and hold harmless the United States, its officials, agents, contractors, employees, and representatives from any and all claims or causes of action: (a) arising from, or on account of, acts or omissions of Respondent, Respondent's directors, officers, employees, agents, successors, assigns, heirs, trustees, receivers, contractors, or consultants in carrying out actions pursuant to this AOC; and (b) for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Respondent and any persons for performance of the Work on or relating to the Site, including claims on account of construction delays. In addition, Respondent agrees to pay the United States all costs incurred by the United States, including litigation costs arising from or on account of claims made against the United States based on any of the acts or omissions referred to in the preceding sentence.

XXV. MODIFICATION OF THIS AOC

138. Except for Modification of the Work Plan as provided in Section X, this AOC may only be modified by the mutual agreement of EPA and Respondent. Any agreed modifications shall: be in writing; be signed by both parties; have as their effective date the date on which they are signed by EPA; and be incorporated into this AOC.
139. No informal advice, guidance, suggestion, or comment by EPA regarding reports, plans, specifications, schedules, or any other writing submitted by Respondent shall relieve Respondent of its obligation to obtain such formal approval as may be required by this AOC, and to comply with all requirements of this AOC unless it is formally modified. Any deliverables, plans, technical memoranda, reports, specifications, schedules and attachments required by this AOC are, upon approval by EPA, incorporated into and enforceable under this AOC.

XXVI. ADDITIONAL WORK

140. The EPA may determine or Respondent may propose that certain tasks are necessary in addition to or in lieu of the tasks included in any EPA-approved Work Plan when such additional work is necessary to meet the objectives set forth in Section I (Introduction). The EPA may determine that Respondent shall perform any additional work and EPA will specify, in writing, the basis for its determination that any additional work is necessary. Within five days after the receipt of such determination, Respondent shall have the opportunity to meet or confer with EPA to discuss any additional work. Respondent shall submit for EPA approval a Work Plan for any additional work. Such Work Plan shall be submitted within 10 days of Respondent's receipt of EPA's determination that any additional work is necessary, or according to an alternative schedule established by EPA. Upon approval of a Work Plan for any additional work, Respondent shall implement the Work Plan for any additional work in accordance with the schedule and provisions contained therein. The Work Plan for any additional work shall be incorporated by reference into this AOC.

XXVII. TERMINATION AND SATISFACTION

141. The provisions of this AOC shall be deemed terminated and satisfied by Respondent upon written notice from EPA that Respondent has demonstrated that all of the terms of this AOC, including any additional work as may be performed pursuant to Section XXVI (Additional Work) and any stipulated penalties demanded by EPA under Section XVIII (Penalties), have been addressed to the satisfaction of EPA. Termination of this AOC shall not terminate Respondent's obligation to comply with: Sections XIV (Sampling, Access and Data Availability); XVI (Record Retention); XX (Reservation of Rights); and XXIV (Indemnification) of this AOC, and to maintain institutional and engineering controls.

XXVIII. PUBLIC COMMENT ON THIS AOC

142. The EPA shall provide public notice, opportunity for a public meeting and a reasonable opportunity for public comment on the proposed settlement. After consideration of any comments submitted during a public comment period of not less than 30 days (which EPA may extend), EPA may withhold consent or seek to amend all or part of this AOC if EPA determines that comments received disclose facts or considerations which indicate that this AOC is inappropriate, improper, or inadequate.

XXIX. SEVERABILITY

143. If a court issues an order that invalidates any provision of this AOC or finds that Respondent has sufficient cause not to comply with one or more provisions of this AOC, Respondent shall remain bound to comply with all provisions of this AOC not invalidated or determined to be subject to a sufficient cause defense by the court's order.

XXX. WAIVER

144. Respondent waives any and all claims for relief and otherwise available rights or remedies to judicial or administrative review which Respondent may have with respect to any issue of fact or law set forth in this Order on Consent, including, but not limited to, any right of judicial review of the RCRA § 7003 Compliance Order on Consent under the Administrative Procedure Act, 5 U.S.C. §§ 701-708.

XXXI. EFFECTIVE DATE

145. This AOC shall be effective when EPA signs this AOC after the public comment period as specified in Section XXVIII (Public Comment on This AOC) above. Within two business days of signing this AOC, EPA will provide Respondent with a copy of the signature page of this AOC signed by the Director of the Air and Waste Management Division. The undersigned representative of Respondent certifies that it is fully authorized to enter into the terms and conditions of this AOC and to bind the party it represents to this document. Respondent agrees not to contest the validity or terms of this AOC, or the procedures underlying or relating to it in any action brought by the United States, including EPA, to enforce its terms or seek penalties for its violation. Respondent retains its right to assert claims against any third parties with respect to this Site.

Agreed this 23 day of 05, 2014

By: Darrell S. Coleman
Signature

Print Name: DARRELL S. COLEMAN

Title: PRESIDENT

Company Address: P.O. Box 202

FRSTON, MD. 20728

It is so ORDERED and Agreed this 21 day of MAY, 2014. By:

Becky Weber

Becky Weber
Director
Air and Waste Management Division

Date: 5/27/14

EFFECTIVE DATE: 5.27.14