

US EPA ARCHIVE DOCUMENT



SCI ENGINEERING, INC.

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Short-Term Work Plan

**ROTARY DRILLING SUPPLY SITE
CRYSTAL CITY, MISSOURI**

**December 12, 2014
Revised January 13, 2015**

Owner:

ROTARY DRILLING SUPPLY, INC

Prepared for:

ROTARY DRILLING SUPPLY, INC.

SCI No. 2014-5129.20



SCI ENGINEERING, INC.

CONSULTANTS IN DEVELOPMENT,
DESIGN AND CONSTRUCTION
GEOTECHNICAL
ENVIRONMENTAL
NATURAL RESOURCES
CULTURAL RESOURCES
CONSTRUCTION SERVICES

January 13, 2015

Mr. Darriel F. Coleman
Rotary Drilling Supply, Inc.
1150 Truman Boulevard
PO Box 302
Crystal City, Missouri 63019

RE: Short Term Work Plan
Rotary Drilling Supply Site
Crystal City, Missouri
SCI No. 2014-5129.20

Dear Mr. Coleman:

SCI Engineering, Inc. (SCI) has completed the Short-Term Work Plan (STWP) at the above-referenced site. The plan was prepared as a requirement of the U.S. Environmental Protection Agency's (EPA) Administrative Order of Consent (AOC) RCRA-07-2012-0028. The plan is intended to describe temporary erosion and sediment control measures for stormwater runoff from the site and to minimize further potential discharges of coal combustion residue (CCR) from the site to adjacent surface waters. This short-term work plan is intended for implementation prior to the approval and implementation of the Long-Term Work Plan (LTWP) required by the AOC. The LTWP will be submitted under separate cover.

SCI appreciates being of service to you on this project. Please contact us if you have any questions or comments regarding this report. We can be reached at (636) 949-8200.

Respectfully,

SCI ENGINEERING, INC.

James O. Kron, CESSWI
Project Scientist

Scott D. Harding, CPSS/SC
Vice President

JOK/SDH

Enclosure

C: Ms. Nicole Moran, U.S. Environmental Protection Agency

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Stormwater Pollution Prevention Plan

SHORT TERM WORK PLAN - ROTARY DRILLING SUPPLY SITE CRYSTAL CITY, MISSOURI

1.0 SITE DESCRIPTION

Owner/Permittee: Mr. Darriel F. Coleman
Rotary Drilling Supply, Inc.
1150 Truman Boulevard
PO Box 302
Crystal City, Missouri 63019

Contractor/Contact: Goodwin Brothers Construction Company
c/o Mr. Larry Goodwin
1766 Highway 67 South
PO Box 110
Crystal City, Missouri 63019

STWP Prepared by: James O. Kron, CESSWI
SCI Engineering, Inc.
650 Pierce Boulevard
O'Fallon, Illinois 62269

General Location

The approximately 12-acre project site is located at 1150 South Truman Boulevard in Crystal City, Missouri. The property is currently the business location for Rotary Drilling Supply, Inc. (Rotary Drilling) which contains a large fill pad and one structure. A portion of the site was previously filled over the last 10-plus years with coal combustion residue (CCR) and other fill material to create the grades present at the time of the preparation of this Short-Term Work Plan (STWP). SCI understands that this STWP will be replaced by a Long-Term Work Plan (LTWP), once approved by United States Environmental Protection Agency (EPA), which will include long-term slope stabilization, cap implementation and maintenance, creek channel realignment or piping, and long-term surface water monitoring. A Vicinity Map is included as Figure 1.

Nature of Activity

The STWP is a requirement of the Administrative Order on Consent (AOC) to provide temporary controls which will help to reduce CCR stormwater runoff from the site. The STWP includes the temporary slope stabilization of slopes, runoff velocity dissipation, and the installation of perimeter controls to reduce runoff and minimize CCR discharge through sedimentation, as per the AOC from the EPA.

Total Project Acreage:	Approximately 12 acres
Total Disturbed Acreage:	Approximately 12 acres
Percentage impervious area before construction:	<u>0%</u>
Runoff coefficient before construction:	<u>0.30</u>
Percentage impervious area after construction:	<u>0</u>
Runoff coefficient after construction:	<u>approximately 0.30</u>

Site Plan

The Site Map Overview is included as Figure 2 and depicts the general layout and topography of the site. The Site Plan is included as Figure 3 and depicts the general site drainage patterns and slopes as well as the Best Management Practices (BMPs) proposed for implementation.

Soils

The project site has been used as a fill site over the last 10-plus years. SCI is currently conducting a geotechnical investigation to further evaluate subsurface conditions on the site. The findings of that investigation will be incorporated into the LTWP.

2.0 PROTECTION OF UNITED STATES REGULATED WATERWAYS

The STWP is not expected to impact any jurisdictional Waters of the U.S. Previous impacts to Waters of the U.S. were identified in the AOC and mitigation agreements have been reached. Further impacts associated with the relocation or piping of approximately 500 linear feet of the adjacent tributary will be covered by a U. S. Army Corps of Engineers (USACE) Section 404 permit and a Section 401 Water Quality Certification. Further details regarding the relocation or piping of this adjacent tributary will be included in the LTWP.

3.0 SEQUENCE OF MAJOR ACTIVITIES AND IMPLEMENTATION OF BMPS

Anticipated Project Start Date:	<u>TBD</u>
Projected Completion Date:	<u>To be completed 120 working days from start date</u>

Table 3.1 – Short-Term Work Plan Activities and Implementation Dates

Activity	Control Measures Taken	Activity Started	Activity Completed
*BMP Installations	Construction entrance	2 weeks after final approval of STWP	Complete in 4 working days
	Perimeter Control	3 days after construction entrance is completed	Complete in 5-6 working days
	Temporary seeding and mulching	2 days after perimeter control is completed	Complete in 4 working days
	Slope protection	Occur concurrently with temporary seeding and mulching for 6-8 days	Maintain until implementation of the Long-Term Work Plan

*all installation dates are weather dependent

4.0 BMPS

To ensure that the subject site does not promote erosion, off-site sedimentation, or drainage problems, BMPs are to be implemented during construction. The Jefferson County Typical BMP Details document is included in Appendix A and gives details of particular BMPs. The BMPs that have been chosen for this site include a construction entrance (TC-1), perimeter controls (SC-8), temporary seeding and mulching and slope protection (SC-8). These devices should be placed as illustrated on the Site Plan, Figure 3. The project will be implemented in phases, beginning with the establishment of a stabilized construction entrance followed by installation of perimeter controls, temporary seeding and mulching, and slope protection. The devices should remain in place until approval and implementation of the LTWP.

4.1 Minimization of Disturbed Areas

Minimizing the amount of disturbance on the project site is the initial step in preventing erosion and sedimentation. Natural areas are to be protected and existing vegetation and soil conditions maintained.

4.2 Construction Access

A stabilized construction entrance road should be provided to help reduce vehicle tracking of sediments. The entrance should be stabilized with quarry spalls and/or 2-inch minus crushed rock to prevent tracking. As the project area is stabilized, the construction entrance is to be removed and stabilized as well.

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4.3 Perimeter and Slope Controls

Perimeter controls, mid slope protection, and slope protection, such as silt fence or mulch socks/fiber rolls, should be used as shown in Figure 3 to slow runoff so that deposition of transported sediment and CCR can occur. The topography of the site is nearly level for the majority of the project and extremely sloping along the northern, eastern, and southern perimeter of the project area; therefore, perimeter and slope controls in combination can provide barrier to minimize, hold and collect CCR runoff, minimizing CCR runoff from entering critical areas or leaving the site.

Temporary slope controls should be placed at the top of the slopes as shown in Figure 2. Slope controls are generally constructed of fiber rolls or wattles and are installed on erodible slopes as both erosion and sediment controls. These slope controls are intended to intercept runoff, reduce flow velocities, remove sediment from runoff and reduce soil erosion. These controls may be constructed of photodegradable/biodegradable materials since they may become difficult to remove once saturated. The temporary BMPs composed of photodegradable/biodegradable materials can be spread and reincorporated onsite once temporary stabilization is finished.

All sediment caught by perimeter controls should be removed once the CCR/sediment reaches one third the height of the fence. The material removed from the control measure structures should be incorporated into the surrounding areas. At no location is the CCR/sediment to be piled up at a single point unless additional stockpile control measures are installed. Any disturbed CCR must remain onsite and be reincorporated into existing CCR areas.

4.4 Temporary/Interim Stabilization/Erosion Control

The slopes along the north, east and southern boundaries should be temporarily stabilized with seed and mulch. Seeding should consist of a quick-germinating cold-weather grass such as winter wheat and applied at a rate of 200 lbs/acre. Based on the grade, application of a tackifier is recommended prior to mulch application for additional durability and adherence to the slope surface during runoff events. If seeding or another vegetative erosion control method is used, it should become established within two weeks or the site should be re-seeded. No significant grading or excavation should be performed as part of the STWP.

4.5 Dust Control

Control measures designed to reduce the transport of dust, thereby preventing pollutants from infiltrating into stormwater should be implemented. One or more of the following BMPs should be used to control dust on the project site: vegetative cover, minimization of soil disturbance and water sprays.

5.0 CONSTRUCTION WASTE DISPOSAL

All potential pollutants other than sediment should be handled and disposed of in a manner that does not cause contamination of stormwater. These materials, and other materials used during construction with the potential to impact stormwater, should be stored, managed, used, and disposed of in a manner that minimizes the potential for releases to the environment and especially into storm water.

- **Solvents** – Solvents used during plumbing and painting activities should be removed from the site and properly disposed by the contractors.
- **Stain & Paints** – Paints and stains may be stored in the structure and waste stain and paint should be disposed of by the contractors.
- **Fuels** – Secondary containment should be provided for tanks to contain leaks and spills. Construction equipment should be maintained to prevent leakage from vehicles.
- **Oils** – Secondary containment should be provided for tanks to contain leaks and spills. Construction equipment should be maintained to prevent leakage from vehicles.
- **Grease** – Contractors should remove waste from site.
- **Pesticides** – Pesticides should be used according to the manufacturer labeled instructions, and should not be applied just before a rain event. Excess pesticides should be removed from the site once application is complete.
- **Fertilizer/Lime** – Fertilizer and lime, if used, should not be applied just before a rain event, and should not be stored on site for any length of time.
- **Trash** – Trash should be properly contained on site and removed frequently for disposal.
- **Concrete Wash Water** – Wash water from concrete trucks should be washed out behind curb or at designated sites.
- **Soil Stabilization Material** – If used, it should be contained on the site and not applied just before a rain event.
- **Spill Prevention and Control Plan** - the spill prevention and control plan to include ways to reduce the chance of spills, stop the source of spills, contain and clean up spills, dispose of materials contaminated by spills, and train personnel responsible for spill prevention and control.

- **Sanitary Waste** – All sanitary waste should be collected from the portable units by a licensed sanitary waste management contractor as required by local regulations. Any spillage that may occur should be properly disposed.

6.0 MAINTENANCE AND INSPECTION

All erosion and sediment control devices should be properly maintained at all times and inspected on a regular basis. Key areas to inspect include: construction entrance, perimeter controls, and slope protection and potential drainages to surrounding regulated waterways. During the period after implementation of this STWP and prior to approval and implementation of the long-term work plan, the site is to be inspected at least once every month and within 48 hours of the end a storm event with rainfall greater than ½ inch. All damaged erosion and sediment control devices are to be repaired and/or replaced as soon as possible but not exceeding seven days of the inspection.

Personnel selected for the inspection and maintenance responsibilities should be qualified and trained in all practices necessary for keeping erosion and sediment controls in good working order. It is the responsibility of the inspector to determine if a control measure is not functioning properly. If it becomes necessary to alter the control measure being used, the inspector will write up an inspection and maintenance form for the new measure and include them as addendums to this report. Updates or changes to the STWP will also be documented on the site plan by the inspector and/or site supervisor.

7.0 SUMMARY

Sediment and erosion control measures should include, but are not limited to those shown on the site plans. Additional measures should be used where deemed necessary by the governing agencies, site supervisor, and/or inspector. Site maintenance and inspection reports should be available on site. The STWP and inspection reports should also be kept on file for a period of three years following termination of regulatory requirements.

The Permittee shall provide a copy of this STWP to the EPA, or any local agency or government representative requesting a copy while performing their official duties. The Permittee shall provide a copy of this STWP to those who are responsible for installation, operation, or maintenance of any BMP. The Permittee, their representative, and/or contractors responsible for the installation, operation, and maintenance of the BMPs should have a current copy of the STWP on the project site.

8.0 LIMITATIONS

SCI provides no guarantee that the provided recommendations and/or observations will prevent erosion or provide complete stability within the site. Unstabilized soil, either natural or man-made, is dynamic in nature, and will always have the capacity to erode. SCI's site recommendations and/or monthly and post-storm rain event inspections does not protect you from potential regulatory violations. The decision to issue or deny a work plan or other regulatory requirements, as well as to issue or not issue regulatory violations or stipulated penalties under the AOC is the sole authority of the EPA. Please be aware that the EPA has the right to perform inspections of your construction site at any time once regulatory requirements are issued.