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Introduction

This Work Plan (Plan) was developed to comply with section VII.13(b) of the Administrative Order on Consent (Order) entered into by Martin County Coal Corp (MCCC) and the United States Environmental Protection Agency (EPA) under Docket No. CWA-, 04-01-1012. The Order was issued under section 309(a) of the Clean Water Act (CWA), 33 U.S.C. §§ 1251 et. seq. in response to a release of slurry from the 72-acre MCCC Big Branch Coal Refuse Impoundment (Impoundment) in Martin County, Kentucky (KY). The Order stipulates, in part, that MCCC is to: 1) remove Waste Materials that have been discharged into waters of the United States and associated watershed areas; 2) restore the impacted waters and watersheds; and 3) mitigate any temporary or permanent losses of waters of the United States. References to pertinent Order provisions appearing in this Work Plan are set forth in parentheses.

MCCC is a multi-seam surface and underground mining operation located at Latitude 37° 44' 40" and Longitude 82° 33' 34" in Martin County, Kentucky, near the headwaters of Wolf Creek and Coldwater Fork of Rockcastle Creek and approximately 7 miles south of the City of Inez. A portion of the mined coal is processed in a coal preparation plant by conventional heavy media methods and part is thermally dried before shipment. Process wastewater and fine refuse material, commonly referred to as slurry, historically have been stored in the Impoundment.

On Wednesday, October 11, 2000, the Impoundment experienced a sudden and unexpected breach, releasing millions of gallons of slurry into two adjacent surface water drainage bodies. The release eventually entered Wolf Creek, Coldwater Fork, Rockcastle Creek, Tug Fork River, and the Big Sandy River (Figure 1). MCCC responded to the incident and conducted intensive cleanup operations under the direction of a Unified Command (UC) composed of representatives from EPA Regions 3 and 4, United States Coast Guard, Federal Office of Surface Mining, United States Fish and Wildlife Service (USF&WS), United States Army Corps of Engi-

neers, other federal agencies, the KY Department of Fish and Wildlife, KY Division of Water, KY Emergency Response Team, KY Division of Surface Mining and Reclamation Enforcement, KY Division of Emergency Management, West Virginia (WV) Division of Environmental Protection, WV Division of Natural Resources, and Martin County Emergency Services. As of February 2001, slurry deposits have been removed from approximately 15 miles of streambed, banks, and floodplain areas along Coldwater Fork, Wolf Creek, and their tributaries. Cleanup operations are continuing on portions of Coldwater Fork and the lower Wolf Creek.

Anticipated activities in connection with the release include completion of removal activities on Wolf Creek, restoration of impacted areas in the Coldwater Fork and Wolf Creek watersheds, the assessment of any remaining deposits in Rockcastle Creek, Tug Fork, and the Big Sandy River, and other tasks as outlined in this Work Plan.

1.1 Project Objectives

The goal of the various activities outlined in the Order is to contain the additional release of waste materials, assess predesignated impacted areas, establish cleanup criteria and develop restoration and mitigation measures for implementation, as appropriate, for specific stream segments (Order, §VII.12(c)). This Work Plan defines the basic project framework.

The Work Plan divides the site into five distinct stream segments:

- Coldwater Fork-Includes Old Road Fork from where the slurry exited at the No. 2 North Mains Portal to its confluence with the Coldwater Fork and downstream to the Cam Weir (located upstream of Moore Branch) (Figure 2)
- Rockcastle Creek-Includes the portion of Coldwater Fork from the Cam Weir to the confluence with Rockcastle Creek and the remaining length of Rockcastle Creek to its confluence with Tug Fork (Figure 3).
- Wolf Creek-Includes the Big Andy Branch from where the slurry entered at the South Mains Branch Portal to its confluence with Panther Fork, Panther Fork's confluence with Wolf Creek, and downstream to Wolf Creek's confluence with the Tug Fork. This segment is further divided into the upper Wolf and lower Wolf. The demarcation between these two segments is the confluence with Carcass Branch (Figure 4)

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Slip Sheet Insert Figure 2 (8 ½ x 11)

Slip Sheet – Insert Figure 3 (8 ½ x 11) color



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- Tug Fork-Includes the segment of Tug Fork from the confluence of Wolf Creek to the beginning of the Big Sandy at the Fort Gay Lock and Dam (Figure 5).
- Big Sandy-Beginning at the Fort Gay Lock and Dam to the Big Sandy River's confluence with the Ohio River in Catlettburg, KY (Figure 6).

These areas, which are further defined in subsequent sections, have different characteristics that pose different potential risks and are likely to require different removal objectives. Project objectives will be defined on the basis of these five areas of investigation.

1.2 Organization of the Work Plan

This plan is designed to establish the framework for completing the assessment, removal, and restoration of watersheds of concern. This process will consist of six major activities: 1) initial evaluation of existing data; 2) completion of a Screening-level Ecological Risk Assessment (SERA) to establish cleanup criteria; 3) assessment and implementation of necessary removal activities as required to meet cleanup criteria; 4) implementation of restoration procedures; 5) restoration maintenance, monitoring, and compensatory mitigation; and 6) reporting. These activities are described in this Work Plan.

The following sections of this Work Plan are briefly summarized below:

- **Section 2: Site Description.** This section describes the general site location and the five main areas of investigation. Discussions on regional hydrology, local land use, sensitive and protected species, and ecological resources at potential risk are provided. The facility's operations and history of the release are also described.
- **Section 3: Regulatory Framework.** This section discusses Order requirements and the intention between MCCC and the various regulatory agencies overseeing the removal, restoration, and mitigation activities being implemented pursuant to the Order. A description of the roles and responsibilities of MCCC and some of the key regulatory agencies is also provided in this section
- **Section 4: Removal and Assessment Activities.** This section lists and briefly describes the removal actions conducted to



date, the ongoing removal and assessment activities that are currently underway, and a summary of data that has been gathered or is being assembled.

- **Section 5: Objectives and Criteria.** This section discusses the rationale for investigating the areas of concern and the preliminary removal action objectives relative to the preliminary evaluation criteria that have been developed to date.
- **Section 6: Assessment Implementation.** This section describes the general scope of the planned assessment activities, including the development of a Sampling Plan (SP), the implementation of planned field assessment activities, the evaluation of mobilization and deposition mechanisms, and the development of a Screening-level Ecological Risk Assessment (SERA).
- **Section 7: Restoration Procedures.** This section provides a description of the preliminary Stream/Floodplain Restoration Plan (SRP) submitted to the SACS Team in February 2001, the potential expansion of this plan to cover additional areas, and the procedures to be used for restoration, maintenance, and monitoring.
- **Section 8: Restoration, Maintenance, Monitoring, and Compensatory Mitigation.** This section provides an outline of restoration, maintenance, and monitoring programs, and outlines the compensatory mitigation program.
- **Section 9: Reporting.** This section describes the reports to be submitted for compliance with the Order as well as other anticipated documents needed to conduct the activities described in this Plan
- **Section 10: Project Management.** This section presents the project organization including personnel, and describes the schedule of activities.
- **Section 11: References.** This section contains the references used in the preparation of this Work Plan.



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The following documents to be provided by MCCC are under-development and will supplement this Work Plan:

- The Sampling Plan,
- The Screening-level Ecological Risk Assessment (SERA), and
- The Stream/Floodplain Restoration Plan (SRP).

Incorporated as Attachment A to this plan is the site-specific Health and Safety Plan.