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Exhibits

Exhibit 2725-6	Sedimentation Pond SP-006 Design/Construction Drawing
Exhibit 2725-6	Collection Ditch CD-4 Design/Construction Drawing
Exhibit 2729-3	Diversion D-3 Design/Construction Drawing

DESIGN CERTIFICATION

Sedimentation Pond SP-006
Collection Ditch CD-4
Diversion D-3

I, Corey J. Sadowsky, a Registered Professional Engineer in the State of Louisiana, do hereby certify that the following design plans and report were prepared by me or under my direct supervision and that the information presented is true and accurate to the best of my knowledge.

Corey J. Sadowsky, PE
Civil Engineer
North American Coal Corporation
Louisiana Registration # 38763

STATE OF LOUISIANA
COREY J. SADOWSKY
License No. 38763
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

9/28/2020

APPENDIX 2729-3

TECHNICAL REPORT

INTRODUCTION

Diversion D-3 is a temporary diversion needed to divert surface water around Sedimentation Pond SP-006 during its construction. It diverts an unnamed drainage tributary of Demery Creek back into itself once it is past Sedimentation Pond SP-006.

Peak Discharge Determination

This diversion has been designed to safely pass the peak discharge from a 10-year/6-hour precipitation event. In order to compute this discharge, the Soil Conservation Service's runoff curve number method was employed. The physical characteristics of the watershed include:

1. Watershed Area
   The watershed that will be controlled by this structure encompasses 169 acres and is delineated in Exhibit 2725-6.

2. Runoff Curve Number
   The runoff curve number was calculated with the assumption some disturbance occurs within the watershed boundary. The predominant hydrologic soil group at the mine is 'C'. A composite runoff number of 80 was used for this watershed. Refer to Appendix 2531-1 and Exhibit 2531-1 for further information on soil conditions.

3. Peak Discharge
   The rainfall amount for a 10-year/6-hour storm event in the vicinity of the structure is 5.25 inches. This equates to a peak discharge of 229.74 cubic feet per second as shown in the SEDCAD4 10-year/6-hour report.

Structure Configuration

The diversion, with an approximate length of 725 feet, will be constructed on the east side of the Sedimentation Pond SP-006 construction area. The diversion is proposed as temporary and will be consumed during mining. When most of diversion D-3 is consumed by mining, sedimentation pond SP-006 will be reconfigured, as approved by the office, and the portion of the diversion near the permit boundary will be reclaimed during this process. The diversion will be constructed with a trapezoidal shaped channel having a bottom width of 12 feet with 3(h):1(v) side slopes. The channel will be vegetated upon completion. The included SEDCAD4 report demonstrates that Diversion D-3 was designed to safely pass the peak discharge from a 10-year/6-hour storm event without excessive velocities while maintaining adequate freeboard. Details for Diversion D-3 are shown on Exhibit 2729-3.

Storm Water Pollution Prevention Plan

Diversion D-3 is located outside of the currently approved surface water control structures, but inside the approved permit boundary. Appropriate sediment control measures shall be constructed and maintained using best management practices (BMPs) to: 1. Prevent, to the extent possible, additional contributions of sediment to streamflow or to runoff outside the permit area; 2. Minimize erosion to the extent possible. Sediment control measures include practices carried out within and adjacent to the disturbed area and include, but are not limited to: 2a. Disturbing the smallest practicable area at any one time during the mining operation via contemporaneous reclamation; 2b. Stabilizing the backfill material to promote a reduction of runoff; 2c. Retaining sediment within disturbed areas; 2d. Diverting runoff away from disturbed areas; 2e. Diverting runoff using protected channels or pipes through disturbed areas; 2f. Using straw dikes, riprap, check dams, mulches, vegetative sediment filters, dugout ponds, or other measures that reduce overland flow velocity, reduce runoff volume, or trap sediment; 2g. Treating with chemicals. All slopes will be revegetated as soon as practical. These BMPs will be monitored on a regular basis and modified as needed to ensure proper function. Based on the nature of construction, it is not anticipated that there will be any substantial impacts to water quality along this diversion.