



**SPURLOCK STATION LANDFILL
PHASE 3-B CELL CONSTRUCTION**

**CCR RULE – POST-CONSTRUCTION
RUN-ON & RUN-OFF CONTROLS CERTIFICATION**



EAST KENTUCKY POWER COOPERATIVE

COAL COMBUSTION RESIDUAL RULE COMPLIANCE

REV. 0 (10/23/2018)

CERTIFICATION

EAST KENTUCKY POWER COOPERATIVE
SPURLOCK STATION LANDFILL – PHASE 3-B CELL CONSTRUCTION
CCR RULE – RUN-ON AND RUN-OFF CONTROLS CERTIFICATION

CERTIFICATION

I hereby certify, as a Professional Engineer in the Commonwealth of Kentucky, that the constructed Phase 3-B CCR waste cell at East Kentucky Power Cooperative's Spurlock Station Landfill has been constructed to meet the project plans and specifications and subsequently the requirements of 40 CFR 257.81 (Run-on and run-off controls for CCR landfills.) The information in this document was assembled under my direct supervisory control. This report is not intended or represented to be suitable for reuse by East Kentucky Power Cooperative or others without specific verification or adaptation by the Engineer.



S. Tim Oakes, P.E. [21,483] - Kenvirons, Inc.

Date: 10/23/18



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1.0 INTRODUCTION

On April 17, 2015, the Environmental Protection Agency (EPA) issued the final version of the federal Coal Combustion Residual Rule (CCR Rule) to regulate the disposal of coal combustion residual (CCR) materials generated at coal-fired units. The rule will be administered as part of the Resource Conservation and Recovery Act [RCRA, 42 United States Code (U.S.C.) §6901 et seq.], under Subtitle D.

East Kentucky Power Cooperative (EKPC) is subject to the CCR Rule and as such will demonstrate compliance with 40 Code of Federal Regulations (CFR) §257.81. This document serves as EKPC's verification that Phase 3-B lateral expansion was constructed in accordance with the run-on and run-off controls criteria as set forth by 40 CFR 257.81. The Phase 3-B lateral cell expansion was designed by AECOM and the CQA for cell construction was certified by Kenvirons, Inc. A Record drawing displaying the surface water controls related to Phase 3-B waste cell can be found in Appendix 1.

TABLE 1-1 RUN-ON AND RUN-OFF CONTROLS CERTIFICATION SUMMARY

CONSTRUCTION CRITERIA			
Unit: Phase 3-B Cell Construction			
DESCRIPTION	CCR RULE COMPLIANCE		
	YES	NO	REPORT REFERENCE
Run-On Controls	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Section 2.0
Run-Off Controls	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Section 3.0

2.0 RUN-ON CONTROLS

Storm water diversion structures were constructed as part of Phase 3-B cell project to divert run-on from intercepting the active cell area. A combination of geomembrane lined ditches and berms parallel the waste limits of Phase 3-B to divert storm water to an existing sediment basin (Pond 1) to the southeast. Diversion controls that aide in minimizing stormwater generation within the Phase 3-B cell limits include intermediate geosynthetic rain gutters. Stormwater run-off is effectively diverted through the installed rain gutters to flow excess stormwater out of the cell and into the perimeter ditches prior to contact with CCR wastes that will be placed below the gutters. The gutters aide in minimizing leachate generation and help control CCR sediment migration. All lined ditches and berms were constructed to meet the project plans and specifications which are based on water flows generated by a minimum 25-year/24-hour storm event.

3.0 RUN-OFF CONTROLS

The constructed geomembrane lined perimeter ditches and berms will convey stormwater run-off to an existing sediment basin (Pond 1) to the southeast. All lined ditches and berms were constructed to meet the project plans and specifications which are based on water flows generated by a minimum 25-year/24-hour storm event.

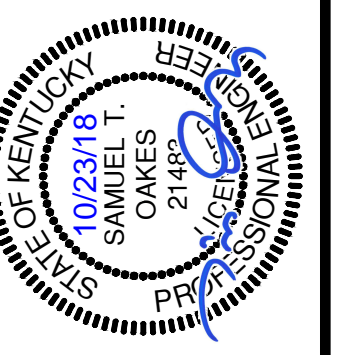
4.0 REPORT LIMITATIONS

This report is based on data collected and observations made during construction that could be visually seen. Review of design documents and survey information provided by EKPC as well as CQA work performed by Kenvirons based on AECOM's design of Phase 3-B lateral expansion. This run-on and run-off controls certification is based on Kenvirons' understanding of AECOM's design plans for the Phase 3-B lateral expansion and EKPC's plant operations, maintenance, storm water and CCR handling procedures for the newly constructed lateral expansion. Changes in any of these operations or procedures may result in deviation from the intended design and operation of Phase 3-B storm water controls.

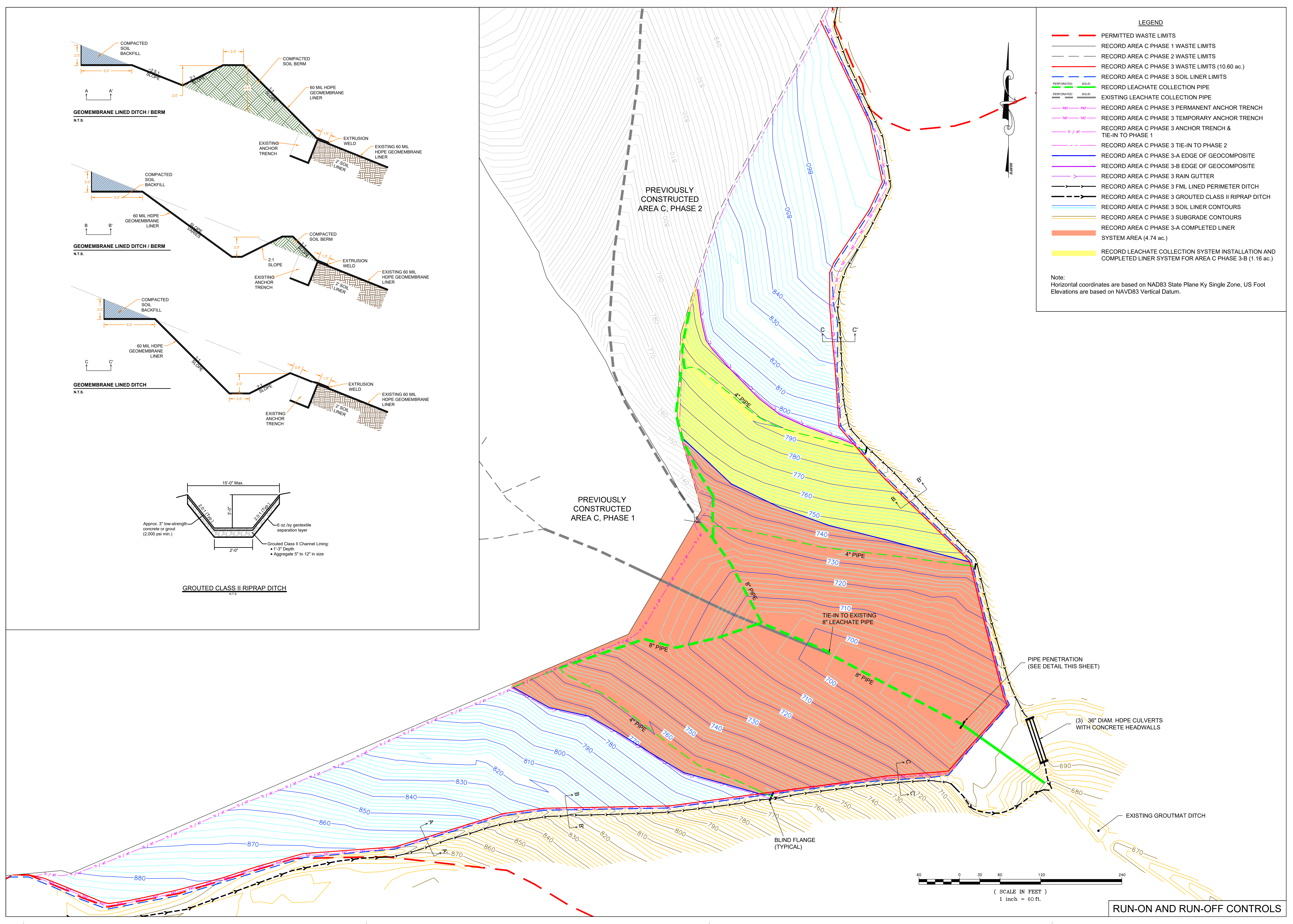
The run-on and run-off controls certification is based on established engineering principles and provided in a manner consistent with the level of care and skill ordinarily exercised by the engineering consultants under similar circumstances. No other representation is intended.

ATTACHMENT 2

RECORD DRAWING



DRAWN BY: IDL	CHECKED BY: SMR
DATE: JANUARY 2017	SCALE: 1" = 60'
REVISIONS	



LEGEND

- PERMITTED WASTE LIMITS
- RECORD AREA C PHASE 1 WASTE LIMITS
- RECORD AREA C PHASE 2 WASTE LIMITS
- RECORD AREA C PHASE 3 WASTE LIMITS (10.60 ac.)
- RECORD AREA C PHASE 3 SOIL LINER LIMITS
- RECORD LEACHATE COLLECTION PIPE
- EXISTING LEACHATE COLLECTION PIPE
- RECORD AREA C PHASE 3 PERMANENT ANCHOR TRENCH
- RECORD AREA C PHASE 3 TEMPORARY ANCHOR TRENCH
- RECORD AREA C PHASE 3 ANCHOR TRENCH & TIE-IN TO PHASE 1
- RECORD AREA C PHASE 3 TIE-IN TO PHASE 2
- RECORD AREA C PHASE 3-A EDGE OF GEOCOMPOSITE
- RECORD AREA C PHASE 3-B EDGE OF GEOCOMPOSITE
- RECORD AREA C PHASE 3 RAIN GUTTER
- RECORD AREA C PHASE 3 FML LINED PERIMETER DITCH
- RECORD AREA C PHASE 3 GROUTED CLASS II RIPRAP DITCH
- RECORD AREA C PHASE 3 SOIL LINER CONTOURS
- RECORD AREA C PHASE 3 SUBGRADE CONTOURS
- RECORD AREA C PHASE 3-A COMPLETED LINER SYSTEM AREA (4.74 ac.)
- RECORD LEACHATE COLLECTION SYSTEM INSTALLATION AND COMPLETED LINER SYSTEM FOR AREA C PHASE 3-B (1.16 ac.)

Note:
Horizontal coordinates are based on NAD83 State Plane Ky Single Zone, US Foot
Elevations are based on NAVD83 Vertical Datum.

GEOMEMBRANE LINED DITCH / BERM
N.T.S.

GEOMEMBRANE LINED DITCH / BERM
N.T.S.

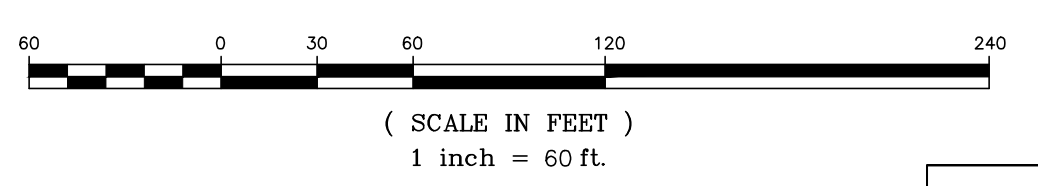
GEOMEMBRANE LINED DITCH
N.T.S.

GROUTED CLASS II RIPRAP DITCH
N.T.S.

Approx. 3" low-strength concrete or grout (2,000 psi min.)

6 oz./sq. geotextile separation layer

Grouted Class II Channel Lining:
• 1'-3" Depth
• Aggregate 5" to 12" in size



RUN-ON AND RUN-OFF CONTROLS