



Illinois Power Resources Generating, LLC
Luminant
1500 Eastport Plaza Drive
Collinsville, IL 62234

February 11, 2022

Mr. Darin LeCrone, P.E.
Manager, Industrial Unit
Bureau of Water, Division of Water Pollution Control, Permits Section
Illinois Environmental Protection Agency
1021 North Grand Avenue, East
Springfield, IL 62794-9276

Re: Revised Cost Estimate for Closure, Post-Closure, and Preliminary Corrective Action at the Duck Creek Power Plant
Ash Pond No. 1 (W0578010001-01); Ash Pond No. 2 (W0578010001-02); Bottom Ash Basin (WW0578010001-03);
GMF Pond (W0578010001-04)

Dear Mr. LeCrone:

Pursuant to 35 I.A.C. 845.940, Illinois Power Resources Generating, LLC submits this written cost estimate for (1) closure and post-closure care and (2) the preliminary corrective action costs for the Bottom Ash Basin and GMF Pond at the Duck Creek Power Plant. IPRG is providing the estimated "total cost for closure and post-closure care" under Part 845 along with a preliminary corrective cost estimate "that is equal to 25% of the costs" for closure and post-closure care. 35 I.A.C. 845.930(b), (c). This cost estimate takes into account the proposed closure method as reflected in the construction permit application submitted to IEPA on January 31, 2022.

Taking into account the requirements of 35 I.A.C. 845.930(b)—including the use of "prevailing wages" (845.930(b)(3)); the exclusion of any zero costs for CCR that might have an economic value (845.930(b)(5)); and the exclusion of any salvage value of the facility, structures, or equipment (845.930(b)(4))—IPRG estimates that the costs for closure and post-closure care at its existing CCR surface impoundments at Duck Creek are \$14,915,336 for the Bottom Ash Basin and for the GMF Pond. The requirements of Part 845 result in the cost estimates overstating the actual expected future costs. Thus, this is not a reasonably probable cost that is reasonably estimable at this time.

In accordance with 35 I.A.C. 845.930(c)(1), IPRG's preliminary corrective action cost is \$3,583,022 for the GMF Pond. The Bottom Ash Basin does not have a release that has caused an exceedance of the groundwater protection standard in Section 845.600 or groundwater quality standard in 35 Ill. Adm. Code 620. For the closed inactive CCR surface impoundments at Duck Creek, IPRG's preliminary corrective action cost estimate is \$2,786,208 for Ash Pond No. 1 and for Ash Pond No. 2.

The closure and post-closure estimates for the existing CCR surface impoundments were developed to comply with Part 845 and derived based on the construction process and items detailed below.

A professional engineering firm has been retained to complete the Bottom Ash Basin and GMF Pond closure design and preparation of the construction bid documents, and those designs are reflected in the construction permit application

submitted to IEPA on January 31, 2022. A contractor will be selected to complete the closure and final cover construction. Construction management ("CM") and construction quality assurance ("CQA") will be performed during Bottom Ash Basin and GMF Pond closure by qualified CM and CQA companies/engineering firms.

The Bottom Ash Basin is empty of coal combustion residuals ("CCR") and will be dewatered as necessary to facilitate closure by removing the concrete basin structures, compacted clay, and the geomembrane components of the liner system. The materials removed will be hauled by truck to the existing permitted on-site landfill and disposed. Water removed from the Bottom Ash Basin will be discharged through the NPDES-permitted outfall. Dewatering will be performed to the extent needed to allow the removal of the Bottom Ash Basin. The Bottom Ash Basin structures removal will be initiated upon the mobilization of the construction contractor, and area will be restored by regrading and with the placement of soil fill materials as needed.

A series of trenches or other engineering measures will be used to remove liquid waste from the GMF Pond to facilitate closure by leaving the CCR in place. Water removed from the GMF Pond will be discharged through the NPDES-permitted outfall. The removal of free liquids will result in the stabilization of the remaining CCR to provide a stable subgrade base for the final cover system.

The CCR in the GMF Pond will be shaped and graded to the design subgrade limits and elevations. The geomembrane and geocomposite final cover system will be constructed directly on top of the subgrade layer to achieve final cover design grades. The final cover system construction will be initiated upon the mobilization of the construction contractor to the GMF Pond. The existing GMF Pond and necessary surrounding areas will be cleared of vegetation and structures (removal or abandonment) to allow for the construction of the CCR subgrade.

In accordance with 40 C.F.R. Part 257 and the process in 35 I.A.C. 845.750(c) that allows IEPA to approve an alternative geocomposite final cover, the GMF Pond final cover will include, at a minimum, a geomembrane, a geocomposite drainage layer, 18 inches of earthen material and 6 inches of soil capable of sustaining vegetative growth. The permeability of the final cover system will be equal to or less than the permeability of the existing liner system in the GMF Pond or no greater than 1×10^{-7} cm/sec, whichever is less. Since the existing liner system in the GMF Pond includes a geomembrane, a geomembrane will be included in the final cover system.

The former Bottom Ash Basin area and the GMF Pond final cover surfaces will be seeded and vegetated. The GMF Pond final cover system will include necessary storm water management system components to promote positive drainage and to minimize erosion. Access roads will be constructed as part of the GMF Pond final cover system to provide access to the closed GMF Pond. Upon completion of the Bottom Ash Basin and GMF Pond closure construction, the contractor will demobilize from the project site.

Post-closure care for the GMF Pond will be performed for the duration of the specified post-closure care timeframe. As required under 35 I.A.C. 845.740(b), groundwater monitoring will continue for the Bottom Ash Basin. Groundwater monitoring will be performed at the required frequency, and the groundwater monitoring system will be inspected and maintained on a routine basis. Throughout the post-closure care period, periodic visual observations of the GMF Pond final cover system and stormwater management system will be performed. If repairs are required, the repair activities may include, but are not limited to, replacing and compacting soil cover, repairing eroded drainage channels, filling in depressions with soil, regrading, and reseeding repaired and existing vegetated areas as necessary.

The scope of any groundwater corrective action is not known at this time, and therefore the preliminary corrective action cost estimate for the existing CCR surface impoundments is based on 25% of the revised closure and post-closure care cost. For the closed inactive CCR surface impoundments, the preliminary corrective action cost estimate is based on 25% of the post-closure care cost.

If you have any questions regarding this submittal, please contact Phil Morris at 618-343-7794 or phil.morris@vistracorp.com.

Sincerely,

A handwritten signature in blue ink, reading "Dianna Tickner". The signature is fluid and cursive, with the first name "Dianna" and last name "Tickner" clearly distinguishable.

Dianna Tickner
Director Decommissioning & Demolition