

*clarifies what specifically was found lacking in the initial schedule.*

- A certification by a professional engineer that the Final Closure Plan meets the requirements of Section 845.720(b) must be provided in accordance with Section 845.720(b)(5).

Response

*See Attachment 9 of the February 1, 2022 Closure Construction Permit application for the Lakeside Ash Pond and Dallman Ash Pond. CWLP believes this certification meets the requirements of 35 Ill Adm. Code 845.720. However, a separate certification can be prepared if needed.*

**2.5 Closure Alternatives Analysis and Corrective Action [35 Ill. Adm. Code 845.220(d)(2) and 845.220(c)]**

The closure alternatives analysis must be revised to include the following:

- 2.5.1** The permit application does not discuss the long-term risks of closure with a final cover. The long-term risks of the Dallman Ash Pond and the Lakeside Ash Pond being in the FEMA flood zone, possibility of dam failure, and any other potential events that could cause a release of the CCR to the Spring Creek or other environmental release must be delineated. Additionally, because it is known that the CCR at the Dallman Ash Pond and the Lakeside Ash Pond are partially submerged in groundwater, an investigation, discussion and propose mitigation measures for the groundwater with the closure with a final cover must be provided.

Response

*The current FEMA flood zone map is inaccurate. The flood zone highlighted by FEMA is based on topographic contours from a USGS quadrangle map from 1965, which did not show the Lakeside impoundment that existed at that time. The Dallman Ash Pond was not shown as it had not been constructed yet. However, the FEMA floodplain elevations were based on the old topographic information.*

*FEMA identifies the 100-year floodplain at the Dallman Ash Pond as elevation 545 feet above mean sea level (msl). The berm elevation at the northwest corner of the Dallman Ash Pond (lowest point) is approximately 553 feet above msl. The perimeter berm elevations around the impoundments increase to the south by approximately 10 feet to transition to the top of dam/bridge elevation. Therefore, there is no chance the structures will be inundated by floodwaters from the Sugar Creek floodplain during a 100-year storm event.*

*The impacts of the FEMA flood zone on the foundation and construction of the current CCR surface impoundments was presented in the February 1, 2022 Closure Construction Permit Application. However, further hydrogeologic characterization was completed in April/May of 2024 which included the boring and installation of additional wells at locations opposite the CCR surface impoundments, across Sugar Creek, a deep bedrock boring located along the northern edge of Dallman Ash Pond and the boring and installation of 4 leachate wells in each of the CCR surface impoundments. Information from these investigations was used to augment in the revised Hydrogeologic Report, Groundwater Monitoring Program and Statistical Procedures included as Appendix C of Attachment A.*

Log No. 2021-100001  
Operating and Construction Permit Applications  
CWLP Lakeside and Dallman Ash Ponds

*Neither impoundment is partially submerged. Since sluicing activities halted, water levels within the CCR at both impoundments have decreased. In addition, dewatering and material stabilization studies began in April 2024 and are expected to continue through 2025. Dewatering, in conjunction with material stabilization and grading and ultimately placement of the final cover system will reduce water levels within the impoundments.*

*The submitted contaminant transport modeling was based in part on the premise that pore water levels would decrease via gravity and that background concentrations or groundwater protection standards would be achieved. Inclusion of dewatering activities within the impoundments will shorten the time needed to achieve the background concentrations or groundwater protection standards.*

- 2.5.2** A survey of the extents of the Lakeside Ash Pond and Dallman Ash Pond and the data inputs that were utilized to create the final cover area estimates must be provided.

Response

*Available construction documentation of the Lakeside Ash Pond and Dallman Ash Pond were provided in the February 1, 2022 Closure Construction Permit Application. The extents of the Lakeside Ash Pond and Dallman Ash Pond were based on multiple surveys defining the extents of the perimeter berms for the impoundments. These include on-site surveys as well as aerial surveys. LiDAR surveys were conducted most recently in 2018 and 2023. The extent of the impoundments have not changed since construction of the berms. The final cover design was based on the October 15, 2018 LiDAR survey. Drawings containing that information were provided in the Plans and Specifications located in Attachment 8 to the Closure Construction Permit Application. Final design details will be based on actual field conditions at the time of construction.*

*CWLP has initiated dewatering and CCR stabilization studies which are anticipated to be completed in 2025.*

*As the final cover area is subject to change based on dewatering, material stabilization and material consolidation, final cover construction details will be provided in a Construction Certification Report which will be signed and sealed by a licensed professional engineer in the State of Illinois.*

*CWLP agrees that the submittal of final cover construction details should be a permit condition of an issued Closure Construction Permit.*

- 2.5.3** The permit application states multiple short-term risks that might be posed to a community or environment through closure by removal. The closure alternatives must accurately address how those short-term risks are mitigated in accordance with OSHA standards and other existing regulations.

Response

*35 Ill. Adm. Code 845.710(b) requires the applicant to examine the short term risk that might be posed to a community or the environment during a closure, including potential threats to human health and the environment associated with excavation, transportation and re-disposal of contaminants. The closure alternatives analysis accurately identified the short term risks*

*that might be posed as during closure by removal as required per regulation. CWLP disagrees that the closure alternatives analysis must address mitigation of short term risks to a community or environment with OSHA standards and requests clarification from Illinois EPA. OSHA standards set for the requirements for employers to protect employees from hazards. In general, protection of communities and environment during short term removal would incorporate best practices of tarping trucks, using wash pads to prevent tracking of materials onto roadways, etc.*

*The Closure Construction Permit application proposes closure by installation of a final cover system and not closure by removal. If closure by removal were to be required, CWLP agrees a Closure Construction Permit application would be required to address risk mitigation for employees, contractors and third party contractors as well as best practices for protection of communities and environment. Additionally, these factors would be addressed under the Safety and Health Plan as required per 35 Ill. Adm. Code 845.530.*

- 2.5.4** The permit application must address the groundwater contamination nature and extent and provide a framework for measures that will be taken to prevent it from leaving the property.

Response

*The nature, extent and measures taken to prevent migration of groundwater contamination are discussed in Section 3.2.1 of the Closure Alternatives Assessment and Assessment of Corrective Measures, Attachment 11 of the February 1, 2022 Closure Construction Permit application for the Lakeside Ash Pond and Dallman Ash Pond. Closure in place with a final cover system was the framework selected corrective action to prevent further releases to the environment. The corrective action selected is closure in place with a final cover system which will achieve compliance with groundwater protection standards..*

*The Hydrogeologic Report, Groundwater Monitoring Program and Statistical Procedures has been updated and is provided in Appendix C of Attachment A. This updated program is intended to replace to program proposed in the original operating permit application. The updated program provides recalculated background concentrations, the laboratory analytical reports, statistical method and discussions of the addition of groundwater monitoring wells on the periphery of the west and northern boundary of the impoundments.*

*CWLP is in the process of collecting additional groundwater data for total arsenic at a lower reporting limit. Groundwater analytical results for total arsenic prior to third quarter 2023 used a reporting limit above the groundwater protection standards listed in 35 Ill Adm. Code 845.600. To date, CWLP has collected four of the eight required samples to calculate background concentrations. Once the additional groundwater data is collected, CWLP will provide an updated Hydrogeologic Report, Groundwater Monitoring Program and Statistical Procedures with proposed backgrounds for total arsenic.*

- 2.5.5** The permit application states the extent to which containment practices will reduce further releases by closure in place with a final cover system. How the closure by removal will reduce further releases in the groundwater and from extreme events must be addressed.

Response

Log No. 2021-100001  
Operating and Construction Permit Applications  
CWLP Lakeside and Dallman Ash Ponds

*Both closure by removal and closure in place eliminate risk by eliminating the source of contaminants, either by complete removal or encapsulation which would ultimately prevent further solute migration. Closure by removal will result in the disruption of the redox conditions likely resulting in the potential for migration due to increased dissolution and chemical reactions mobilizing contaminant ions.*

*Extreme events would be related to a catastrophic failure of an earthen berm either as a result of seismic event or by flooding conditions along Sugar Creek which could compromise the berm integrity. These are conditions evaluated in the hazard analyses of the Safety Factor Assessment submitted as Attachment 3 of the February 1, 2022 Closure Construction Permit application for the Lakeside Ash Pond and Dallman Ash Pond and updated in 2024. Closure by removal would eliminate the berms, reducing the effects due to extreme events.*

*Contaminant transport modeling presented in the Closure Construction Permit Application addressed both closure methods result in achieving groundwater protection standards.*

- 2.5.6** The permit application states that the Lakeside Ash Pond and the Dallman Ash Pond pose no risk to human health or the environment, so it is not necessary to use treatment technologies. Evidence that the Lakeside Ash Pond and the Dallman Ash pond pose no threat to human health or the environment must be provided.

Response

*In its current state, and the conditions expected during in-place closure/capping, the threat to human health is reduced to groundwater ingestion and/or fugitive dust. Regarding groundwater ingestion, there are no groundwater receptors within the limits of the expected contaminant migration with closure in-place (see the Closure Alternatives Assessment and Assessment of Corrective Action included as Attachment 11 of the February 1, 2022 Closure Construction Permit application for the Lakeside Ash Pond and Dallman Ash Pond). Fugitive dust emissions should be minimized through closure in-place and would expected to be much greater as a result of closure-by-removal. In addition to potential threat to human health or the environment from the CCR material or leaching of CCR constituents to groundwater, the additional potential impacts/hazards are related to the loading and trucking of CCR material to a disposal facility.*

*Human health protections during closure will be covered by the Safety and Health plan pursuant to 35 Ill. Adm. Code 845.530.*

- 2.5.7** A description and associated environmental data, data analyses, and recommendations pertaining to the contaminants and transport variations that could occur over time during each closure alternative, including seasonal variations must be provided.

Response

*This was discussed in great detail in the assessment of corrective measures document. (See Section 2.3 of the Closure Alternatives Assessment and Assessment of Corrective Action which is Attachment 11 of the February 1, 2022 Closure Construction Permit application for the Lakeside Ash Pond and Dallman Ash Pond).*