

ABSTRACTS

Coal Ash Basin Dewatering for Pore Water Removal, Safe Access, and Slope Stability

Greg Landry, Keller North America

Conventional construction dewatering technology is a proven method for removing CCR pore water and improving stability and access conditions for closure activity. This presentation will be a quick review of dewatering basics, and a discussion of how much dewatering a project requires, and using dewatering to improve the stability of slopes for temporary construction conditions.thermal services.

Deep Wells for Water Intrusion Mitigation on a Midwest Coal Ash Basin

David Bardsley, Griffin DeWatering

Jetted wellpoints are often utilized at CCR sites to dewater ash in place. These efforts are normally required so the ash can be safely removed from the basin. This presentation explores the use of deep wells, installed using bucket auger drilling/well installation techniques. The ash pond is in the upper Midwest and the deep wells were installed outside the unlined ash pond boundaries with the intent to remove and ultimately prevent groundwater from infiltrating into the CCR materials.

Horizontal Wells – Installing Drains in Ash Basins AFTER THE FACT

Jacob Gallagher, Ellingson DTD

In an ideal world a landfill cell would be designed with drainage infrastructure before ever getting filled in. Unfortunately many coal ash basins do not have these design elements. Horizontally directionally drilled (HDD) wells offer a dewatering solution that can be applied without ever venturing onto an unstable ash surface or worse penetrating through the expensive cap of a closed impoundment. The presentation will explain the process of installing horizontal wells using HDD, and will highlight case studies where this method was used to remove pore water from CCR basins.

Repurposing an Existing Midwest Boiler Slag Pond in the Fall/Winter While Half the Boiler Slag Pond Remains Active

Kevin Harshberger, R. B. Jergens

Repurposing a 60+ year legacy CCR pond using a closure by removal technique along the Ohio river is challenging enough...now do that while the other half open, you're not permitted to penetrate the subgrade (i.e. no physical hydraulic barrier), the work needs to be completed in the late Fall/Winter and the subgrade needs chemically and physically stabilized. A vacuum dewatering system, combined with strategic and staged construction techniques and sound geotechnical engineering, were the cornerstone of the work. Subgrade stabilization techniques included a combination of geosynthetics, imported aggregate and chemical amendment. This project highlights numerous technical and construction elements and the concerted team effort between the Owner, Engineer and Contractors to overcome the numerous challenges to successfully repurpose the legacy pond.

Real-Time Monitoring of CCR Pond Closures

Kenneth Campbell, GEO Instruments