

“...fewer problems are typically seen with the use of composite cover systems... The EPA, therefore, generally recommends that facilities install a composite cover system, rather than a compacted clay barrier, as the composite system has often proven to be more effective (and cost effective) over the long term.”

- EPA Preamble



Simple

- [→] The superior performance of GSE TenFlow triaxial drainage geocomposites allow longer slopes, minimizing or eliminating intermittent drains.
- [→] GSE High Performance LLDPE and GSE BentoLiner GCL do away with time-consuming construction of a compacted infiltration layer.

Reliable

- [→] The EPA rule identified seepage forces as a common cause of final cover slope failures. GSE TenFlow provides maximum efficiency to minimize this danger.
- [→] Laboratory testing and on site CQA ensure long term, predictable performance over the life of the system.

Economical

- [→] GSE TenFlow allows the use of readily-available, native materials, which can save thousands of dollars per acre in construction costs.
- [→] The thinner cross section of the GSE Coal Ash Cover System increases the volume for waste storage prior to closure.

In December 2014, the EPA finalized its national regulations regarding the safe disposal of coal combustion residuals (CCRs) – more commonly known as coal ash. Until then, the disposal of coal ash waste had been largely unregulated at the federal level. With these new standards, however, come new challenges and long-term liabilities for owners and operators regarding the final closure of CCR storage facilities. Simply following the minimum guidelines does not negate liability should the closure prove deficient over time.

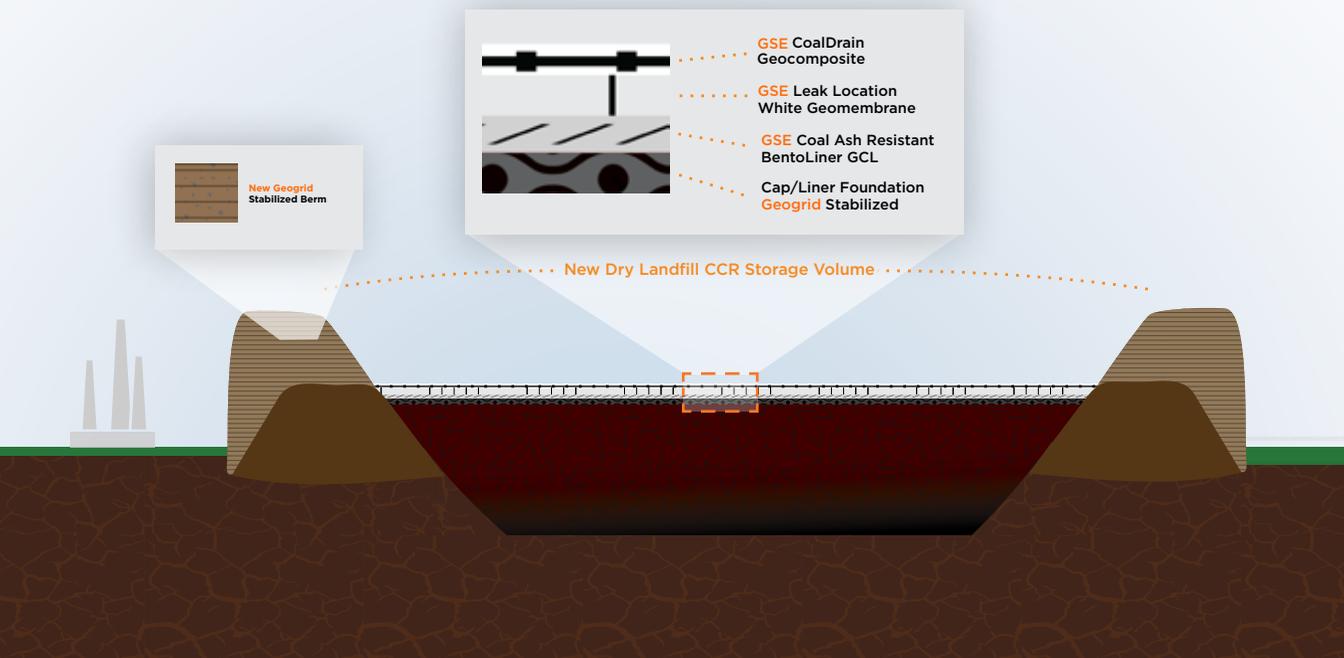
Systems must minimize or eliminate to the maximum extent practical, post-closure infiltration of liquids into the waste and releases into surface and ground waters. Designs shall include any measures necessary to ensure major slope stability and account for any condition that may cause the final cover system not to perform as intended.

OVERFILL CONSTRUCTIONS

One benefit of the new EPA rules is the option to design a surface impoundment closure by executing an overfill — constructing a new landfill over a closed surface impoundment. Overfills must comply with both the requirements applicable to the closure of surface impoundments or landfills and with all of the requirements applicable to new landfills. The existing CCR surface impoundment must first be dewatered, capped, and completely closed to create a stable structural support to the liner system for the new landfill.

GSE COAL ASH COVER SYSTEM

Overfill Application



GEOGRIDS MAXIMIZE STORAGE VOLUME AND MINIMIZE STRESS ON THE NEW LINER

- [→] Incorporated into the initial phase of impoundment closure, geogrids stabilize the waste mass and provide the strength and structural support required for the new liner system of the overfill.
- [→] Geogrid reinforced berms eliminate long back slopes to allow near vertical expansion within a footprint similar to the original impoundment.

Our engineering group has the knowledge and expertise to help design a complete, customized solution. Contact us to learn more about our simplified systems for coal ash final covers.