

Coal Combustion Residual Management Services

To meet the demands of a changing energy industry, CEC's multi-disciplined team of scientists, professionals and engineers assists clients with management of coal combustion residuals (CCRs), producing costeffective solutions.



As coal-fired power plants continue to produce large volumes of CCRs, including bottom ash, fly ash, slag, and FGD by-products, it remains important to develop solutions that balance environmental regulations and adeptly manage risk.

CEC's team of senior professionals combines experience and knowledge of CCR disposal and beneficial use projects to develop industry-leading solutions. CEC works with the Power Industry in all aspects of environmental engineering, waste management unit design and closure, siting, permitting, water resource management, ecological permitting including wetlands delineation, and construction quality assurance.

CCR MANAGEMENT SERVICES

- Disposal alternatives / feasibility and fatal flaw analysis
 - Economic analysis
 - Facility siting studies
 - Landfill conceptual and detailed engineering design and permitting
 - Dams, impoundments and ash pond design, closures and permitting
 - CCR leachate management
 - Surface water management and NPDES Permitting
- CCR characterization

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- CCR and FGD by-product beneficial use strategies, planning and design
- CCR mine reclamation and disposal strategies
- Environmental permitting
- Hydrogeologic and geotechnical site investigations
- · Groundwater modeling and human health risk evaluation
- Ecological and cultural resource assessments and mitigation
- Construction and operation support services for CCR facilities
- Public involvement and awareness issues
- Direct (soil-less) and combined soil and CCR revegetation for stabilization