Management of Coal Combustion Waste in South Carolina

Regulation 61-107.16 Regulates the Disposal of Coal Combustion Waste (CCW) as an Industrial Solid Waste

- CCW Currently Considered Class I Industrial Solid Waste Landfill (ISWLF) -- Class 1 Waste Requires:
  - TCLP tests indicating leachate from CCW 10 times MCL or less;
  - minimum 2 to 5 foot groundwater separation and 10 foot separation from bedrock;
  - prepared soil sub-grade with no criteria on minimum permeability;
  - run-on/run-off controls;
  - groundwater monitoring;
  - final closure minimum 18 inch thick infiltration cover with permeability less than sub-grade but no greater than 10^{-5} cm/sec plus 12 inches of soil growth medium for vegetation to protect infiltration layer;
  - 30 years post closure monitoring with posting of financial assurance on commercial operations.

- CCW Could be Regulated as a Class 2 or Class 3 Waste
  - Class 2 Waste if TCLP leachate is 10 to 30 times MCL;
    - Clay liner, 10^{-7} cm/sec; leachate collection; enhanced infiltration cover.
  - Class 3 Waste if TCLP leachate is greater than 30 times MCL, but non-hazardous;
    - Composite liner system; leachate collection; enhanced infiltration cover.

- Location Restriction for all Classes of ISWLFs
  - Cannot restrict water flow in floodplain or adversely impact wetlands;
  - Cannot be located in seismic impact zones and minimum 200 feet from fault;
  - If located in unstable area, must demonstrate engineering measures will ensure stability.

- Class 1 Buffer Zones for all Classes of ISWLFs
  - 110 feet from property lines;
  - 200 feet from surface water body;
  - 200/1000 feet from residence;

- Groundwater Monitoring for all Classes of ISWLFs
  - Point of compliance no more than 500 feet form waste unit boundary;
  - Semi-annual monitoring during operational life, closure and post-closure;
  - Assessment and corrective action required;
  - Monitor metals, pH, and specific conductance;
  - Unfiltered samples.

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South Carolina Mining Act: ***State mine reclamation law***

- Primary Purposes
  - Protection of Public Safety,
  - Environmental Protection, and
  - Reclamation of Mine Lands

- Minimum Mine Reclamation Standards in Regulation 89-330. Establishes post mine land use criteria and minimum standards for reclaiming mine lands.
  - R.89-330 I. sets minimum standards for mine reclamation to a landfill or other waste disposal site. R.89-330 I states:

  "...[mine] reclamation to the S.C. Department of Health and Environmental Control (SCDHEC) [appropriate Solid Waste programs within SCDHEC] for permitting, administration and enforcement of operational and monitoring requirements."

Implementation and Coordination of Mine Reclamation to Solid Waste Facilities

Mines proposed to be reclaimed as solid waste landfills must develop a mine reclamation plan consistent in concept with solid waste disposal. In accordance with R.89-330 I, the appropriate solid waste permits, monitoring and inspection of landfill operations are conducted in accordance to the Solid Waste Permitting and Compliance program within the SC Department of Health and Environmental Control. Coordination between the mining and reclamation program and the solid waste programs within SCDHEC is simplified because both programs are within the Division of Mining and Solid Waste Management.

Beneficial Fill

Beneficial fill of CCW into a mine for reclamation or for other land uses (i.e., road sub-grades) without the requirement of a solid waste permit may be approved on a case-by-case basis.