

How Regulation of CCR Has Impacted Landfills and Environmental Industry

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In January 2016, the Commonwealth of Virginia adopted the Federal CCR Rules as State Rules with Amendment 8 of the Solid Waste Management Regulations. In March 2019, the Commonwealth of Virginia passed a law requiring removal of all CCR from surface impoundments within 15 years of closure initiation. The law mandated that 6.8 million cubic yards of the removed CCR be reused beneficially, while the remaining be disposed of in permitted and lined landfills. North Carolina followed on the heels of Virginia and passed a law on April 1, 2019, that also requires removal of all CCR from surface impoundments within 15 years of closure initiation.

Delays in Permitting and Construction

The effects of the CCR Rules have been felt—and will continue to be felt—by the solid waste industry. Delays in the permitting and permit modification processes have been a reality. When the states were required to adopt and implement CCR regulations, the task of regulation writing and implementation largely fell to solid waste staff in regulatory agencies (e.g., the Department of Environmental Quality (DEQ) in Virginia and North Carolina). As their workloads increased, the time required to review and approve solid waste permit modifications and permit applications also increased.

Solid waste permittees faced other delays caused by CCR regulation prior to submitting applications to DEQ. The Federal CCR Rules required that existing onsite CCR landfills establish groundwater monitoring networks and commence monitoring by April 2018. For new CCR landfills, the Rules required the owner to complete a demonstration showing placement of the liner above the uppermost aquifer by April 2019. These requirements for borings, piezometers, and monitoring wells caused the availability of drillers to drop significantly, adding time to the front end of solid waste permitting projects (i.e. increasing the time to obtain data for required hydrogeologic and geotechnical studies).

Due to these compounded delays, landfill owners who had appropriately planned for the normal permitting timeline (i.e. pre-CCR Rules) found themselves running out of airspace prior to receiving final permit approval. Prematurely preparing bid documents involves risk for the owner in the event DEQ requires changes to the design prior to their approval. However, some owners prepared construction documents without having received final DEQ approval, so that bid documents could be issued immediately upon DEQ approval.

Already behind schedule, landfill owners then faced significant delays and higher costs during construction. The utility companies' demand for HDPE liners and other geosynthetic materials not only dried up the supply, but also caused prices of these materials to increase. The scarcity of liner material delayed construction of new cells, pushing some projects into the winter months, none of which was ideal for landfills in need of airspace.

It's Not Over Yet

The effects of the Federal CCR Rules continue by adding stress on hauling companies. There is a tremendous amount of CCR that will be transported from the utility surface impoundments in North Carolina and Virginia over the next 15 years. Drivers are going to be in much higher demand, while we are already facing a scarcity of drivers. The quantity of trucks on our roads will also increase, adding strain on our roads and bridges.

Another outcome will be the accelerated consumption of Subtitle D landfill airspace. Some utilities do not have enough available onsite airspace to manage their CCR. They may have to turn to existing Subtitle D facilities in order to dispose of their continued production of CCR. More imminently, utilities may have to turn to existing Subtitle D facilities to meet the deadlines imposed by Virginia and North Carolina for removing CCR from surface impoundments. The unplanned disposal of CCR will consume the airspace of these existing Subtitle D facilities faster than the owner previously anticipated. This, in turn, will require the construction of new cells sooner than expected, creating risk for further construction delays and higher material costs.

If you are a landfill owner with expansion plans, it would be prudent to start the planning process sooner than you may have done 6 years ago. What's more, depending on the acreage of the expansion, you may need to plan on issuing bid documents one year prior the desired start of construction.