An environmental group wants two major utility companies to cleanup their unlined coal ash ponds and wants the state to make them do it.

The Southern Environmental Law Center filed a request asking the N.C. Environmental Management Commission, the state agency responsible for adopting rules to protect the state's air and water, to make a ruling that would require Duke Energy and Progress Energy to cleanup groundwater they say has been contaminated by old, unlined coal ash lagoons at 14 coal-fired power plants.

Duke Energy's Riverbend Steam Station north of Mount Holly and the Allen Steam Station south of Belmont have unlined coal ash ponds. Duke Energy disputes the claims made by the Southern Environmental Law Center that poisons are seeping into the groundwater through the unlined ponds.

The Southern Environmental Law Center says in its request for a declaratory ruling that the N.C. Department of Environment and Natural Resources has not required power plants to cleanup groundwater contamination from coal ash lagoons despite documented pollution because they have misinterpreted the rules regarding coal ash lagoons.

Riverbend Steam Station began operating in 1929. Allen Steam Station began its operation in 1957, according to Duke Energy.

Riverbend's coal ash pond was created in 1957 and Allen's coal ash pond was built in 1973, said DJ Gerken, senior attorney for the Southern Environmental Law Center.

A coal ash pond is a large pit filled with a slurry of combustion waste and water, Gerken said.

“It’s literally just an unlined whole in the ground,” Gerken said.

When they leak, it means the water in the lagoon has connected to the groundwater table.

Coal ash ponds with permits issued before 1984 must take corrective action when substances in groundwater exceeds safe standards. Corrective action means taking immediate action to stop the source of contamination and restoring the groundwater that’s been contaminated.

At Riverbend, voluntary monitoring confirms that iron and manganese exceed standards at eight test wells, said Gerken. Allen’s test well sampling has shown levels of iron, manganese and nickel higher than groundwater standards.

“What we know is these old coal ash lagoons are unlined and built to outdated standards, and we know they’re leaking now. And we know that won’t stop unless something is done,” Gerken said. “If they’re leaking now, what’s going to happen if we don’t do anything?”

It’s been the law for 20 years that when a coal ash pond leaks, the company responsible should take immediate action and stop them from contaminating the groundwater, Gerken said.

“For 20 years we’ve been kicking this can down the road,” he said.

Coal safety

Duke Energy spokeswoman Erin Culbert said that the Southern Environmental Law Center is

exaggerating its claims of environmental harm, picking and choosing results that make its case.

“The ultimate goal here is to stop the use of coal as a fuel source for electricity,” Culbert said of the group’s motives.

Duke Energy plans to retire Riverbend Steam Station in 2015 because of new regulations that would be too expensive to come into compliance with given the age of the power plant.

Allen Steam Station has converted to dry fly ash, which isn’t stored in coal ash basins but is handled in a landfill with a synthetic liner to prevent leaching. Duke has spent hundreds of millions of dollars converting to that state of the art technology.

Duke Energy and Progress Energy began voluntarily sampling the groundwater around their coal ash ponds so they would know whether groundwater was being impacted, Culbert said. A more extensive effort to sample started in late 2010 and early 2011.

Riverbend shows higher levels of iron and manganese, but that doesn’t mean they are a health risk, Culbert said. Iron and manganese affect the taste and odor of water. They are the same things found in piedmont soil, and wells in the area used to test groundwater quality also have elevated levels of those metals, she said.

“I think we have to look in, we have to really rely less on emotion and more on the science. I think all of us want clean drinking water,” Culbert said. “It’s really important that we re-emphasize for the public that drinking water supplies remain safe.”

Gerken would disagree with Culbert that water supplies are safe from contamination.

“Groundwater is future drinking water. Groundwater in the state is largely connected to surface water,” Gerken said. “The state has made a choice a long time ago that this is not a problem that they want to leave to fester.”

You can reach reporter Amanda Memrick at 704-869-1839 or follow @AmandaMemrick on Twitter.

What is coal ash?

Coal ash is what's left over after coal is burned to generate electricity. Coal ash comes in several forms, like bottom ash, fly ash and boiler slag. Bottom ash is the consistency of coarse sand. Fly ash is a fine, lightweight powder and boiler slag has a glassy appearance.

Bottom ash and boiler slag settle to the bottom of the boiler during burning. Fly ash rises out and is captured so it doesn't go into the air.

Coal ash is made up of silica, iron, calcium and aluminum and can contain arsenic and heavy metals such as cadmium, lead, mercury and selenium.