

Therriault, John

PC#3029

From: Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Lawrence Frey <sierra@sierraclub.org>
Sent: Sunday, October 12, 2014 10:16 PM
To: Therriault, John
Subject: R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

Oct 12, 2014

Clerk of the IPCB John Therriault

Dear Clerk of the IPCB Therriault,

Coal combustion produces dangerous coal ash waste that contains mercury, arsenic, lead and other health-threatening pollutants that are leaching into our water supplies. These deadly pollutants increase severe health risks including cancer, neurological disorders, birth defects, reproductive failure, asthma and other serious illnesses. We need the proposed rules for regulation coal combustion in Illinois waste to be strengthened!

Rules governing coal ash pits must include key protections!

Groundwater Contamination:

- Impoundments causing groundwater impairment must be closed by a set date to fully protect the environment and human health.
- Complete removal of waste should be considered as the presumptive closure strategy.

Surface water Contamination:

- The draft rules do not require that threats to surface water be assessed and as such leave downstream waterways vulnerable to toxic pollutants. The rules must protect surface waters from contamination.

Public Participation and Notice:

- Citizens should have the right to be informed and participate in decisions regarding what is to be done with coal combustion waste in their communities.
- The rules must give the public ample time (60 days) to comment meaningfully on any facility's plan and allow the IEPA to hold a public meeting on the plan where there is significant interest.

Financial Burden:

- The weight of coal ash problems is a tremendous burden that communities should not have to bear. The rules should require power companies to provide financial assurances for the coal ash pits at all operating and retired power plants.

I urge you to please stand up for the health and safety of Illinois families by strengthening the IEPA's proposed rules on coal combustion waste at power plants in Illinois!

Sincerely,

Lawrence Frey
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(630) 291-8075

From: Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Clark Bullard <sierra@sierraclub.org>
Sent: Monday, October 13, 2014 4:49 PM
To: Therriault, John
Subject: R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

Oct 13, 2014

Clerk of the IPCB John Therriault

Dear Clerk of the IPCB Therriault,

Coal combustion produces dangerous coal ash waste that contains mercury, arsenic, lead and other health-threatening pollutants that are leaching into our water supplies. These deadly pollutants increase severe health risks including cancer, neurological disorders, birth defects, reproductive failure, asthma and other serious illnesses. We need the proposed rules for regulation coal combustion in Illinois waste to be strengthened!

I will focus my comments on a particular coal ash lagoon with which I have observed for 45 years, at the recently-abandoned Dynegy generating station near Oakwood IL. Hopefully this single example will illustrate why landfill-like closure regulations will provide inadequate protection to surface and groundwater.

The ash lagoon is an integral part of the now-abandoned industrial facility that includes the carcass of the power plant itself. The PCB's and other hazardous materials in the power plant must be transported offsite to properly constructed landfills. The long-lived hazardous materials in the ash should be handled the same way, because they are situated in the floodplain. Rivers own their floodplains and meander on a time scale comparable to the hazardous life of the coal ash. At the Dynegy plant, the ash dams are within 25 feet of the riverbank and the river has already destroyed the gabions and other measures taken by the company to protect the integrity of their dam.

The toes of the dams lie below the high water mark, exposing the dam to impact erosion by ice and other floating debris during floods.

Ash lagoons are temporary structures

The coal ash lagoons were designed, not as landfills, but as short-lived facilities to separate heavy metals and other toxic solids from the water used to flush the ashes into the floodplain. Instead of shipping the solids for offsite disposal in a dry landfill, the owner chose to use the ash dams as structures for temporarily storing those "byproducts of electricity generation", pending changes in market conditions that might render the components valuable for beneficial re-use (e.g. cinder block, paving material, ore that could be refined to recover metals or carbon, etc.). In fact during the 1960s Illinois Power Company supplied ash from the lagoons for maintenance township or county roads in the area.

In situ armoring will eventually fail

Does the IPCB have evidence that any kind of armoring of the ash dump can isolate the materials from surface and groundwater for hundreds of years (the hazardous life of the materials)? The ponds have no liner, and interact (through the bottom of the lagoon) with groundwater table from the adjoining high bluffs and with the surface water whenever the river rises above its minimum flow. The only way to even provide the illusion of complete isolation is to seal the massive structures in a concrete or welded aluminum "box" that would force the river to flow around it as it meanders across the floodplain that it has been carving through the centuries. The meandering of the river is not easily contained, even on the timetable of a century (consider the millions spent annually by the Corps of Engineers) to prevent

meandering of the Mississippi River). Even more to the point, the river's meandering and flashiness is controlled not by the site owner but by millions of land use decisions made in the upstream watershed, by changes in climate, etc.

Financial assurances

If the waste is left in the floodplain its containment structure will require monitoring and maintenance for centuries. If at some future time the containment fails, Dynegy or the current owner will likely go bankrupt, so it will be necessary for Dynegy to set aside sufficient funds to cover the perpetual maintenance of the site, and/or the cost of cleaning up after a catastrophic failure. Otherwise, Illinois taxpayers will be left with the cost. The Illinois Pollution Control Board was established to enact rules that internalize the costs of pollution control, in the interest of economically efficient functioning of the market.

Since the cost of cleanup after failure would exceed that of removing the material (prior to failure) to a properly designed landfill on dry land, the least cost solution will depend only on the life of the containment structure. I have dealt with this issue during my 14 years representing Illinois on the Central Midwest Interstate Compact Commission for Low Level Radioactive Waste Management. That waste would decay to safe levels in 500 years, but the owner would provide financial assurance for 50 years. The solution was to charge a fee for disposal that, after 50 years, would be large enough to remove, repackage and relocate the waste to a new containment facility every 50 years for the life of the facility. If the containment lasted longer than 50 years, the fund could begin paying dividends to those holding [marketable] 'receipts' from the original deposits, always retaining sufficient corpus to remove, repackage and relocate every 60, 70 years etc.

Policy options

The point of describing this economically-efficient policy option is to emphasize that it is possible for the IPCB to achieve the goal of completely internalizing the environmental and public safety risk of ash dams located in floodplains. However since the public may lack confidence in Illinois government's ability to refrain from raiding the fund, other options must be considered. The simplest would be to mandate removal of all toxins from the site, for treatment or storage in an upland facility. It is how we deal with PCB's from the power plant, and it's how we ought to deal with arsenic, mercury and other materials currently stored in temporary structures onsite.

I urge you to please stand up for the health and safety of Illinois families by strengthening the IEPA's proposed rules on coal combustion waste at power plants in Illinois!

Sincerely,

Clark Bullard
509 W Washington St
Urbana, IL 61801-4051