Coal Ash: Hazardous to Life

Planting poison beneath NM soil since 1973 - what risks exist from San Juan Coal Ash?

Tens of millions of tons are buried just feet beneath the ground next to the PNM's San Juan Generating Station.

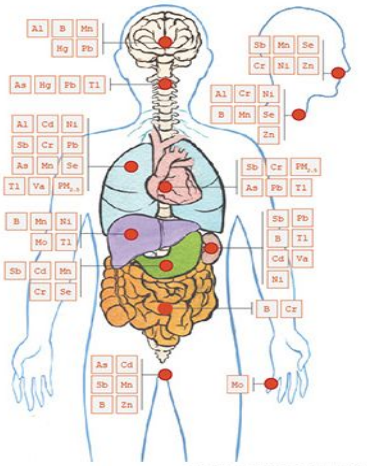
What is coal ash? The waste from the burning of coal for electricity, coal ash contains a long list of toxic chemicals, including mercury, arsenic, lead, radium, chromium, cadmium, and other carcinogens, several metals that can impair children's developing brains, and multiple chemicals that are toxic to life. When coal is burned to produce electricity, these toxic chemicals become concentrated in the waste product–coal ash.

One of several coal ash - evaporation ponds adjacent to SJGS
Photo: May 15, 2019

What are the impacts of coal ash produced at the San Juan Generating Station (SJGS)?

At full capacity SJGS burned approximately 20,000 tons of coal a day, 20% of which remained as coal ash. In 2017 alone the SJGS produced 1,360,871 tons of coal ash. Since 1973, the residual coal ash has been used as backfill in the coal mine adjacent to the plant.* When the mine is abandoned, as expected in 2022 or sooner, the water table will rise and the danger is that toxic metals contained in the ash will be leached into the San Juan river watershed. Because the mine is not owned by PNM, they claim that their responsibility for those wastes, and the adverse health effects that they may cause, is attenuated or absolved. In a 2015 statement on the companies recent risk assessment, PNM said that, "coal combustion residuals are not a significant risk and that the management of this waste product is not expected to impact their operations, financial positions or cash flow."

Coal ash is dangerous to life - Coal ash contains heavy metals that, if ingested or inhaled, are hazardous to human health. The Environmental Protection Agency (EPA) has found that living next to a coal ash disposal site increases risks of cancer. Coal ash can impact the nervous system and cause heart damage, lung disease, respiratory distress, kidney disease, reproductive problems, gastrointestinal illness, birth defects, and impaired bone growth in children. People that live near an unlined wet ash pond (surface impoundment) and reply on a well for drinking water may have as much as a *1 in 50 chance of getting cancer* from drinking arsenic-contaminated water.


GRAPHIC BY EARTHJUSTICE

Harm to human health from breathing and ingesting coal ash toxicants. Open infographic.

Mapping the Coal Ash Contamination

Nationally, more than 550 units — at 265 plants — reported groundwater monitoring data. Based on that data, 91% of these plants are contaminating groundwater with toxic substances at levels exceeding federal safe standards. The EPA has formally identified 70 cases where coal ash poison has contaminated drinking water, wetlands, creeks, or rivers, with an additional 30 documented by environmental nonprofits.

Coal ash is disposed of in several different ways, the first being in dry landfills, or in the case of San Juan, placed in the adjacent coal mine and covered with dirt. **What's happening to the groundwater in the San Juan River watershed near the coal plant? <u>We don't know.</u>** New Energy Economy is utilizing the expert analysis of scientists in the field to determine the truth and ensure our work before the Public Regulation Commission is effective as the San Juan Generating Station abandonment case hearings begin, in 2019.

**** Despite PNM analysis that potential impacts to regional aquifers is minimal from coal ash groundwater contamination due to aridity of region, PNM has installed two groundwater recovery systems below the plant - one in January 2010 and one in December 2018. As evidenced by EarthJustice 2009 report on contamination of Waterflow, NM regional water wells, the contaminants appear to be migrating through the watershed. With SJGS coal ash "stored" 10 feet below the reclaimed mine area surface, questions arise; are these groundwater contamination systems effective and for how long must they be maintained? Forever?***