

THE TRUTH ABOUT COAL AND OUR HEALTH

and the urgent need for clean energy solutions.



COAL PLANTS ARE THE LEADING CAUSE OF AIR POLLUTION IN IOWA. COAL ASH, A BYPRODUCT OF BURNING COAL, CONTAMINATES SURFACE AND GROUND WATERS WITH TOXIC HEAVY METALS. BOTH THE AIR AND WATER POLLUTION PRODUCED BY COAL PLANTS IS LINKED TO ILLNESS, CANCER, AND PREMATURE DEATH IN IOWA.



THE PROBLEM

Coal plants in Iowa caused 5,800 premature deaths between 1999 and 2020, and 3,700 of these are attributed to coal plants that are still in operation today. The cost to Iowans to address the medical consequences of coal plants reaches into the hundreds of millions of dollars. The bottom line is that coal is a dangerous and expensive source of energy.

WHAT YOU NEED TO KNOW

1 Coal plants are responsible for 81% of the sulfur dioxide air pollution in Iowa. Sulfur dioxide affects lung function, worsens asthma attacks, and exacerbates existing heart disease among vulnerable populations. Coal plants also emit particulate matter pollution. Particulate matter 2.5 microns or smaller (PM2.5) is the most dangerous category and is a known carcinogen. Coal PM2.5 emissions are associated with a 2.1 times greater risk of mortality compared to other sources of PM2.5 emissions.

2 Coal ash contains toxic heavy metals that can leach into Iowa waterways. Almost 75% of Iowa coal plants with ash storage sites are in counties with cancer rates above the state average. Given that Iowa ranks second nationally in new cancer diagnoses and is one of only three states with rising rates, coal ash pollution's link to various forms of cancer is concerning.

3 Woodbury County, where two of the state's largest coal plants are located, has the highest asthma rates in the state. The county also has higher than average rates of asthma attack emergency room visits and high rates of chronic obstructive pulmonary disease (COPD).

**\$110,000,000 - \$150,000,000
PER YEAR**

The healthcare costs to Iowans from coal burned by MidAmerican, Alliant, rural electric cooperatives, and municipal utilities

PROTECT IOWA'S HEALTH, WATER, AND AIR FROM COAL ASH POLLUTION

IOWA'S COMMUNITIES, DRINKING WATER, AND AIR ARE AT ONGOING RISK FROM TOXIC POLLUTION CAUSED BY COAL ASH, A BYPRODUCT OF BURNING COAL FOR ELECTRICITY. AS MIDAMERICAN AND ALLIANT ENERGY CONTINUE TO GENERATE COAL ASH AT THEIR IOWA PLANTS, CONTAMINATION THREATENS PUBLIC HEALTH, GROUNDWATER, AND MAJOR RIVERS ACROSS THE STATE.



WHY IS COAL ASH DANGEROUS?

Coal ash contains heavy metals including arsenic, mercury, lead, and cadmium, toxins that can cause serious health impacts even at low exposure levels.

- ⊕ INCREASED RISK OF CANCER
- ⊕ KIDNEY AND LIVER DAMAGE
- ⊕ HEART AND RESPIRATORY DISEASES
- ⊕ REPRODUCTIVE AND IMMUNE SYSTEM DISORDERS
- ⊕ NEUROLOGICAL AND DEVELOPMENTAL HARM IN CHILDREN



CONTAMINATED DRINKING WATER

In unlined or poorly lined ash landfills, toxins such as arsenic, lead and mercury can seep into groundwater, increasing risks for cancer and developmental harms.



AIRBORNE ASH DUST

If not capped during storage or transportation, dry coal ash can become windblown, exposing nearby residents and workers to toxic particles.



CUMULATIVE EXPOSURE

Many Iowa communities already face nitrate contamination; coal ash compounds the burden on public health and water systems.

IOWA'S COAL ASH FOOTPRINT

- 69 known active and legacy utility coal ash disposal sites across 16 Iowa counties
- Active coal plants and most of their coal ash disposal sites are located near the Missouri, Des Moines, and Mississippi Rivers – critical drinking water sources
- Testing near disposal sites shows groundwater contamination exceeding federal safety standards for toxic metals for years, yet no cleanup has been implemented
- Unlined or aging ash landfills allow heavy metals to leach into groundwater, threatening private wells, rivers, and agricultural water supplies.
- The discharge of wastewater containing coal ash leachate into surface waters threaten drinking water supplies in nearby municipalities and other downstream communities

TECHNOLOGY AND POLICY SOLUTIONS FOR IOWA'S COAL ASH PROBLEM



Modern wastewater treatment systems can eliminate nearly all toxic discharges from coal-fired power plants. However, several Iowa facilities owned/operated by MidAmerican Energy and Alliant Energy still discharge:

- Flue gas desulfurization (FGD) wastewater
- Bottom ash transport water
- Combustion residual leachate

These pollutants are avoidable with available, proven treatment technologies.

POLICY RECOMMENDATIONS

To safeguard Iowa's drinking water and public health, state legislators and regulators should:

REDUCE COAL ASH POLLUTION BY PROHIBITING UTILITIES FROM DISCHARGING TOXIC POLLUTANTS INTO WATER SOURCES

REQUIRE FACILITIES TO COMPLY WITH ZERO-DISCHARGE STANDARDS FOR TOXIC WASTEWATER AS SOON AS POSSIBLE, AND NO LATER THAN DECEMBER 31, 2029.

DIRECT THE IOWA DEPARTMENT OF NATURAL RESOURCES (DNR) TO DEVELOP AND ENFORCE RULES IMPLEMENTING THIS PROHIBITION.



WHY WE NEED ACTION

Iowa's rivers and groundwater sustain millions of residents, thousands of farms, and local economies. Safe drinking water and pollution-free rivers for recreation are key to building thriving communities.

Allowing utilities to discharge toxic coal ash discharges puts human health, ecosystems, clean water, and public trust at risk.

With existing technology and strong policy action, Iowa can prevent further contamination and ensure safe, reliable water for Iowans and our long-term health for our communities.

