October 15, 2019

Re: Docket No. EPA-HQ-OLEM-2018-0524

Dear Administrator Wheeler:

We are writing to strongly oppose several of the changes the Environmental Protection Agency (EPA) has proposed making to the Coal Combustion Residuals (CCR) rule.¹ The changes risk effectively exempting businesses from preventing, monitoring, and correcting pollution emanating from many coal ash piles, apparently including the 400,000-ton mountain of coal ash in Puerto Rico. In doing so, the EPA threatens the health of people living near coal ash piles by exposing them to unacceptable risk of air and groundwater pollution.

Human Rights Watch is an independent nongovernmental organization that monitors and reports on human rights abuses in close to 100 countries around the world, including the United States. A significant issue that Human Rights Watch monitors is compliance with the rights to safe water and a healthy environment.

Coal ash, a toxic byproduct of coal combustion, is the second-largest waste stream in the United States, with over 110 million tons produced each year.² Until the EPA enacted the CCR rule in 2015,² most coal ash not sold for reuse was disposed of in unlined surface impoundments or landfills. The extent of pollution from these sites only became clear last year, after disclosure groundwater monitoring rules went into effect.

Solid%20Waste%20from%20the%20Operation%20and%20Decommissioning%20of%20Power%20Plants.pdf
According to Earthjustice, an independent nonprofit organization that closely tracks coal ash pollution, 91 percent of reporting coal-fired units have contaminated groundwater with toxic substances, such as arsenic, boron, lead, and radium, at levels exceeding federal safety standards.4 Groundwater pollution is especially problematic in rural areas, where coal ash disposal sites are frequently located, because rural communities also frequently rely on private wells that are not monitored or regulated by the state or federal government. According to the EPA, six million people live near coal plants affected by these regulations.5 Some of the toxic metals in coal ash, such as arsenic, are imperceptible to human senses and cannot be removed from water using standard household filters.

The risk of contamination is exacerbated by more frequent and extreme storms due to climate change.6 Heavy rains from Hurricane Florence, a 2018 storm that hit North Carolina, eroded a coal ash landfill, spilling the toxic coal ash onto a local roadway, and later breached a dam that sent coal ash spilling into a nearby river.7 After Hurricane Maria pounded a coal ash pile in Puerto Rico with 15 inches of rain, tests of a monitoring well found a two-fold increase in arsenic levels, according to a local news report.8

Recent studies have also begun to shed light on the health risks of air pollution from coal ash. For example, a peer-reviewed study by University of Louisville epidemiologists found that children living near a coal ash landfill in Louisville, Kentucky, were significantly more likely to have health and behavioral problems than those in a comparison group, even after controlling for age, gender, and second-hand smoke exposure.9 A second peer-reviewed study conducted by the same university found higher rates of respiratory problems in communities exposed to coal ash than a comparison group, and an ongoing study of the same community found coal ash containing toxic metals in two-thirds of the 162 homes tested, all of which had children living there.10

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Recognizing these serious health risks, the 2015 CCR rule put in place rules to prevent, monitor, and remediate coal ash pollution. The EPA already weakened this rule in 2017, including by allowing states, many of which failed to properly regulate coal ash for decades, to introduce “flexibilities” in how they implement and enforce the rule. The agency’s proposal would unacceptably further weaken this rule by exempting the form of coal ash disposal with the highest risk of pollution from coal ash regulations.

In addition to the immediate health risk this poses, the agency’s proposal would allow coal plants to externalize the cost of their pollution, namely that health costs and costs of remediating environmental pollution would be borne by government and not the coal industry, effectively subsidizing a major contributor to climate change.

Coal ash piles

This submission will focus on changes to rules governing coal ash piles, as others have already appropriately raised concerns about changes to beneficial reuse. A little less than half of coal ash in the United States is sold for reuse. Such coal ash is generally stored in piles on the coal plant site until it is transported to the purchasing company, where it again is stored as a pile until reused in other materials, such as concrete and structural fill. Coal ash piles are exactly what the name implies: they lack liners, caps, or any structure engineered to prevent pollution.

The 2015 CCR rule sought to address the environmental and human health risks of coal ash piles while taking into account their practical function as temporary storage prior to reuse by distinguishing between piles located on coal plant sites and those off site. In this way, coal plants that handle a constant stream of large volumes of coal ash would be subject to more stringent environmental requirements than businesses managing smaller, temporary piles.


11 See, e.g., 40 C.F.R. §§ 257.60-257.64 (location restrictions), 257.70-257.74 (design criteria), 257.80-257.84 (operating criteria), 257.90-257.98 (groundwater monitoring and corrective action), 257.100-257.104 (closure and post-closure care).


At the request of AES, a utility company that operates a coal plant in Puerto Rico that houses the largest coal ash pile subject to United States regulations, the EPA is proposing to do away with that distinction and effectively exempt coal ash piles from the 2015 regulations requiring groundwater monitoring and remediation. In its place, the agency is proposing to provide entities “with flexibility to determine the control measures most appropriate to meet the requirement to control releases” under existing rules – in other words, to revert to the regulatory framework which initially led to widespread coal ash contamination. To do so would potentially affect people living near coal ash piles across the United States, but nowhere more so than in Puerto Rico.

Puerto Rico

In 2017, AES petitioned the EPA to change its rules to exempt coal ash piles from regulation. That same year, groundwater monitoring revealed that its more than 400,000-ton coal ash pile located near the plant it operates in Guayama, Puerto Rico, was leaching arsenic, molybdenum, selenium, and lithium into the groundwater—all but arsenic at levels above what the EPA considers to be safe. Test results from the following year showed that levels of all but lithium had increased. The groundwater forms a part of an aquifer that is the sole source of drinking water for 140,000 residents.

Human Rights Watch visited Guayama in August 2019 and spoke with several residents, as well as the director of the regional hospital, public health scientists, and other experts. All expressed grave concern about the health risks of air and groundwater pollution from the coal ash pile. One resident, Marán Cruz Vega, who is in his 70s, said that there are two children near his home with leukemia and worried for the safety of students and teachers housed in a junior and high school near the plant. Another, Nati Perez-Burgos, also 60, said she has cancer and a persistent skin condition that she worries is linked to her exposure to coal ash. “You can feel it on surfaces,”


18 Ibid.

19 Human Rights Watch interview with Marán Cruz Vega, Guayama, August 23, 2019.
Perez-Burgos said of the coal ash in her home. “It’s a very fine dust, like flour, but dark grey or black.”

Residents said they are so alarmed at what they feel is an increase in cancer diagnoses and deaths in the area attributable to coal ash that they created a map, attached below, flagging each case. While they recognize the map alone cannot prove causation, they point out the cases most heavily concentrated in the neighborhood closest to the plant. Doctors and public health scientists familiar with the community said they shared residents’ concerns. Dr. Gerson Jiménez, the medical director of the only remaining hospital in the Guayama region, where he has worked for over forty years, told Human Rights Watch that he grew so concerned about the increase in cancer patients that he requested data from the government’s cancer registry. The results put hard numbers to his fears. From 1990 to 2000, the decade before the coal plant began operating in 2002, the average annual rate was 103 new cancer cases for every 10,000 residents in Guayama, whereas there were on average 169 new cases between 2010 and 2014—a 64 percent increase.

Map showing distribution of cancer diagnoses and deaths between 2010 and 2019 in the Santa Ana and Miramar communities in the Puente Jobos neighborhood of Guayama, Puerto Rico © 2019 Guayameses unidos por tu salud

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21 Human Rights Watch interview with Dr. Gerson Jiménez, Guayama, August 24, 2019.
Scientists at University of Puerto Rico have recently begun studying the health data and air quality in areas near the plant. The director of the university’s Department of Environmental Health, Dr. Louis Bonillo-Soto, compared data on the prevalence of cancer and other health problems between 2016 and 2018 and found significant increases for all except miscarriages—which he speculates may be due to significant investment in reproductive health programs following the Zika crisis. More recently, Dr. Bonillo-Soto conducted a study comparing the health of Guayamans to that of people living in Fajardo, an area in Puerto Rico with little industrial activity. After controlling for age, education, and the presence of a smoker in the home, the study found Guayamans were:

- 2.9 times more likely to have a skin condition
- 2.2 times more likely to have respiratory illness
- 2.3 times more likely to have asthma
- 1.9 times more likely to have sinusitis
- 3.9 times more likely to have chronic bronchitis
- 7.8 times more likely to have a miscarriage.

Dr. Bonillo-Soto has submitted these studies for publication peer-reviewed journals. Their findings are consistent with the limited peer-reviewed research on the health risks of living near coal ash discussed above.

Given the health concerns expressed by the community and the studies underway, Human Rights Watch believes weakening key regulations could jeopardize human health and well-being.

Moreover, as noted, the increased frequency and severity of storms due to climate change heightens the likelihood and magnitude of coal ash contamination and dispersal in areas of human habitation. Perez-Burgos said that during Hurricane María, a category 5 hurricane that devastated Puerto Rico in 2017, a white film covered her home, which she believed was thick, wet

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22 “Prevalecncia de enfermedades crónicas en las comunidades de Miramar y Puerto de Jobos del municipio de Guayama: un estudio de comunidad por encuesta,” Luis A. Bonilla Soto, Catedrático en Salud Ambiental, https://static1.squarespace.com/static/5b6c627d027b066910877c682n/t/5c00f44292971027cdd92d/155624211183/92829019.02.00%241Luis+A.%26Bonilla+Soto+%2CPrevalecncia+de+enfermedades+cronicas+en+las+comunidades+de+Miramar+y+Puerto+de+Jobos+del+municipio+de+Guayama.pdf.

23 On file with Human Rights Watch. For a news article on this study, see “Paciente de cáncer responsabiliza a la planta de AES,” Telemundo, December 18, 2018, https://www.telemundopr.com/noticias/destacados/Medicos-piden-el-cierre-de-planta-AES-en-Guayama-503046291.html.
coal ash. A local journalist who has been writing about the coal ash pile for years said that it was visibly smaller following the storm.

In light of all of the above, it is extremely troubling that the EPA is proposing to no longer subject its coal ash piles to appropriate oversight that would better protect residents. The EPA should not acquiesce to AES’s request and should examine ongoing contamination of water supplies in Puerto Rico. If the EPA adopts this rule change amendment, it would not only be endangering the health of Guayamans, but of people across the United States who may also be vulnerable to pollution from coal ash piles. Doing so would reverse course from the agency’s significant efforts over the last decade to address nationwide coal ash pollution.

We urge the EPA to remain committed to its mandate of protecting water and air in the United States by maintaining strong rules to prevent coal ash pollution.

Thank you for the opportunity to share our views.

Respectfully,

[Signature]

Arvind Ganesan
Director, Business and Human Rights Division
Human Rights Watch

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