

September 20, 2017

Via Registered Mail – Return Receipt Requested

Ms. Lynn J. Good, Chairman, President and Chief Executive Officer Duke Energy Corporation 550 South Tryon Street Charlotte, North Carolina 28202

Ms. Melody Birmingham-Byrd, President Duke Energy Indiana, LLC 1000 Main Street Plainfield, Indiana 46168

Mr. Bill Luke, Station Manager Cayuga Generation Station Duke Energy Indiana, LLC 3300 N State Road 63 Cayuga, Indiana 47928

Notice of Intent to Sue: Resource Conservation and Recovery Act - 42 U.S.C. § 6972

RE: Duke Energy's Coal Ash Open Dump at its Cayuga Station in Vermilion County, Indiana: Violation of the Resource Conservation and Recovery Act and the Coal Combustion Residuals Rule by Duke Energy Corporation.

To Whom It May Concern:

Pursuant to 42 U.S.C. § 6972(a)(1)(a), Wabash Riverkeeper and Waterkeeper, through their counsel, Earthjustice, gives Duke Energy Indiana, LLC ("Duke Energy" or "the company") notice of its intent to file suit for violations of the Resource Conservation and Recovery Act ("the Act") and the Coal Combustion Residuals Rule ("the Coal Ash Rule" or "the Rule"), 40 C.F.R. § 257.50 et seq., adopted pursuant to the Act. After the expiration of sixty (60) days as provided in the Act, Wabash Riverkeeper and Waterkeeper plan to file suit in United States District Court against Duke Energy to enforce the provisions of the Rule and the Act.

Duke Energy Is Hiding Critical Safety Information from Indiana Residents

Duke Energy is hiding critical information from Indiana residents in blatant violation of the Coal Ash Rule. The company owns and operates large lagoons full of toxic coal ash along the banks of the Wabash River, upstream of Terra Haute, Indiana, at its Cayuga coal-burning power plant ("Cayuga"). It admits that several ash lagoons at Cayuga have "significant hazard potential" under the Coal Ash Rule, meaning that, if the earthen and ash dams separating those

lagoons from the Wabash River were to fail, that failure could disrupt essential transportation or utility infrastructure, damage the economy, and/or harm the environment. Due to the potentially severe impacts of a dam failure at Cayuga, Duke Energy was required to create an Emergency Action Plan ("Plan" or "EAP") containing, among other things, an inundation map showing downstream areas that would be affected by failure of the ash lagoon dams, and contact information for emergency responders the public can call if the dams fail. In spite of well-founded public concern about its ash lagoons – and in open violation of the Coal Ash Rule – Duke Energy refused to provide either the inundation map or the emergency contact information in the Plans it made publicly available. Duke Energy's Cayuga ash lagoons are, therefore, open dumps in violation of the Rule and the Act.

Duke Energy's Perilous Open Dumps at Cayuga

Cayuga is a big (1,104 MW), decades-old coal plant; it has been running for nearly 50 years, producing millions of tons of toxic coal ash over that period. Duke Energy dumps the coal ash generated at Cayuga into large, unlined water-filled pits. Forty-seven years of burning coal creates vast quantities of ash: according to Duke Energy, one ash lagoon alone, the "lined ash disposal area," contains more than 1,695,000 tons (1,400 acre-feet) of toxic ash and contaminated wastewater, while two other lagoons at the site contain over 433,000 tons (358 acre-feet) of toxic ash and polluted water. And that's an underestimate: the company's consultants acknowledge that, in tallying the ash contained in the lagoons, they simply did not count the "excess" coal ash piled up above the surface of the water.

Duke Energy's ash lagoons at Cayuga were carved into the earth right next to the Wabash River, an iconic waterway whose importance to Indiana is difficult to overstate. The Wabash is Indiana's official state river, as well as the subject of Indiana's official state song, "On the Banks of the Wabash River, Far Away." It flows 475 miles through the state before joining the Ohio River, and includes the longest stretch of free-flowing river east of the Mississippi. Much of Indiana – 75 of its 92 counties – lies in its watershed. Near Cayuga, the Wabash is a vital

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¹ See Duke Energy's Annual Inspection Report – 2016 for Cayuga, available at https://www.duke-energy.com//_media/pdfs/our-company/cay-annl-imp-2016.pdf, at pp. 6-7.

² *Id.* at 6 ("[t]he facility has [coal ash] surface elevations that extend above the water line in portions of all the Ash Basin System Ponds. The excess CCR volume above the water line is unknown and not included in the CCR volumes given [here].")

³ There are also vast expanses of toxic coal ash in other unlined pits at the site, including beneath the "lined ash disposal area," which – as is discussed further below – contribute both to the instability of the ash lagoons and to the damage faced by the environment and economy if the ash lagoon dams were to fail. *See*, *e.g.*, Duke Energy, CCR Unit History of Construction, Cayuga, *available at* https://www.duke-energy.com/_/media/pdfs/our-company/ash-management/ccr-cay-hist-con.pdf?la=en, at 12 ("Coal ash is present beneath the Lined Ash Disposal Area to depths of 20 feet to 30 feet below the geomembrane liner at EL 510").

⁴ See http://www.in.gov/history/2799.htm and http://www.in.gov/history/2800.htm.

⁵ See http://www.in.gov/dnr/files/WabashRiverFacts.pdf.

⁶ *Id*.

waterway: it provides recreation for boaters, fisherman, and birders; prime nesting grounds for bald eagles; and habitat for at least 61 rare, threatened or endangered species.⁷

The great Wabash, and the people, plants and animals who use the iconic river, stand to be harmed if Cayuga's ash lagoon dams fail. The threat of such failure is very real. Duke Energy's own documents show that ash lagoons at the site have severe structural problems. The dikes of the so-called "lined ash disposal area" are made of ash, hold waterlogged ash, and sit on top of many more feet of ash: the lagoon is essentially ash piled on top of ash. Even Duke Energy's own consultants deemed it unstable. Their "seismic evaluation," they explain, "indicates potential for liquefaction of the sluiced ash deposits underlying the dikes." Not surprisingly, the lagoon falls far short of meeting U.S. EPA's "factor of safety" requirements set out in the Coal Ash Rule. Under the Rule, "dikes constructed of soils that have susceptibility to liquefaction" must meet or exceed a "liquefaction factor of safety" of 1.20. 40 C.F.R. § 257.73(e)(1)(iv). The liquefaction factor of safety at the lined ash disposal area is 0.61 – barely half of the acceptable level.

The lagoon that Duke Energy terms the "primary ash settling basin" is likewise a disaster waiting to happen. It failed EPA's structural safety standards for impoundments by a longshot: its liquefaction "factor of safety" was calculated at 0.47, well less than half the required level. Duke Energy's consultants described the "hydraulic structures underlying the base of [the ash lagoon] or passing through the dike" as having "deterioration, deformation, and distortion," and observed numerous indicators of instability in those earthen dikes: multiple seeps, rills (narrow channels created by small flows of water), and soil "sloughing," or falling, down their slopes. 13

Adding to the lagoons' structural problems are serious concerns about their outlet pipes, which drain ash-contaminated water into other lagoons and, finally, into the Wabash River. The concrete outlet pipe from the "lined ash disposal area" is cracked all the way around. ¹⁴ The two outlet pipes from the primary ash settling basin are made of corrugated metal, are corroded, full of debris, and have water leaking into them. It is little wonder the company's consultants characterized the pipes as "a significant concern for the integrity of the embankment." ¹⁵

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⁷See http://www.in.gov/dnr/outdoor/4476.htm, and https://news.duke-energy.com/releases/eagle-viewing-day-planned-for-duke-energy-s-cayuga-station

⁸ See Duke Energy's Annual Inspection Report – 2016 for Cayuga, supra note 1, at 7.

⁹ Initial Structural Stability Assessment for the Lined Ash Disposal Area (signed Oct. 30, 2016), *available at* https://www.duke-energy.com/ /media/pdfs/our-company/ash-management/ccr-cay-struct-stability-lad.pdf?la=en, at 2.

¹⁰ Initial Factor of Safety Assessment for the Lined Ash Disposal Area (signed October 11, 2016), *available at* https://www.duke-energy.com/ /media/pdfs/our-company/ash-management/ccr-cay-safetyfactor-lad.pdf?la=en, at 2.

¹¹ Initial Factor of Safety Assessment for the Primary Ash Settling Basin, available at https://www.duke-energy.com/ /media/pdfs/our-company/ash-management/ccr-cay-safetyfactor-pasp.pdf?la=en, at 2.

¹² Initial Structural Stability Assessment for the Primary Ash Settling Basin, *available at* https://www.duke-energy.com///media/pdfs/our-company/ash-management/ccr-cay-struct-stability-pasp.pdf?la=en, at 2.

¹³ Duke Energy's Annual Inspection Report – 2016 for Cayuga, *supra* note 1, at pp. 8-9.

¹⁴ *Id.* at 8 (noting a "circumferential fracture" of the pipe).

¹⁵ *Id.* at 8-10.

We need not guess at what kind of contamination would enter the Wabash if the ash lagoon dams were to fail. Groundwater monitoring at the site, as well as Duke's application for a Clean Water Act permit at Cayuga, reveal elevated levels of antimony, arsenic, boron, iron, manganese, selenium, and sulfate – pollutants long recognized as toxic to people, aquatic life, birds and wildlife.

In short, the only thing separating Duke Energy's toxic coal ash lagoons from the iconic Wabash river are leaking, unsound earthen and ash dams that even the company's own consultants admitted are in poor shape. The threat that these dams will fail, sending a rush of toxic ash and contaminated water toward the kayakers, bald eagles, and endangered species that use the river, is very real; indeed, it is exactly what happened at Duke Energy's Dan River Plant in North Carolina in February 2014, when up to 39,000 tons of coal ash and 27 million gallons of wastewater spilled from a failed ash lagoon, fouling 70 miles of river in North Carolina and Virginia and causing nearly \$300 million in damages over just six months. ¹⁶ This threat makes Duke Energy's failure to provide the required inundation maps and emergency responder contact information all the more serious: residents and river users near Cayuga deserve, and are legally entitled, to know if they are likely to be impacted by a dam failure and who they should contact if those ash dams fail.

Duke Energy's Criminal Convictions

The threat posed by Duke Energy's Cayuga coal ash lagoons cannot be fully appreciated without taking into consideration Duke Energy's actions at its ash lagoons in other states. In May of 2015, Duke Energy operating companies pleaded guilty 18 times to 9 federal Clean Water Act coal ash crimes across North Carolina. These crimes included unpermitted coal ash lagoon discharges very much like those flowing from the Cayuga coal ash lagoons. Duke Energy operating companies paid a \$102 million fine, and they are under nationwide criminal probation. Under court orders, the criminal plea agreement, statutes, regulatory requirements, and settlement agreements with conservation groups, Duke Energy is now required to excavate all the coal ash from behind coal ash dams and in unlined coal ash pits at 8 of its 14 coal ash storage sites in North Carolina, and all its sites in South Carolina.

Transparency Is an Essential Component of the Coal Ash Rule

The Coal Ash Rule is a self-implementing federal rule that is built on transparency. Enforcement of the rule is dependent on the public's access to information via the documents that coal ash lagoon owners are required to post on their public websites. As EPA explains, the requirements to post information about, among other things, the structural stability of ash lagoons and the contaminants they are causing to leach into groundwater "serve as a key component by ensuring that the entities primarily responsible for enforcing the requirements have access to the information necessary to determine whether enforcement is warranted." 80 Fed. Reg. at 21,339. EPA has explained that these transparency requirements are consistent with,

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¹⁶ See https://www.epa.gov/sites/production/files/2014-06/documents/signed-eden-ash-spill-aoc-04-2014-3762.pdf and Dennis Lemly, Environmental Pollution, "Damage Cost of the Dan River Coal Ash Spill," 2015, available at https://www.srs.fs.usda.gov/pubs/49260.

even encouraged by, the Act itself, which: "...contains neither provisions that grant facilities the right to withhold regulatory compliance information from the public, nor provisions that establish any reasonable expectation that such information will be kept confidential. To the contrary, section 7004 [of the Act] explicitly provides that '[p]ublic participation in the . . . implementation, and enforcement of any regulation under this chapter shall be provided for, encouraged, and assisted by the Administrator." 80 Fed. Reg. at 21,338-39.

The reasons underlying Congress' and EPA's demand that information be made available to the public are, in this case, crystal clear. It is the people living in communities across our nation near coal-fired power plants who face the most harm when coal ash spills from blown-out dams and fouls rivers, streams, and homes with toxic sludge, poisoning fish and rendering water undrinkable, as happened in North Carolina in 2014 and Tennessee¹⁷ in 2008. People living near coal ash lagoons such as those at the Cayuga Plant have the right to know – and, under the Rule, are entitled to know – if their homes and schools lie in the likely path of a torrent of ash and contaminated water that will flow towards them if dams break. For their health and well-being, they are also entitled to know who to contact, and how to contact them, if those dams fail or show signs of leaking.

Duke Energy Is Violating the Rule by Hiding Required Safety Information from the Public

Under the Coal Ash Rule, owners of coal ash surface impoundments¹⁸ must periodically evaluate the "hazard potential" of those ash lagoons and classify them as low, significant, or high hazard potential lagoons. 40 C.F.R. § 257.73(a)(2). Several of Duke Energy's coal ash lagoons at Cayuga –including the "primary ash settling basin" and the so-called "lined ash disposal area" – are sufficiently hazardous to qualify as "significant hazard potential" lagoons.¹⁹ That means failure of those ash lagoons "can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns." 40 C.F.R. § 257.53.

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¹⁷ On December 22, 2008, a coal ash lagoon at the Tennessee Valley Authority's Kingston Fossil Plant in Harriman, Tennessee, failed, spilling more than 5 million tons of coal ash into and around the Emory River. US EPA reports that the spill "disrupt[ed] power, rupture[ed] a gas line, and destroy[ed] or damage[ed] scores of homes," while contaminating local soils with toxic pollutants including arsenic and rendering the lower portion of the Emory River unsafe for fishing. *See* U.S. EPA, "Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals From Electric Utilities; Proposed Rule," 75 Fed. Reg. 35,128 at 35,239 (June 21, 2010), *available at* https://www.gpo.gov/fdsys/pkg/FR-2010-06-21/pdf/2010-12286.pdf.

¹⁸ Duke Energy's coal ash lagoons at Cayuga are "CCR surface impoundments" under the Coal Ash Rule and therefore are subject to the requirements discussed herein. The Rule defines "coal combustion residuals (CCR)" as "fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal for the purpose of generating electricity by electric utilities and independent power producers." 40 C.F.R. § 257.53. A "CCR surface impoundment," in turn, is defined as "a natural topographic depression, man-made excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR." *Id.* Duke Energy does not dispute that the coal ash lagoons at issue in this Notice are CCR surface impoundments subject to the Rule.

¹⁹ See "Periodic Hazard Potential Classification Assessment Certification, CCR Surface Impoundment: Cayuga Station, CCR Unit: Lined Ash Disposal Area" (Mar. 8, 2017), available at https://www.duke-energy.com/ /media/pdfs/our-company/ash-management/ccr-cay-haz-class-lad-r1.pdf?la=en, at 1; ""Initial Hazard Potential Classification Assessment Certification, CCR Surface Impoundment: Cayuga Station, CCR Unit: Primary Ash Settling Pond" (Sept. 28, 2016), available at https://www.duke-energy.com// /media/pdfs/our-company/ash-management/ccr-cay-haz-class-pasp.pdf, at 1.

The Rule further requires that, by April 17, 2017, owners of coal ash lagoons with significant hazard potential "must prepare and maintain a written [Emergency Action Plan]." 40 C.F.R. § 257.73(a)(3)(i). Those Plans must, at a minimum and along with other information, "provide contact information of emergency responders" and "include a map which delineates the downstream area which would be affected in the event of a CCR unit failure...," 40 C.F.R. § 257.73(a)(3)(i)(C) and (D).

Thirty days after creating that Plan and placing it in the facility's "operating record," the owner of the ash lagoons must post the Plan on its publicly accessible website. 40 C.F.R. §§ 257.105(f)(6), 257.107(d), 257.107(f)(5). The Coal Ash Rule contains no exceptions authorizing owners of ash lagoons to decline to post information required by the Rule on the publicly accessible website.

Any violation of the requirements of the Rule constitutes illegal open dumping. 40 C.F.R. § 257.1(a)(2) ("Practices failing to satisfy *any of the criteria* in . . . §§ 257.50 through 257.107 constitute open dumping, which is prohibited under section 4005 of the Act.") (emphasis added); 40 C.F.R. § 257.1(a)(1) ("Facilities failing to satisfy any of the criteria in §§ 257.1 through 257.4 or §§ 257.5 through 257.30 or §§ 257.50 through 257.107 are considered open dumps, which are prohibited under section 4005 of the Act."); 40 C.F.R. § 257.2 ("Open dump means a facility for the disposal of solid waste which does not comply with this part.").

As discussed above, Duke Energy classified coal ash lagoons at Cayuga – specifically, the "lined ash disposal area" and the "primary ash settling basin" – as "significant hazard potential" lagoons under the Rule. Duke Energy created an Emergency Action Plan for those ash lagoons, included here as Exhibit A, and posted that Plan on its publicly accessible website in May 2017. But the company included no "map which delineates the downstream area which would be affected in the event of a CCR unit failure," and redacted all contact information for emergency responders.

Duke Energy appears to claim that it is withholding this critical information on the basis of Indiana Code 5-14-3-4(b)(19): a header at the top of each page of its Emergency Action Plan says "Confidential" and cites that provision. But the company's implicit assertion that the provision authorizes it to redact or withhold the emergency contact information and the inundation map from the Plan is simply implausible and without legal basis: the cited provision is part of Indiana's law requiring <u>public agencies</u> to disclose information to the public, and Duke Energy is not a "public agency."

Even if that Indiana provision did apply to Duke Energy, it would be preempted – and therefore invalid as applied to the company – by the Coal Ash Rule. Under the Supremacy Clause of the U.S. Constitution and numerous Supreme Court and Seventh Circuit Court of Appeals' decisions, federal law overrides state law when there is a direct conflict between the two. *See, e.g., Mutual Pharm Co., Inc. v. Bartlett*, 133 S.Ct. 2466 (2013). If the Indiana provision applied to Duke Energy, it would be in direct conflict with the Rule: the Coal Ash Rule requires the emergency contact information and inundation map be developed and provided to the public on the publicly-accessible website; the Indiana law, as Duke Energy appears to interpret it,

prohibits it from making that information public. Therefore, even if the Indiana law did apply to Duke Energy (it does not), it would be preempted by the Coal Ash Rule.

In sum, Duke Energy was required to provide and post on its website contact information for emergency responders and a map of downstream areas that would be affected if the Cayuga ash lagoons were to fail. 40 C.F.R. §§ 257.73(a)(3)(i)(C) and (D), 257.107(d), and 257.107(d). Duke Energy failed to do so, and therefore violated, and continues to violate, those requirements. Accordingly, under 40 C.F.R. § 257.1(a)(1) and Section 4005(a) of the Act, the Cayuga ash lagoons constitute illegal open dumps.

Duke is Withholding the Same Critical Dam Safety Information from the Public at Every One of its High and Significant Hazard Coal Ash Lagoons

The communities near the Cayuga Plant are not the only ones that Duke Energy is depriving of inundation maps and emergency responder contact information. Our review of Duke Energy's Emergency Action Plans for all of its coal ash lagoons reveals that Duke Energy is withholding this critical dam safety information at <u>every</u> ash lagoon the company has classified as high or significant hazard potential – including coal ash lagoons in Indiana, Kentucky, Florida, North Carolina and South Carolina. In contrast, to our knowledge, no other ash lagoon owner or operator has refused to provide that essential, and required, information.

Citizens May Sue to Enforce the CCR Rule

Section 7002(a)(1) of the Act provides for citizen suits to redress violations of any standard, regulation, and requirement that have become effective pursuant to the Act. 42 U.S.C. § 6972(a)(1). 40 C.F.R. §§ 257.73(a)(3)(i)(C) and (D); 257.107(d), and 257.107(f)(5) are standards, regulations, and requirements that became effective pursuant to the Act on October 19, 2015. Section 7002(a)(1)(A) of the Act provides that citizens may commence civil actions against any person who is alleged to be in violation of any regulation or requirement that has become effective pursuant to the Act and to compel compliance with such requirement or regulation. 42 U.S.C. § 6972(a)(1).

Additionally, under Section 4005(a) of the Act, any solid waste management practice or disposal of solid waste that constitutes the open dumping of solid waste is prohibited, except where the practice occurs under a timetable or schedule for compliance. According to Section 4005(a), this prohibition shall be enforceable under Section 7002 against persons engaged in the act of open dumping. *Id*.

Section 7002(b)(1)(A) of the Act, and its implementing regulations, require prior notice of citizen suits. 42 U.S.C. § 6972(b)(1)(A) and 40 C.F.R. Part 254. This notice of intent to sue is provided pursuant to these requirements.

PERSONS RESPONSIBLE FOR VIOLATIONS

Cayuga is owned and operated by Duke Energy Indiana, LLC. Duke Energy Indiana, LLC, is a corporation with its principal place of business in Plainfield, Indiana. Duke Energy Indiana, LLC, is responsible for all violations at Cayuga.

PERSONS GIVING NOTICE

Banks of the Wabash, Inc., d/b/a Wabash Riverkeeper, is a non-profit organization based in Lafayette, Indiana. Wabash Riverkeeper's mission is to represent the many recreational users that enjoy the rivers and streams that make up the Wabash River system. Through education, advocacy, and monitoring, Wabash Riverkeeper works for clean water and promotes implementation and enforcement of the Clean Water Act. Wabash Riverkeeper has members in Vermilion County, Indiana.

Waterkeeper Alliance, Inc., is a non-profit headquartered in New York, New York uniting more than 300 Waterkeeper Organizations and Affiliates around the world and focusing citizen advocacy on issues that affect our waterways and water quality. Within the United States, Waterkeeper Alliance, Inc., works with more than 160 Waterkeeper Organizations and Affiliates to create and preserve drinkable, fishable, swimmable, and clean waterways. Waterkeeper Alliance, Inc. and its Organizations and Affiliates promote the health of waterways through education, advocacy, and vigilant monitoring, and have been leaders in protecting those waterways from toxic coal ash pollution.

Wabash Riverkeeper and Waterkeeper believe that a negotiated settlement of these violations, codified through a court-approved consent decree, would be preferable to protracted litigation. However, if we are unable to reach an enforceable settlement agreement, Wabash Riverkeeper and Waterkeeper are prepared to file suit in the United States District Court for the Southern District of Indiana pursuant to 42 U.S.C. § 6972(a)(1)(A), after sixty days from receipt of this letter. This lawsuit will seek injunctive relief, fees and costs of litigation, and such other relief as the Court deems appropriate.

If you have any questions concerning this letter or the described violations, or if you believe this notice is incorrect in any respect, please contact the undersigned counsel, Earthjustice, at (215) 717-4525. During the notice period, we are available to discuss this matter with you, but suggest if you desire to institute negotiations in lieu of a civil action that you do so immediately as we do not intend to delay prosecution of this suit once the notice period has expired. Please be advised that the failure to remedy any of the violations set forth in this letter can result in a court order enjoining further violations, and upon the successful prosecution of this suit, Wabash Riverkeeper and Waterkeeper intend to seek compensation for attorneys' fees and the costs of litigation under the citizen suit provisions of 42 U.S.C. § 6972(e).

Thank you for your prompt attention to this matter.

Sincerely,

Jennifer Cassel Project Attorney Earthjustice 1101 Lake St., Suite 308

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