Michael Regan, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
William Jefferson Clinton Building: EPA East Room 1309
Washington, DC 20004
Via Regulations.gov

Re: Comments on Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Legacy CCR Surface Impoundments. 88 Federal Register 31,982 (May 18, 2023)

Docket ID No. EPA HQ— OLEM—2020—0107

Dear Administrator Regan,

The undersigned public interest organizations from the state of Indiana appreciate the opportunity to comment on the Environmental Protection Agency's proposed Legacy CCR Surface Impoundments Rule. Our organizations have a long history of advocating for safe and secure disposal of coal combustion residuals (CCR or coal ash). We strongly support EPA's proposed changes to the federal coal ash rule or CCR Rule as a significant improvement in protection for human health and the environment. However, the proposal continues to allow exemptions for coal ash in some circumstances, so we include requests below for EPA to strengthen the rule further. Once this revision of the CCR Rule is finalized, we also urge EPA to see that the rule achieves its full potential for benefit through rigorous enforcement.

- I. The proposed revisions will significantly improve protection of human health and the environment in Indiana
  - A. Inclusion of 'Legacy CCR Surface Impoundments' will reduce harm

The EPA's proposed changes to the federal CCR Rule include a new category of surface impoundment – Legacy CCR Surface Impoundment - and requirements for this new category. The proposal defines a Legacy CCR Surface Impoundment as one that "no longer receives CCR but contained both CCR and liquids on or after October 19, 2015, and that is located at an inactive electric utility" (40 CFR 257.53). Under the proposed changes, these impoundments would be subject to most of the requirements for impoundments under the 2015 CCR Rule

including requirements regarding fugitive dust, inspections, reporting, groundwater monitoring, closure, and the post-closure period.

The undersigned organizations agree with EPA's assessment in the Preamble that Legacy CCR Surface Impoundments contain the same waste and pose the same threats to human health and the environment as the previously regulated CCR surface impoundments, so we support the addition of regulatory requirements for them. In fact, this addition will close a major loophole in the 2015 CCR Rule and significantly improve coal ash safety in Indiana.

There are examples of Legacy CCR Surface Impoundments at the Tanners Creek facility in Southeastern Indiana. The power plant at Tanners Creek stopped generating electricity in May of 2015. The site includes CCR in a landfill, an area of open dumping, and at least three CCR surface impoundments: 'Fly Ash Pond', 'Boiler Slag Pond', and 'Main Ash Pond'. There is evidence that the open dump and one of the impoundments are in contact with groundwater. The presence of water in coal ash along with the date the facility stopped producing electricity would mean that under the EPA's proposed rule changes this site would qualify as an 'inactive facility' with at least one 'Legacy CCR Surface Impoundment'<sup>1</sup>.

Tanners Creek is located in the floodplain of the Ohio River and sits atop a shallow alluvial aquifer. Groundwater sampling has demonstrated high concentrations of arsenic and lithium. Several municipal supply wells are located nearby with the closest being just over 500 feet from the edge of one of the coal ash impoundments, as shown in Figure 1 below.

<sup>&</sup>lt;sup>1</sup> Hoosier Environmental Council (Sept 19, 2020). Comments on Tanners Creek Plant Areas 1 & 2 Closure and Post-Closure Plan.



Imagery ©2020 IndianaMap Framework Data, Maxar Technologies, U.S. Geological Survey, USDA Farm Service Agency, Map data ©2020 100 ft

Figure 1. Tanners Creek ash impoundment near Lawrenceburg, IN, with the distance to the nearest municipal wall marked at 520 feet.

Clearly, the coal ash at Tanners Creek is a threat to human health and the environment and should not be exempted from the CCR Rule. The proposed designation of 'Legacy CCR Surface Impoundment' and proposed requirements are needed at Tanners Creek to ensure the Ohio River, the local aquifer, and the local community are protected from the coal ash.

The proposed definition of 'Legacy CCR Surface Impoundment' specifies that the impoundment contained both CCR and liquids on or after October 19, 2015, and the Preamble carefully and appropriately elaborates on the definitions of the words 'liquid' and 'contain'<sup>2</sup>. Unfortunately, the debate over implementation of the 2015 CCR Rule in Indiana has made it clear that elaboration of these definitions is necessary. We agree with EPA that when water is not frozen or in vapor form, it is a liquid regardless of whether the water is from sluicing, porewater, a surface waterway, or groundwater. We also agree with EPA that when an impoundment is deep enough to put coal ash below the water table so that the ash is saturated with groundwater, then that impoundment contains the water. The deep boundary of an unlined CCR

<sup>&</sup>lt;sup>2</sup> 88 Federal Register page 31992 (May 18, 2023)

impoundment is the bottom of the coal ash. If water is inside that boundary, it is in the impoundment.

Requiring monitoring and cleanup of coal ash impoundments that contain liquid, including those that contain groundwater, is critical to controlling leaching of contaminants from those units. Any time water is in contact with coal ash, it is potentially leaching contaminants, regardless of the source of the water. Leaching is only controlled when the ash is kept dry. Therefore, it is essential that EPA stop the practice of closure-in-place that leaves coal ash in contact with groundwater.

Indiana has many examples of coal ash impoundments deep enough to have coal ash in contact with groundwater, including impoundments that qualify as Legacy CCR Surface Impoundments according to the proposed definition. Tanners Creek, as mentioned above, has coal ash in contact with groundwater. 'Area 2' at Tanners Creek, where ash from open dumping sites is being consolidated, is unlined, and groundwater observations have documented the water table 5 to 11 feet above the bottom of the coal ash. Since Area 2 is located at a site that stopped generating electricity before October 2015, and Area 2 contains both coal ash and liquid on or after October, 2015, Area 2 qualifies as a Legacy CCR Surface Impoundment. We look forward to the federal CCR Rule applying to this site and correcting the contact between coal ash and the groundwater<sup>3</sup>.

The expedited deadlines EPA has proposed for Legacy CCR Surface Impoundments are necessary and feasible. Legacy CCR Surface Impoundments pose as much risk to human health and the environment as any other CCR impoundment, and they are already nearly eight years behind in the regulatory process.

# B. The addition of CCR Management Units (CCRMU) to the CCR Rule will significantly improve cleanup

EPA's proposed changes to the CCR Rule include a new category of unit meant to encompass much of the currently exempt coal ash, other than the Legacy CCR Surface Impoundments. The new term, CCR Management Unit or CCRMU, is defined in the proposed regulatory text as,

CCR management unit means any area of land on which any noncontainerized accumulation of CCR is received, placed, or otherwise managed at any time, that is not a CCR unit. This includes inactive CCR landfills and CCR units that closed prior to October 17, 2015. (257.53)

<sup>&</sup>lt;sup>3</sup> Hoosier Environmental Council (Sept 19, 2020). Comments on Tanners Creek Plant Areas 1 & 2 Closure & Post-Closure Plan.

The Preamble explains that this is intended to include CCR impoundments or landfills that closed prior to Oct 2015, inactive landfills, "and any area at a facility where solid waste management involving the past or present placement or receipt of CCR directly on the land has or is occurring". (page 32017)

1. The Wabash River Station is an example of a CCRMU that poses a risk to human health and the environment.

Duke Energy's Wabash River Station near Terre Haute, IN, has an example of a CCRMU that helps illustrate the value of this change to the CCR Rule. Wabash River Station stopped generating electricity in 2016, so it does not qualify as an 'inactive facility'. The unlined North Ash Pond on the site stopped receiving CCR from the power plant prior to 1990. Duke Energy contends that North Ash Pond was not subject to the 2015 CCR Rule, despite the fact that it contains coal ash and water. Groundwater monitoring since 2015 has documented the water table up to 10 feet above the bottom of the ash in the North Ash Pond<sup>4</sup>, so it contained both CCR and water after October 19, 2015. Duke received state approval for closure-in-place of 22.8 acres of the North Pond in the fall of 2021<sup>5</sup>. Taken together, these facts appear to qualify Wabash River Station's North Ash Pond as a CCRMU.

Groundwater levels at the Wabash River Station are closely tied to the level of the adjacent Wabash River. The Wabash River at Terre Haute typically varies between 445 and 472 feet above NAVD88 (above sea level) and virtually always exceeds 442 feet, which is the lower limit of the ash in North Ash Pond<sup>6</sup>, so the bottom of the ash is likely to always be saturated. Monitoring has demonstrated elevated groundwater concentrations of arsenic, boron, lithium, molybdenum, and sulfate downgradient from the North Ash Pond. According to groundwater elevations, flow moves toward the Wabash River, so the coal ash contaminants are currently moving toward the adjacent Wabash River<sup>7</sup>.

<sup>&</sup>lt;sup>4</sup> ATC Group Services (2017). Proposed Ash Basin Closure and Post-closure Plans: Ash pond system Wabash River Generating Station at pdf pages 17, 53, and 84.

<sup>&</sup>lt;sup>5</sup> Indiana Dept of Environmental Management (Sept 8, 2021). Partial Approval of Closure/Post-closure Plan Wabash River Generating Station North Ash Pond.

<sup>&</sup>lt;sup>6</sup> US Geologic Survey. Stream gage 03341500 Wabash River at Terre Haute, IN.

<sup>&</sup>lt;sup>7</sup> WSP Golder (Jan 10, 2023). Groundwater Monitoring Statistical Report North Ash Pond – November 2022, Wabash River Station SW ID 84-UP-10. IDEM Virtual File Cabinet doc #83420381

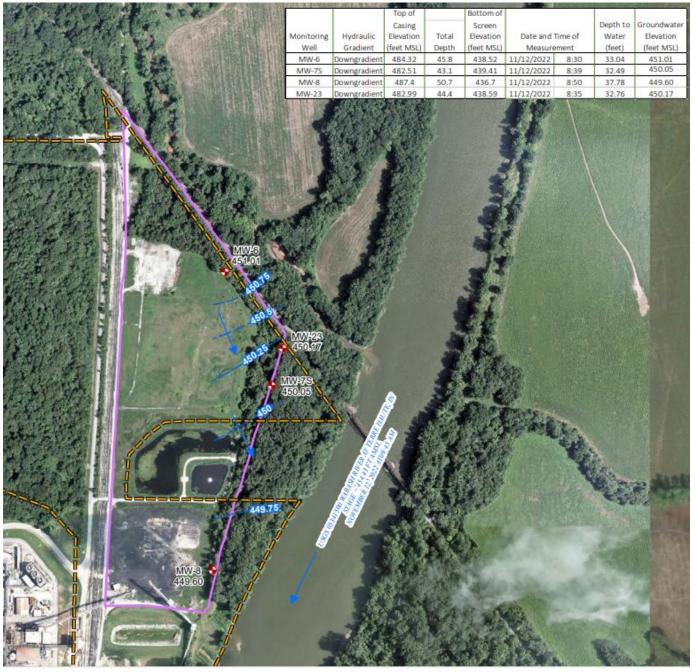


Figure 2. Wabash River Station North Ash Pond and adjacent Wabash River with groundwater elevations<sup>8</sup>. The base of the coal ash is at an elevation of 442 feet, well below the water table which is around 450.

The Wabash River Station's location in the floodplain means the berms surrounding the impoundments could be subjected to erosion and displacement of riprap from floodwaters. When the Wabash River rises to 20 feet or more above the stream gage, the water can reach

<sup>&</sup>lt;sup>8</sup> WSP Golder (Jan 10, 2023). Groundwater Monitoring Statistical Report North Ash Pond – November 2022, Wabash River Station SW ID 84-UP-10. IDEM Virtual File Cabinet doc #83420381

the berms<sup>9</sup>. According to the USGS stream gage at Terre Haute, the Wabash River reaches 20 feet or more above the gage at least once a year, as demonstrated in the USGS graph below of 10 years of stream gage data<sup>10</sup>.



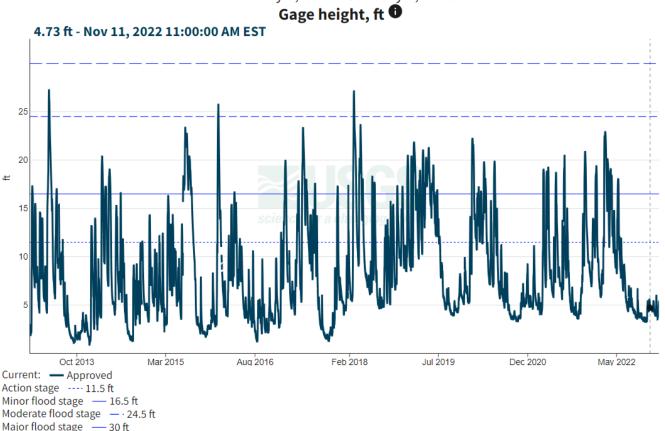


Figure 3. Wabash River stream gage data near the Wabash River Station in Indiana.

Given the presence of CCR in groundwater and in the floodplain at Wabash River Station, closure-in-place as approved by the state leaves the aquifer and the river at risk. With the proposed changes to the CCR Rule, it appears this site would qualify as a CCRMU and would need to meet standards that would better protect the community and Indiana's natural resources.

<sup>&</sup>lt;sup>9</sup> ATC Group Services (2017). Proposed Ash Basin Closure and Post-closure Plans: Ash pond system Wabash River Station

<sup>&</sup>lt;sup>10</sup> US Geologic Survey. Stream gage 03341500 Wabash River at Terre Haute, IN.

## 2. The Michigan City Generating Station has CCRMUs in the form of a closed impoundment and fill that pose threats to human health and the environment

The Michigan City Generating Station (MCGS) in Michigan City, Indiana, provides another example of the need for the changes related to CCRMU in the proposed rule changes. MCGS is still producing power and has a large volume of coal ash outside of its regulated coal ash ponds. Part of the unregulated ash is in a buried, unlined coal ash impoundment from the 1930s – 1972, that will likely now qualify as a CCRMU. It is located in the far northeast corner of the MCGS property, which is bounded by both Lake Michigan and Trail Creek. A RCRA Facility Investigation Report refers to this historic ash pond as "SWMU12" and says that it is now covered with gravel, various structures, parking lots, and the FGD unit. The map of solid waste management units (SWMUs) from the RCRA Facility Investigation is included as Figure 4 with a red circle added to mark SWMU12<sup>11</sup>.



<sup>&</sup>lt;sup>11</sup> Golder Associates, Inc (Dec 2018). RCRA Facility Investigation Report, Michigan City Generating Station. pdf page 32.

Figure 4. Site Plan Slid waste management units and areas of concern from the Michigan City Generating Station RCRA Facility Investigation. The red circle marks the site of the former coal ash pond, SWMU12.



Figure 5. Michigan City Generating Station, 1951 (USGS) showing steel sheet pile wall enclosing a portion of the lake and lakeshore. In the upper corner of the property, the coal ash impoundment is visible.

Figure 5 is a photo from 1951 showing the historic impoundment that is now SWMU12 and showing the steel sheet pile wall that was added at Michigan City in 1949<sup>12</sup>. The sheet pile wall encloses a portion of Lake Michigan and the shoreline in a roughly triangular area. From that

<sup>&</sup>lt;sup>12</sup> Golder Associates, Inc (Dec 2018). RCRA Facility Investigation Report, Michigan City Generating Station. pdf page 20.

time until the early 1970s, NIPSCO filled in behind the sheet pile wall with coal ash, as related in the RCRA report:

One purpose of the sheet pile walls was to facilitate the creation of "made land", which resulted from filling behind the structures with CCR produced at the generating station. 13



Figure 6. Michigan City Generating Station, 1961 (USGS). The area behind the sheet pile wall is partially filled with coal ash.

<sup>&</sup>lt;sup>13</sup>Golder Associates, Inc (Dec 2018). RCRA Facility Investigation Report, Michigan City Generating Station. p. 9 (pdf page 20).

Figure 6 is an aerial photo from 1961. Compared to the prior photo from 1951, the area inside the sheet pile wall is partially filled and the dark grey fill directly north of the power plant (red arrow) has the appearance typical of coal ash released into an impoundment. The filling behind the sheet pile continued until 1972. By that time the area behind the sheet pile was completely filled and was then treated as "made land". The present-day coal ash ponds and other structures were built on this made land. Figure 7 shows the property's current appearance.



Figure 7. Michigan City Generating Station 2020 (Google) showing the area behind the sheet pile completely filled and ash ponds built on the filled area.

<sup>&</sup>lt;sup>14</sup> Golder Associates, Inc (Dec 2018). RCRA Facility Investigation Report, Michigan City Generating Station. pdf page 20.

The result of filling behind the sheet pile is a massive collection of coal ash mixed with sand. According to the RCRA Facility Investigation Report, the fill thickness in the Power Generation Area of the MCGS site:

varies from approximately 6 to 19 ft below ground surface (bgs) in the northern portion of the Site near SWMU12 (Sargent & Lundy borings). The fill materials consist of black ash, cinders, and fly ash comingled with sand.<sup>15</sup>

The CCR Management Area of MCGS covers the western two-thirds of the property and is also underlain by mixed coal ash and sand fill, as stated in the RCRA Facility Investigation Report:

Fill is present beneath the current ash ponds from approximately ground surface to at least 40 ft. bgs near the East Primary Fly Ash Settling Basin (Boring BH-7, Golder 2012) and near the Final Pond (BH-8, Golder 2012). The fill material includes a mixture of fly ash, boiler slag, and sand.<sup>16</sup>

The total amount of coal ash in the fill is unclear, but must be significant since coal ash was disposed of behind the sheet pile walls from 1950 until 1972.

The Michigan City coal ash fill is at significant risk of a spill into Lake Michigan. The fill sits in an area that was formerly part of Lake Michigan and that is now in the floodplain of the Lake. The risk of a spill is increasing as the sheet pile walls holding the ash in place are aging.

The groundwater on the MCGS site is contaminated with arsenic, lithium, and molybdenum at concentrations exceeding drinking water standards<sup>17</sup>. There is documented off-site migration of CCR contaminants into the adjacent lake and stream<sup>18</sup> where they are accumulating in sediments<sup>19</sup>. The Closure Application includes a calculation that the horizontal flow of groundwater at MCGS is approximately 230 feet per year, and the groundwater elevations in Figure 8 below show that the flow is into Lake Michigan. The cross section in Figure 9 shows that much of the fill at Michigan City lies below the water table. A permanent solution for the Michigan City coal ash is essential for protecting Lake Michigan – the drinking water source of 10 million Americans – from coal ash contamination and could happen if EPA finalizes the proposal to add CCRMUs to the CCR Rule.

<sup>&</sup>lt;sup>15</sup>Golder Associates, Inc (Dec 2018). RCRA Facility Investigation Report, Michigan City Generating Station. pdf page 21.

<sup>&</sup>lt;sup>16</sup>Golder Associates, Inc (Dec 2018). RCRA Facility Investigation Report, Michigan City Generating Station. p. 10 (pdf page 21).

<sup>&</sup>lt;sup>17</sup> WSP Golder (Aug 2022). 2021-2022 Annual Groundwater Monitoring and Corrective Action Report – Primary 2.

<sup>&</sup>lt;sup>18</sup> Wood Environment & Infrastructure Solutions, Inc (2018). Surface Impoundment Closures (CCR Final Rule and RCRA Regulated) Closure Application, pdf page 34.

<sup>&</sup>lt;sup>19</sup> Bradley, L. (Oct 2018). Risk-based Evaluation of the Michigan City Generating Station. Haley and Aldrich, Inc.

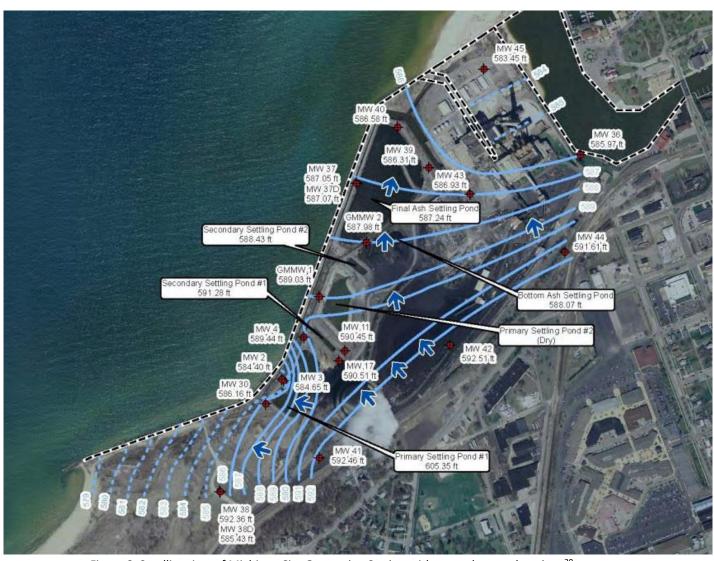


Figure 8. Satellite view of Michigan City Generating Station with groundwater elevations<sup>20</sup>.

 $^{20}$  Golder Associates (Dec 2018). RCRA Facility Investigation Report, Michigan City Generating Station, pdf page 126.

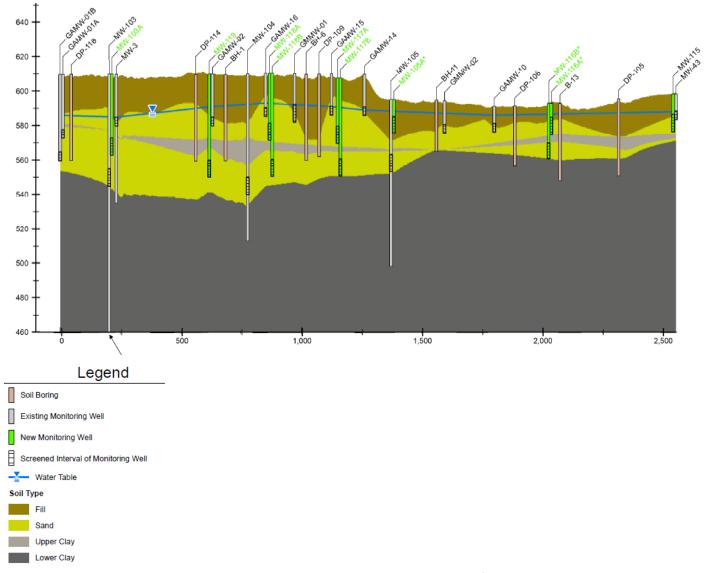


Figure 9. Michigan City Generating Station, Cross section showing CCR fill below the water table. From the Michigan City Closure Addendum, Feb 2019<sup>21</sup>.

CCR used as fill creates as much threat to human health and the environment, or possibly more, than CCR in impoundments and landfills. CCR fill areas are usually uncapped, allowing precipitation to pass into the CCR and create leachate. They are also unlined so the leachate can pass freely to the underlying aquifer or travel via the aquifer to nearby waterways.

<sup>&</sup>lt;sup>21</sup> Wood Environment and Infrastructure Solutions, Inc. (Feb 28, 2019). Supplemental Addendum Monitoring Well Network, Surface Impoundment Closures (CCR Final Rule and RCRA Regulated) Closure Application, Michigan City Generating Station. IDEM Virtual File Cabinet doc # 82709758.

## 3. Coal ash fill and other CCRMU at Harding Street threaten human health and the environment

The Harding Street Generating Station in Indianapolis, Indiana, is another example of the need for CCRMU in the CCR Rule. Harding Street continues to produce power. It has 8 unlined CCR impoundments in the floodplain of the White River overlying a shallow sand and gravel aquifer<sup>22</sup>. The power company that owns the facility claims 4 of the impoundments (Ponds 2, 4, 4A, 4B) are exempt from the 2015 CCR Rule based on not receiving CCR after October 2015. The berms around the impoundments were mostly constructed out of coal ash<sup>23</sup>. The reported bottom of the ash is at an elevation of 667 feet<sup>24</sup> while the groundwater elevations range from 654 to 666.65 feet<sup>25</sup>. The adjacent river, which is in communication with the aquifer, was at the level of the bottom of the ash or higher on 652 days between July 2015 and November 2021 and on 70 of those days the river surface was 5 feet or more above the bottom of the ash<sup>26, 27</sup>. The river elevations are tied to groundwater elevations and suggest a high likelihood of contact between coal ash and groundwater.

<sup>22</sup> Assessment of Dam Safety of Coal Combustion Surface Impoundments – Harding Street Generating Station, prepared by CDM, November 15, 2010

<sup>&</sup>lt;sup>23</sup> Sargent & Lundy, LLC, IPL Harding Street Generating Station Ash Pond System Closure & Post-Closure Plan, July 28, 2016

<sup>&</sup>lt;sup>24</sup> Sargent & Lundy, LLC, IPL Harding Street Generating Station Ash Pond System Closure & Post-Closure Plan, July 28, 2016

<sup>&</sup>lt;sup>25</sup> ATC Group Servies LLC (Feb 27, 2023). 2022 CCR Annual Groundwater Monitoring and Corrective Action Report Indiana polis Power & Light Company d/b/a AES Indiana Harding Street Generating Station.

<sup>&</sup>lt;sup>26</sup> US Geologic Survey. Stream gage 03353000 White River at Indianapolis, IN.

<sup>&</sup>lt;sup>27</sup> Hutson, M. with Geo-Hydro, Inc. (May 2022). Review of Corrective Measures Assessment Indianapolis Power & Light Company Harding Street Generating Station.



Figure 10. Harding Street Generating Station and the adjacent White River (Google Earth).

Groundwater monitoring at Harding Street shows Statistically Significant Levels (SSLs) for antimony, arsenic, lithium, and molybdenum with arsenic levels as high as 867 ug/L (more than 86 times the concentration allowed in drinking water)<sup>28</sup>. The nature and extent monitoring wells show the CCR contaminants moving well into the adjacent property, which is a a quarry. The quarry has a NPDES permitted discharge to the White River from "pit dewatering" that we suspect carries the CCR contaminated groundwater to the White River, though the permit does not require monitoring for CCR constituents<sup>29</sup>.

We have had verbal reports that the Harding Street property also has extensive CCR fill. Evidence of CCR fill outside the impoundments is found in some of the borings that were done for monitoring wells. Well MW-11D and MW-4S are outside of the impoundment berms, but both have a significant amount of CCR in their borings. MW-11D has 6 feet of ash in the boring, and MW-4S has 7 feet of ash in the boring<sup>30</sup>. The full extent of the CCR fill on the Harding Street site has not been determined.

Given the precarious position of the coal ash at Harding Street in the floodplain, unlined, likely in contact with groundwater with heavily contaminated groundwater flowing into the adjacent quarry which pumps it into the river, a complete cleanup with closure by removal is warranted.

<sup>&</sup>lt;sup>28</sup> ATC Group Servies LLC (Feb 27, 2023). 2022 CCR Annual Groundwater Monitoring and Corrective Action Report Indiana polis Power & Light Company d/b/a AES Indiana Harding Street Generating Station.

<sup>&</sup>lt;sup>29</sup> NPDES permit #ING490068

<sup>&</sup>lt;sup>30</sup> Indiana Department of Environmental Management (March 3, 2017). Request for Additional Information Indianapolis Power and Light Harding Street Generating Station Ash Ponds. Virtual file cabinet doc# 80437602

AES has submitted a plan for closure-in-place, which the state agency has yet to approve. Even if it is approved, it will not include closure of the CCR fill or even full investigation of the extent of the fill.

The Harding Street site would qualify as having multiple CCRMUs under EPA's proposed rule changes, and those changes would require investigation of the extent of the CCR fill. Finalizing the proposed changes will significantly improve protection of human health and the environment at the Harding Street coal ash site, particularly if the CCRMUs there are required to close according to the existing closure standards in the CCR Rule.

#### C. The new requirements should apply to state programs immediately

We urge the EPA to apply the revised CCR Rule provisions to state permit programs immediately since the fate of coal ash in Indiana is entirely dependent on the federal rule. In 2021, the Indiana General Assembly directed the state agency to create a state CCR permit program with the passage of SEA 271. The agency released its draft rule in December 2022. It incorporated provisions from Indiana's solid waste regulations that have applied to coal ash since the mid-1990s. Some of the solid waste provisions in Indiana's draft rule do not appear in the federal CCR Rule. The industry has been complying with the solid waste provisions for many years, but after the draft rule was released, there was a request from the industry to the General Assembly to block the agency's draft rule. In April 2023, the Indiana General Assembly modified the law to prohibit the agency from including any requirement for coal ash that was not in the federal CCR Rule<sup>31</sup>, so the future of coal ash disposal in Indiana will be solely determined by the federal rule. We therefore urge EPA to make the CCR Rule as strong as possible and to apply it to state programs immediately. The examples highlighted in these comments describe CCR sites in Indiana where coal ash has been unsafely disposed and stored and that will remain in that state in perpetuity absent federal action, given this new state law prohibiting Indiana's environmental regulator from taking additional independent actions on coal ash to protect public health and the environment. The examples in these comments are just a sampling. They are not a comprehensive list of Indiana's unsafe coal ash sites. There are many more.

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<sup>&</sup>lt;sup>31</sup> Indiana HEA 1623 in 2023

- II. To achieve adequate protection of human health and the environment, the CCR Rule must be strengthened beyond the current proposal
  - A. There should be robust requirements for finding where coal ash is in contact with groundwater

To control leaching from Legacy CCR Surface Impoundments, it is critical to know whether the impoundment is deep enough to have coal ash in contact with groundwater. We urge EPA to strengthen the requirements for determining whether ash is in contact with groundwater.

Indiana has examples of utilities trying to claim there is no contact between ash and groundwater, when in fact, there are simply inadequate data to make the determination. At AES Indiana's Eagle Valley Generating Station, AES is claiming that the majority of Ponds A, B, and C are above the water table. However, every boring that has been taken in the interior of those impoundments has identified coal ash below the water table. Over the majority of the impoundments, AES has not taken borings and has no data on the depth of the ash, yet asserts that those uninvestigated areas are above the water table. In fact, AES' assertions are based on borings that were only done in the perimeter dikes around Ponds A, B, and C, not in the interior of the ponds. The 2022 Revised Closure Plan states in section 1.4.1 on pdf page 23, "Per the borings drilled in the dikes of Ponds A, B, and C in 2011 and 2015, the average bottom-of-ash elevation recorded in the west ash ponds' dikes was approximately 602 feet". Figures 11 - 13 below show the locations of the borings AES used to determine whether ash was in contact with groundwater<sup>32</sup>.

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<sup>&</sup>lt;sup>32</sup> Sargent & Lundy, 2022, Closure & Post-Closure Plan for Ponds A, B, and C, Revision 3, October 14, 2022

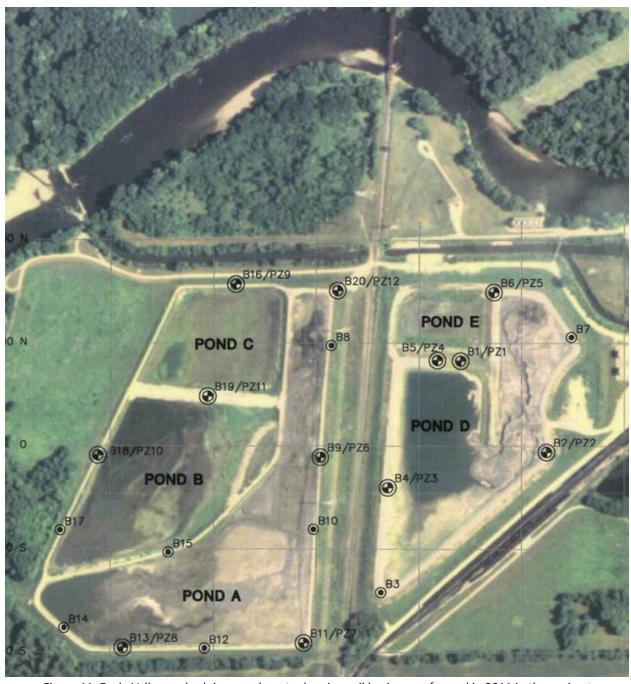


Figure 11. Eagle Valley coal ash impoundments showing soil borings performed in 2011 in the perimeter dikes of the impoundments and used to determine the depth of ash in the impoundments <sup>33</sup>.

 $<sup>^{33}</sup>$  Sargent & Lundy, 2022, Closure & Post-Closure Plan for Ponds A, B, and C, Revision 3, October 14, 2022. Pdf page 54.



Figure 12. Eagle Valley coal ash impoundments showing soil borings performed in 2015 in the perimeter dikes of the impoundments and used to determine the depth of ash in the impoundments<sup>34</sup>.

 $<sup>^{34}</sup>$  Sargent & Lundy, 2022, Closure & Post-Closure Plan for Ponds A, B, and C, Revision 3, October 14, 2022. Pdf page 92.

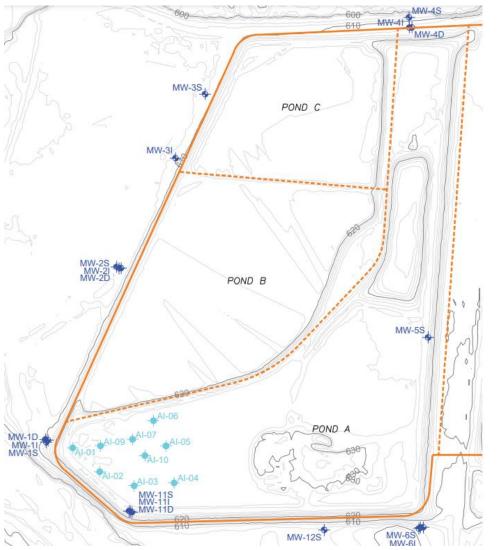


Figure 13. Eagle Valley coal ash impoundments showing soil borings performed in 2019 in the interior of the southwest corner of Pond A (lighter blue denotes the 2019 borings)<sup>35</sup>. Note that these are the only borings taken in the interior of any of the ash ponds, and they show deeper ash that lies below the water table.

AES's 2022 Revised Closure Plan provides that AES would excavate the small areas where ash has been found to be in contact with groundwater, add that ash to unexcavated parts of the impoundments, and then close the ash in place. However, the Eagle Valley location is unsuitable for permanent storage of waste. As shown below in Figure 14, coal ash Ponds A, B, and C lie in the floodway of the White River.

 $<sup>^{35}</sup>$  Sargent & Lundy, 2022, Closure & Post-Closure Plan for Ponds A, B, and C, Revision 3, October 14, 2022. Pdf page 121





Figure 14. The upper image is a satellite view of the Eagle Valley Generating Station from IPL's 2016 Closure Plan. The lower image is the Flood Insurance Rate Map (FIRM) for the White River at Eagle Valley, which was accessed at maps.Indiana.edu. Light blue marks the 100-year floodplain, red marks the 500-year floodplain, and yellow marks the floodway. Note that Ash Ponds A, B, and C are entirely in the floodway.

The Eagle Valley location is also unsuitable for permanent waste disposal because it is adjacent to the White River, which is subject to channel migration. Fluvial processes can cause Indiana rivers to significantly shift in their courses over time. In 2013 the US Geological Survey published a report on channel migration rates for 38 of the largest streams in Indiana that shows that rivers in west-central and east-central Indiana have had significant channel migration in recent years. The White River had among the highest migration rates. Where coal ash is disposed of adjacent to rivers, channel migration could erode into the berms over time causing release of the ash into the river. Figure 15 below illustrates channel migration. It is from the cover of the USGS report, and shows migration of the White River near Centerton, IN, not far from Eagle Valley. The blue arrows point to utility poles<sup>36</sup>.



Figure 15. Satellite images illustrating channel migration of the White River near Centerton, IN, over a period of 7 years.

Better delineation of where the coal ash is in contact with groundwater at Eagle Valley might lead to complete excavation of the ash ponds, which would get the ash out of its totally unsuitable location and would be a much better solution for the contaminated groundwater. The Eagle Valley CCR impoundments are unlined and have contaminated the shallow underlying

<sup>&</sup>lt;sup>36</sup> US Geological Survey, *Recent (circa 1998 to 2011) Channel-Migration Rates of Selected Streams in Indiana,* Report 2013-5168

aquifer with arsenic, boron, lithium, mercury, and molybdenum<sup>37, 38</sup>. AES has a corrective measures assessment for the Eagle Valley groundwater which relies heavily on 'hydraulic containment' by high-volume pumping of the groundwater to control spread of the contaminant plume. Once pumped out of the ground, the contaminated groundwater is used as cooling water at the Eagle Valley natural gas combined cycle power plant and for making steam. These processes concentrate the contaminants. Then the water is released into the river through a NPDES permitted discharge<sup>39</sup>. In other words, AES' solution to the contaminated groundwater is to pump it into the White River.

The EPA must strengthen requirements for investigating depth of coal ash and elevation of groundwater to prevent or resolve situations like Eagle Valley. The closure-in-place of the Eagle Valley coal ash in this wholly unsuitable location is being supported by an entirely inadequate assessment of ash contact with groundwater. Lack of data should not qualify as proof that the ash and groundwater are not in contact.

#### B. A regulatory definition of 'liquid' is needed

EPA requested comment on whether to revise the rule to add a regulatory definition of the word "liquid" (page 31993). Given the debates over ash in contact with groundwater in Indiana, we feel that such a regulatory definition is unfortunately necessary.

#### C. A regulatory definition of 'infiltration' is needed

We urge the EPA to add a regulatory definition of the word 'infiltration'. EPA needs to make clear that preventing the infiltration of water into coal ash means water coming from any direction and that groundwater counts as a "free liquid" in the CCR. This again is necessary because of the many coal ash ponds in Indiana where the utilities have argued for closure-in-place despite having ash below the water table and in contact with groundwater.

The following lengthy quote from a Duke Energy memo is a prime example of why a regulatory definition of 'infiltration' is essential:

Duke Energy disagrees with IDEM [Indiana Department of Environmental Management] staff's proffered definition of "infiltration," as that term is used in the CCR rule's closure-in-place performance standard. First, a review of the regulatory language and preamble

<sup>&</sup>lt;sup>37</sup> ATC Group Services LLC (Feb 2023). 2022 CCR Annual Groundwater Monitoring and Corrective Action Report Indianapolis Power & Light Company d/b/a AES Indiana Eagle Valley Generating Station.

<sup>&</sup>lt;sup>38</sup> IDEM (Feb 17, 2023). Public Notice no. 20230217-IN0004693-D, Draft NPDES Permit. Mercury data on pdf page 113

<sup>&</sup>lt;sup>39</sup> Haley and Aldrich (Oct 2019). Report on Corrective Measures Assessment Eagle Valley Generating Station.

quidance explaining the closure-inplace requirements indicate that the performance standard is intended to address the function and integrity of the final cover system, not groundwater quality—an issue that is fully addressed under the CCR rule's corrective action provisions. Second, EPA's HUMAN AND ECOLOGICAL RISK ASSESSMENT OF COAL COMBUSTION RESIDUALS (Dec. 2014) [hereinafter "RISK ASSESSMENT"], which was developed to characterize the risks associated with CCR disposal practices to aid in development of the final CCR rule, clearly indicates that EPA intends for the term "infiltration" as used in the CCR rule (as is the case in all other contexts)—and specifically in the closure-in-place performance standard—to address the post-closure passage of liquids through the top of the cap. It is this post-closure infiltration of precipitation and surface run-on (not horizontal migration under the cap) that must be "control[led], minimize[d] or eliminate[d], to maximum extent feasible." The RISK ASSESSMENT and EPA's discussions thereof in the CCR rule's preamble indicate that the agency was well aware that some CCR units existed where a portion of the ash was in contact with roundwater; yet, it chose not to require closure by removal of these impoundments or to establish separate performance standards specifically applicable to such units. To the contrary, EPA recognized it was unlikely that most facilities would close their CCR units by removal "given the expense and difficulty of such an operation." 80 Fed. Reg. at 21412. Instead, EPA recognized that the CCR in these units is "typically destined for permanent entombment when the unit is eventually closed." 75 Fed. Reg. 35128, 35177 (June 21, 2010). Third, recent statements in EPA's proposed Amendments to the National Minimum Criteria rule ("Proposed Phase 1 Amendments"), 83 Fed. Reg. 11584 (Mar. 15, 2018), evince that the closure-in-place performance standard is intended to limit the infiltration of precipitation and surface drainage into the CCR underlying the cap. Fourth, EPA statements makes clear that under certain circumstances, including when waste is in contact with groundwater, the closure-in-place option may be necessitated. It is important to note that groundwater modeling demonstrates that the most effective action to address groundwater impacts is to remove the free-standing water from the basin, which is what Duke Energy will do prior to installing the final cover system. In addition, work is currently underway to assess a suite of potential corrective measures to remediate releases and restore affected areas. It is under these provisions of the CCR rule (i.e., Sections 257.96-.98) and not under Section 257.102 that site specific conditions, including saturated ash, affecting groundwater quality must be considered. The cumulative effects and total environmental impact of closure by removal on noise, safety, traffic, and the community are significant. At the same time, this closure option will not result in additional, measurable environmental benefits. For these reasons, the closure plans comply with the requirements of the CCR rule, including its closure-in-place performance standard, and should be promptly approved $^{40}.$ 

<sup>&</sup>lt;sup>40</sup> Duke Energy (Feb 15, 2019). Response to Request for Additional Information and Addendum No. 2, Proposed Site Closure Implementation Plan, Duke Energy Gallagher Generating Station Ash Pond.

D. The proposed exemption for dry legacy impoundments creates continuing risk

On page 31993 of the Federal Register notice, EPA states that it, "is not proposing to expand the definition of a Legacy CCR Surface Impoundment to include units that contain no liquid". EPA goes on to ask for comment on whether it should exempt a dry legacy CCR impoundment.

The EPA should not allow for a categorical exemption of dry legacy CCR impoundments. A dry impoundment can still create significant risks to human health and the environment. If the containing structure is inadequate, it could fail and release CCR into the environment. If the cap over the CCR is inadequate, the CCR could become exposed to the air and pose a dust hazard. Also, with an inadequate cap, the ash will be wetted by precipitation which will create leachate.

Perhaps the greatest risk is that an impoundment may be called "dry" when in fact the relationship between the coal ash and water table has not been adequately studied. The example of Eagle Valley Generating Station above, illustrates how the bottom of the ash can be called dry when, in fact, there are inadequate data for making that assessment.

As an alternative to exempting dry legacy impoundments, we recommend that exemptions be considered only on a case-by-case basis. For example, an impoundment might be eligible for exemption if it meets a list of criteria, such as the following:

- There is adequate documentation that the impoundment is not leaching into either surface water or groundwater.
- The containment structure is adequately robust for permanent storage of the ash.
- The containment structure is not in the floodplain, wetland, fault area, seismic zone, or unstable area.

If all three of those statements can be made about a legacy impoundment, we could understand EPA considering it for exemption from further requirements under the CCR Rule.

E. Is there adequate reason to exempt legacy impoundments and CCRMU from location restrictions and liner requirements (pages 31996 and 32017)?

On page 31996 of the Federal Register notice, EPA makes the following statement,

EPA is proposing that legacy CCR surface impoundments would not be subject to either the location restrictions at §§ 257.60 through 257.64, or the liner design criteria at § 257.71. EPA is proposing to exclude these requirements because EPA believes they will not be necessary if EPA takes final action on the proposed requirement that all legacy CCR surface impoundments initiate closure no later than 12 months after the effective date of the final rule.

#### Page 32017 includes the following:

EPA is proposing that CCRMU, like legacy CCR surface impoundments, must close, and for the same reasons that EPA described with respect to legacy CCR surface impoundments, the location restrictions and liner design criteria are also unnecessary.

We recommend that the EPA reconsider these proposals and require that both legacy CCR surface impoundments and CCRMU be subject to the location restrictions and liner design criteria, which are critical to protecting public health and the environment. In our view disposal of coal ash less than 1.52 meters from uppermost underlying aquifer (257.60); disposal of CCR in wetlands (257.61); disposal of CCR in fault areas (257.62); disposal of CCR in seismic impact zones (257.63); and disposal of CCR in unstable areas (257.64) should not occur regardless of whether the CCR is in a CCR Surface Impoundment, a CCRMU, or a Legacy CCR Surface Impoundment. Similarly, the liner under a Legacy CCR Surface Impoundment or CCRMU is just as important as a liner under a CCR Surface Impoundment in preventing groundwater contamination (257.71). It is not clear why initiating closure in 12 months after the effective date of the rule would change this.

F. Is there adequate reason to exempt CCRMU from structural stability requirements (page 32017)?

#### On page 32017, EPA states:

The other existing requirements in part 257 are not necessary for CCRMU. For example, since CCRMU do not contain sufficient liquids to create a hydraulic head or to otherwise cause the conditions that might lead to a structural failure, the structural stability requirements are unnecessary.

We strongly disagree. We are convinced that the proposed definition of CCRMU includes collections of CCR that contain water, in contrast to EPA's statement that "CCRMU do not contain sufficient liquids . . .". For example, at both the Harding Street Generating Station in Indianapolis, IN, and the Michigan City Generating Station in Michigan City, IN, there are CCR collections containing water that we believe fit the proposed definition of CCRMU. Both facilities still produce power and they have historical CCR impoundments and coal ash fill that have been exempt from the 2015 CCR Rule, so we conclude that they have CCRMU per the proposed definition.

At Harding Street, the extent of the CCR fill has not been documented, yet, but it is located in the floodplain of the White River and has a very shallow underlying aquifer. There is a substantial chance that a portion of the CCR fill at Harding Street is saturated with groundwater. In this case, a "structural failure" could happen the next time the White River is at flood stage with CCR fill washed into the River by floodwaters. The fill at Harding Street needs to be fully delineated, removed from the groundwater, removed from the floodplain and disposed of in a structurally sound disposal unit.

At Michigan City, much of the CCR fill is below the water table as shown above in Figure 9, so liquids are certainly present in the CCR. Below the water table, the CCR fill is saturated. The CCR fill was placed in a sectioned off portion of Lake Michigan and is now held out of the Lake by an aging steel seawall. Structural failure is one of the chief concerns at this location. Failure of the seawall will lead to a massive spill into Lake Michigan. We believe the risk of spill at this site warrants the structural integrity criteria in 257.73 and 257.74, i.e. hazard potential assessment, emergency action plan, and periodic safety factor and structural stability assessments.

CCRMU without the unique seawall situation at Michigan City also need to be disposed of in a manner that has structural integrity, an emergency action plan and periodic assessments of safety and stability. It is not clear why EPA would exempt CCRMU from these criteria.

#### G. The definition of CCRMU should be strengthened

1. The exclusion of inactive CCRMU at sites with no regulated impoundment should be reconsidered

The Federal Register notice on page 32017 makes the following statement about CCRMU: "This proposal would apply to all CCRMU at active CCR facilities and at inactive facilities with one or more legacy CCR surface impoundments". It is not at all clear why a CCRMU at an inactive facility that lacks a legacy CCR surface impoundment should be exempt. Coal ash is coal ash,

whether or not the facility still makes electricity. It should all be disposed of appropriately. Accordingly, we recommend that EPA reconsider this categorical exclusion and instead adopt a more nuanced approach that allows for exclusion on a case-by-case basis.

This exemption would apply to CCR fill areas at inactive power plants. Exempting a CCR fill area and leaving it completely unaddressed creates a strong likelihood of a threat to human health or the environment. One only has to look at the CCR fill situation in the Town of Pines, Indiana, to see that. In the Town of Pines, CCR fill was used extensively as fill in yards, at building sites and under the roads, which contributed to contamination in more than 200 private wells and an extensive multi-decade clean up under Superfund<sup>41</sup>.

This exemption for CCRMU at some facilities would also apply to CCR units that were previously closed, but not closed under the requirements of the 2015 CCR Rule. There are some select circumstances when it might make sense to consider exempting some of these previously closed units. We would suggest the same criteria that we suggested for dry legacy impoundments:

- There is adequate documentation that the unit is not leaching into the groundwater.
- The containment structure is adequately robust for permanent storage of the ash.
- The containment structure is not in the floodplain wetland, fault area, seismic zone, or unstable area.

If all three of these statements can be made about a previously closed CCR unit, we could understand EPA considering it for exemption from further requirements under the CCR Rule. In fact, if a previously closed unit can meet these criteria, it would be wasteful to require it to reclose. The steps involved in re-closing a CCR unit create greenhouse gas emissions. We urge EPA to consider exempting closed units that pose no threat so that the associated greenhouse gas emissions from re-closure will not be emitted.

Re-closing a previously closed unit also creates expenses that may be passed along to utility customers. In recent years, the Indiana General Assembly has changed the laws regarding utility ratemaking to very much favor the utilities and make it easier for them to pass along cleanup costs. If a previously closed CCR unit poses no threat to human health or the environment, we urge EPA to consider exempting it in order to spare the ratepayers.

<sup>&</sup>lt;sup>41</sup> EPA. Superfund Site: Town of Pines Groundwater Plume. https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=0508071#bkground

#### 2. CCR Landfills that are not on utility property should not be exempted

CCR landfills are not always located on utility property, but that does not alter their ability to pose a threat to human health or the environment. The landfill known as Yard 520 in the Town of Pines, Indiana, offers a clear example. NIPSCO placed more than one million tons of coal ash from its Michigan City and Bailly power plants in the Yard 520 landfill, which is not located on the site of either power plant. Yard 520 contributed to groundwater contamination and contamination of private wells<sup>42</sup>. We urge EPA not to arbitrarily exempt CCR landfills that are not on utility property.

#### H. Investigation and reporting requirements for CCRMU need to be stronger

Given that the CCR Rule remains 'self-implementing' for now, we urge EPA to keep the reporting requirements as transparent as possible. We support EPA's proposal that reports on the Legacy CCR Surface Impoundments and CCRMU would need to be posted on the utilities' CCR websites. However, we urge EPA to consider shortening the delay on posting the Facility Evaluation Report for CCRMU. The report will be important for those who are watchdogging the CCR cleanup process, and the current proposal would allow the utilities to delay posting the Facility Evaluation Report for 30 days after they have placed it in their operating record (page 32022). It is not clear what purpose the 30-day delay has, and we urge EPA to shorten or eliminate it.

## I. CCR closures should include air monitoring during excavation and transportation of CCR

Excavation, transportation, and landfilling of coal ash should have air monitoring since it can raise particulate matter concentrations in the air. Coal ash exists in a range of particle sizes including particles 2.5 microns or less in diameter<sup>43</sup>. Fine particulate matter at that size can be inhaled deep into the lungs and has been documented to exacerbate both respiratory and cardiovascular diseases<sup>44</sup>. Ambient air monitoring is an essential aspect of any remediation project that has the potential to create PM/PM10/PM2.5 emissions that may affect not only the workers conducting the work but also members of the general public – at the sites themselves or during transportation. Feedback from ambient air monitoring should be used to adjust or enhance dust control methods.

<sup>&</sup>lt;sup>42</sup> EPA. Superfund Site: Town of Pines Groundwater Plume.

https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=0508071#bkground

<sup>&</sup>lt;sup>43</sup> Electric Power Research Institute (2009). Coal Ash: Characteristics, Management and Environmental Issues.

<sup>&</sup>lt;sup>44</sup>Romieu, I. Hernandez-Avila, M. and Holguin, F. (2011). Outdoor Air Pollution. Chapter 6 in <u>Occupational and Environmental Health</u>, Levy, B, Wegman, D, Baron, S, and Sokas, R editors.

#### J. The rule should prohibit CCR disposal in the floodplain

The majority of Indiana's coal ash has been disposed of on utility properties, and those properties are adjacent to sources of cooling water, either one of Indiana's major rivers or Lake Michigan. That means Indiana's coal ash impoundments and landfills are next to the Kankakee, Wabash, White, or Ohio Rivers or Lake Michigan (Figure 16). In fact, all but three of them are in the hundred-year floodplain (Table below). Along with impoundments and landfills, many of the utilities also disposed of large quantities of coal ash on their properties as fill material, so that coal ash fill resides in the floodplain, as well.

Site	Closure Plan <sup>45</sup>	Floodplain <sup>46</sup>
Bailly	Excavation	no
Brown	Excavation	no
Cayuga	Cap in place	yes
Clifty Creek	Cap in place	yes
Culley	Cap in place	yes
Eagle Valley	Cap in place	yes
Harding Street	Cap in place	yes
Gallagher	Cap in place	yes
Gibson	Cap in place	yes
Michigan City	Excavation	yes
Noblesville	Cap in place	no
Tanner's Creek	Cap in place	yes
Wabash	Cap in place	yes

<sup>&</sup>lt;sup>45</sup> Some of these sites are excavating a portion of their coal ash but then adding it to other impoundments at the same site that are being capped in place. We refer to that situation as 'cap in place'.

<sup>&</sup>lt;sup>46</sup> At Culley and Harding Street the berms surrounding the ash ponds are located in the floodplain but exceed the height of the estimated 100-year flood.



Figure 16. Map of Indiana's current and former coal-burning power plants on the shores of Lake Michigan or along the Kankakee, Wabash, White, or Ohio Rivers.

The risk to water resources is highest when coal ash is disposed of in the floodplain where aquifers are often shallow and floodwaters can induce a spill. The majority of Indiana's coal ash disposal is in the floodplain and the majority of the impoundment closure plans filed in Indiana have been for closure-in-place in the floodplain. The state has been approving these cap-in-place plans, including at sites where the coal ash would be left sitting in the groundwater.

Figure 17 below shows satellite photos of coal ash impoundments at Gallagher and Harding Street as examples of disposal in the floodplain. On the floodplain maps, the yellow and blue areas are the 100-year floodplain with the yellow indicating the floodway where flood waters will travel the fastest. The red areas are the estimated 500-year floodplain.

At Gallagher, the coal ash impoundments would all be under water during a 100-year flood. At Harding Street, the coal ash impoundments would be completely surrounded by water during a

100-year flood but the berms around the impoundments are just high enough to be above the floodwater. As a result the Harding Street impoundments appear to be surrounded by the flood and outlined by it on the floodplain map. The coal ash impoundments are at risk during flood events at both sites.

Gallagher



Gallagher - 100-year floodplain



### **Harding Street**



Harding Street - 100-year floodplain



Figure 17. Satellite images of the Gallagher and Harding Street coal ash sites in Indiana and the 100-year floodplain maps for those sites  $^{47}$ .

<sup>&</sup>lt;sup>47</sup> FEMA Flood Insurance Rate Maps accessed at maps.Indiana.edu.

The risk of future flooding at coal ash sites may be higher than portrayed by the current floodplain maps, since those maps do not take climate change into account. Precipitation in Indiana is increasing and contributing to the risk of flooding. Data gathered by the Purdue Climate Change Research Center show that Indiana's annual average precipitation is 5.6 inches more than it was in 1895 when data were first collected. Current climate projections are that there will be a further 6-8 percent increase in annual precipitation in Indiana by 2050 and an increased frequency of extreme precipitation events<sup>48</sup>. The flood maps do not account for the climate projections, so the actual 100-year and 500-year floodplains may be larger than what the maps currently show.

An increased flood risk and larger floodplains mean a greater risk that flooding will inundate coal ash impoundments located near waterways. Even if flood waters do not overtop the berms around an impoundment, flooding can erode and damage the berms, contributing to the risk of a spill. If an ash impoundment has been capped, flood waters can erode the cap. Therefore, coal ash disposal is safer on high ground away from bodies of water.

Disposing of coal ash in the floodplain is also risky because Indiana rivers are susceptible to significant shifts in their courses over time, as illustrated in Figure 15 above.

We urge the EPA to strengthen the CCR Rule by prohibiting coal ash disposal in the floodplain.

#### K. It is essential that the EPA fully enforce the CCR Rule

The self-implementing nature of the CCR Rule has been a big problem in Indiana. Indiana has at least 20 CCR impoundments that utilities have declared "non-federal", meaning that they claim they do not have to adhere to the requirements of the 2015 CCR Rule. Most of these non-federal impoundments are undergoing state-approved closures, but our state has been approving closures-in-place in the floodplain with coal ash resting in groundwater<sup>49</sup>. Public interest organizations in Indiana have vigorously advocated for more appropriate CCR closures with limited effect. Bills have been introduced in the Indiana General Assembly the last three years to require CCR disposal that protects human health and the environment, but those bills have failed. There have even been legal challenges. The Hoosier Environmental Council (HEC) has challenged two agency approvals of inappropriate CCR closure plans at Tanners Creek and Gallagher, but HEC's resources to serve as watchdog and enforcer are limited. It does not have the capacity to bring legal challenges to the many violations of the 2015 CCR Rule taking place in Indiana. We urge the EPA to fully enforce the CCR Rule.

<sup>&</sup>lt;sup>48</sup> Widhalm, M, et. al.(2018). *Indiana's Past and Future Climate: A Report from the Indiana Climate Change Impacts Assessment*. Purdue Climate Change Research Center, Purdue University.

<sup>&</sup>lt;sup>49</sup> Hoosier Environmental Council (2020). Our Waters at Risk Part 2: The Impact of Coal Ash on Indiana's Water Resources.

Non-compliance with the 2015 CCR Rule has been and continues to be a serious and widespread problem. The extent of the noncompliance is well documented in a report by the organizations Environmental Integrity Project and Earthjustice<sup>50</sup>.

#### L. The period for document retention and posting should be extended

On page 32027 of the Federal Register notice, the EPA discusses document retention and requests comment on whether it should be extended in 257.105 and 257.107. The EPA states, "The existing regulations generally require retention of documents in the operating record for a period of five years (§ 257.105(b)) and posting of documents on the facility publicly accessible CCR website for five years (§ 257.107(c))." We urge the EPA to extend the retention of all CCR documents and public access (website posting) to those documents through at least the completion of the post-closure period, 30 years after the completion of the CCR unit's closure. Future generations need to know what is buried at these sites and to have access to information on how it was buried.

#### M. The definition of "inactive facility" is problematic.

The definition of "inactive facility" in the proposed rule on page 32034 of the notice in the Federal Register states:

Inactive facility or inactive electric utility or independent power producer means any facility with a legacy CCR surface impoundment subject to the requirements of this subpart that ceased operation prior to October 19, 2015. An electric utility or independent power producer is no longer in operation if it has ceased generating electricity provided to electric power transmission systems or to electric power distribution systems before October 19, 2015. An inactive facility does not include an offsite disposal facility that ceased operation prior to October 19, 2015.

The first problem with the definition is the phrase "that ceased operation prior to October 19, 2015". There is ambiguity in that sentence as to whether that phrase applies to the legacy CCR surface impoundment or to the power plant. The definition is also problematic in that the term, 'inactive facility', is defined by the presence of a Legacy CCR Surface Impoundment. If a power plant stopped producing power and had CCR, but not a Legacy CCR Surface Impoundment, wouldn't it still qualify as an "inactive facility"?

<sup>&</sup>lt;sup>50</sup> Environmental Integrity Project & Earthjustice, Poisonous Coverup: The Widespread Failure of the Power Industry to Clean Up Coal Ash Dumps (Nov. 3, 2022), available at https://earthjustice.org/sites/default/files/press/2022/coal-ash-report\_poisonous-coverup\_earthjustice.pdf

#### III. Conclusion

We sincerely appreciate and fully support EPA's efforts in this proposal to bring more coal ash under regulation. Under the 2015 CCR Rule, approximately half of the coal ash in Indiana was exempt from federal requirements. Indiana has some state requirements for CCR landfills and for impoundment closure under its solid waste regulations, but those requirements have been inadequate. We have seen our state agency repeatedly approve closure-in-place plans for leaking, unlined CCR impoundments, including approvals for closure-in-place in the floodplain and closure-in-place with coal ash below the water table. Without this federal action to improve the 2015 CCR Rule, harm from these inadequate disposal practices will continue.

We have included examples in these comments of Indiana coal ash sites where the EPA's proposed requirements for Legacy CCR Surface Impoundments and CCR Management Units will stop unsafe and inappropriate disposal practices. These examples are just a sampling; Indiana has many more sites where the proposed rule changes will make a significant difference. Adding requirements for safe and appropriate disposal to Legacy Impoundments and CCRMU will stop leaching, groundwater contamination, and threats to Lake Michigan and Indiana's rivers.

While the proposed rule revision will bring more CCR into the rule, it does not go far enough. The proposal includes exemptions for dry legacy CCR impoundments, CCR landfills that are not on utility properties, and inactive CCRMU at sites with no regulated impoundment. CCR in all of these circumstances has just as much potential for harm and should not be exempted. We urge EPA to reconsider these exemptions. We recommend that exemptions be considered only on a case-by-case basis for CCR units that have solid documentation that they 1) are not leaching into surface water or groundwater; 2) have a containment structure adequately robust for permanent storage of the ash; and 3) have a containment structure that is not in a floodplain, wetland, fault area, seismic zone, or unstable area.

We also question the proposal to exempt Legacy CCR Surface Impoundments and CCRMU from location restrictions and liner requirements. We disagree with EPA's reasoning that initiating closure in 12 months resolves inappropriate locations and the need to determine the presence or absence of a liner. We also question the exemption for CCRMU from structural stability requirements given our knowledge of CCRMU that contain water and have structural problems.

Finally, we must end with a plea for enforcement. It is essential that the EPA fully enforce the CCR Rule. Self implementation of the 2015 CCR Rule has left Indiana with inappropriately exempted impoundments and a whole host of rule violations. To truly protect human health and the environment from the massive amount of coal ash in Indiana will require robust enforcement.

We are grateful for the opportunity to comment on EPA's proposed revision of the Coal Combustion Residuals Rule and for EPA's consideration of the points we have raised.

Sincerely,

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