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***PINING* FOR COAL ASH SOLUTIONS: HOW FEDERAL AND INDIANA LAW SHOULD REGULATE “BENEFICIAL USE” OF COAL ASH TO BETTER PROTECT HUMAN HEALTH AND THE ENVIRONMENT**

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I. INTRODUCTION

Phyllis DaMota is known in her community as “the canary.” In April 2000, Phyllis purchased her first home in Town of Pines, Indiana, a small community just steps away from the Indiana Dunes. Shortly after moving in, Phyllis noticed a faint chemical-like smell coming from her water—almost “like walking into a beauty salon.” Phyllis contacted the Indiana Department of Environmental Management (hereinafter “IDEM”) to test her water. In May 2000, Phyllis’ water tested positive for benzene. Her neighbors then got their wells tested. The neighbors’ drinking water wells collectively tested positive for benzene, arsenic, lead, selenium, manganese, boron, and molybdenum; these toxic metals are all found in coal ash, the byproduct of burning coal. For the past twenty-five years, the small community of Town of Pines, Indiana, has faced devastating human health and environmental impacts from coal ash contamination.

This note argues how federal and Indiana law should regulate beneficial use of coal ash to better protect human health and the environment. Part I introduces coal ash and beneficial use of coal ash, defines the scope of coal ash in the United States, Midwest, and Indiana, and discusses the human health and environmental impacts of coal ash on the community of Town of Pines, Indiana. Part II discusses background information on federal and Indiana coal ash law and then explains the beneficial use regulatory gap that exists between federal law and Indiana law. Part III analyzes how both federal law and Indiana law should regulate beneficial use of coal ash to better protect human health and the environment.

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A. What Is Coal Ash?

Coal ash is a toxic, carcinogenic byproduct of burning coal.¹ There are four types of coal-burning residuals: (1) fly ash, (2) flue gas desulfurization sludge, (3) bottom ash, and (4) boiler slag.² These residuals are known as “coal ash” or “coal combustion residuals” (hereinafter “CCR”).³ Each type of residual has a unique composition, but all coal ash is made up of chemicals that are harmful to humans and the environment.⁴ These chemicals include aluminum, antimony, arsenic, benzene, boron, cadmium, chromium, lead, manganese, mercury, molybdenum, nickel, PM 2.5, selenium, thallium, vanadium, and zinc.⁵ Alone, each of these chemicals can have devastating effects on human health and the environment. Therefore, coal ash is extremely harmful to human health and the environment because the combination and concentration of these chemicals in one byproduct creates “a deadly brew of carcinogens, neurotoxins, and poisons.”⁶

Coal ash exposure to people and the environment results in harmful, lasting effects. Human health impacts include cancer of the liver, kidneys, lungs, bladder, or skin, birth defects, kidney disease, reproductive harm, and nervous system damage, especially in children.⁷ Environmental impacts include drinking water, groundwater, and surface water contamination, soil contamination, massive extirpation of fish and other aquatic life, bioaccumulation of toxins in the food chain, dust and air pollution, and radiation.⁸ Coal ash exposure to humans and the environment typically happen when owners or operators of coal ash units dispose or reuse coal ash improperly

1. Lisa Evans et al., *Coal Ash Primer*, EARTHJUSTICE 4 (2023), https://earthjustice.org/wp-content/uploads/coal-ash-primer_earthjustice_2023.pdf [<https://perma.cc/F9DA-YKBV>].

2. *Id.* at 5.

3. The terminology “coal ash,” “coal combustion residuals,” and “CCR” are interchangeable. All three terms refer to the byproduct of burning coal. This note uses the term “coal ash” colloquially, such as through description and analysis. This note uses the term “CCR” when referencing law or industry terms, such as the “2015 CCR Rule,” the “2024 CCR Rule,” “CCR piles,” “CCR management units,” or “CCR surface impoundments,” or otherwise if directly quoted.

4. Evans et al., *supra* note 1, at 5.

5. *Id.* at 7–9; see also Martha H. Keating & Lisa Gollin Evans, *Not in My Lifetime*, CLEAN AIR TASK FORCE 4–5 (2019), https://cdn.catf.us/wp-content/uploads/2019/10/21093534/Not_in_My_Lifetime.pdf?_gl=1*49dnq5*_gcl_au*MTg2Njc0MTQ2NS4xNzMwNzQyNjg5*_ga*R0ExLjEuNjMxNDUxMTAuMTczMDc0MjY4OQ..*_ga_88025VJ2M0*MTczMDc0MjY4OC4xLjEuMTczMDc0NTI4Mi4wLjAuMjMwNzU0MzI.*_fplc*Z2hkcGhPNEozZIRIJTJCT0dZeJgwWXVOOWxnSFklMkZRNXVWwKNibmhhaaDQ1ZVhLZUs0TDcweyUyQklLJTJGQjIEeFk0NjRR eEhvZjQ3J4VDk4U1p0WmpJVWYzSmslMkZTVWQwcnhUVEpMbEpnNUh1NmRtekR3bFpTcVIPZVpGeWtnSUFSDyUzRCUzRA [<https://perma.cc/8U7E-LZ8M>].

6. Evans et al., *supra* note 1.

7. *Id.* at 7–9.

8. *Id.* at 10–13.

or irresponsibly. Reuse of coal ash is known as “beneficial use.”⁹

B. What Is “Beneficial Use” of Coal Ash?

“Beneficial use” of coal ash is the process of reusing or recycling residuals into a usable form rather than disposing of the coal ash in a landfill or surface impoundment.¹⁰ The United States Environmental Protection Agency (hereinafter “EPA”) notes the “beneficial” aspects of reuse include environmental benefits, economic benefits, and product benefits.¹¹ However, not all beneficial use is the same. Two forms of beneficial use exist—encapsulated beneficial use and unencapsulated beneficial use.¹² Encapsulated beneficial use “binds the CCR into a solid matrix that minimizes their mobilization into the surrounding environment.”¹³ Examples of encapsulated beneficial use include binding the coal ash into concrete, cement, bricks, grout, plastics, rubber, and wallboard.¹⁴ Encapsulated uses are generally safer for human health and the environment than unencapsulated uses because the coal ash is in a bound form, making it less likely to leach into soil or groundwater.¹⁵ For example, the EPA conducted studies on the use of fly ash in concrete and the use of flue gas desulfurization sludge in wallboard and found that these uses do not pose greater risks to human health or the environment than the materials traditionally used in such applications.¹⁶

Alternatively, unencapsulated beneficial use is “a loose particulate, sludge, or other unbound form.”¹⁷ Examples of unencapsulated beneficial use include adding the coal ash into structural fill, roadways, agricultural uses, soil modification, and loose aggregate.¹⁸ Unencapsulated uses are generally less safe for human health and the environment than encapsulated uses because the coal ash is in an unbound form, making it more likely to leach into soil or

9. *Frequent Questions about the Beneficial Use of Coal Ash*, U.S. ENV’T PROT. AGENCY, <https://www.epa.gov/coalash/frequent-questions-about-beneficial-use-coal-ash> [<https://perma.cc/4NPK-YLAZ>] (last updated Aug. 27, 2025).

10. *Id.*

11. *Coal Ash Basics*, U.S. ENV’T PROT. AGENCY, <https://www.epa.gov/coalash/coal-ash-basics#04> [<https://perma.cc/LW9J-4QAS>] (last updated Aug. 27, 2025) (listing environmental benefits as “reduced greenhouse gas emissions, reduced need for disposing in landfills, and reduced use of other materials”; economic benefits as “reduced costs associated with [coal ash] disposal, increased revenue from the sale of [coal ash], and savings from using [coal ash] in place of other, more costly materials”; and product benefits as “improved strength, durability, and workability of materials”).

12. U.S. ENV’T PROT. AGENCY, *supra* note 9.

13. *Id.*

14. *Id.*

15. Evans et al., *supra* note 1, at 14.

16. *Coal Combustion Residual Beneficial Use Evaluation: Fly Ash Concrete and FGD Gypsum Wallboard*, U.S. ENV’T PROT. AGENCY (Feb. 2014), https://www.epa.gov/sites/default/files/2014-12/documents/ccr_bu_eval.pdf [<https://perma.cc/BQ5F-8UA8>].

17. U.S. ENV’T PROT. AGENCY, *supra* note 9.

18. *Id.*

groundwater.¹⁹ Risks of unencapsulated use include contamination of drinking water wells, creation of toxic fugitive dust, leaching of toxic trace elements into soil and groundwater, reduced crop growth, and crop absorption of higher concentrations of metals.²⁰

The EPA distinguishes both encapsulated beneficial use and unencapsulated beneficial use from disposal methods. Disposal methods include dumping coal ash into landfills or ash ponds, whereas beneficial use incorporates coal ash into products like concrete, bricks, wallboard, or fill. This differentiation is critical because federal and state law regulate disposal methods more stringently than beneficial use. Yet, in 2022, over half (sixty-two percent) of the coal ash produced in the United States was recycled as a beneficial use rather than disposed.²¹

C. Scope of Coal Ash in the United States, Midwest, and Indiana

Over the last century, U.S. coal plants have generated about five billion tons of coal ash.²² There are 746 coal ash units in forty-three states and Puerto Rico.²³ The Midwest houses many of these coal ash units for two main reasons: (1) coal plants are generally located near sources of water due to production needs, and the Midwest is home to the Great Lakes, and (2) the Midwest has historically had an abundance of coal deposits.²⁴ For example, Illinois has twenty-six coal plants, Indiana has twenty-four coal plants, Ohio has twenty-two coal plants, Kentucky has twenty coal plants, and Michigan has seventeen coal plants.²⁵

Indiana's economy and population heavily rely on coal production and consumption—Indiana is the eighth-largest coal-producing state and second-largest coal-consuming state.²⁶ In fact, while the United States' coal production

19. Evans et al., *supra* note 1, at 14–18.

20. *Id.* at 17–18.

21. Thomas H. Adams, *Coal Ash Recycling Rate Increased in 2022; Ash Harvesting Continued at Significant Volumes*, AM. COAL ASH ASS'N 1 (Dec. 27, 2023), <https://acaa-usa.org/wp-content/uploads/2023/12/News-Release-Coal-Ash-Production-and-Use-2022.pdf> [<https://perma.cc/WC6J-CKCN>].

22. *Coal Ash Solutions*, HOOSIER ENV'T COUNCIL, <https://www.hecweb.org/issues/environmental-health-justice/coal-ash/> [<https://perma.cc/DW6K-NY5L>] (last visited Oct. 11, 2025).

23. 40 C.F.R. § 257.53 (2024) (defining a coal ash unit as “any CCR landfill, CCR surface impoundment, or lateral expansion of a CCR landfill or CCR surface impoundment, or a combination of more than one of these units”); *Mapping the Coal Ash Contamination*, EARTHJUSTICE (Nov. 3, 2022), <https://earthjustice.org/feature/coal-ash-contaminated-sites-map> [<https://perma.cc/77LZ-SPLL>].

24. Steve Whittaker et al., *The Illinois Basin: The Geologic Gift that Keeps Giving*, ILL. STATE GEOLOGICAL SURV. (Apr. 4, 2022, 8:30 AM), <https://blogs.illinois.edu/view/8931/1168229593> [<https://perma.cc/C6PN-ZXNJ>].

25. *Where are Coal Ash Dump Sites?*, EARTHJUSTICE (May 3, 2023), <https://earthjustice.org/feature/coal-ash-map-sites-legacy-inactive-regulated> [<https://perma.cc/392V-K5RQ>].

26. *Indiana, Analysis*, U.S. ENERGY INFO. ADMIN., <https://www.eia.gov/states/IN/analysis> [<https://perma.cc/2T3V-BAFT>] (last updated Nov. 19, 2025).

decreased overall in 2023, Indiana's coal production actually increased by almost one percent, amounting to Indiana producing a total of 23.8 million tons of coal in 2023.²⁷ Most of Indiana's coal plants are found along Lake Michigan, the Ohio River, the Wabash River, and the White River.²⁸ Five plants are located in Northwest Indiana, impacting Lake Michigan and the Kankakee River.²⁹ Four plants are located in Western Indiana near the Illinois border, impacting the Wabash River.³⁰ Seven plants impact the White River and Patoka River in Southwest and Central Indiana.³¹ Two plants are located in Eastern Indiana near the Ohio border, impacting the Whitewater River.³² Six plants are located in Southern Indiana on the Kentucky border, impacting the Ohio River.³³

Concerningly, Indiana, with one hundred coal ash dumpsites, has the largest number of coal ash dumpsites than any other state.³⁴ These one hundred dumpsites are found all around the state, with about four million of Indiana's 6.6 million citizens living within thirty miles of a coal ash pond or landfill.³⁵ One site in particular, Yard 520 Landfill, has devastated a small town known as Town of Pines, Indiana.³⁶ Town of Pines is located in Northwest Indiana near the Lake Michigan shoreline, Indiana's greatest freshwater resource. Coal ash exposure in this community has resulted in contaminated soil, unsafe drinking water, and a myriad of health issues for residents.

D. Town of Pines, Indiana

Town of Pines, Indiana, is a small town of about 600 residents located on

27. *Annual Coal Report 2023*, U.S. ENERGY INFO. ADMIN. 2 (Oct. 2024), <https://www.eia.gov/coal/annual/pdf/acr.pdf> [<https://perma.cc/6KWZ-DDG5>].

28. *Toxic Coal Ash in Indiana*, CITIZENS ACTION COAL., <https://www.citact.org/campaign/toxic-coal-ash-indiana> [<https://perma.cc/R5GV-JLYN>] (last visited Nov. 22, 2024).

29. Indra Frank & Tim Maloney, *Our Waters at Risk*, HOOSIER ENV'T COUNCIL 15 (Nov. 2020), <https://www.hecweb.org/wp-content/uploads/2020/11/Our-Waters-at-Risk-Part-2.pdf> [<https://perma.cc/Y26H-H3BL>] (mapping the five plants that impact Lake Michigan and the Kankakee River as State Line, Bailly, Mitchell, Schahfer, and Michigan City).

30. *Id.* (mapping the four plants that impact the Wabash River as Cayuga, Wabash River, Dresser, and Merom).

31. *Id.* (mapping the seven plants that impact the White River and Patoka River as Gibson, Ratts, Petersburg, Edwardsport, Eagle Valley, Harding Street, and Noblesville).

32. *Id.* (mapping the two plants that impact the Whitewater River as Whitewater Valley and Tanner's Creek).

33. *Id.* (mapping the six plants that impact the Ohio River as AB Brown, Warrick, Culley, Rockport, Gallagher, and Clifty Creek).

34. *Toxic Coal Ash in Indiana: Addressing Coal Plants' Hazardous Legacy*, EARTHJUSTICE (May 3, 2023), <https://earthjustice.org/feature/coal-ash-states/indiana> [<https://perma.cc/VJ4S-R7HP>] (referring to archived information accessed via permalink).

35. IND. ENV'T REP. *In the Water*, at 27:19–27:28 (YouTube, Oct. 30, 2019), https://www.youtube.com/watch?v=_EwFL-jTDRs [<https://perma.cc/Q4SK-9JLQ>].

36. Sarah Bowman, *Who was Responsible for Harmful Pollution Left in Small Indiana Town After 'Cleanup' Done?*, INDYSTAR (May 23, 2024, 5:31 AM), <https://www.indystar.com/story/news/environment/2024/05/23/residents-of-small-indiana-town-face-risks-even-after-coal-ash-cleanup/73502047007/> [<https://perma.cc/NJ6A-A7HX>].

Indiana's Lake Michigan shoreline.³⁷ The town's moniker, "Door Step to Mount Baldy," references the 120-foot sand dune that is one of the landmarks and tourist destinations within Indiana's only national park, the Indiana Dunes National Park.³⁸ The Indiana Dunes National Park is the most ecologically diverse part of Indiana and the eighth most biologically diverse national park in the United States for vegetative species.³⁹ The park supports over 1,400 vascular plant species, over 350 bird species, around 71 species of fish, 41 mammal species, and 51 amphibian and reptile species.⁴⁰ These species thrive in the diverse habitats of the park including open beaches, sand dunes, grass covered dune ridges, dunes with woody shrub vegetation, pine-forested dunes, oak-forested dunes, oak savannas, prairies, marshes, and bogs.⁴¹ All of this biological diversity and ecological significance is at the "Door Step" of Town of Pines; however, the town has a very different environmental story to tell.

In the 1970s, Yard 520 Landfill opened in Town of Pines and began receiving coal ash from the Bailly and Michigan City Generating Stations, both owned by the Northern Indiana Public Service Company (hereinafter "NIPSCO").⁴² Yard 520 Landfill sits on top of the town's aquifer, only 300 feet from the nearest drinking water well.⁴³ Yard 520 Landfill has two separate areas, known as the South area and the North area.⁴⁴ The South area of the landfill was constructed with a liner, which helped protect coal ash contamination from leaching into the soil or groundwater.⁴⁵ However, the North area of the landfill was not constructed with a liner, which practically ensured coal ash contamination would leach into the soil and groundwater.⁴⁶ The South area stopped receiving waste in the early 2000s.⁴⁷ The North area stopped receiving waste in the mid-1980s.⁴⁸ Over the thirty years Yard 520 Landfill was receiving waste, NIPSCO ultimately dumped two billion pounds of coal ash into the Yard

37. *Town of Pines town, Indiana*, U.S. CENSUS BUREAU, https://data.census.gov/profile/Town_of_Pines_town_Indiana?g=160XX00US1876256 [<https://perma.cc/YBL8-QZ3W>] (last visited Nov. 22, 2024).

38. *Mount Baldy Restoration, Indiana Dunes National Park*, NAT'L PARK SERV., <https://www.nps.gov/indu/learn/nature/mount-baldy.htm> [<https://perma.cc/2EVM-DDMJ>] (last updated Oct. 24, 2023).

39. *Indiana Dunes National Park*, GLOB. ALL. OF NAT'L PARKS, <https://national-parks.org/united-states/indiana-dunes> [<https://perma.cc/CL9E-B5NV>] (last visited Nov. 22, 2024).

40. *Id.*

41. *Natural Features & Ecosystems, Indiana Dunes National Park*, NAT'L PARK SERV., <https://www.nps.gov/indu/learn/nature/naturalfeaturesandecosystems.htm> [<https://perma.cc/DW3Y-56PA>] (last updated Apr. 17, 2024).

42. Keating & Evans, *supra* note 5, at 5–6.

43. *Id.* at 6.

44. *Town of Pines Superfund Site, Record of Decision*, U.S. ENV'T PROT. AGENCY 5 (Sept. 2016), <https://semspub.epa.gov/work/05/508886.pdf> [<https://perma.cc/PSL4-MW5F>].

45. *Id.*

46. *Id.*

47. *Id.*

48. *Id.*

520 Landfill.⁴⁹ Yard 520 Landfill is an example of a coal ash disposal method, not a beneficial use.⁵⁰

In addition to NIPSCO dumping coal ash in Yard 520 Landfill, the Indiana Department of Health (hereinafter “IDOH”) assured residents that coal ash was a safe option to use as a filler for road beds and for low-lying areas—which dramatically exacerbated the coal ash issue in Town of Pines.⁵¹ Town of Pines was built around wetlands, areas in which soil is saturated with water, causing uneven and sunken land development over time.⁵² Thus, residents who had sinking backyards, front yards, and driveways welcomed a cheap fill option to better utilize their land for playground sets, gardens, landscaping, and roads. Using coal ash in this way is referred to as structural fill, construction fill, or residential fill.⁵³ Fill is an unencapsulated beneficial use, meaning the coal ash is reused in an unbound form which easily contaminates soil and groundwater.⁵⁴ Although the IDOH deemed using coal ash as fill safe in the 1970s, such use essentially spread the coal ash contamination around the town like wildfire—federal officials detected toxins and radiation from coal ash in residents’ yards, under main roads, and beneath the community playground.⁵⁵

In April 2000, Phyllis DaMota, a resident of Town of Pines, noticed a strange odor coming from her drinking water and called IDEM to test the water.⁵⁶ This call triggered IDEM to perform a series of drinking water tests from 2000–02 that revealed over 160 homes in Town of Pines had either contaminated drinking water wells or suspected contaminated drinking water wells.⁵⁷ The contaminants included benzene, arsenic, lead, selenium, manganese, boron, and molybdenum.⁵⁸ All of these contaminants are carcinogenic—and all of these contaminants can be found in coal ash. After IDEM discovered this vast coal ash contamination, residents came together and formed a committee known as “P.I.N.E.S.” (People In Need of Environmental Safety).⁵⁹ This grassroots committee formed “to ensure the town’s water was cleaned up and to keep residents aware of each step in the process.”⁶⁰ Such local advocacy continues to

49. Beth Edwards, *Northern Indiana Residents Doubt Outcome of Coal Ash Cleanup*, GREAT LAKES NOW (Apr. 25, 2022), <https://www.greatlakesnow.org/2022/04/indiana-residents-coal-ash-cleanup/> [https://perma.cc/PH8M-DXQJ].

50. See *infra* notes 163–65 and accompanying text.

51. IND. ENV’T REP., *supra* note 35, at 42:39–42:44.

52. *What is a Wetland?*, U.S. ENV’T PROT. AGENCY, <https://www.epa.gov/wetlands/what-wetland> [https://perma.cc/N83B-4YM7] (last updated Apr. 7, 2025).

53. Edwards, *supra* note 49.

54. See *supra* notes 17–20 and accompanying text.

55. Sarah Bowman, *EPA: Cancer risk from coal ash higher than previously revealed. Could it be in your yard?*, INDYSTAR <https://www.indystar.com/story/news/environment/2024/02/20/cancer-risk-from-coal-ash-higher-than-thought-it-could-be-in-yards/71933973007/> [https://perma.cc/57DG-SFV6] (last updated Feb. 23, 2024, 4:49 PM).

56. Edwards, *supra* note 49.

57. Keating & Evans, *supra* note 5, at 4.

58. *Id.* at 4–5.

59. Edwards, *supra* note 49.

60. *Id.*

be instrumental in Town of Pines' fight for their town's cleanup through federal and state plans and settlements with the responsible contaminators.⁶¹

The Comprehensive Environmental Response, Compensation, and Liability Act (hereinafter "CERCLA") authorizes the EPA to clean up contaminated sites or force responsible parties to clean up contaminated sites.⁶² Such contaminated sites are known as "Superfund sites," and, through the Superfund Enforcement Program, the EPA finds responsible parties or potentially responsible parties to negotiate a cleanup plan.⁶³ In 2004, the EPA declared Town of Pines a contaminated site due to the coal ash contamination of the groundwater and soil.⁶⁴ The Town of Pines contaminated "site" includes the various properties throughout the town with contaminated groundwater and soil and the Yard 520 Landfill.⁶⁵ EPA determined NIPSCO, Brown, Inc., Ddalt Corp., and Bulk Transport were responsible for contaminating Town of Pines.⁶⁶ EPA did not place the Town of Pines site on the National Priorities List (hereinafter "NPL"), meaning the EPA took the "Superfund alternative approach" for the site.⁶⁷ While the EPA states the alternative approach "uses the same investigation and cleanup process and standards that are used for sites listed on the NPL," the alternative approach can result in the responsible parties having more discretion over the technical assistance services.⁶⁸ However, this increased discretion may be problematic if the technical assistance services preclude community participation; such participation is critical to ensuring community members are aware of any clean-up problems, discrepancies, setbacks, or progress. In 2022, the United States, on behalf of the EPA and IDEM, entered into a consent decree with NIPSCO for the remediation and removal of the contaminated soil within Town of Pines.⁶⁹ NIPSCO must pay around \$12 million for this clean up.⁷⁰

61. *'Do Your Job, EPA': Stories from the Frontlines of Coal Ash*, EARTHJUSTICE (Apr. 25, 2024), <https://earthjustice.org/feature/coal-ash-stories-epa-hearing> [https://perma.cc/STPS-6L6S].

62. *What is Superfund?*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/superfund/what-superfund> [https://perma.cc/5V5E-E53F] (last updated Sept. 17, 2025).

63. *Superfund Enforcement*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/enforcement/superfund-enforcement> [https://perma.cc/H2FT-YTFN] (last updated Jan. 16, 2025).

64. Bowman, *supra* note 36.

65. *Town of Pines Superfund Site, Record of Decision*, *supra* note 44, at 1.

66. *Superfund Site: Town of Pines Groundwater Plume, Town of Pines, IN*, U.S. ENV'T PROT. AGENCY, <https://cumulis.epa.gov/supercpad/cursites/csinfo.cfm?id=0508071> [https://perma.cc/WA74-Q48F] (last visited Jan. 30, 2025).

67. U.S. ENV'T PROT. AGENCY, *supra* note 44, at 1.

68. *Superfund Alternative Approach*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/enforcement/superfund-alternative-approach> [https://perma.cc/9XDM-6K58] (last updated June 17, 2025).

69. Remedial Design/Remedial Action Consent Decree for Operable Unit 2 of the Town of Pines Superfund Site, *United States v. N. Ind. Pub. Serv. Co.*, 2022 U.S. Dist. LEXIS 163808 (N.D. Ind. 2022) (No. 2:22-cv-48).

70. Sarah Bowman, *Indiana Town was Built on Contaminated Coal Ash. Now, NIPSCO Must Pay \$12M to Clean it Up*, INDYSTAR (Mar. 10, 2022, 5:51 AM), <https://www.indystar.com/story/news/environment/2022/03/10/nipsco-paying-millions-clean-coal-ash-contaminated-indiana-town-pines/9410858002/> [https://perma.cc/J34A-B9HE].

The coal ash dumped within Town of Pines has had lasting, devastating effects to both human health and the environment. Many residents now suffer from different types of cancers and thyroid issues linked to the coal ash toxins found in their contaminated drinking water.⁷¹ Residents have been unable to depend on their wells for drinking water since the extent of the coal ash contamination was discovered in the early 2000s. Today, the majority of residents have been connected to the neighboring Michigan City's municipal water supply.⁷² However, some residents still rely on bottled water the EPA mandated NIPSCO to supply to them.⁷³ Some residents can no longer expect to sell their homes due to diminished property values, garden in their own backyards, allow their children and grandchildren to play outside, nor simply enjoy a glass of tap water. The fight in Town of Pines continues, most recently with the EPA's announcement of "a revised cleanup plan to lower levels for contaminants of concern at the Town of Pines Superfund alternative site."⁷⁴ Thus, Town of Pines residents currently, and foreseeably, face human health and environmental consequences from coal ash contamination.

Federal and state coal ash law failed Towns of Pines. The next section of this note explains the background of coal ash law at the federal level, the state level, and the beneficial use regulatory gap between federal and state law.

II. BACKGROUND

A. Federal Coal Ash Law

The federal government first developed coal ash regulations in 2015.⁷⁵ However, EPA's pre-2015 federal determinations of coal ash regulation, or lack thereof, has continuing consequences on current regulatory schemes. For one example, the EPA determined coal ash was to be regulated as non-hazardous solid waste rather than hazardous waste, resulting in coal ash authority housed under Subtitle D of the Resource Conservation and Recovery Act of 1976 (hereinafter "RCRA") rather than Subtitle C of RCRA which authorizes regulation of hazardous waste.⁷⁶ This section explains the dense statutory and

71. Bowman, *supra* note 55.

72. Edwards, *supra* note 49.

73. *Id.*

74. *EPA Updates Cleanup Plan for Town of Pines Superfund Alternative Site in Indiana*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/newsreleases/epa-updates-cleanup-plan-town-pines-superfund-alternative-site-indiana> [<https://perma.cc/LJ5D-CRN2>] (last updated June 25, 2025).

75. *Legislative and Regulatory Timeline for Fossil Fuel Combustion Wastes*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/coalash/legislative-and-regulatory-timeline-fossil-fuel-combustion-wastes> [<https://perma.cc/3MAL-V88J>] (last updated May 9, 2025); 40 C.F.R. §§ 257, 261 (2024).

76. See Brittany L. Daniels, Comment, *Caution: Hazards Ahead! How the EPA's Refusal to Classify Coal Ash as Hazardous Waste Fuels Environmental and Public Health Concerns*, 27 Vill. Env't. L. J. 93, 100 (2016).

regulatory background of federal coal ash law, as well as more recent federal coal ash case law.

1. Federal Statutes and Regulations

RCRA authorizes coal ash regulation on the federal level. Congress enacted RCRA “to address the increasing problems the nation faced from our growing volume of municipal and industrial waste,” and thus amended the mostly ineffectual Solid Waste Disposal Act of 1965.⁷⁷ RCRA was codified with the objective “to promote the protection of health and the environment and to conserve valuable material and energy resources.”⁷⁸ RCRA grants the EPA the authority to regulate hazardous and non-hazardous solid waste through “explicit, legally enforceable requirements.”⁷⁹ Subtitle C of RCRA regulates hazardous waste, and Subtitle D of RCRA regulates non-hazardous solid waste, including municipal waste and industrial waste.⁸⁰

In 1978, the EPA proposed the first standards for hazardous waste management under Subtitle C and deferred regulation of *special wastes* “until further study and assessment could be completed to determine their risk to human health and the environment.”⁸¹ Categories of *special waste* include cement kiln dust waste, crude oil and natural gas waste, fossil fuel combustion waste (including coal ash), and mining and mineral processing waste.⁸² At the time, these *special wastes* were thought to pose less of a risk to human health and the environment than the wastes initially regulated under Subtitle C as hazardous waste.⁸³

After the EPA deferred *special wastes* from regulation in 1978, Congress enacted the Solid Waste Disposal Act Amendments of 1980, including the Bevill Amendment which exempted fossil fuel combustion waste, among other *special wastes*, from regulation under Subtitle C “until further study and assessment of risk could be performed.”⁸⁴ After further study and assessment of risk was completed, the EPA made two regulatory determinations with respect to coal ash regulations under RCRA. First, in 1993, the EPA determined coal ash was “excluded from the definition of hazardous waste under RCRA,” and

77. *History of the Resource Conservation and Recovery Act (RCRA)*, U.S. ENV’T PROT. AGENCY, <https://www.epa.gov/rcra/history-resource-conservation-and-recovery-act-rcra> [https://perma.cc/V33A-AA88] (last updated Jan. 22, 2026).

78. 42 U.S.C. § 6902(a) (2023).

79. *Resource Conservation and Recovery Act (RCRA) Overview*, U.S. ENV’T PROT. AGENCY, <https://www.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-overview> [https://perma.cc/ZJ52-X3H5] (last updated Sept. 11, 2024); see 40 C.F.R. §§ 239–282 (2024).

80. U.S. ENV’T PROT. AGENCY, *supra* note 79.

81. *Special Wastes*, U.S. ENV’T PROT. AGENCY, <https://www.epa.gov/hw/special-wastes> [https://perma.cc/2BQX-YUNM] (last updated Mar. 20, 2025).

82. *Id.*

83. *Id.*

84. *Id.*; 42 U.S.C. § 6921(b)(3)(A)(i)–(iii) (2023).

thus was not subject to regulation under Subtitle C.⁸⁵ Second, in 2000, the EPA determined some coal ash, specifically coal ash disposed of in landfills, surface impoundments, and used as mine fill, was to be regulated under Subtitle D as non-hazardous waste.⁸⁶ The EPA also determined that beneficial use of coal ash did not warrant regulation, though acknowledged that about “one-quarter of all coal combustion wastes are diverted to beneficial uses.”⁸⁷ Accordingly, the EPA stated they “do not wish to place any unnecessary barriers on the beneficial use of fossil fuel combustion wastes so that they can be used in applications that conserve natural resources and reduce disposal costs.”⁸⁸

In 2010, the EPA proposed two options for regulating the disposal of coal ash.⁸⁹ The first option would reverse the Bevill Amendment and regulate coal ash under Subtitle C of RCRA as hazardous waste.⁹⁰ The second option would keep the Bevill Amendment in place and regulate coal ash under Subtitle D of RCRA as non-hazardous waste.⁹¹ Neither option, however, proposed to change the beneficial use exemption of coal ash regulation under the Bevill Amendment.⁹² After the proposal and a few published notices of data availability, the EPA signed a final rule regulating the disposal of coal ash in 2014, and the EPA published the final rule in the Federal Register in 2015.⁹³ Notably, the 2015 CCR Rule signifies the first regulation of coal ash in EPA history. The 2015 CCR Rule establishes the requirements for disposal of coal ash in landfills and surface impoundments under Subtitle D of RCRA, as non-hazardous waste.⁹⁴ Requirements for coal ash disposal under the 2015 CCR Rule include structural integrity requirements, groundwater monitoring and corrective action, location restrictions, liner design criteria, operating criteria, record keeping, notification, and internet posting requirements.⁹⁵ The 2015 CCR Rule only uses four criteria to regulate beneficial use.⁹⁶

Initially under RCRA, EPA only had the authority “to establish minimum

85. U.S. ENV'T PROT. AGENCY, *supra* note 75.

86. *Id.*

87. Notice of Regulatory Determination on Wastes from the Combustion of Fossil Fuels, 65 Fed. Reg. 32214 (May 22, 2000); *see* 40 C.F.R. § 261 (2024).

88. Notice of Regulatory Determination on Wastes from the Combustion of Fossil Fuels, 65 Fed. Reg. 32214 (May 22, 2000); *see* 40 C.F.R. § 261.

89. U.S. ENV'T PROT. AGENCY, *supra* note 75.

90. Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals from Electric Utilities, 75 Fed. Reg. 35128 (June 21, 2010) (to be codified at 40 C.F.R. pts. 257, 261, 264, 265, 268, 271, 302).

91. *Id.*

92. *Id.*

93. U.S. ENV'T PROT. AGENCY, *supra* note 75; *see also* 40 C.F.R. §§ 257, 261 (2015).

94. *Fact Sheet: Final Rule on Coal Combustion Residuals Generated by Electric Utilities*, U.S. ENV'T PROT. AGENCY (Dec. 2014), https://www.epa.gov/sites/default/files/2014-12/documents/factsheet_ccrfinal_2.pdf [<https://perma.cc/YX8T-45YT>].

95. *Id.* at 2–3.

96. *Id.*; *see infra* note 158 and accompanying text.

national criteria that apply to *facilities*.” (emphasis added).⁹⁷ Thus, Subtitle D, and subsequently the 2015 CCR Rule, was designed to be self-implementing.⁹⁸ However, the self-implementation regulatory scheme changed in 2016 when Congress passed the Water Infrastructure Improvements for the Nation (hereinafter “WIIN”) Act.⁹⁹ Section 2301 of the WIIN Act amended Section 4005 of RCRA, resulting in several changes: the EPA has the authority under RCRA to enforce the 2015 CCR Rule and permit provisions, the EPA must implement a coal ash permit program in Indian Country, the states can develop and implement a coal ash permit program with EPA approval, and the EPA must implement a coal ash permit program in states that do not have an approved permit program.¹⁰⁰ Essentially, the WIIN Act ensures all states have a coal ash permit program that is at least as protective as the federal coal ash regulations.

In May 2024, the EPA further expanded federal coal ash regulation with the finalization of the 2024 CCR Rule.¹⁰¹ The 2024 CCR Rule regulates legacy surface impoundments and CCR management units (hereinafter “CCRMUs”).¹⁰² Legacy surface impoundments contain “both CCR and liquids on or after October 19, 2015.”¹⁰³ Since these legacy units predate the 2015 CCR Rule that established coal ash disposal regulations, they are more likely to be unlined, unmonitored, prone to leaking and subsequent groundwater leaching, thus, more dangerous to human health and the environment.¹⁰⁴ CCRMUs include coal ash disposed in areas outside of previously regulated units, specifically meaning surface impoundments and landfills that closed prior to the 2015 CCR Rule and inactive landfills and piles.¹⁰⁵ For both legacy surface impoundments and CCRMUs, the 2024 CCR Rule establishes groundwater monitoring, corrective action, closure, and post closure care.¹⁰⁶

97. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities, 80 Fed. Reg. 21302, 21332 (Apr. 17, 2015) (to be codified at 40 C.F.R. pt. 257, 261).

98. See 40 C.F.R. §§ 257, 261.

99. *Permit Programs for Coal Combustion Residual Disposal Units*, U.S. ENV’T PROT. AGENCY, <https://www.epa.gov/coalash/permit-programs-coal-combustion-residual-disposal-units> [https://perma.cc/252X-SUBW] (last updated Nov. 6, 2025).

100. *Id.*; but see H.R. 2396, 118th Cong., 1st Sess. (2023) (proposing to amend Section 4005(d) of the Solid Waste Disposal Act “to include any criteria necessary to protect human health and the environment,” including prohibiting open dumping of unencapsulated coal ash, among other provisions).

101. *Final Rule - Legacy Coal Combustion Residuals Surface Impoundments and CCR Management Units*, U.S. ENV’T PROT. AGENCY, <https://www.epa.gov/coalash/final-rule-legacy-coal-combustion-residuals-surface-impoundments-and-ccr-management-units> [https://perma.cc/T8L8-TJVV] (last updated Dec. 19, 2025).

102. *Fact Sheet: Legacy Coal Combustion Residuals Surface Impoundments and CCR Management Units Final Rule*, U.S. ENV’T PROT. AGENCY (Apr. 2024), https://www.epa.gov/system/files/documents/2024-04/legacy_ccrmu_final_fact_sheet_april2024.pdf [https://perma.cc/A77Z-FPEQ].

103. 40 C.F.R. § 257.53 (2024).

104. U.S. ENV’T PROT. AGENCY, *supra* note 102, at 1.

105. *Id.*

106. *Id.*

Since the finalization of the 2024 CCR Rule, there have been several administrative updates and changes amidst industry pushbacks.¹⁰⁷ In November 2024, the EPA published a direct final rule and companion proposed rule which corrected minor technical errors and made clarifications to the 2024 CCR Rule.¹⁰⁸ EPA then published a second direct final rule and companion proposed rule in January 2025 for the same reasons.¹⁰⁹ The first direct final rule went into effect on February 6, 2025.¹¹⁰ Then on March 12, 2025, the EPA stated its priority is to encourage “state agencies to pursue oversight of coal ash management within their borders,” coupled with the EPA indicating a potential rewrite of the federal coal ash rule.¹¹¹ Soon after, on March 14, 2025, the second direct final rule was withdrawn because the EPA received adverse comment on it before the end of the comment period.¹¹² This means the EPA must respond to all comments received during the comment period as part of the final action taken on the proposed rule.¹¹³

Additionally, on July 22, 2025, the House Appropriations Committee approved an appropriations bill that disallows funding made available from the bill or any other act to “be used to implement, administer, or enforce” the 2024 CCR Rule.¹¹⁴ If approved by both the House and the Senate, this legislation would backstep the broadened regulatory scope of the EPA’s coal ash regulations, specifically concerning legacy surface impoundments and CCRMUs.¹¹⁵ On the same day, the EPA published another direct final rule and companion proposed rule to create “an additional option for certain owners and operators to comply with the Facility Evaluation Report (FER) Part 1 requirements and to extend compliance deadlines for the remaining CCRMU provisions.”¹¹⁶ Responding to public requests, the EPA held a public hearing for this proposed rule on September 12, 2025, and extended the comment period

107. Kari Lydersen, *Power Companies Pressure Trump EPA to Roll Back Rules on Toxic Coal Ash*, CANARY MEDIA (Jan. 29, 2025), <https://www.canarymedia.com/articles/policy-regulation/power-companies-pressure-trump-epa-to-roll-back-rules-on-toxic-coal-ash> [https://perma.cc/5X8X-EHZ8].

108. U.S. ENV’T PROT. AGENCY, *supra* note 101.

109. *Id.*

110. *Id.*

111. *EPA Announces Swift Actions on Coal Ash Program (Coal Combustion Residuals)*, U.S. ENV’T PROT. AGENCY, <https://www.epa.gov/newsreleases/epa-announces-swift-actions-coal-ash-program-coal-combustion-residuals> [https://perma.cc/MLQ8-TEUA] (Mar. 12, 2025); *see also* Renee Sweany, *EPA and Governor’s Actions Affect Indiana’s Coal Ash Problems*, HOOSIER ENV’T COUNCIL (Mar. 14, 2025), <https://www.hecweb.org/2025/03/14/epa-and-governors-actions-affect-indianas-coal-ash-problems/> [https://perma.cc/38B3-ZV8N].

112. U.S. ENV’T PROT. AGENCY, *supra* note 101.

113. *Id.*

114. H.R. 4754, 119th Cong. § 464 (2025) (introduced but not enacted; subsequent FY 2026 appropriations legislation did not adopt the proposed reforms).

115. Maya Wilkins, *U.S. House Bill Expected to Change Coal Ash Regulations*, POST-TRIBUNE (July 23, 2025, 3:03 PM), <https://www.chicagotribune.com/2025/07/23/u-s-house-bill-expected-to-change-coal-ash-regulations/> [https://perma.cc/8UKZ-E6KG].

116. U.S. ENV’T PROT. AGENCY, *supra* note 101.

from the original date of August 21, 2025, to September 15, 2025.¹¹⁷ Given the many administrative updates, the final rule will likely not be effective until 2026, and thus coal ash regulation remains in flux.¹¹⁸ Concurrently, there has been recent federal case law regarding the regulation of coal ash.

2. Federal Case Law

There have been two recent, related cases important to the discussion on coal ash regulation. The first case favors broader coal ash regulation and catalyzed the 2024 CCR Rule promulgation.¹¹⁹ However, the second case directly challenges the 2024 CCR Rule due to its broadened regulatory scope.¹²⁰

In 2018, the D.C. Circuit Court decided *Util. Solid Waste Activities Grp. v. EPA*, the case that initiated the promulgation of the 2024 CCR Rule, which broadened EPA regulations of coal ash to include legacy surface impoundments and CCRMUs.¹²¹ In this case, environmental and industry petitioners challenged parts of the 2015 CCR Rule for either being too weak or too stringent, respectively.¹²² The court held in part that the EPA acted arbitrarily and capriciously and contrary to RCRA by exempting inactive surface impoundments at inactive power plants from regulation.¹²³ The court reasoned such impoundments pose a risk to human health and the environment.¹²⁴ Therefore, the court vacated the legacy surface impoundment regulatory exemption and remanded the issue to the EPA.¹²⁵ Ultimately, the EPA extended coal ash regulations to include both legacy surface impoundments and CCRMUs.¹²⁶ This ruling is significant because it favored broader coal ash regulation.

Subsequently, in *City Util. of Springfield v. EPA*, industry petitioners challenged the EPA's promulgation of the 2024 CCR Rule, claiming the rule is overly broad in attempting to regulate CCRMUs and thus filed a motion for

117. *Id.*

118. *See id.* (noting repeated withdrawals of direct final rules, reopened comment periods, technical corrections, and extensions of compliance deadlines for CCRMUs, delaying full regulatory implementation).

119. *See Util. Solid Waste Activities Grp. v. EPA*, 901 F.3d 414 (D.C. Cir. 2018).

120. *See City Utils. of Springfield v. EPA*, No. 24-1200, 2024 U.S. App. LEXIS 27788, at *8 (D.C. Cir. Nov. 1, 2024).

121. U.S. ENV'T PROT. AGENCY, *supra* note 102.

122. Frank & Maloney, *supra* note 29, at 4.

123. *Util. Solid Waste Activities Grp.*, 901 F.3d at 449.

124. Frank & Maloney, *supra* note 29, at 4.

125. U.S. ENV'T PROT. AGENCY, *supra* note 102, at 1.

126. *See supra* notes 101–06 and accompanying text.

stay.¹²⁷ On November 1, 2024, the court denied the motion for stay.¹²⁸ However, on August 11, 2025, the EPA requested that the court hold the petitions in abeyance until December 15, 2025, indicating that the EPA is reconsidering the 2024 CCR Rule on substantive grounds and thus needs to suspend the case for the meantime.¹²⁹ This case is important because it exemplifies how the industry is challenging the broader regulations of the 2024 CCR Rule and pushing back on more stringent coal ash regulation, and it shows how the EPA is responding to such challenges. Challenges to state level regulations echo these concerns as well.

B. Indiana Coal Ash Law

Indiana has adopted the federal coal ash regulations with very minor changes and exceptions.¹³⁰ This section explains the background of Indiana coal ash law including key statutes, regulations, legislation, and rulemaking and how Indiana law intertwines with federal law.

1. State Statutes and Regulations

After the passage of the 2015 CCR Rule, the Indiana Environmental Rules Board (hereinafter “IERB”) adopted an emergency rule to incorporate the federal regulations for CCR surface impoundments into the Indiana Administrative Code (hereinafter “IAC”).¹³¹ In December 2016, the IERB permanently incorporated the federal coal ash regulations into the IAC.¹³² The IERB adopted the federal regulations by reference, including the specific provisions relevant to beneficial use.¹³³

In addition to incorporating the federal coal ash regulations, Indiana, upon recommendation from the EPA after the finalization of the 2015 CCR Rule, also

127. *City Utils. of Springfield v. EPA*, No. 24-1200, 2024 U.S. App. LEXIS 27788, at *7 (D.C. Cir. Nov. 1, 2024); see also *City Utilities of Springfield, Missouri v. EPA*, U.S. CHAMBER OF COM. (Feb. 7, 2025), <https://www.uschamber.com/cases/energy-and-environment/city-utilities-of-springfield-missouri-v-epa> [<https://perma.cc/2QP5-67AB>].

128. *City Utils. of Springfield v. EPA*, No. 24-1200, 2024 U.S. App. LEXIS 27788, at *7 (D.C. Cir. Nov. 1, 2024).

129. Respondents’ Motion to Govern at 1, *City Utils. of Springfield v. EPA*, 2024 U.S. App. LEXIS 27788, No. 24-1200 (D.C. Cir. 2024).

130. See 329 IND. ADMIN. CODE 10 (2024); see also *Coal Combustion Residuals*, IND. DEP’T OF ENV’T MGMT., <https://www.in.gov/idem/waste/resources/permits-registrations-approvals-and-closures/coal-combustion-residuals/> [<https://perma.cc/NJL8-BG6Z>] (last visited Nov. 22, 2024).

131. IND. DEP’T OF ENV’T MGMT., *supra* note 130.

132. *Id.*

133. *Public Participation Response to Comments, Indiana Coal Combustion Residuals Part 256 Solid Waste Management Plan Amendment*, IND. DEP’T OF ENV’T MGMT. 2 (Feb. 23, 2017), https://www.in.gov/idem/waste/files/landfills_antique_history_ccr_plan_rtc.pdf [<https://perma.cc/C9D6-J5DQ>]; see 329 IND. ADMIN. CODE 10-9-1(b)-(c) (2024).

updated its Solid Waste Management Plan (hereinafter “SWMP”).¹³⁴ Before the 2015 CCR Rule was finalized, Indiana amended and submitted their SWMP to the EPA, and the EPA approved it in 1991.¹³⁵ Thus, the Indiana SWMP did not include regulation of coal ash landfills and surface impoundments, thereby requiring updates to accord with federal law. From April to June 2016, IDEM requested public comments on the draft amendment to the SWMP regarding coal ash management.¹³⁶ Topics of public comment included support for the incorporation of the federal coal ash regulations into Indiana’s rules, EPA changes to the federal rule, recommendations for Indiana coal ash rule development, evaluation of the effectiveness of the public participation program, and beneficial use.¹³⁷ Public comments on beneficial use differed between support for the lack of beneficial use regulation and support for a cautionary approach to beneficial use, allowing only “uses demonstrated to pose a minimal environmental risk which encapsulate the ash before its reuse.”¹³⁸ Regardless of any comments supporting more or less regulation, IDEM responded by stating, pursuant to House Enrolled Act 1230, the IERB would only approve a rule that incorporated the federal beneficial use regulation equivalently and consistently—nothing more, nothing less.¹³⁹ Thus, in February 2017, IDEM submitted the SWMP Amendment to the EPA for approval.¹⁴⁰ In March 2017, the EPA approved the SWMP Amendment conditioned “on Indiana completing a process to revise their CCR regulations to be consistent with the federal minimum CCR requirements.”¹⁴¹ Subsequently, the Indiana Code states only the applicable definitions, the rules the IERB shall adopt, and what IDEM shall do.¹⁴² Concerning beneficial use, the Indiana Code states the adopted rules may not regulate use of coal ash for antiskid material, manufacturing, structural fill, a base in road construction, and agricultural applications, among others.¹⁴³

In 2021, Senate Enrolled Act 271 required IDEM to establish a state permit program for coal ash under the WIIN Act, and subsequently required the IERB

134. U.S. ENV’T PROT. AGENCY, *supra* note 99 (referring to archived information accessed via permalink).

135. See Evan Bayh & Kathy Prosser, *Indiana Solid Waste Management Plan*, IND. DEP’T OF ENV’T MGMT. (1991), https://www.in.gov/idem/waste/files/landfills_antique_history_sw_plan_1991_vol_03a.pdf [<https://perma.cc/K5AK-CL3E>].

136. IND. DEP’T OF ENV’T MGMT., *supra* note 133, at 1.

137. *Id.* at 2–5.

138. *Id.* at 2.

139. *Id.*; see H.E.A. 1230, 120th Gen. Assemb., 1st Reg. Sess. (Ind. 2017).

140. See *Indiana Coal Combustion Residuals Part 256 Solid Waste Management Plan Amendment*, IND. DEP’T OF ENV’T MGMT. (Feb. 23, 2017), https://www.in.gov/idem/waste/files/landfills_antique_history_ccr_plan_amendment.pdf [<https://perma.cc/PWD2-8V2F>].

141. U.S. *State of Indiana Coal Combustion Residuals Solid Waste Management Plan Amendment Approval*, U.S. ENV’T PROT. AGENCY, <https://www.epa.gov/coalash/us-state-indiana-coal-combustion-residuals-solid-waste-management-plan-amendment-approval> [<https://perma.cc/3576-WYEZ>] (last updated Oct. 23, 2025).

142. See IND. CODE § 13-19-3-3 (2024).

143. *Id.* at 3.1.

to adopt the rules for the state permit program.¹⁴⁴ However, in 2023, the Indiana legislature amended Indiana Code § 13-19-3-3 to prohibit “state standards for disposal of coal combustion residuals to be more stringent than federal standards.”¹⁴⁵ Under this law, the IERB “shall not impose a restriction or requirement that is not imposed by the federal CCR rule.”¹⁴⁶ This law is dispositive in understanding how beneficial use of coal ash can be regulated—if the federal government does not stringently regulate beneficial use of coal ash, neither can Indiana. Beyond this statute, Governor Mike Braun signed an executive order on March 12, 2025, stating that “Indiana is committed to promoting streamlined environmental policies consistent with federal policies” because “the existence of state environmental regulations that are more stringent than federal regulations” cause confusion, increase costs, and complicate industry compliance.¹⁴⁷ Thus, it is clear that Indiana’s legislative and executive branches are in favor of keeping Indiana’s regulatory scope consistent with the “baseline national standards.”¹⁴⁸

2. State Legislation and Rulemaking

While the Indiana legislature has introduced several bills over the past few years to regulate disposal and beneficial use of coal ash more stringently, none have passed. For example, Senate Bill 412, introduced in 2022, and Senate Bill 399, introduced in 2023, would create more stringent disposal and “closure in place” rules concerning floodplains, contact with groundwater, migration with aquifers, unstable areas, and seismic impact zones.¹⁴⁹ House Bill 1335, introduced in 2022, would require owners or operators of CCR surface impoundments or landfills in the flood zone or subject to closure to remove all coal ash to be put in an encapsulated beneficial use whenever possible.¹⁵⁰ House Bill 1190, introduced in 2023, would also require owners or operators of certain CCR surface impoundments to remove all coal ash and either transfer the coal ash for disposal or put the coal ash into an encapsulated beneficial use.¹⁵¹ House Bill 1404, introduced in 2024, would prohibit the beneficial use of coal ash in “structural fill” unless the coal ash is fully encapsulated, such as in cement or concrete.¹⁵²

To comply with the WIIN Act and Senate Enrolled Act 271, IDEM recently

144. S.E.A. 271, 122nd Gen. Assemb., 1st Reg. Sess. (Ind. 2021).

145. H.E.A. 1623, 123rd Gen. Assemb., 1st Reg. Sess. (Ind. 2023).

146. *Id.*

147. Ind. Exec. Order No. 25-38 (Mar. 12, 2025).

148. *Id.*; see Sweany, *supra* note 111 (stating “the EPA said it wanted to give more control over coal ash back to the states, while Governor Braun said that Indiana will follow federal requirements”).

149. S.B. 412, 122nd Gen. Assemb., 2nd Reg. Sess. (Ind. 2022); S.B. 399, 123rd Gen. Assemb., 1st Reg. Sess. (Ind. 2023).

150. H.B. 1335, 122nd Gen. Assemb., 2nd Reg. Sess. (Ind. 2022).

151. H.B. 1190, 123rd Gen. Assemb., 1st Reg. Sess. (Ind. 2023).

152. H.B. 1404, 123rd Gen. Assemb., 2nd Reg. Sess. (Ind. 2024).

drafted a state coal ash rule and permit program, which the IERB preliminarily adopted in December 2024.¹⁵³ Importantly, this rule does not include any beneficial use regulations beyond how beneficial use is regulated federally—the IERB is bound by the Indiana Code.¹⁵⁴ Thus, under current Indiana law, Indiana may only regulate beneficial use of coal ash to the same extent as federal law.

C. The Beneficial Use Regulatory Gap

The EPA has deemed the primary responsibility for beneficial use regulation remains with the states.¹⁵⁵ Therefore, federal coal ash regulations provide only minimum criteria; they do not preclude states from adopting more stringent regulations.¹⁵⁶ In fact, federal coal ash regulations require state permit programs to be “at least as protective as” EPA standards.¹⁵⁷ In other words, EPA coal ash regulations can be thought of as a floor that states must stand on, but individual states determine how high the ceiling goes.

Indiana adopted the federal coal ash regulations into the Indiana Code, which incorporates the federal beneficial use definition by reference. However, Indiana also codified a state prohibition on more stringent coal ash standards than federal coal ash standards. Therefore, a regulatory gap exists in Indiana regarding regulation of the beneficial use of coal ash. To put it simply, the EPA beneficial use regulations are the bare minimum—and, by passing a law containing no-more-stringent-than regulations, the Indiana legislature ensured the IERB cannot promulgate any regulations that would go beyond the EPA’s bare minimum regulations. This is problematic because the EPA’s regulatory scheme is designed to be a floor, not a ceiling.

EPA regulates coal ash based on how it is reused or disposed. There are three EPA-promulgated definitions important to such regulations: (1) “beneficial use,” (2) “CCR pile or pile,” and (3) “disposal.” To be regulated as a “beneficial use,” the coal ash must meet four specific criteria:

- (1) “the CCR must provide a functional benefit;”
- (2) “the CCR must substitute for the use of a virgin material, conserving natural resources that would otherwise need to be obtained through practices, such as extraction;”
- (3) “the use of the CCR must meet relevant product specifications, regulatory standards or design standards when available, and when such standards are not available, the CCR is not used in excess quantities; and”
- (4) “when unencapsulated use of CCR involving placement on the land of 12,400 tons or more in non-roadway applications, the user must demonstrate and keep records, and provide

153. Draft Rule, 329 IND. ADMIN. CODE 10 (preliminarily adopted Dec. 11, 2024).

154. IND. CODE § 13-19-3-3 (2024) (codifying the no-more-stringent-than state policy regarding CCR regulations).

155. U.S. ENV’T PROT. AGENCY, *supra* note 9.

156. U.S. ENV’T PROT. AGENCY, *supra* note 99.

157. *Id.*

such documentation upon request, that environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.”¹⁵⁸

If these four criteria are met, the coal ash is considered a beneficial use and is not subject to further regulation under the federal coal ash rule. This regulatory exclusion dates back to the Bevill Amendment which excludes *special wastes*.¹⁵⁹ Although, if there is “a finding of imminent or substantial endangerment” regarding a specific circumstance, the EPA can take federal action under RCRA.¹⁶⁰

“CCR pile or pile” is defined as “any non-containerized accumulation of solid, non-flowing CCR that is placed on the land.”¹⁶¹ Off-site recycled coal ash is not considered a CCR pile.¹⁶² “Disposal” is defined as “the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste . . . into or on any land or water so that such solid waste, or constituent thereof, may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.”¹⁶³ Disposal does not include the beneficial use of coal ash.¹⁶⁴ Disposal methods include landfills and surface impoundments or “ponds.”¹⁶⁵ Both of these disposal methods are regulated under the federal coal ash rule, and thus, are subjected to more stringent regulations than beneficial use. Therefore, regulations pursuant to these three categories—“beneficial use,” “CCR pile or pile,” and “disposal”—are somewhat ambiguous.

Beyond initiating the promulgation of the 2024 CCR Rule, *Util. Solid Waste Activities Grp. v. EPA* emphasizes the ambiguity of beneficial use regulation.¹⁶⁶ Industry petitioners asserted two claims against the EPA related to beneficial use regulation: (1) “the EPA arbitrarily regulated coal residuals piles of 12,400 or more tons,” and (2) “the EPA arbitrarily regulated on-site coal residuals destined for beneficial use.”¹⁶⁷ For both of these claims, the court granted the EPA’s voluntary remand without vacating the regulation, meaning the regulation stands, but the EPA must reconsider these two provisions in the

158. 40 C.F.R. § 257.53.

159. U.S. ENV’T PROT. AGENCY, *supra* note 9 (explaining that coal combustion residuals beneficially used are excluded from federal regulation as “special wastes” under the Bevill Amendment, absent a finding of imminent and substantial endangerment under RCRA); *see* U.S. ENV’T PROT. AGENCY, *supra* note 81.

160. *Id.*

161. 40 C.F.R. § 257.53.

162. *Id.*

163. *Id.*

164. *Id.*

165. Evans et al., *supra* note 1, at 14–15.

166. *See Util. Solid Waste Activities Grp. v. EPA*, 901 F.3d 414 (D.C. Cir. 2018).

167. *Id.* at 436.

meantime.¹⁶⁸

Subsequently in 2019, the EPA proposed changes to the 2015 CCR Rule concerning the exact same provisions that were at issue in *Util. Solid Waste Activities Grp. v. EPA*—beneficial use criteria and CCR piles.¹⁶⁹ One proposed change included replacing the 12,400-ton threshold under the beneficial use criteria with specific location-based criteria.¹⁷⁰ Using specific location-based criteria would establish additional criteria for where reused coal ash could be placed as fill, but as proposed, would eliminate numerical criteria. The additional criteria proposed included: “distance from the uppermost aquifer; placement in a wetland; placement in an unstable area; placement in a flood plain; distance from a fault area; and placement in a seismic zone.”¹⁷¹ This change remains pending. The other proposed change would have established a single approach for all temporary placement of unencapsulated coal ash on the land, “regardless of whether the pile is on-site or off-site, or destined for beneficial use or disposal.”¹⁷² As reasoning for this proposed change, the EPA referenced the RCRA definition of “disposal” which “closely mirrors” the RCRA definition of “CCR pile.”¹⁷³ EPA’s proposed approach would have regulated all CCR piles as “storage,” including the regulatory requirement to control releases of coal ash.¹⁷⁴ However, while the 2024 CCR Rule addressed this proposed change, the change was not finalized in the 2024 CCR Rule.

In an additional attempt to clarify the beneficial use regulatory gap, the EPA discussed public comments on beneficial use exemption with the promulgation of the 2024 CCR Rule. However, this discussion only explained what the 2015 CCR Rule regulates without making any changes or amendments. The clarifications regard the confusion of differentiating, and therefore regulating, CCRMUs, CCR piles, disposal, and beneficial use. While some commenters argued the regulation of CCRMUs “effectively revoked” the beneficial use exemption, the EPA disagreed.¹⁷⁵ The CCRMU definition encompasses CCR piles. CCR piles “placed directly on the land on-site of a utility” are not

168. *Id.* at 437.

169. *See id.* at 436–37; *Disposal of Coal Combustion Residuals from Electric Utilities Rulemakings*, U.S. ENV’T PROT. AGENCY, <https://www.epa.gov/coalash/coal-ash-rule> [<https://perma.cc/YT7V-PMWZ>] (last updated Jan. 7, 2026).

170. Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Enhancing Public Access to Information; Reconsideration of Beneficial Use Criteria and Piles, 84 Fed. Reg. 40353 (Aug. 14, 2019) (to be codified at 40 C.F.R. pt. 257).

171. *Id.*

172. U.S. ENV’T PROT. AGENCY, *supra* note 169.

173. Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Enhancing Public Access to Information; Reconsideration of Beneficial Use Criteria and Piles, 84 Fed. Reg. 40353 (Aug. 14, 2019).

174. *Id.*

175. *See* Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals From Electric Utilities; Legacy CCR Surface Impoundments, 89 Fed. Reg. 38950 (May 8, 2024).

beneficial uses.¹⁷⁶ Therefore, on-site CCR piles are regulated as a disposal method. For example, structural fill and coal ash placed below currently regulated CCR units on-site of a utility are not considered beneficial use and are regulated as disposal.¹⁷⁷ However, non-containerized coal ash that is placed directly on the land off-site of a utility and meets the beneficial use definition is not considered a CCR pile but is considered a beneficial use.¹⁷⁸ Thus, such off-site coal ash is not subject to the disposal regulations.¹⁷⁹

Despite these clarifications regarding beneficial use exemptions, regulatory loopholes remain. For example, in *Elec. Energy, Inc. v. EPA*, the EPA found the Ottumwa Generating Station's closure plan was not in compliance with the coal ash closure requirements.¹⁸⁰ Ottumwa placed additional coal ash in a closing surface impoundment, asserting that such placement was a "fill" and therefore a beneficial use exempt from regulation.¹⁸¹ However, the 2015 CCR Rule explicitly requires owners or operators to cease placing coal ash into closing surface impoundments. Therefore, such placement of coal ash was prohibited and not considered a beneficial use. Considering this case example and the tragedy of Town of Pines, federal and state law need to close the regulatory gaps regarding beneficial use of coal ash to better protect human health and the environment.

III. ANALYSIS: HOW SHOULD FEDERAL AND INDIANA LAW REGULATE BENEFICIAL USE OF COAL ASH TO BETTER PROTECT HUMAN HEALTH AND THE ENVIRONMENT?

There are many ways federal and Indiana law could regulate beneficial use of coal ash to better protect human health and the environment. This note suggests three ways federal law could regulate beneficial use of coal ash and three ways Indiana law could regulate beneficial use of coal ash to achieve this outcome. Federally, (1) the EPA should add location-based risk factors into the beneficial use criteria, (2) the EPA should require recordation for all unencapsulated beneficial use, and (3) the EPA should regulate unencapsulated beneficial use as a disposal method. In Indiana, (1) legislators should amend the Indiana Code to allow more stringent regulation, (2) the IERB should adopt state-specific beneficial use regulations into the state rule, and (3) the IDOH should prioritize coal ash contamination as a public health issue. While not all of these suggestions could be implemented simultaneously, they are possible options for implementing beneficial use regulation at the federal and state level that would better protect human health and the environment.

176. *Id.*

177. *Id.*

178. *Id.*

179. *Id.*

180. *Elec. Energy, Inc. v. EPA*, 106 F.4th 31, 38 (D.C. Cir. 2024).

181. *Id.* at 43.

*A. Federal Law**1. EPA Should Add Location-Based Risk Factors into the Beneficial Use Criteria*

Coal ash must only meet the four criteria promulgated by the EPA to be considered a “beneficial use,” and therefore to be within the regulatory gap. In summary, the four criteria are (1) functional benefit, (2) substitution of virgin material, (3) regulatory standards, and (4) 12,400 tons or more specifications.¹⁸² Notably, no overarching exception, caveat, or disclaimer exists within these four criteria on where reused coal ash can be placed. Therefore, there is no regulatory stop sign posted anywhere—reused coal ash can be placed in high-risk, high-exposure areas without regulatory consequences.¹⁸³ Town of Pines exemplifies this regulatory gap, as fill was placed in the roadbeds, under a playground, and in residents’ yards.

In 2019, the EPA proposed to replace the mass-based numerical value (criterion #4) with location-based criteria.¹⁸⁴ However, industry, environmentalists, and state governments alike disfavored this proposal. Industry claimed this proposal would be too burdensome.¹⁸⁵ State governments generally disfavor regulations that make coal ash reuse more burdensome.¹⁸⁶ Environmentalists claimed this proposal would create another regulatory loophole in which industry could use as much reused coal ash as they wanted to in non-risk areas.¹⁸⁷ To address this issue, location-based risk factors should be incorporated as an additional beneficial use criterion, not as a replacement of an existing criterion, such as the EPA proposed in 2019.

Incorporation of location-based risk factors would ensure that as part of the test to qualify as a beneficial use, the placement location must first be evaluated to ensure it is in fact a *beneficial* use. Examples of proposed location-based risk factors the EPA proposed in 2019 include “distance from the uppermost aquifer; placement in a wetland; placement in an unstable area; placement in a flood plain; distance from a fault area; and placement in a seismic zone.”¹⁸⁸ If the EPA

182. See 40 C.F.R. § 257.53.

183. See Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Enhancing Public Access to Information; Reconsideration of Beneficial Use Criteria and Piles, 84 Fed. Reg. 40353 (Aug. 14, 2019) (to be codified at 40 C.F.R. pt. 257).

184. *Id.*

185. Tom Quinn, *Reuse can divert coal ash from landfills, but challenges remain*, ENERGY NEWS NETWORK (Aug. 31, 2022), <https://energynews.us/2022/08/31/the-solution-to-americas-colossal-coal-ash-problem/> [<https://perma.cc/59GF-TSQK>].

186. See *id.*

187. *Id.*

188. See Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Enhancing Public Access to Information; Reconsideration of Beneficial Use Criteria and Piles, 84 Fed. Reg. 40353 (Aug. 14, 2019) (to be codified at 40 C.F.R. pt. 257).

required these factors to be evaluated before a reuse was deemed a *beneficial* use, it would provide a starting point for evaluating placement of coal ash more critically. To avoid industry exploitation of such factors, the factors should be considered along with the four beneficial use criteria promulgated by the EPA, as well as considerations for not only what the land is currently being used for, but what it may potentially be used for in the future. For example, adding location-based risk factors to the beneficial use criteria could have avoided what occurred in Town of Pines given coal ash was used as fill for wetlands and in a residential area; two factors that should be considered risks. Thus, as an additional consideration, incorporating risk factors into the beneficial use criteria would better protect human health and the environment.

2. EPA Should Require Recordation for All Unencapsulated Beneficial Use

The fourth criterion for beneficial use applies only when 12,400 tons or more of unencapsulated use of coal ash is placed on the land. If this numerical threshold is met, then the user must (1) “keep records” and (2) “provide such documentation upon request.”¹⁸⁹ Therefore, if this numerical threshold is not met, users do not need to keep records nor provide documentation on where unencapsulated coal ash was placed on the land. Arguably, however, this 12,400-ton-or-more threshold is arbitrary. The EPA originally promulgated the 12,400-ton-or-more threshold based on the 2010 Steam Electric Power Generating Effluent Guidelines Questionnaire, which indicated that the smallest size coal ash landfill met this threshold.¹⁹⁰ Essentially, the EPA promulgated this fourth criterion to ensure that large amounts of unencapsulated coal ash could not evade landfill regulations. However, industry called out the EPA for this threshold, claiming the EPA made a clerical error and that the correct threshold should actually be 74,800 tons or more.¹⁹¹ Given that the 12,400-ton-or-more threshold remains, industry would prefer to eliminate the fourth criterion all together.¹⁹²

Regardless of the threshold numerical value, the most important aspect to the fourth criterion should be applied to all unencapsulated use of coal ash—recordation. According to the Indy Star, “as many as 180 million tons of coal ash has made its way into structural fill all across the country since the 1980s,

189. 40 C.F.R. § 257.53.

190. Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Enhancing Public Access to Information; Reconsideration of Beneficial Use Criteria and Piles, 84 Fed. Reg. 40353 (Aug. 14, 2019) (to be codified at 40 C.F.R. pt. 257).

191. *Id.*

192. *(Re)defining Beneficial Use?*, ASH AT WORK 8 (2024), https://acaa-usa.org/wp-content/uploads/2024/04/ASH-2024-1_f-web.pdf [<https://perma.cc/PXY6-7PNV>].

but few records exist on where it was used.”¹⁹³ This lack of recordation is problematic because of the potential negative human health and environmental impacts that coal ash exposure may cause. As a minimum standard, recordation would not limit industry or users from recycling coal ash as an unencapsulated use but rather would keep industry and users accountable for where and how they reuse such coal ash. Additionally, keeping records and providing documentation upon request would be instrumental for potential future clean-up efforts.

If communities do not know where coal ash is placed—regardless of how much was used—a situation akin to Town of Pines could occur. When the coal ash contamination crisis in Town of Pines first surfaced, community volunteers took to the streets—on their own time, with their own resources, and due to their own volition—to map out the coal ash contamination. Volunteers walked the entirety of the town with devices to measure radiation, so they would have a way of knowing where clean-up was most critical in the town. It should not take community volunteers to map out coal ash contamination. Considering the use of unencapsulated coal ash has such detrimental effects to human health and the environment, recordation is necessary, and the EPA should apply the standard to all unencapsulated uses regardless of the numerical threshold.

3. EPA Should Regulate Unencapsulated Beneficial Use as a Disposal Method

Considering the similar definitions and practicalities of “unencapsulated use,” “CCR piles,” and “disposal,” EPA should streamline the regulations by defining unencapsulated beneficial use as a disposal method. Unencapsulated coal ash is a loose, unbound form and is commonly utilized as fill for land, roadways, and other construction. Essentially, users take the loose and unbound coal ash and directly incorporate it into the land or road. Given this process, the disposal definition should apply, as the disposal definition under RCRA includes discharging, depositing, dumping, or placing of any solid waste into or on any land.¹⁹⁴

Additionally, not regulating unencapsulated beneficial use as a disposal method contributes to industry confusion and industry exploitation of loopholes on what constitutes a proper disposal method versus what constitutes a proper beneficial use.¹⁹⁵ The 2015 CCR Rule regulates surface impoundments and

193. Sarah Bowman, *Potentially harmful coal ash could be buried in your town. Here's what you need to know*, INDYSTAR (Feb. 20, 2024, 5:29 AM), <https://www.indystar.com/story/news/environment/2024/02/20/coal-ash-is-toxic-and-could-be-buried-all-around-us-what-that-means/72589114007/> [https://perma.cc/MDB6-DEZT].

194. See 40 C.F.R. § 257.53.

195. See *Elec. Energy, Inc. v. EPA*, 106 F.4th 31 (D.C. Cir. 2024) (rejecting industry arguments that placement of coal ash during closure qualified as “beneficial use” and reaffirming EPA’s repeated need to clarify the distinction between regulated disposal and exempt beneficial uses).

landfills by requiring structural integrity requirements, groundwater monitoring and corrective action, location restrictions, liner design criteria, operating criteria, record keeping, notification, and internet posting requirements. Because these regulatory requirements are applicable to unencapsulated beneficial use, the EPA should regulate unencapsulated beneficial use as a disposal method. Given unencapsulated beneficial use of coal ash is essentially “a backdoor means of coal ash disposal that avoids regulation,” regulating unencapsulated beneficial use of coal ash as a disposal method would better protect human health and the environment.¹⁹⁶

B. Indiana Law

1. Legislators Should Amend Indiana Code § 13-19-3-3 to Allow More Stringent Regulation of Coal Ash

When the Indiana legislature passed House Enrolled Act 1623 in 2017, Indiana prohibited state coal ash regulations from being more stringent than federal standards. In addition to this prohibition, the Indiana Code states that the IERB cannot impose rules not imposed by the federal coal ash rule.¹⁹⁷ Thus, the Indiana Code essentially ensures that as long as the EPA does not regulate beneficial use, neither can Indiana. This prohibition is especially problematic because the EPA has reserved beneficial use regulatory responsibility to the states—yet Indiana refuses to regulate beyond what the EPA has already regulated.

Public comments to IDEM’s draft CCR Part 256 SWMP Amendment in 2016 addressed how Indiana should regulate beneficial use.¹⁹⁸ One commenter supported amending the Indiana Code to allow the IERB “to adopt rules that support and promote the beneficial use of” coal ash.¹⁹⁹ Other commenters supported IDEM adopting “a precautionary approach to the regulation of beneficial use” by allowing only uses that “pose minimal environmental risk which encapsulate the ash before its reuse.”²⁰⁰ Additionally, public comments to IDEM’s draft coal ash rule in 2023 addressed how Indiana should regulate beneficial use.²⁰¹ Commenters argued that “beneficial uses of CCR should be limited to encapsulated uses only,” regardless of the federal definition which

196. Jeremy Richardson, Eric Dixon, & Ted Boettner, *Repairing the Damage: Cleaning Up Hazardous Coal Ash Can Create Jobs and Improve the Environment*, UNION OF CONCERNED SCIENTISTS 16, 28 (Sept. 2021), https://www.ucsusa.org/sites/default/files/2021-10/repairing-the-damage-report_2.pdf [<https://perma.cc/E7F7-CGHL>].

197. Ind. Code § 13-19-3-3 (2024).

198. See IND. DEP’T OF ENV’T MGMT., *supra* note 133.

199. *Id.* at 2.

200. *Id.*

201. IND. GEN. ASSEMB., SUMMARY/RESPONSE TO COMMENTS COAL COMBUSTION RESIDUALS, LSA DOC. NO. 21-458 (July 31, 2024).

includes both encapsulated and unencapsulated uses.²⁰² Therefore, Indiana stakeholders appear to support more stringent beneficial use regulation. While industry may benefit from a no-more-stringent-than policy, this same policy severely harms Indiana residents, like those in Town of Pines. In order to regulate beneficial use of coal ash beyond the federal criteria, Indiana would need to amend the Indiana Code to allow for the passage of more stringent state regulations than the federal coal ash rule.

2. IERB Should Adopt State-Specific Beneficial Use Regulations into the State Rule

Assuming the Indiana Code was amended to allow the IERB to adopt more stringent coal ash regulations than the minimal federal regulations, the IERB should adopt more stringent beneficial use regulations into the state rule, specifically to prohibit unencapsulated uses in residential areas.²⁰³ The state coal ash rule was preliminarily adopted on December 11, 2024, with only an incorporation of the federal definition of beneficial use.²⁰⁴ However, the federal beneficial use definition is not stringent enough to protect human health and the environment, especially considering residential areas in Indiana.

If Indiana prohibited unencapsulated beneficial use of coal ash in residential areas, Town of Pines could have avoided the severe consequences of NIPSCO, Brown, Inc., Ddalt Corp., and Bulk Transport's actions. While placing unencapsulated beneficial use anywhere may be dangerous for the environment, human health impacts significantly increase when such uses are in residential areas. For example, in Town of Pines residential fill was found under playgrounds, in backyards, and on the roads.²⁰⁵ Human health impacts included exposure to radiation, increased rates of cancer and thyroid issues, and drinking water contamination.²⁰⁶

In December 2023, 153 groups and 136 individuals, including thirty-one Indiana residents, signed a letter urging the EPA to prohibit the use of residential fill.²⁰⁷ The letter asked the EPA to do four specific things: (1) "quantify the full

202. *Id.*

203. See H.B. 1404, 123rd Gen. Assemb., 2nd Reg. Sess. (Ind. 2024) (proposing amendment of the Indiana Code to create a more stringent regulation regarding structural fill—"coal combustion residuals shall not be used as structural fill unless they are fully encapsulated in cement or concrete.")

204. Draft Rule, 329 IND. ADMIN. CODE 10 (preliminarily adopted Dec. 11, 2024); see 40 C.F.R. § 257.53.

205. Bowman, *supra* note 55.

206. *Id.*

207. Rebecca Thiele, *Town of Pines residents sign letter urging EPA to ban using toxic coal ash as fill in construction*, WFYI INDIANAPOLIS (Dec. 14, 2023), <https://www.wfyi.org/news/articles/town-of-pines-residents-sign-letter-urging-epa-to-ban-using-toxic-coal-ash-as-fill-in-construction> [<https://perma.cc/5K4E-BHYX>]; see Jose Cora et al., *Re: New Data Support Urgent Need to Prevent Harm to Human Health from Use of Coal Ash as Structural Fill*, Docket ID No. EPA-HQ-OLEM-2020-0107, EARTHJUSTICE 1 (Dec. 11, 2023), <https://earthjustice.org/wp-content/uploads/2023/12/community-letter-re-ccr-noda.pdf> [<https://perma.cc/VH5G-ET58>].

range of health risks posed by coal ash used as structural fill,” (2) “investigate areas where coal ash fill has been placed near residences and require cleanup,” (3) “initiate a rulemaking to prohibit the use of coal ash as structural fill,” and (4) “issue a public advisory recommending that coal ash fill in residential areas be immediately terminated pending a final rulemaking.”²⁰⁸ The letter referenced an EPA draft risk assessment which “found unacceptable cancer and non-cancer risks from exposure to arsenic and radioactivity from coal ash fill.”²⁰⁹ The letter also referenced the EPA draft Integrated Risk Information System Toxicological Review of Inorganic Arsenic which found “significantly heightened health risks from inorganic arsenic, one of the most common hazardous substances in coal ash and coal ash leachate.”²¹⁰ Although this letter was written to the EPA, therefore requesting federal changes, these requests can be reflected on the state-level as well. In fact, because the EPA reserves primary regulatory responsibility for the states, these changes would likely be legislated and implemented more effectively on a state-level, if Indiana decides to act.

3. IDOH Should Prioritize Coal Ash Contamination as a Public Health Issue

Considering the Indiana legislature precluded the IERB from adopting more stringent rules than the federal coal ash rules, regulating beneficial use of coal ash in Indiana proves challenging. However, one additional solution, beyond amending the current law, is for IDOH to prioritize coal ash contamination as a public health issue in Indiana. Human health issues linked to coal ash contamination include cancer, thyroid problems, reproductive harm, and nervous system damage.²¹¹ The EPA determines an unacceptable risk when environmental exposures cause cancer in one in 100,000 people.²¹² However, people living near a coal ash pond or landfill have a one in fifty chance of getting cancer—2,000 times EPA’s regulatory goals for unacceptable risks of cancer-causing environmental exposures.²¹³ Yet, IDOH does not consider illness due to drinking water contaminated by coal ash a reportable health issue.²¹⁴

IDOH does provide testing for private wells throughout the state, noting potential risks to clean water can come from industrial and hazardous wastes.²¹⁵ As discussed, coal ash is not regulated as hazardous waste. Additionally, IDOH lists the following risks under industrial and hazardous wastes: “factories and

208. Cora et al., *supra* note 207.

209. *Id.*

210. *Id.* at 2.

211. See Evans et al., *supra* note 1, at 7–9; see also Bowman, *supra* note 55.

212. IND. ENV’T REP., *supra* note 35, at 26:56–27:04.

213. *Id.* at 27:05–27:17; but see U.S. ENV’T PROT. AGENCY, REG. ID. NO. 2050-AE81, HUMAN AND ECOLOGICAL RISK ASSESSMENT OF COAL COMBUSTION RESIDUALS (Dec. 2014), (determining lower health risks exist).

214. IND. ENV’T REP., *supra* note 35, at 29:21–29:33.

215. *Well Water Quality and Testing*, IND. DEP’T OF HEALTH, <https://www.in.gov/health/eph/well-water-quality-and-testing/> [<https://perma.cc/W38C-ZP8C>] (last visited Jan. 31, 2025).

small businesses, gas stations, and dry cleaners; leaking underground tanks and piping; mining and construction by-products; chemical and petroleum production sites; and brownfields, abandoned industrial areas.”²¹⁶ Coal ash contamination is not explicitly named as a risk to well water contamination. Thus, Indiana residents are likely not as informed about potential coal ash contamination to their well water as they should be, just like the Town of Pines residents were not back in 2000.

Additionally, IDOH should perform health studies on known or suspected areas in which residential fill was used. Residents in Town of Pines requested such a health study, but the federal government denied them such, saying the town was too small for a study to be done.²¹⁷ Therefore, it is apparent if health studies are to be done on the small, impacted communities in Indiana, such studies will not be done by the federal government. With this, it is important to again note that the EPA has left the primary responsibility of beneficial use regulation to the states. Thus, IDOH should explicitly list coal ash contamination as a risk to well water and implement health studies as part of the state responsibility to regulate beneficial use of coal ash.

IV. CONCLUSION

In conclusion, current federal and state coal ash law is inadequate to protect human health and the environment. Coal ash is regulated under RCRA, the federal statute with an objective of protecting human health and the environment. Yet, beneficial use of coal ash is regulated at the federal level weakly and vaguely. Under Indiana law, the state cannot regulate beneficial use any more stringently than federal law, which is weak and vague. Therefore, to better protect human health and the environment, the EPA should add location-based risk factors into the beneficial use criteria, require recordation for all unencapsulated beneficial use, and regulate unencapsulated beneficial use as a disposal method. Indiana legislators should amend the Indiana Code to allow more stringent regulation, the IERB should incorporate state-specific beneficial use regulations into the state rule, and the IDOH should prioritize coal ash contamination as a public health issue. If federal and state legislators and regulators act to protect human health and the environment in such ways, another Town of Pines-like tragedy could be avoided.

216. *Id.*

217. Thiele, *supra* note 207.