

ORAL ARGUMENT NOT YET SCHEDULED

**IN THE UNITED STATES COURT OF APPEALS  
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

No. 15-1219 (and Consolidated Cases)

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UTILITY SOLID WASTE ACTIVITIES GROUP, et al.,

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al.,

Respondents.

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Petitions for Review of Administrative Action  
of The United States Environmental Protection Agency

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**BRIEF OF RESPONDENT ENVIRONMENTAL PROTECTION AGENCY**

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**CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES**

Pursuant to Circuit Rule 28(a)(1), Respondents Environmental Protection Agency and Administrator Gina McCarthy (collectively “EPA”) acknowledge that Petitioners’ Briefs correctly set out the parties, rulings and related cases. References to the Ruling(s) at issue appear in the briefs for the Petitioners.

**CORPRATE DISCLOSRE STATEMENT**

Respondent EPA is a governmental entity for which a corporate disclosure statement is not required.

So certified this 18<sup>th</sup> day of April, 2016, by

*/s/ Perry M. Rosen*

Perry M. Rosen

Counsel for Respondents

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**GLOSSARY**

<b>APA</b>	Administrative Procedure Act, 5 U.S.C. §§500-706
<b>CAA</b>	Clean Air Act, 42 U.S.C. §§ 7401-7671q
<b>CCR</b>	Coal Combustion Residuals
<b>CERCLA</b>	Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §9601, <i>et seq.</i>
<b>Doc.</b>	Document
<b>EPA</b>	Environmental Protection Agency
<b>FEMA</b>	Federal Emergency Management Agency
<b>JA</b>	Joint Appendix
<b>MCLs</b>	Maximum Contaminant Levels
<b>MSHA</b>	Mine Safety and Health Administration
<b>NODA</b>	Notice of Data Availability
<b>NEHRP</b>	National Earthquake Hazards Reduction Program
<b>RA</b>	Risk Assessment
<b>RCRA</b>	Resource Conservation and Recovery Act, 42 U.S.C. §6901 <i>et seq.</i>
<b>RTC</b>	Response to Comments
<b>USACE</b>	United States Army Corps of Engineers

## STATEMENT OF THE ISSUES

Petitioners challenge specific provisions contained in the regulation promulgated by Respondent Environmental Protection Agency (“EPA”) under the Resource Conservation and Recovery Act, 42 U.S.C. §6901, *et seq.* (“RCRA”) entitled “Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities,” 80 Fed. Reg. 21,302 (April 17, 2015) (the “Rule” or “Final Rule”).

The issues raised by Industry-Petitioners are:<sup>1</sup>

1. Although Congress expressly directed EPA to promulgate regulations designed to protect against what EPA determines are reasonably probable adverse effects to health or the environment resulting from the disposal of solid wastes such as coal combustion residuals (“CCR”) in surface impoundments, did Congress nevertheless unambiguously prohibit EPA from regulating those surface impoundments when the owner/operator ceases to add more CCR to the impoundment, even though the impoundments continue to contain CCR and may be structurally unsound or be actively leaking contaminants?

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<sup>1</sup> EPA has moved to remand specific subsections of the Rule identified in three issues raised by Industry-Petitioners and two issues raised by Environmental-Petitioners. *See* n.2, *infra*. Accordingly, those issues are not set forth in this Statement of the Issues.

2. Did EPA act arbitrarily in treating piles of CCR (“CCR piles”) that remain on-site, where the CCR was generated by the coal-fired utility, differently than CCR temporarily stored at a user’s site (e.g., cement manufacturer’s facility), where it will promptly be put to a regulatory-sanctioned beneficial use?

3. Did EPA act arbitrarily in requiring owners of large CCR piles, classified as those containing over 12,400 tons of CCR, to establish that those piles would not result in releases of contaminants in excess of health-based benchmarks, in order to qualify as a non-disposed “beneficial use” that entirely escapes regulation under the Rule?

4. Was it arbitrary and capricious for EPA to refrain from allowing CCR landfills or surface impoundments (collectively “waste units” or “units”) that are leaking contaminants or otherwise in non-compliance with regulatory requirements, to qualify for a temporary exemption from closure requirements based merely on the inconvenience or higher costs associated with utilizing an alternative non-leaking disposal site?

5. Was it arbitrary and capricious for EPA to require surface impoundments that fail to satisfy structural safety criteria to initiate closure within two years and complete closure within seven years?

6. Is the requirement that an operator either not locate a new CCR landfill within a seismic impact zone or certify that it is constructed in such a manner to withstand seismic events within that zone, arbitrary and capricious?

7. Was it arbitrary and capricious for EPA to require CCR waste unit operators to meet objectively-measured pollutant benchmarks, rather than allow those operators to subjectively determine that the migration of contaminants from their waste units is not significant enough to result in reasonably probable adverse impacts to health or the environment?

8. Did EPA provide adequate notice of certain regulatory criteria promulgated in the Final Rule?

The issues raised by Environmental Petitioners are:

9. Was EPA's decision to require closure of unlined impoundments when they *actually* leak contaminants above regulatory thresholds, as opposed to requiring the closure of *all* unlined impoundments regardless of whether they ever actually leak, arbitrary and capricious or beyond its authority?

10. Was it arbitrary and capricious to define an impoundment that actually contains a liner as a "lined" impoundment?

11. Was it arbitrary and capricious for EPA to address potential contamination from legacy impoundments, where the operator was no longer

producing electricity as of the effective date of the Rule, on a site-by-site basis, i.e., to address contamination when and if it occurs?

12. Where EPA established extensive requirements for CCR-operator certifications of compliance with regulatory requirements, reporting such certifications to the State, and website publication of such certifications and supporting materials, did EPA act arbitrarily by not requiring certain website postings to occur earlier?

### **STATUTES AND REGULATIONS**

Relevant statutes and regulations appear in the Addenda to Petitioners' briefs or to this brief.

### **STATEMENT OF THE CASE**

EPA regulates the disposal of solid wastes not presently classified as “hazardous” under Subtitle D of RCRA, 42 U.S.C. §§6941-6949a. Under Subtitle D, Congress directed EPA to promulgate minimum criteria that facilities must meet to ensure that, in EPA’s judgment, there will be no reasonable probability of adverse effects to public health or the environment from the management and disposal of solid wastes, such as CCR. If a waste unit meets these criteria, it is classified as a “sanitary landfill,” which can continue to operate in accordance with those regulatory criteria; if it fails to satisfy the criteria, it will be considered an “open dump,” and must either upgrade to comply with the criteria or close.

Although EPA promulgates the standards defining a sanitary landfill, it has no authority to directly enforce the criteria it establishes. Instead, Congress left the enforcement of these regulatory criteria to the States or citizens through citizen suits. EPA can, however, take affirmative action against individual waste units when the handling or management of CCR may present an imminent and substantial endangerment to health or the environment. 42 U.S.C. §6973.

To establish meaningful self-implementing criteria, EPA did an extensive review and analysis of the operations and effects of the disposal and management of CCR, including a site-by-site assessment of the structural stability of approximately 75% of the impoundments where CCR is disposed (“Impoundment Assessment”). 80 Fed. Reg. at 21,313-15. Utilizing the data collected, relevant studies and analyses, and its own expertise, EPA established a comprehensive series of regulatory requirements designed to protect against the reasonable probability of harm to health or the environment from the disposal of CCR.

Neither Industry nor Environmental Petitioners challenge the Rule as a whole. Instead, Petitioners challenge select regulatory requirements. *See* Ind. Br. 3 (“Industry Petitioners challenge select provisions of EPA’s final rule”), 8-9 (describing Industry’s general support for the rule), 52-53 (setting out the specific provisions challenged); Env. Br. 51-52 (similar). EPA crafted the Rule such that

any specific regulatory requirement deemed to be improperly promulgated would be severable from the remaining provisions. 80 Fed. Reg. at 21,305/3.

Upon review of Petitioners' briefs, EPA has determined that a limited number of provisions warrant further administrative consideration or explanation. EPA has filed an unopposed motion to remand those provisions and, accordingly, it does not address them here.<sup>2</sup> The balance of the challenged provisions are addressed below.

### **STATEMENT OF FACTS**

#### **A. The Generation and Impacts of CCR**

Coal combustion residuals (CCR) are byproducts from the combustion of coal. 80 Fed. Reg. at 21,303. CCR includes fly ash and bottom ash (together deemed "coal ash"), as well as boiler slag and flue gas desulfurization materials.

*Id.* CCR is one of the largest industrial waste streams generated in the United States. In 2012, more than 470 coal-fired electric utilities burned over 800 million tons of coal, generating approximately 110 million tons of CCR. *Id.*

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<sup>2</sup> EPA has moved to remand provisions relating to the following issues: Industry-Petitioners' issues III.D and III.E (lack of notice of two specific criteria) and IV.C.ii (Alternative Closure as applied to non-CCR waste); and Environmental-Petitioners' issues IV (Early Closure provision) and V (boron as a covered contaminant).

Most CCR is generated dry and is either placed in landfills or is mixed with water (sluiced) as a means of transporting the waste into an impoundment, which is a pond that retains the sluiced CCR, held back by levees or earthen dikes. *Id.* Most CCR landfills and impoundments are located on the property of the utility generating it. Alternatively, dry CCR can be sent off-site for disposal in a landfill or be sold for a “beneficial use,” such as a replacement for raw materials in the production of concrete or wallboard or as filler in plastic or rubber. *Id.* at 21,328/1. Of the CCR not put to beneficial use (about 60% of all CCR), approximately 80% is disposed of in on-site waste units, including at more than 310 on-site landfills and more than 735 on-site surface impoundments. *Id.* at 21,303/1.

CCR contains contaminants such as mercury, cadmium, and arsenic, which are associated with serious health and environmental effects. *Id.* at 21,311. When CCR is improperly managed, these contaminants can leak directly into groundwater or soil, can blow into the air as dust, and/or be released in potentially massive amounts to surface waters and/or to land through structural failures of the impoundments which retain the CCR. *Id.* at 21,449, 21,456-57.

## **B. Statutory Background**

RCRA establishes a regime for the regulation of all solid waste and applies specific requirements for the subset of solid waste deemed to be “hazardous” under statutory or regulatory parameters. 42 U.S.C. §6903(5); *American Mining*

*Congress v. EPA*, 824 F.2d 1177, 1179 (D.C. Cir. 1987). Subtitle C of RCRA, 42 U.S.C. §§6921-6939(e), establishes a “cradle-to grave” regulatory structure for the handling of hazardous wastes. *NRDC v. EPA*, 755 F.3d 1010, 1013 (D.C. Cir. 2014). The regulatory requirements established by EPA under Subtitle C are generally reflected in permits that owners/operators are required to obtain and that are directly enforceable by EPA through administrative action or initiation of judicial proceedings. 80 Fed. Reg. at 21,332/2.

In contrast, Subtitle D of RCRA, 42 U.S.C. §§6941-6949a, covers all solid waste that is *not* deemed to be hazardous under Subtitle C. Under Subtitle D, EPA is directed to promulgate regulations defining the requirements that a waste unit must meet in order to be deemed a “sanitary landfill.” 42 U.S.C. §6944(a). To be classified as a sanitary landfill there must be, in EPA’s view, “no reasonable probability of adverse effects on health or the environment from disposal of solid waste ....” *Id.* Congress directed EPA to establish criteria applicable to all “solid waste management” activities, which is defined as the “storage, transportation, transfer, processing, treatment, and disposal of solid waste.” 42 U.S.C. §§ 6907(a)(3), 6903(28).

The regulations generated by EPA to ensure that facilities qualify as a sanitary landfill take the form of “minimum criteria.” *Id.* at §6907(a). If a waste unit fails to comply with the regulatory criteria established by EPA to be classified

as a sanitary landfill, the unit is deemed an “open dump,” which are prohibited under the statute. *Id.* at §§6944, 6903(14); 80 Fed. Reg. at 21,310-11. A facility operating an open dump must either retrofit the unit to come into compliance with the regulatory requirements or close the unit pursuant to closure procedures promulgated by EPA. *Id.*; 42 U.S.C. §6945.

While EPA establishes criteria designed to ensure that CCR waste units can be operated without endangering health and the environment, 42 U.S.C. §6944, the Agency has no authority to enforce statutory or regulatory requirements issued under Subtitle D. 42 U.S.C. §6973; 80 Fed. Reg. at 21,309-11. Instead, violation of statutory or regulatory requirements under Subtitle D may be enforced through the filing of a citizen suit by a State or citizen under 42 U.S.C. §6972. *Id.* Because EPA has no direct oversight or review authority to ensure compliance with Subtitle D regulatory requirements, regulations promulgated thereunder are “self-implementing,” i.e., facilities must independently comply with the requirements in the absence of any permit or direct oversight by a regulatory authority. 80 Fed. Reg. at 21,311/1.

### **C. Regulatory Background**

In response to the catastrophic failure of an impoundment in Tennessee in 2008, where over one billion gallons of coal ash slurry were released, spreading over 300 acres, EPA initiated an Impoundment Assessment to determine the scope,

breadth and ramifications of problems related to these CCR disposal units. 80 Fed. Reg. at 21,313-14. The Impoundment Assessment covered at least 559 of approximately 735 existing impoundments. *Id.* Findings from the Impoundment Assessment were used to help formulate the regulatory requirements, most specifically those related to structural integrity. *Id.* at 21,315/3.

In 2010, EPA issued its Proposed Rule, offering two alternatives: one that would regulate CCR as a hazardous waste under Subtitle C and a second that would regulate it under Subtitle D. EPA considered the two alternatives in part because CCR is one of the wastes subject to the “Bevill Exemption,” a statutory provision that excludes specific wastes from regulation under Subtitle C even if deemed to be hazardous, unless EPA determines, pursuant to the specific parameters established by Congress for such “special wastes,” that regulation under Subtitle C is warranted. 42 U.S.C. §§6921(b)(3)(A), 6982(n); *Environmental Defense Fund v. EPA*, 852 F.2d 1309, 1315 (D.C. Cir. 1988). EPA requested comments on the proposed alternative regulatory paths as well as a myriad of issues relating to the regulatory requirements outlined in the Proposed Rule. 75 Fed. Reg. 35,128 (June 21, 2010); 80 Fed. Reg. at 21,312-13.

In addition to the Impoundment Assessment and other scientific and technical analyses, EPA analyzed documented cases in which run-off or leachate from CCR waste units had caused, or has the potential of causing, damage to

health or the environment, identifying 157 such cases. *Id.* at 21,325. EPA considered this information along with a quantitative Risk Assessment, which analyzed when certain waste management practices or structural characteristics might lead to adverse health or environmental impacts. *Id.* at 21,451/1; JA\_\_\_\_\_ (“Risk Assessment” or “RA”). Subsequent to the Proposed Rule, EPA also issued three Notices of Data Availability (“NODAs”) where EPA invited additional comments on various subjects, including the potential regulation of beneficial uses of CCR and information regarding CCR used or held for large-scale fill. 80 Fed. Reg. at 21,313; 75 Fed. Reg. 64,974 (Oct. 21, 2010); 76 Fed. Reg. 63,252 (Oct. 12, 2011); 78 Fed. Reg. 46,940 (Aug. 2, 2013).

**D. The Final Rule**

The Final Rule, published on April 17, 2015, defines the activities considered to be the disposal of CCR and the activities (e.g., use as fillers in certain products) that would be considered to be a “beneficial use” not subject to regulatory requirements, and clarifies that only disposal activities must comply with the Rule’s technical requirements. Further, after reviewing the Impoundment Assessment, Risk Assessment, damage cases, and additional data and studies, EPA concluded that potentially significant health and environmental effects could occur if CCR was not handled in a prudent and safe manner. 80 Fed. Reg. at 21,326-27. At the same time, EPA determined that it lacked the data necessary to make a

regulatory determination under the applicable Bevill Exemption criteria that the disposal of CCR warrants regulation under Subtitle C as hazardous waste.

Accordingly, EPA deferred the determination of whether to regulate CCR under Subtitle C; a decision that is not at issue in this case. *Id.* at 21,319-20, 21,325-27.

In the absence of a decision to reverse the Bevill Exemption as it applies to the disposal of CCR, EPA issued comprehensive regulations under Subtitle D in the form of nationally-applicable minimum criteria for the safe disposal of CCR in landfills and impoundments. 80 Fed. Reg. at 21,302-03. These substantive requirements/criteria generally include the following:

A. Location Restrictions: Restrictions related to the placement of CCR above aquifers, in wetlands, within fault areas, in seismic impact zones, and in unstable areas (e.g., where soils or geology may cause structural failure or allow for leaching of contaminants) (40 C.F.R. §§257.60-64);

B. Liner Design Criteria: Requiring, *inter alia*, that new or expanded landfills and impoundments install a composite liner and that new landfills have a leachate collection and removal system (40 C.F.R. §§257.70-72);

C. Structural Integrity Requirements: Requiring, *inter alia*, structural stability and safety factor assessments, inspections, certifications, and monitoring (40 C.F.R. §§257.73-74);

D. Operating Criteria: Establishing operating criteria related to, *inter alia*, air emissions, run-on and run-off controls, hydrologic and hydraulic capacity, and regular inspections (40 C.F.R. §§257.80-84);

E. Groundwater Monitoring and Corrective Action: Requiring, *inter alia*, groundwater monitoring to detect the presence of hazardous constituents, detection and assessment monitoring programs, and selection and implementation of corrective actions (40 C.F.R. §§257.90-98);

F. Closure and Post-Closure Requirements: Establishing deadlines and procedures for both commencement and completion of closure and/or retrofitting to meet substantive requirements, alternative closure in limited situations, and post-closure requirements (40 C.F.R. §§257.100-04); and

G. Recordkeeping, Notification and Website Posting Requirements: Requiring comprehensive recordkeeping by the operator of adherence to the substantive requirements, notification to State regulatory authorities of such information, and posting of such information to a public website (40 C.F.R. §§257.105-07).

The application of these requirements, which are applied under varying deadlines, sometimes differs depending on whether the waste unit is new or existing, and whether it is a landfill or impoundment. *See, e.g.*, 80 Fed. Reg. at 21,306-08 and 21,429 (charts setting out requirements applicable to each category

of waste unit and applicable deadlines). As outlined above, failure to comply with these criteria results in a facility being deemed an “open dump” which is thereby required to upgrade or close. 40 C.F.R. §257.1(a); 80 Fed. Reg. at 21,468.

### **SUMMARY OF ARGUMENT**

Considering operating versus inactive units, landfills versus impoundments, disposal procedures, structural characteristics, and numerous other factors, EPA utilized its expertise to determine when, and under what circumstances, the management and disposal of coal combustion residuals (CCR) would result in a reasonable probability of harm to health or the environment. EPA then promulgated criteria designed to protect against that harm, establishing specific timetables to achieve these requirements and procedures for closure or corrective actions in the event of non-compliance with the criteria.

While both Industry and Environmental Petitioners quibble with some of the criteria as either overly restrictive or not restrictive enough, and/or providing too little or too much time for compliance, EPA made well-reasoned judgments based on the data available. EPA is entitled to considerable deference in making these technical judgments, and here each of the challenged provisions should be upheld because they represent a rational application of EPA’s authority *and* responsibility to regulate CCR in a manner that will protect public health and the environment.

Industry-Petitioners’ substantive claims center mostly on assertions that

EPA should have granted broader exceptions for waste units in different circumstances, such as those that contain CCR contaminants but are no longer receiving CCR, or those that might find using an alternative sanitary landfill to be costly or inconvenient, or those that store massive piles of CCR in wholly unprotected areas but might someday put a portion of the pile to some beneficial use. But EPA provided Industry with ample accommodation. In the Final Rule EPA extended compliance deadlines, provided limited exceptions, and allowed units presently classified as open dumps to avoid closure if reasonable corrective actions are taken. While it is not surprising that Industry-Petitioners seek even greater accommodation, EPA did not exceed its authority or act arbitrarily in limiting accommodations to those which could be justified by the factual record and are consistent with its mandate under RCRA to protect against reasonably probable harm to the environment from the disposal of CCR.

Environmental-Petitioners' arguments, in turn, are generally rooted in one basic premise: that because EPA has no direct enforcement authority under Subtitle D, it must promulgate regulations that are more protective than justified by the factual record, in order to compensate for EPA's lack of direct enforcement authority. But such a notion contravenes Congress' intent, which withheld such authority from EPA, expressly leaving that element of the statutory regime to States and citizens.

EPA can only establish the requirements that it can determine, based on the rulemaking record, are necessary to ensure that the statutory standard – to protect against the reasonable probability of adverse effects to health or the environment from the disposal of CCR – has been met. Here, EPA established *comprehensive* requirements under Subtitle D that do just that. And EPA tailored the regulatory requirements to account for the self-implementing regulatory structure that Congress enacted. But EPA may not create regulatory requirements beyond what the record supports in order to address hypothetical events or presently unsubstantiated contingencies that might otherwise be more readily addressable if EPA had direct enforcement authority. Environmental-Petitioners may disagree with the statutory structure established by Congress, but that disagreement does not form a basis to overturn EPA’s judgment that the regulatory requirements that EPA promulgated, properly applied and enforced by others, will ensure that the statutory standard has been met.

## **ARGUMENT**

### **STANDARD OF REVIEW**

Provisions of a rule may be overturned only if EPA acted beyond its statutory authority or if its promulgation of the provision at issue was arbitrary and capricious. 5 U.S.C. §706(2)(A). In interpreting statutory terms, the Court first inquires whether Congress “has directly spoken to the precise question at issue,” in

which case the Court “must give effect to the unambiguously expressed intent of Congress.” *Chevron U.S.A. v. NRDC*, 467 U.S. 837, 842-43 (1984). If the statute is “silent or ambiguous with respect to the specific issue,” the Court moves to *Chevron's* second step and must defer to the agency's interpretation so long as it is “based on a permissible construction of the statute.” *Id.* In doing so,

the court “need not find that [the agency’s interpretation] is the only permissible construction that EPA might have adopted, but only that EPA’s understanding of this complex statute [RCRA] is a sufficiently rational one to preclude a court from substituting its judgment for that of EPA.”

*Environmental Defense Fund*, 852 F.2d at 1316. (Citation omitted).

“The scope of review under the ‘arbitrary and capricious’ standard is narrow.” *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). Agency actions are presumed to be valid, *Ethyl Corp. v. EPA*, 541 F.2d 1, 34 (D.C. Cir. 1976), and the “challenger must show the agency action is not a product of reasoned decision-making ... which is ‘a heavy burden,’ since *State Farm* entails a ‘very deferential scope of review’ that forbids a court from “substitut[ing] its judgment for that of the agency.” *Van Hollen, Jr. v. Federal Election Com’n*, 811 F.3d 486, 495 (D.C. Cir. 2016) (citations omitted).

### **INDUSTRY-PETITIONERS’ ARGUMENTS**

Industry-Petitioners assert that EPA: (a) exceeded its statutory authority in regulating inactive impoundments; (b) failed to provide adequate notice and

comment on several regulatory requirements included in the Rule; and (c) promulgated certain mandatory criteria that are arbitrary and capricious. Industry-Petitioners' attempt to avoid the sound regulatory requirements in the Rule on these various bases is without merit.

**I. EPA ACTED WITHIN ITS STATUTORY AUTHORITY IN REGULATING CCR AT INACTIVE SURFACE IMPOUNDMENTS**

A “closed” CCR surface impoundment is one that not only has stopped receiving CCR but also has been dewatered and capped. 80 Fed. Reg. at 21,343/3. In contrast, an “inactive” CCR impoundment is one that contains both water and CCR but no longer is accepting additional CCR. *Id.*; 40 C.F.R. §257.53. There is no dispute that the same damage to health and the environment that can occur from a CCR impoundment that continues to receive CCR (i.e., contamination from leaking to groundwater and/or from catastrophic releases due to structural failures), also can occur with an inactive CCR impoundment. 80 Fed. Reg. at 21,342/2, 21,343/3. The threat of contamination from inactive – but unclosed – impoundments can sometimes even be greater, since currently many inactive impoundments are older and less well constructed than active impoundments. *Id.* at 21,343/1. Accordingly, a number of the Rule’s technical requirements apply to inactive surface impoundments. 80 Fed. Reg. at 21,342-43.

Industry-Petitioners do not dispute the potential harm from inactive impoundments, but instead assert that EPA has no statutory authority under RCRA

to regulate these waste units. Ind. Br. 12-22. Industry-Petitioners base their argument on the word “disposal,” contending that by using this word Congress *unambiguously* intended to limit EPA’s authority to regulating only the act of depositing solid waste into a waste unit, not the continued retention of solid waste in liquid form behind dikes (in impoundments) nor the potential consequences of the disposal of solid waste in these watery waste retention units. *Id.* This challenge is incomplete, inaccurate, and contravenes Congressional intent.

**A. Industry-Petitioners Offer No Challenge to EPA’s Reliance on 42 U.S.C. §6907 as a Basis of its Authority to Regulate Inactive Impoundments**

EPA determined that it has authority to regulate inactive impoundments pursuant to 42 U.S.C. §6907, under which Congress directed EPA to establish guidelines for solid waste management. 80 Fed. Reg. at 21,347/1. This provision expressly directs EPA, as part of the regulation of solid waste management, to generate “minimum criteria to be used by States to define those practices which constitute the open dumping of solid waste ... and are to be prohibited under subchapter IV of this chapter,” i.e., prohibited as an open dump under 42 U.S.C. §6945. 42 U.S.C. §6907(a)(3). Congress determined that part of solid waste management includes the *storage* of solid waste. *See* 42 U.S.C. §6903(28) (defining solid waste management as including the “storage, transportation, transfer, processing, treatment, and disposal of solid waste”); 42 U.S.C.

§6907(a)(2) (directing EPA to develop solid waste management provisions to protect “the quality of ground waters and surface waters from leachates.”).

Accordingly, as EPA explained, it is clear that by including the term “storage” in the concept of required solid waste management, Congress mandated EPA to develop solid waste management procedures relating to the holding and retention of CCR already placed in the waste unit, not merely the act of placing CCR into the unit. 80 Fed. Reg. at 21,347/1.

Nowhere do Industry-Petitioners challenge 42 U.S.C. §6907 as a statutory basis for the regulation of inactive impoundments, which EPA clearly relied upon in regulating such impoundments. *See* 80 Fed. Reg. at 21,347/1. To the contrary, Industry-Petitioners cite to section 6907 as providing EPA with statutory authority to establish the very substantive criteria at issue. Ind. Br. 4.

It is fundamental that a party may not pursue a claim not raised in its opening brief, *and* it may not cure that defect by addressing it in its reply brief. *Flytenow, Inc. v. FAA*, 808 F.3d 882, 892-93 (D.C. Cir. 2015); *Fox v. Government of the District of Columbia*, 794 F.3d 25, 29 (D.C. Cir. 2015); *American Wildlands v. Kempthorne*, 530 F.3d 991, 1001 (D.C. Cir. 2008). Having failed to raise any challenge to an independent statutory basis for EPA’s exercise of authority here, Industry-Petitioners’ challenge to EPA’s authority to regulate inactive impoundments must fail.

**B. EPA Has Full Alternative Authority to Regulate Inactive Impoundments Under 42 U.S.C. §§6944 and 6945**

Although the Court need not reach this issue, EPA alternatively exercised its authority to issue technical requirements, including those applicable to inactive impoundments, pursuant to 42 U.S.C. §6945, which prohibits open dumping of solid waste, and §6944, which requires EPA to establish regulations defining what constitutes a sanitary landfill and what, conversely, constitutes open dumping.

Although Industry-Petitioners acknowledge EPA's authority under these provisions to comprehensively regulate CCR disposal, they assert that Congress unambiguously declared that an impoundment, which may be falling apart or actively leaking CCR constituent pollutants into the environment, is nevertheless not subject to *any* regulatory requirements promulgated by EPA if there are no continuing deposits of CCR into that impoundment (i.e., is "inactive"). Citing to the definition of "open dump," which is defined in part as "any facility or site where solid waste *is disposed of* which is not a sanitary landfill ...," 42 U.S.C. §6903(14) (emphasis added), Industry-Petitioners assert that these three italicized words evidence the *unambiguous* intent of Congress to regulate only newly-deposited CCR and to exempt from regulation inactive impoundments, which are filled with tens of thousands of tons of CCR waste, often in unlined units held back by potentially structurally defective earthen dikes. Ind. Br. 13-22 (asserting this solely as a *Chevron* Step 1 issue).

As they must under *Chevron* Step 1, Industry-Petitioners contend that the three-word phrase “is disposed of” can *only* be interpreted in the present tense, requiring an impoundment to still be receiving CCR in order to be subject to regulation. Ind. Br. 12-14. But this three-word phrase is far from unambiguous. Industry-Petitioners’ “present-tense” interpretation essentially adds a word, interpreting the definition of “open dump” as only a facility where CCR “is [*being*] disposed of.” Indeed, Industry-Petitioners have to add a qualifier to reach their present tense-only interpretation. *See* Ind. Br. 14 (asserting that Subtitle D applies “only [to] CCR surface impoundments in which CCR *currently* is disposed of”) (emphasis added). If one stands at the rim of an impoundment containing thousands of tons of CCR and asks, “is this an impoundment where ‘solid waste is disposed of?,” a reasonable person would answer “yes,” regardless of whether the operator continues to place CCR in that impoundment. Because the language they rely upon is ambiguous, Industry-Petitioners’ *Chevron* 1 argument must fail.

Industry-Petitioners never raise a *Chevron* 2 argument. Even if one were to conduct a *Chevron* 2 analysis (or expand the *Chevron* 1 analysis beyond the plain meaning), the result would be no different. The phrase “is disposed of” cannot be plucked from the sentence in which it resides and interpreted without considering it in the context of the entire statute. *United States v. Morton*, 467 U.S. 822, 828 (1984) (“We do not ... construe statutory phrases in isolation; we read statutes as a

whole.”). “The plain meaning that we seek to discern is the plain meaning of the whole statute, not of isolated sentences,” *Beecham v. United States*, 511 U.S. 368, 372 (1994), or in this case a three-word clause of a single sentence. This holistic statutory approach was explained by this Court in interpreting another key RCRA term related to the one here at issue:

[A] complete analysis of the statutory term “discarded” calls for more than resort to the ordinary, everyday meaning of the specific language at hand. For “the sense in which [a term] is used in a statute must be determined by reference to the purpose of the particular legislation.” *Burnet v. Chicago Portrait Co.*, 285 U.S. 1, 6 (1932). The statutory [term] cannot properly be torn from the law of which it is a part; context and structure are, as in examining any legal instrument, of substantial import in the interpretative exercise.

*American Mining*, 824 F.2d at 1185 (Citations omitted).

Quite clearly, Congress did not, through a single definitional provision (“open dump”), seek to limit EPA’s regulatory authority over solid waste to the precise moment in time – the act of depositing waste in a waste unit – that Industry-Petitioners assert confines EPA’s jurisdiction. To the contrary, while not as expansive as the authority granted under Subtitle C regarding hazardous waste – which, for example, includes restrictions on how hazardous waste may be transported – Congress directed EPA to exercise authority under Subtitle D to address risks from the management of solid waste, including the risks from abandoned, leaking waste units.

Congress enacted Subtitle D specifically to address the problem of abandoned leaking “open dumps” scattered across the country, “where frequently the use of the site for waste disposal is neither authorized nor supervised.” H.R. Rep. No. 94–1491, at 37, *reprinted in* 1976 U.S.C.C.A.N. at 6275. EPA Add. 159. In describing the need for the legislation, the House report stated:

Perhaps the most pernicious effect is the contamination of groundwater by leachate from land disposal of waste... Such contamination is particularly vexing because often it is discovered after the damage is done and because the contamination is very long lasting. Thus leachate from a landfill or dump may not show up for years, maybe not even until after the landfill is closed.

*Id.* See also, 80 Fed. Reg. at 21,344-45. This concern – and purpose – of Subtitle D is ignored under Industry-Petitioners’ interpretation, which would limit the regulation of solid waste units to the moment in time of depositing the waste.

As the Supreme Court explained, Congress enacted RCRA to “ensure the proper treatment, *storage*, and disposal of that waste which is nonetheless generated, ‘so as to minimize the present *and future* threat to human health and the environment.’ 42 U.S.C. §6902(b).” *Meghrig v. KFC Western, Inc.*, 516 U.S. 479, 483 (1996). (Emphasis added). As all parties concede, the threat to health and the environment from CCR held in a structurally defective or leaking impoundment does not dissipate merely because a facility ceases to deposit *additional* CCR in the impoundment.

Industry-Petitioners read their three “magic words” contained within the definition of “open dump” wholly divorced from this context and from the key statutory provisions arising from it. First, the converse of an “open dump” is a “sanitary landfill,” which RCRA defines as “a facility for *the disposal* of solid waste which meets the criteria [EPA has] published under section 6944 of this title.” 42 U.S.C §6903(26) (emphasis added). Similarly, as noted, Congress directed EPA to establish “criteria [that] shall provide that a facility may be classified as a sanitary landfill and *not an open dump, only* if there is no reasonable probability of adverse effects on health or the environment from *disposal* of solid waste at such facility.” 42 U.S.C. §6944(a) (emphasis added). This operative provision, as opposed to the definition of open dump, speaks only to disposal; it does not direct EPA to classify an open dump only where solid waste “is disposed of.”

“Disposal” is defined as

the discharge, deposit, injection, dumping, spilling, *leaking* or placing of any solid waste or hazardous waste into or on any land or water so that *such solid waste or hazardous waste or any constituent thereof may enter the environment* or be emitted into the air or discharged into any waters, including ground waters.

42 U.S.C. §6903(3) (emphasis added). As EPA explained, this definition of “disposal” explicitly includes leaking, which at an impoundment can occur *only after* the CCR is deposited. 80 Fed. Reg. at 21,344. Disposal also expressly

includes all placing of solid waste in an impoundment where constituents of that waste may enter the environment or be discharged into any waters, including groundwater, which also occurs only *after* the CCR is deposited. There is nothing about this provision or reference to “disposal” that would allow EPA to ignore health and environmental impacts and classify a leaking waste unit as a sanitary landfill simply because the unit has ceased receiving CCR.

Not surprisingly, cases interpreting RCRA expressly declare that disposal encompasses leaking or the migration of substances after they have been placed in a waste disposal unit. In *In re Consolidated Land Disposal Regulation Litigation*, 938 F.2d 1386, 1389 (D.C. Cir. 1991), this Court reviewed the requirement that closed disposal units, including units that had closed before promulgation of the rule, obtain post-closure permits. EPA had relied on the definition of “disposal” to support the regulation, concluding that a facility “at which hazardous wastes have been disposed by placement in or on the land” remains subject to regulation because “such hazardous wastes or constituents may continue ‘leaking’ or ‘may enter the environment or be emitted ... or discharged ...’ into the environment.” *Id.* The Court considered the petitioners’ “linguistic point that ‘[d]isposal ... is not a continuing activity but occurs anew each time waste is placed into or on land.” Examining the statute, the Court concluded:

That may be one way in which the word is used in ordinary language, but is not necessarily how it is used in the statute; the equation of

“disposal” with “leaking,” which is a continuous phenomenon rather than a discrete event, is enough to blunt the sting of the petitioners’ point. There is at most an alternative reading of the statute, not an argument as to why the EPA’s reading of the statute is unreasonable.

*Id.*<sup>3</sup> See also, *U.S. v. Power Engineering*, 10 F. Supp.2d 1145, 1159 (D. Col. 1998), *aff’d*, 191 F.3d 1224 (10th Cir. 1999) (“Because the definition of ‘disposal’ includes the word ‘leaking,’ disposal occurs not only when a solid waste or a hazardous waste is first deposited onto ground or into water, but also when such waste migrates from their initial disposal location.”). Similarly, in response to citizen suits brought under 42 U.S.C. §6972(a)(1)(A) (which in contrast to those brought under subsection (B) does not expressly apply to past actions), courts in several circuits have consistently found that the passive migration of contaminants from the disposal of solid waste is not a past violation but, instead, is a continuing present violation of RCRA requirements. *Power Engineering*, 10 F. Supp.2d at 1159, citing numerous cases. See also, 80 Fed. Reg. at 21,346 (same).

Relying on cases decided from other courts and under a different statute, the Comprehensive Environmental Response, Compensation, and Liability Act, 42

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<sup>3</sup> Industry-Petitioners seek to distinguish *In re Consolidated Land Disposal* on the purported basis that the above-described language was *dicta* and that the facts are too dissimilar. Ind. Br. 19. To the contrary, the Court’s interpretation of the term “disposal,” 42 U.S.C. §6903(3), was central to upholding EPA’s regulation. Nor can the Court’s straightforward interpretation of a key statutory term (“disposal”) be interpreted to exclude what the Court stated was expressly included, because of a slightly different factual situation.

U.S.C. §9601, *et seq.* (“CERCLA”), Industry-Petitioners assert that notwithstanding the express language in the definition of the term “disposal,” which defines it to include “leaking,” that definition does not, in fact, include leaking or the passive migration of CCR from an impoundment. Ind. Br. 20-22. Industry-Petitioners make this argument because CERCLA borrows its definition of “disposal” from RCRA, asserting that CERCLA cases can, therefore, define what is meant by disposal under RCRA.

CERCLA is a different statute applying to different circumstances, and a shared term is not necessarily applied in the same manner in different statutes. For instance, the phrase “navigable waters” appears in several environmental statutes but it is interpreted and applied differently under those various statutes. *PPL Montana, LLC v. Montana*, 132 S. Ct. 1215, 1228–29 (2012). A shared statutory term must be interpreted based on the purpose for which the concept is invoked under each particular statute. *Kaiser Aetna v. United States*, 444 U.S. 164, 170–71 (1979).

A closer examination of the differences between the two statutes clarifies the different approaches to the term “disposal.” The decisions cited by Industry-Petitioners were largely predicated on other language that is unique to CERCLA, rather than on a definitive reading of RCRA’s definition of disposal. For example, in *United States v. CDMG Realty Co.*, 96 F.3d 706, 711-715 (3d Cir. 1996), the

court relied heavily on the fact that in CERCLA Congress had clearly distinguished between “releases” and “disposal,” defining the two terms differently and imposing liability on different parties for the two activities. *Id.* Prior owners are liable only if they owned land at the time of “disposal,” not at the time of “release.” By including the term “leaching,” which is more commonly used to describe passive migration, only in the definition of “release,” the court reasoned that Congress had demonstrated intent not to impose CERCLA liability on prior owners for leaching. *Id.* at 715. The court concluded that interpreting “disposal” to include passive migration would effectively vitiate the “innocent owner” defense applicable under CERCLA. *Id.* *Accord, Carson Harbor Village, Ltd v. Unocal Corp*, 270 F.3d 863, 880 (9<sup>th</sup> Cir. 2001); *ABB Industrial Systems, Inc. v. Prime Tech, Inc.*, 120 F.3d 351, 358 (2<sup>nd</sup> Cir. 1997) (explaining that “once hazardous chemicals are in the ground, they usually spread, therefore there would almost never be an identifiable period ‘after disposal’” where one could be considered an innocent landowner.). None of these considerations is applicable under RCRA, which does not define the term “release” or designate leaching to be included in such term and does not include the concept of “innocent owners.”<sup>4</sup>

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<sup>4</sup> In fact, the cases cited by Industry-Petitioners expressly state that even in applying CERCLA, the application of the term “disposal” in the context of assigning responsibility to owners at abandoned sites “does not rule out the scenario in which ‘spilling,’ ‘leaking,’ or perhaps other terms in some circumstances, encompasses passive migration.” *Carson Harbor Village, Ltd v.*

Industry-Petitioners raise additional arguments, but none rebut EPA's long-standing interpretation, legislative intent, and the controlling case law cited above. For example, Industry-Petitioners cite an earlier EPA statement that "RCRA is written in the present tense and its regulatory program is prospective." Ind. Br. 14, citing 45 Fed. Reg. 33,154, 33,170 (May 19, 1980). In fact, EPA went onto explain in that rulemaking (in the next column of p. 33,170) that certain waste units should be subject to controls even if they were inactive at the time the regulatory requirements were promulgated.

Furthermore, the cited passages merely explain that the *permitting requirements in Subtitle C* were written to be "prospective" in nature, and that EPA consequently chose to interpret "disposal" more narrowly in *that* context. 45 Fed. Reg. at 33,170. *See also* 80 Fed. Reg. at 21,344-45. EPA never stated in 1980 that leaking from an inactive unit does not constitute disposal or that "disposal" cannot be interpreted to apply to the current consequences of past deposits of CCR. *Id.* at 21,344/2. "To the contrary, EPA was clear in the original 1978 proposed hazardous waste regulations that leaking from inactive disposal units constitutes 'disposal' under RCRA." *Id.* citing 43 Fed. Reg. at 58,946 at 58,984 (Dec. 18,

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*Unocal Corp.*, 270 F.3d 863, 880 (9<sup>th</sup> Cir. 2001). *See also*, *ABB Industry Sys.*, 120 F.3d at 358, n.3.

1978) (“Many inactive facilities may well be leaking solid or hazardous waste into groundwater and thus be ‘disposing’ under RCRA.”).

In fact, EPA’s original implementing regulations applied to all solid waste units, without distinguishing between active and inactive units. 40 C.F.R. §§257.1(a)(1)-(2), (c). These regulations, which applied to Industry-Petitioners’ units before promulgation of the Final Rule, exempted eight categories of materials or activities; inactive facilities or units are not among them. *Id.* See also 80 Fed. Reg. at 21,344-45 (citing legislative history and the concern for the “pernicious effect” of leachate from waste units that are inactive or closed). This stands in stark contrast to the hazardous waste regulations, which specifically exempted inactive facilities from the permitting and associated regulatory requirements.<sup>5</sup>

In any event, an agency is “free to change course” in its interpretations and application of regulatory requirements, as long as it provides “a reasoned analysis indicating that prior policies and standards are being deliberately changed, not casually ignored.” *Am. Fed’n of State, County, & Mun. Employees v. FLRA*, 395 F.3d 443, 449 (D.C. Cir. 2005) (citations omitted). See also, *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 514 (2009); *Nat’l Cable & Telecomms.*

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<sup>5</sup> Industry-Petitioners attempt to discount this by citing to the regulations for the approval of state plans under Part 256. Ind. Br. 17, n.4. But the Part 257, Subpart A technical requirements for CCR disposal facilities were promulgated to implement the provisions discussed above and were the predecessors to the Final Rule.

*Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 981-82 (2005). EPA's obligation to explain its change in policy or interpretation "is not particularly demanding," *Biovail Corp. v. U.S. Food & Drug Admin.*, 519 F. Supp. 2d 39, 45 (D.D.C. 2007), as nothing more than a brief statement is necessary, as long as the agency explains its actions. *Tourus Records, Inc. v. DEA*, 259 F.3d 731, 737 (D.C. Cir. 2001).

As EPA explained in the preamble to the challenged Rule, although the statutory definition of disposal has been interpreted broadly to include passive leaking, in 1978-80 EPA applied a more narrow application of the term "disposal," consistent with the strictly prospective nature of the Subtitle C permitting requirements that were at issue. 80 Fed. Reg. at 21,344/1, 21,342/3. EPA explained that a different approach was appropriate in this context, where there are no permitting requirements and where CCR surface impoundments have a significant potential for damage and injury from releases to groundwater or from catastrophic failure, which is not diminished merely because a facility ceases to place additional CCR in the impoundment. *Id.* at 21,343/1.

Finally, Industry-Petitioners resort to general statutory construction rules to support their view that Congress *unambiguously* declared that EPA has no authority under Subtitle D to regulate solid waste once the owner/operator ceases adding waste to the waste unit. For instance, Industry-Petitioners argue that because references to the past tense appear in a few provisions of RCRA unrelated

to the issues before this Court, that evidences that Congress purposely refrained from including the migration of contaminants from solid waste when considering what is classified as an open dump. Ind. Br. 14-18. But as the Supreme Court explained, although this and other general rules of statutory construction might apply in certain circumstances, they cannot be applied if the context establishes otherwise, as it does here. *Field v. Mans*, 516 U.S. 59, 67 (1995) ("But there is more here, showing why the negative pregnant argument should not be elevated to the level of interpretive trump card.").

Industry-Petitioners' cases (Ind. Br. 15-16) make clear how the context is different here. In the cases relied upon by Industry-Petitioners, the courts found that the wording of the individual provisions and the "pervasive use of the present tense throughout" the operable provision, established Congressional intent to exclude past actions. *Gwaltney of Smithfield, Ltd v. Chesapeake Bay Found., Inc.*, 484 U.S. 49, 59 (1987). As outlined above, that is not the situation here, given that statutory language, the structure of the statute, and legislative history, all authorize EPA to address the harmful effects of the disposal of CCR without regard to when it was deposited.

Petitioners next contend that EPA's interpretation of "disposal" to include migration of contaminants would read out of existence statutory references to past disposal in both the citizen suit and the imminent hazard and substantial

endangerment provisions, 42 U.S.C. §§6972-73. Ind. Br. 18. Industry-Petitioners also rely on a provision related to hazardous waste, which states that corrective action requirements under Subtitle C shall apply even if the units were “not receiving solid waste as of the effective date of the RCRA rule.” Ind. Br. 15.

However, the legislative history of these provisions shows that Congress expressly added the references to “past or present” to clarify that under the existing statute EPA already had the authority to regulate the migration of contamination from previously disposed hazardous waste. *See, e.g.*, H.R. Rep. No. 98-1133 at 119 (amending RCRA §7003 to reverse court decisions restricting EPA’s authority to respond to leaking from previously disposed wastes, which were “inconsistent with the authority conferred by the section *as initially enacted* and with these clarifying amendments”) *reprinted in* 1984 U.S.C.C.A.N. at 5690; S. Rep. No. 98-284 at 58-59, *reprinted in* 2 A Legislative History of the Solid Waste Disposal Act as Amended at 2084-85 (“Legis. Hist.”) (Comm. Print 1991); H.R. Rep 98-198 at 60-61 (adopting §3004(u) to address releases from inactive units that were excluded under *EPA’s permitting regulations*), Legis. Hist. at 1536-37; H.R. Rep. No. 98-1133 at 91-92, *reprinted at* 1984 U.S.C.C.A.N. at 5662-63. EPA Add. 162-71. Moreover, EPA’s interpretation does not render these statutory provisions inoperable, as Industry-Petitioners allege, since these provisions merely clarify that EPA is authorized to address the present consequences of past disposal activities.

Finally, Industry-Petitioners contend that EPA's interpretation must be irrational because it "assumes passive migration is occurring at all inactive impoundments." Ind. Br. 17. Industry-Petitioners' argument is essentially that EPA has no authority to promulgate a regulation applicable to all impoundments that seeks to address the migration of contaminants from solid waste unless EPA establishes that passive migration is occurring at every single impoundment. Ind. Br. 17-18. Under Industry-Petitioners' reasoning, even in the face of numerous catastrophic structural failures causing widespread health and environmental damage, EPA cannot set any regulatory requirement, even at *active* impoundments that continue to accept CCR, because EPA has not established that *every single impoundment* is subject to catastrophic failure or leaking of contaminants into groundwater. EPA's regulations must be rational; they do not have to be supported by evidence that every single member of the regulated community presently maintains a facility that threatens health and the environment. The evidence in the record from the numerous damage cases, coupled with EPA's quantitative risk assessments, demonstrate the significant risks from inactive impoundments, which more than suffices to meet this standard.

Under RCRA, "as we have repeatedly emphasized, the authority of the Administrator [of EPA] to abate waste hazards is expansive." *Owen Elec. Steel Co. v. Browner*, 37 F.3d 146, 148 (4<sup>th</sup> Cir. 1994) (citations omitted). Furthermore,

“[w]e have long recognized that considerable weight should be accorded to an executive department’s construction of a statutory scheme *it is entrusted to administer.*” *Nat’l Ass’n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 683 (2007) (emphasis in original). Under these standards, EPA’s interpretation of the term “disposal” and the definition of “open dump” is clearly rational and, therefore, should be upheld by this Court.

## **II. EPA PROVIDED ADEQUATE NOTICE AND OPPORTUNITY TO COMMENT<sup>6</sup>**

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### **A. EPA Provided Adequate Notice of Dam Safety Compliance Requirements**

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The Final Rule requires, *inter alia*, an owner/operator to perform a safety factor assessment that includes four engineering calculations designed to ensure that larger, dam-like surface impoundments are not breached. 40 C.F.R.

§§257.73(b), (e). The four criteria that Industry-Petitioners seek to vacate call for the engineer to certify that the unit meets specified safety factors under static, seismic, and liquefaction loading conditions. *Id.* at §257.73(e)(i)-(iv). These

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<sup>6</sup> Industry-Petitioners assert that EPA failed to provide adequate notice and opportunity to comment on five provisions of the Rule. Ind. Br. 23-31. EPA has moved to remand with regard to two of those provisions, and thus does not address those provisions here. Remaining “adequate notice” arguments are addressed here or, alternatively, are addressed in EPA’s response to Industry-Petitioners’ assertions that the provisions at issue also are arbitrary and capricious. *See* section III, *infra*.

standards employ widely used engineering methodology that must be conducted initially within eighteen months and then periodically under a schedule established in the regulations. *Id.* at §§257.73(f), 257.74(e).

Industry-Petitioners assert that although EPA proposed structural criteria for these surface impoundments, the Proposed Rule did not set out the referenced dam safety requirements in detail or set forth the specific time period for establishing compliance with the assessment criteria. Ind. Br. 28. In fact, Industry-Petitioners were given multiple opportunities to comment on these requirements, critical aspects of which were adopted in direct response to Industry's own comments.

In the 2010 Proposed Rule, EPA proposed that all CCR impoundments of a certain size provide detailed information on the unit and obtain certification from a professional engineer that the impoundment meets specified engineering standards to demonstrate the unit's stability. 75 Fed. Reg. at 35,176; 35,203; 35,243-45. EPA further required specific analyses to support this certification, including a requirement to provide "the computed minimum factor of safety for slope stability of the CCR retaining structures" as determined by "accepted engineering practice." 75 Fed. Reg. at 35,240; 35,244-45 (proposed §§257.71(d)(12)-(13) and §§257.72(d)(12), (15)).

EPA explained in the Proposed Rule that the structural stability requirements were culled from the federal dam safety programs of the Mine Safety and Health

Administration (“MSHA”), the United States Army Corps of Engineers (“USACE”), and the Federal Emergency Management Agency (“FEMA”). 75 Fed. Reg. at 35,176, 35,203. These federal programs provided significant detail on the specific dam safety factors required. For example, these programs established technical standards that now represent standard engineering methodologies, accepted throughout the industry to demonstrate the structural stability of an impoundment. These technical standards, which were the source of the factors adopted in the Final Rule, consistently identify the same numeric “minimum factors of safety” necessary to ensure that a dam or impoundment is properly engineered and will remain stable. *See* 80 Fed. Reg. at 21,376; *see, e.g.*, JA\_\_\_\_\_ (Hoosier Energy Safety Assessment at 22).

Additionally, shortly after publication of the Proposed Rule, and again in 2013, EPA published Notices of Data Availability soliciting comment on whether to factor the information and assessment materials developed through the Agency’s Impoundment Assessment into the Final Rule. 75 Fed. Reg. 64,974, 78 Fed. Reg. 46,940. A key part of the Impoundment Assessment materials was the EPA guidance used in evaluating the impoundments, which was drawn from the same USACE, FEMA, and other technical documents discussed above. 80 Fed. Reg. at 21,313-14. Notably, this guidance included the numeric factors ultimately adopted in the Final Rule. *Compare id.* with 40 C.F.R. §257.73(e). Unsurprisingly, then,

as part of the Impoundment Assessment, engineers evaluated the stability of the impoundment by determining whether the critical structures in the unit met the factors that were ultimately adopted in the Final Rule. *See, e.g.*, JA \_\_\_\_ (Assessment reports for City of Springfield, MO at p. 7-2; Oklaunion at 7-2).

During the Impoundment Assessment, utilities had an opportunity to comment on their individual assessments, and many of them did. 80 Fed. Reg. at 21,316-17. For example, some utilities commented on using the MSHA factors of safety. JA\_\_\_\_ (Assessment Report of Dale Energy at 7). However, none raised concerns with relying on either the USACE or FEMA factors, and even their objections to some MSHA factors reflect that Industry-Petitioners had sufficient notice of the specific requirements. 80 Fed. Reg. at 21,316-18.

Commenters on the Proposed Rule specifically identified the USACE and FEMA technical documents that are the source of the Rule's safety factors, and requested that EPA incorporate those technical requirements into the Final Rule. For example, the Association of State Dam Safety Officials urged that EPA "incorporate specific safety standards consistent with the Federal Guidelines for Dam Safety," specifically referencing the standards in FEMA documents 93, 333, 64, 94 and 65. JA\_\_\_\_ (EPA-HQ-RCRA-2009-0640-10188).<sup>7</sup> Similarly,

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<sup>7</sup> The seismic factor of safety of 1.0 and the liquefaction factor of safety of 1.2 were both adopted from FEMA document 65, reflecting changes made from the

comments from utilities referenced a number of USACE guidance documents as part of the “applicable state dam safety...professional standards,” proposing that the Final Rule ensure that CCR impoundments be in compliance with these requirements. JA\_\_\_ (HQ-RCRA-2012-0028-0067-12).<sup>8</sup> Indeed, the more precise requirements Industry-Petitioners now challenge were largely adopted in response to concerns from Industry and others that these requirements be sufficiently objective and technically precise such that a qualified professional engineer could certify that they have been met. *See* 80 Fed. Reg. at 21,335, 21,376. In addition, after the Proposed Rule and the Impoundment Assessment, comments submitted in response to the Notice of Data Availability generally supported use of the Assessment materials, although some opposed adoption of certain MSHA criteria used in the engineering assessments. *See, e.g.*, JA \_\_\_ (EPA-HQ-RCRA-2012-0028-0073 at 8; 0106 at 3; 0109 at 3).

In a rulemaking proceeding EPA ““must provide notice sufficient to fairly apprise interested persons of the subjects and issues before the Agency.”” *NRDC v. EPA*, 279 F.3d 1180, 1186 (D.C. Cir. 2002) (citation omitted). An agency may

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Proposed Rule pursuant to comments urging such changes. 80 Fed. Reg. at 21,318, 21,382-83.

<sup>8</sup> EPA adopted the two static factors of safety of 1.4 and 1.5 from the USACE guidance, Engineer Manual EM 1110–2–1902 “Slope Stability” (October 2003). 80 Fed. Reg. at 21,382.

satisfy its requirements of notice and comment “and need not conduct a further round of public comment, as long as its final rule is a ‘logical outgrowth’ of the rule it originally proposed.” *Northeast Maryland Waste Disposal Auth. v. EPA*, 358 F.3d 936, 951-52 (D.C. Cir. 2004). *See also, CSX Transp. Inc. v. Surface Transp. Bd.*, 584 F.3d 1076, 1079-80 (D.C. Cir. 2009) (“A final rule qualifies as a logical outgrowth ‘if interested parties “should have anticipated” that the change was possible, and thus reasonably should have filed their comments on the subject during the notice-and-comment period.’ (citations omitted).”). And that logical outgrowth may stem not only from the Proposed Rule, but from the entire administrative process, since the question of whether a final rule is a logical outgrowth of the proposal is fundamentally the question of whether the regulated party had sufficient information to comment. *South Terminal Corp. v. EPA*, 504 F.2d 646, 659 (1<sup>st</sup> Cir. 1974). As outlined above, Industry-Petitioners had sufficient information on which to comment on the potential dam safety requirements.

The same is true with regard to the 18-month deadline for establishing compliance with the dam safety requirements, which Industry-Petitioners claim was lacking. Ind. Br. 28. Consistent with the deadlines in Subtitle D, the Proposed Rule would have required facilities to be in compliance with the requirements established in the Final Rule on the effective date, i.e., six months after

promulgation. 75 Fed. Reg. at 35,195. Subsequently, in a separate proposal, EPA proposed to extend the deadlines to ensure that the compliance dates for the CCR rule were coordinated with other EPA rulemakings. 78 Fed. Reg. 34,432 at 34,441-42 (June 7, 2013). EPA explained that it would establish deadlines to ensure that a facility would not need to decide whether to close an impoundment until well after all of the requirements applicable to these units under various EPA proposals had been issued. *Id.* at 34,442. EPA received no comments opposing this approach, and numerous comments, including from Industry-Petitioners, supporting it. JA\_\_\_\_ (EPA-HQ-RCRA-2013-0209-0026 at 10-11; EPA-HQ-RCRA-2013-0209-0052 at 17). Consistent with this proposal, EPA granted an 18-month period for facilities to come into compliance with the above-described requirements, as well as additional time to complete the closure of their unit if they cannot “upgrade” the unit by this deadline. 80 Fed. Reg. at 21,309, 21,428-29. As discussed *infra*, EPA further concluded that this deadline was consistent with the record from the Impoundment Assessment showing that most, if not all, impoundments already met the final rule’s technical standards, a point repeatedly made by Industry-Petitioners themselves. *Id.* at 21,428-32, 21,314-18; JA\_\_\_\_ (EPA-HQ-RCRA-2012-0028-0060 at 6; 0066 at 4; 0067 at 3). In sum, Industry-

Petitioners had more than enough basis to comment on the dam safety criteria as well as the deadline for complying with those and other criteria.<sup>9</sup>

**B. EPA Provided Adequate Notice of the Aquifer Separation Restriction**

In a single sentence, Industry-Petitioners assert that they were not provided adequate notice that existing impoundments would be required to have certain separation from underlying aquifers, merely citing to the final regulation. Ind. Br. 29. The Proposed Rule, however, clearly announced EPA's intention to require existing impoundments to either meet the performance standard relating to placement above the natural water table, or to close. 75 Fed. Reg. at 35,198-99 (“The co-proposed subtitle D regulations would prohibit new CCR landfills and all surface impoundments from being located within two feet of the upper limit of the natural water table.”). EPA received numerous comments on this proposal, including several from Industry-Petitioners. *See, e.g.*, JA\_\_\_ (EPA-HQ-RCRA-

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<sup>9</sup> Industry-Petitioners do not expressly claim they lacked notice of the requirement that unstable impoundments must close, but if their arguments could be construed as such, it would be of no consequence. EPA proposed a range of alternatives relating to the closure of CCR surface impoundments. 75 Fed. Reg. at 35,177 (all impoundments close within seven years); 35,191 (all impoundments either retrofit with a composite liner or close); 35,128 and 35,223 (closure of impoundments that fail to meet rule requirements or present minimal risks). Industry-Petitioners submitted comments on all of these proposals, uniformly supporting the alternative (which was ultimately adopted) that required the closure or retrofit only of impoundments that could not be operated safely. *See, e.g.* JA\_\_\_ (EPA-RCRA-HQ-2009-0640-6398, EPA-RCRA-HQ-2009-0640-10483).

2009-0640-10483 at 170-73; EPA-HQ-RCRA-2009-0640-6398 at 16-19; EPA-HQ-RCRA-2009-0640-9587 at 34-36). EPA discussed these comments in laying out its rationale for adopting the final provisions. *See* 80 Fed. Reg. at 21,360-63 (noting that the application of location standards to existing impoundments was “overwhelmingly, the issue receiving the most comment”). Industry-Petitioners have failed to articulate any deficiency in this notice or demonstrate that they lacked an opportunity to comment on this proposal. For this reason and those discussed at pp. 104-05 *infra* (this Court will not consider asserted but unanalyzed arguments), Industry-Petitioners’ “lack of notice” claims should be rejected.

### **III. THE SUBSTANTIVE CRITERIA MADE APPLICABLE TO THE DISPOSAL OF CCR ARE NOT ARBITRARY AND CAPRICIOUS**

#### **A. EPA’s Regulation of CCR Piles is Valid**

##### **1. Applying Different Regulatory Requirements for Temporary CCR Piles Located at the Beneficial User’s Facility Is Not Arbitrary**

As outlined above, reusing CCR beneficially, e.g., as a substitute for virgin materials in concrete, plastic and rubber, is not considered to be disposal and is therefore not subject to the Rule’s technical requirements. 80 Fed. Reg. at 21,347-49. To make this exception clear, EPA drew a line between activities that would be considered the beneficial reuse of the waste and activities that were indistinguishable from “disposal.”

First, the Rule defines “beneficial use” using four criteria. 80 Fed. Reg. at 21,349-54. Under the Rule, a “beneficial use” is one that: (a) provides a functional benefit; (b) is used as a substitute for virgin material; (c) is used in conformance with product and design specifications; and (d) if it involves the placement of unencapsulated CCR on land in excess of 12,400 tons, the user must demonstrate that environmental releases are comparable to or lower than those from analogous products or will be at or below regulatory and health-based benchmarks for human and ecological receptors during use. 40 C.F.R. §257.5; 80 Fed. Reg. at 21,349-54 (explaining basis for each criterion).

EPA also determined that only CCR actually in the process of being beneficially reused is excluded, while CCR managed in a way that is indistinguishable from disposal, with the hope or intention that it might someday be beneficially reused, is considered disposal. *Id.* at 21,356. Thus, EPA expanded the concept of beneficial use to include “temporary” piles awaiting direct and timely qualified use, without letting the exception swallow the rule by extending it to encompass *all* piles of CCR placed on the ground that might someday be reused. This distinction not only is reasonable, it fulfills the statutory requirements.

While beneficial uses of CCR are exempt from the disposal criteria, RCRA expressly calls for the regulation of the disposal of CCR and other solid waste. RCRA defines “disposal” as the “placing of any solid waste or hazardous waste

into *or on any land* or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment.” 42 U.S.C. §6903(3) (emphasis added). A pile of CCR placed on the land, subject to environmental forces such as rain and wind generating run-off and fugitive dust, not only falls squarely within the plain language of this statutory definition, but presents a risk to health and the environment if not handled in accordance with EPA’s regulations. 80 Fed. Reg. at 21,356/1. Consequently, the regulatory requirements cover “CCR piles,” which is defined as any “non-containerized accumulation of solid, non-flowing CCR that is placed on the land.” 40 C.F.R. §257.53.

To bridge the gap between the regulation of all CCR placed on land, and the non-regulation of beneficial uses of CCR, the Rule clarifies that CCR “that is beneficially used off-site” is not considered to be a CCR pile. *Id.* In other words, CCR in the process of being beneficially used, even if temporarily stored on the land as part of that use, is not considered a CCR pile, and therefore is not subject to the regulatory requirements. 80 Fed. Reg. at 21,356. But a permanent CCR pile, whether off-site or on-site, is still considered a CCR landfill. *Id.* Industry-Petitioners contend that this regulatory structure is arbitrary, asserting that EPA has no basis to distinguish between CCR piles located at the beneficial user’s site and CCR piles that are located on land at the site where it was created, the owner/operator’s utility. Ind. Br. 34-37.

While some CCR piles (or portions thereof), wherever located, may *eventually* be destined for incorporation by a manufacturer into its product, that ultimate intent does not reduce the dangers associated with the existing CCR pile while it awaits beneficial use. 80 Fed. Reg. at 21,348/3. This Court has, therefore, made clear that solid waste that is destined for recycling may nevertheless be addressed by EPA as solid waste, subject to all regulatory requirements applicable to other solid waste, even though it is intended to be recycled into some productive (and protective) use. *See, Ass'n of Battery Recyclers, Inc. v. EPA*, 208 F.3d 1047, 1056 (D.C. Cir. 2000); *American Mining Congress v. EPA*, 907 F.2d 1179, 1186-87 (D.C. Cir. 1990); *Am. Petroleum Institute v. EPA*, 906 F.2d 729 (D.C. Cir. 1990).

In attempting to find the correct balance between regulating CCR deposited on land, as required under the statute, and allowing for beneficially used CCR to remain exempt from regulation, EPA determined that CCR located at the user's facility, e.g., at the cement manufacturer who is continually incorporating CCR into its cement production, was likely to be in the process of being beneficially used and therefore any "piles" were likely to be "temporary." It is reasonable to presume that CCR that already has been transported to a user's facility is likely to be there only temporarily as part of the on-going process of being put to a legitimate beneficial use. *Id.* at 21,354-56. Consequently, off-site temporary piles

are exempt from the regulatory requirements, provided they satisfy the four beneficial use criteria outlined above. 40 C.F.R. §257.53; 80 Fed. Reg. at 21,356/2.

In contrast, if the pile is located onsite at the coal-combustion facility, with no obvious indicia that it is in the relatively immediate process of being beneficially used, it is subject to regulation as a CCR pile. *Id.* As EPA explained, CCR piles located at a generator's facility that are purportedly destined for beneficial use are indistinguishable from CCR piles that will *not* be put to beneficial use. *Id.* at 21,356. For instance, an on-site CCR pile that the operator claims is destined for off-site use may, in fact, be destined for use as fill in sand or gravel pits or rock quarries, which are not qualifying beneficial uses. *Id.*

Additionally, even a pile of CCR located at the generator's facility that is supposedly destined for some future qualified beneficial use can remain there for months or years. EPA found that some CCR piles at generators' facilities remain for years and never fully disappear, even though some of the CCR may eventually be reused. 80 Fed. Reg. at 21,356/1. Because piles that remain for months or years are indistinguishable from piles purportedly destined for beneficial use, EPA considered onsite piles to be CCR piles, unless they are containerized. While some commenters suggested that EPA could address this concern by imposing time

restrictions on the pile, EPA explained why enforcement of such requirements would be unworkable. 80 Fed. Reg. at 21,355/3.

Congress directed EPA to issue “such regulations as are necessary to carry out [EPA’s] functions under this chapter [RCRA].” 42 U.S.C. §6912(a)(1). In doing so, EPA exercises judgment as to how best to effectuate the competing concerns and directives of the statutory requirements. *Nat’l Ass’n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 668 (2007) (“Agency discretion presumes that an agency can exercise ‘judgment’ in connection with a particular action.”). EPA exercised such judgment here in a reasonable manner and explained the basis for its judgment. Accordingly, its determination regarding how to treat CCR piles should not be deemed to be arbitrary and capricious.

## **2. EPA Provided Adequate Notice**

Industry-Petitioners assert that they were not provided notice that piles of CCR could be subject to regulation, but their argument is not really a notice issue at all. Industry-Petitioners complain that EPA did not propose to establish requirements governing the storage or treatment of CCR *prior to* disposal. Ind. Br at 24. But, as outlined above, under the express wording of RCRA, a CCR pile (i.e., solid waste placed on land) has been disposed of. *See also* cases cited at p. 47, *supra*. The issue of whether a given deposit of CCR on land can nevertheless

qualify as a beneficial use does not provide a basis to assert that EPA failed to provide adequate notice of how CCR piles could be treated.

In fact, Industry-Petitioners concede that EPA proposed to regulate large piles of CCR as landfills. Ind. Br. 25. CCR “piles” were included in the definition of “CCR landfills” under both the Subtitle C and D proposals. 75 Fed. Reg. at 35,239-40, 35,255. Industry representatives commented on this proposal, suggesting for instance, that CCR piles should be omitted from the definition of a CCR landfill and otherwise raising concerns that the proposed landfill definition would cover large piles of CCR intended for beneficial use. 80 Fed. Reg. at 21,355/2-3; JA\_\_\_\_\_ (EPA-HQ-RCRA-2009-0640-6273 at 17; EPA-HQ-RCRA-2009-0640-10483 at 57; EPA-HQ-RCRA-2009-0640-06299 at 18). Other Industry commenters suggested that CCR piles held for six months or less be deemed temporary piles not subject to regulation, a suggestion that, as noted above, EPA rejected as unworkable. 80 Fed. Reg. at 21,355/2-3. Industry-Petitioners may disagree with EPA’s ultimate treatment of CCR piles, but they cannot fairly claim that they did not have the opportunity to meaningfully comment.

**B. The Requirement to Certify a Lack of Harm to Qualify as a Large CCR Pile Exempt From Regulation as a Beneficial Use, Was Adequately Noticed and Is Not Arbitrary**

As outlined above, to be classified as a beneficial use the user must establish that the CCR pile meets four criteria. The fourth criterion, which requires a

showing that environmental releases to air, water, and soil are comparable to or lower than analogous products or, alternatively, are within regulatory and health-based benchmarks, applies only when the amount of unencapsulated CCR placed on the land exceeds 12,400 tons. 40 C.F.R. §257.53 (definition of “Beneficial Use”). This criterion applies not only to CCR piles being temporarily held at a user’s facility as discussed above, but also to other non-roadway unencapsulated uses, such as landscape or structural fill used in building construction. *Id.*

Industry-Petitioners challenge this size criterion based on a claimed lack of notice in the Proposed Rule of the precise numeric threshold at which the fourth beneficial use criterion would become applicable (Ind. Br. 26-27) and on a claim that the numeric threshold was based on a mathematical error (Ind. Br. 32-34).

**1. EPA Provided Adequate Notice of the Fourth Criterion for the Definition of a Qualified Beneficial Use**

Industry-Petitioners assert that notice on the issue of the size of CCR piles to be considered for a beneficial use was inadequate because the numeric threshold that EPA eventually settled upon for application of the fourth criterion, 12,400 tons, was not specifically set forth in the Proposed Rule. Ind. Br. 26-27. Yet, Industry-Petitioners concede that EPA expressly stated that it was considering applying substantive regulatory requirements to CCR piles and that it solicited comments on how to define large-scale fill. Ind. Br. 26, citing 78 Fed. Reg. at 46,943.

As to the question of size of the pile or the activity that might be subject to regulatory requirements, the preamble to the Proposed Rule made clear that EPA might regulate *any* activity involving placement of any amount of unencapsulated CCR on the land and that the amount of CCR placed on the land was highly relevant to determining whether the activity would be considered disposal or beneficial use. 75 Fed. Reg. at 35,160-65, 164/1 (“The amount of material placed can significantly impact whether placement of unencapsulated CCRs causes environmental risks.”). In conducting this analysis, EPA did not, as Industry-Petitioners’ assert, mislead potentially regulated parties by focusing exclusively on amounts of CCR “in the hundreds of thousands to millions of tons.” Ind. Br. 26. EPA did not define large scale fill or propose a size threshold, but solicited comments on criteria to distinguish between beneficial uses and disposal. 75 Fed. Reg. at 35,163. EPA explained that it was “fully prepared to reconsider our proposed approach” and regulate *all* “unencapsulated uses of CCRs on the land,” in *any* quantity. 75 Fed. Reg. at 35,164-65. EPA also discussed an alternative requiring prior approval of *each* individual use, based on a risk assessment. *Id.* Additionally, the proposal raised concerns about agricultural uses, which are generally used in amounts well below 12,400 tons. 75 Fed. Reg. at 35,164.

Further, the 2013 Notice of Data Availability identified data on the size of existing CCR landfills as a potential basis for final provisions under either of the

options EPA was considering and solicited comment on numeric thresholds comparable to the one adopted. 78 Fed. Reg. at 46,943-44. The same 2013 Notice identified the suggestion from North Carolina to rely on 5,000 cubic yards of CCR as a threshold for regulation, and Wisconsin and West Virginia both proffered state requirements with thresholds ranging from 5,000 to 10,000 cubic yards as a model for EPA to consider (which equate to about 6,000-12,000 tons). 80 Fed. Reg. at 21,351. When EPA is attempting to establish thresholds for when certain regulatory requirements become applicable, it does not have to set out in the Proposed Rule the precise number on which it will eventually land. That is the whole purpose of seeking and considering comments.

Here, interested parties were encouraged to comment on all of these matters. In fact, Petitioners assert that the 12,400-ton threshold should alternatively be struck down because EPA did not adequately respond to Petitioners' comments on this issue. Ind. Br. 33. If Petitioners believe they commented on this issue, they are hard-pressed to simultaneously assert that they did not have adequate notice such that they *could* comment.<sup>10</sup>

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<sup>10</sup> The “comment” Industry-Petitioners refer to was presented in a footnote, noting merely that the commenter had used alternative data to support their comments because they believed certain calculations to be incorrect. JA\_\_\_. Such a passing reference did not require a response. *See, e.g., Public Citizen, Inc. v. FAA*, 988 F.2d 186, 197 (D.C. Cir. 1993) (“With regard to responding to public comments, it is settled that “the agency [is not required] to discuss every item of fact or opinion included in the submissions made to it in informal rulemaking.”); *Simpson v.*

The validity of a regulation issued under RCRA is to be adjudged under the review standards established in the Administrative Procedure Act, 5 U.S.C. §§701-706 (“APA”). 42 U.S.C. §6976(a). Under the APA, “[t]he notice shall include ... either the terms or substance of the proposed rule *or a description of the subjects and issues involved.*” *Ass’n of Battery Recyclers*, 208 F.3d at 1058, quoting 5 U.S.C. §553(b) (emphasis added). It is apparent that EPA identified for consideration the subjects of both the regulation of CCR piles and the size at which such piles should be required to conform to regulatory criteria.

**2. The Requirement to Show a Lack of Harm for CCR Piles Over 12,400 Tons to Establish Beneficial Use is Not Arbitrary**

EPA chose 12,400 tons as a threshold for the fourth criterion because, based on the data submitted by CCR landfill operators in response to questionnaires from EPA, that amount of CCR approximated the smallest landfill in EPA’s database. 80 Fed. Reg. at 21,352. After the Final Rule was issued, one Industry representative submitted a post-record letter explaining that some data entries submitted by Industry were based on mistaken calculations. Ind. Br. 33 (attaching the extra-record letter). Accordingly, Industry-Petitioners point out that the smallest landfill in the database is approximately 80,000 tons. While EPA’s

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*Young*, 854 F.2d 1429, 1435 (D.C.Cir.1988) (“The agency need only state the main reasons for its decision and indicate it has considered the most important objections”).

reliance on miscalculated Industry submissions is unfortunate, it should not alter the result.

It is well-established that an agency decision is to be reviewed on the basis of the record available to the agency at the time of its decision. *CTS Corp. v. EPA*, 759 F.3d 52, 64 (D.C. Cir. 2014) (“It is ‘black-letter administrative law that in an [APA] case, a reviewing court “should have before it neither more nor less information than did the agency when it made its decision.’”) (Citations omitted). EPA established the 12,400-ton threshold based on the data and information submitted by *Industry*, and EPA should not be faulted because *Industry* made errors in its submission of the data. That is especially true here where, in the end, it is not likely to make a material difference.

A court will affirm an agency decision despite mathematical (or other) errors if the agency would have reached the same ultimate result had the errors not occurred. *Hermes Consol., LLC v. EPA*, 787 F.3d 568, 579 (D.C. Cir. 2015). The rulemaking record reflects that EPA was far more likely to have adopted an approach with a lower threshold, or indeed, none at all, than a threshold of 80,000 tons. As outlined above, other bases, including actual or contemplated regulation in three States, support a threshold near or below 12,400 tons. While EPA did not at the time of the Rulemaking rely on these factors, they necessarily lend support to a threshold of 12,400 tons (or lower).

In any event, the burden is on Industry-Petitioners to establish that the mathematical error is prejudicial. *Id.*; *Combat Veterans for Congress Political Action Committee v. Federal Election Commission*, 795 F.3d 151, 157 (D.C. Cir. 2015); *Mexichem Specialty Resins, Inc. v. EPA*, 787 F.3d 544, 556 (D.C. Cir. 2015). Here, Industry-Petitioners make no attempt to establish this point, Ind. Br. 32-34, even though they were well aware of the obligation to do so. *Compare* Ind. Br. at 28, describing how Industry-Petitioners would allegedly be “greatly prejudiced” by EPA’s purported failure to properly promulgate the dam safety factors. And, in fact, there is no evidence of any prejudice. As EPA explained, most uses of unencapsulated CCR (e.g., soil amendment) are not expected to reach the 12,400-ton threshold. 80 Fed. Reg. at 21,353/3. As EPA further explained, certain other limited types of unencapsulated uses, such as structural fill, would in most cases easily exceed the threshold even if it was set at 80,000 tons. *Id.*

“An agency has ‘wide discretion’ in making line-drawing decisions and ‘[t]he relevant question is whether the agency’s numbers are within a zone of reasonableness, not whether its numbers are precisely right.’” *National Shooting Sports Foundation, Inc. v. Jones*, 716 F.3d 200, 214 (D.C. Cir. 2013) quoting *WorldCom, Inc. v. FCC*, 238 F.3d 449, 462 (D.C. Cir. 2001). Given applicable state thresholds and the lack of argument that the line EPA drew at 12,400 tons is not within the zone of reasonableness, the established threshold should be upheld.

**C. EPA's Promulgation of a Temporary Closure Procedure When an Alternative Disposal Site Cannot Immediately be Located, is a Reasonably Tailored Accommodation and is Not Required to be Even Broader**

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As outlined above, failure to comply with the Rule's criteria requires operators to either retrofit the unit to come into compliance or to close the unit. *See* 40 C.F.R. §257.101; 80 Fed. Reg. at 21,416. As an accommodation, EPA provided that certain classes of such facilities may temporarily continue to deposit waste at the non-compliant unit if they certify that there is "an absence of alternative [CCR] disposal capacity both on-site or off-site of the facility." 40 C.F.R. §§257.103(a)(1), (b)(1) (termed "Alternative Closure"). EPA found this accommodation appropriate in such limited circumstances due to the significant risks associated with the disruption of power generation that could result from immediate closure. 80 Fed. Reg. at 21,423.

Industry-Petitioners do not dispute that this is a significant accommodation, allowing them to continue to deposit CCR at a waste unit that is contaminating groundwater or otherwise operating in violation of the substantive regulatory requirements, for up to five years, if they establish a lack of available alternative capacity to store the CCR they are generating. 40 C.F.R. §257.103. Instead, Industry-Petitioners assert that the accommodation should be much broader, contending that it is arbitrary and capricious for EPA to have determined that "an

increase in costs or the inconvenience of existing capacity is not sufficient to support qualification” for using Alternative Closure. Ind. Br. 38-39.

Industry-Petitioners assert that prohibiting the operator from considering costs renders the accommodation a nullity, since there will always be alternative capacity at some cost “somewhere.” *Id.* But Industry-Petitioners’ characterization of this limitation is an overstatement. Indeed, in this self-implementing regulatory regime, *allowing* a party to consider costs of alternative sites renders the *closure provisions* a nullity. An operator will always be able to conclude that an alternative site costs more or is less convenient and thus the operator would always be able to establish the lack of alternative on-site or off-site capacity and would therefore be able to avoid closure for five years while the CCR unit continues to leach contaminants into groundwater.

The accommodation provided by EPA is to be applied based on real-world industry practices, not on hyperbolic absolutes. For instance, it will often be impossible to find alternative off-site capacity for wet CCR because one generally cannot truck or otherwise transport it to alternative sites. *See, e.g.*, 78 Fed. Reg. at 34,448-55 (describing volumes and options for utilities to manage wet CCR and related wastewaters). If the impoundment starts to leak, the utility can potentially pipe the wet CCR to another impoundment on site. But if there is no other impoundment on site, until they build one (assuming there is ample space to do so

and it can be done in conformance with the location criteria), the operator can continue to put its CCR into the leaking impoundment, because there are no alternatives. Costs are not a consideration and the accommodation is not a nullity, but is in fact a likely result for these types of operations. It is these types of situations that EPA was referring to when it explained that the law cannot compel actions that are physically impossible. *Ind. Br. 37*, quoting 80 Fed. Reg. at 21,423/3.

The strong presumption in the Rule is that a leaking waste unit will close. EPA has provided for extensions of deadlines and for Alternative Closure when essentially *force majeure* circumstances are present. *Id.* at 21,422-24 (noting that commenters requested *force majeure*-type accommodations in the regulation). It is fundamental that *force majeure* does not include increased costs or mere inconvenience.

EPA balanced the significant impacts associated with a leaking or structurally defective CCR waste unit with the very serious impacts to the community from the disruption of power over the short-term if these facilities are not able to find alternative CCR capacity and therefore would have to cease providing electricity. 80 Fed. Reg. at 21,423/3, 21,370-71. But EPA did not design this accommodation as a license for an owner/operator to easily circumvent closure requirements by claiming that because available alternative landfill

capacity will cost more or is inconvenient to use, its leaking unit may continue to operate and accept new CCR.

Contrary to Industry-Petitioners' assertion, there is no requirement for EPA to have included increased costs as a criterion for qualifying for Alternative Closure. In the application of environmental law, Congress at times directs EPA to consider costs. For instance, under the Bevill Exemption discussed *supra*, in determining whether CCR is to be regulated as a hazardous waste under Subtitle C, EPA must look beyond the health and environmental impacts of the disposal of CCR and consider other factors, including costs. 42 U.S.C. §6982(n). Although less specific, in establishing the requirements for municipal solid waste landfills, Congress expressly authorized EPA to consider "the practicable capability of such facilities." 42 U.S.C. §6949a(c)(1).

In contrast, here Congress directed EPA to provide that a facility is to be classified as a sanitary landfill, and therefore not as an open dump, "if there is no reasonable probability of adverse effects on health or the environment from disposal of solid waste at such facility," 42 U.S.C. §6944(a), and to require the closure (or retrofitting) of any facility classified as an open dump. 42 U.S.C. §6945(a). On their face, these provisions do not allow for or even imply that costs must – or even can – be considered. *See also*, 80 Fed. Reg. at 21,432/3; JA\_\_\_\_\_ (RTC Vol. 9, p. 185-86). When environmental criteria are the sole bases for the

establishment of regulatory requirements, EPA cannot inject costs into the establishment of those requirements. *Whitman v. American Trucking Ass'ns, Inc.*, 531 U.S. 457, 467-71 (2001); *Michigan v. EPA*, 135 S. Ct. 2699, 2709 (2015) (distinguishing a provision that called for environmental regulations to be “appropriate and necessary,” thereby requiring EPA to at least consider costs before issuing its regulations, from a Congressional directive requiring EPA to issue regulations based on whether the subject pollutants impact health or the environment.).<sup>11</sup>

Even if EPA *could* consider costs in implementing the criteria established in 42 U.S.C. §§6944(a) and 6945, no provision of RCRA requires it to do so. Under more broadly worded statutes that allow consideration of costs, the Supreme Court has made clear that EPA is not required to base its regulatory application of the statutory requirements on a cost-benefit analysis or otherwise allow regulated parties to avoid environmental requirements based on costs. *See, e.g., Entergy Corp. v. Riverkeeper*, 556 U.S. 208, 222-24 (2009).

EPA’s grant of Alternative Closure procedures in limited circumstances is based on a balancing of potential environmental harms, a determination for which EPA is entitled to significant deference. *See* p. 92, *infra*. Moreover, this Court’s

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<sup>11</sup> Industry-Petitioners rely on a one-sentence statement from the dissent in *Michigan v. EPA* which does not, in fact, reflect applicable law. Ind. Br. 39.

review of an agency's denial of a waiver from regulatory requirements is extremely limited and will be vacated "only when the agency's reasons are so insubstantial as to render that denial an abuse of discretion." *Blanca Telephone v. FCC*, 743 F.3d 860, 864 (D.C. Cir. 2014). One cannot conclude that it was irrational or an abuse of discretion for EPA to restrict continued contamination by ensuring that a CCR facility cannot evade regulatory requirements for up to five years simply because finding alternative capacity may prove inconvenient or more costly than continuing the polluting activities -- a determination which, given EPA's lack of direct oversight under Subtitle D, EPA would have no capacity to reject or override.

**D. Allowing Impoundments Two Years to Comply With Safety Requirements Before Even Initiating Closure is Not Arbitrary**

**1. The Two-Year Deadline for Complying with Minimum Safety Requirements is Not Arbitrary**

To protect against widespread damage from catastrophic failures (like the billion gallon release at the Kingston, Tennessee impoundment), EPA promulgated minimum safety standards for larger surface impoundments, including the seismic safety factor challenged here. 80 Fed. Reg. at 21,476; 40 C.F.R. §257.73(e); 75 Fed. Reg. at 35,203, 35,176. These standards were derived from "long-standing [federal] requirements" associated with dam safety and were based on EPA's Impoundment Assessment, which provided the "technical and factual support for

many of the final requirements for structural stability” in the Final Rule. 80 Fed. Reg. at 21,315, 21,374-75.

As originally proposed, affected units would have had just six months to demonstrate compliance with the Rule’s safety standards. 75 Fed. Reg. at 35,195, 35,243-44 (§§257.71(b) and (d)(12)-(13)). The Final Rule, in contrast, allows up to two years to comply. *See* 40 C.F.R. §257.101(b)(2); §257.73(f)(1); 80 Fed. Reg. at 21,315. Thus, as Industry-Petitioners concede, they can be out of compliance with the safety requirements and still operate for two years, until April 2017. Ind. Br. 41. It is only at that time that an operator that has failed to demonstrate the safety of its unit must *commence* closure. 40 C.F.R. §257.102(b)(2) (cited at Ind. Br. 41). Once commenced, the operator then has five more years to complete closure (which involves dewatering and capping the site), a period which can be extended to as much as fifteen years, depending on the circumstances and the size of the unit. 40 C.F.R. §257.102(f).

Industry-Petitioners contend that the two years for continued operations “is not reasonably achievable.” Ind. Br. 42. They claim that because closure takes, on average, five years, achieving the safety factors in two years is unreasonable. *Id.* But this assertion misconstrues the regulatory requirements. While EPA expects that “most, if not all, units should be able to complete closure within five years,”

80 Fed. Reg. at 21,421, the time it takes to close a unit has no bearing on when operations should end and closure should be *commenced*.

EPA established the compliance deadline based on an analysis of the amount of time realistically needed under normal circumstances for a facility to come into compliance. This was based on standard engineering practices used throughout the industry and on the record from the Impoundment Assessment, supported by Industry-Petitioners' own comments that all facilities already were (or would shortly be) in compliance with the Rule's structural stability requirements. 80 Fed. Reg. at 21,314-18, 21,432.<sup>12</sup> Industry-Petitioners never address this determination or the assessments and data supporting it. Instead, they cite the Proposed Rule, stating that it generally called for an operating deadline of five years. Ind. Br. 42, citing 75 Fed. Reg. at 35,202. The cited statement, however, proposed that waste units that could not meet the seismic safety requirements should "close the landfill or surface impoundment within five years of publication of the final rule." *Id.* It says nothing about continuing operations for five years. To the contrary, it would be virtually impossible to continue operations for five years and then complete closure at the end of the fifth year, since closure requires dewatering and capping

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<sup>12</sup> EPA also explained that two years would allow operators to consider other EPA rulemakings that might affect their decision to correct safety deficiencies or close. *Id.* at 21,428-29.

the site, a process that Industry-Petitioners themselves explain takes a considerable amount of time.

Moreover, Industry-Petitioners' argument presumes that additional time is necessary to come into compliance. But they identify no record support for their claim that those units that are currently out of compliance will be unable to retrofit or engineer their impoundment to meet the required factors of safety by the two-year deadline, which is the requirement they are actually challenging. Instead, Industry-Petitioners unilaterally define the action necessary to come into compliance with existing safety requirements at an impoundment as requiring it to switch from an impoundment to a landfill. Ind. Br. 42-43. But there is no such requirement.<sup>13</sup>

Industry-Petitioners also cite no record evidence establishing how long the process of coming into compliance would take, other than general unsupported comments from utilities saying they need more time. And Industry-Petitioners cite to no record support establishing that there are any significant number of facilities out of compliance with seismic safety factors that would choose to convert to a dry ash handling process. Nor is there even a record establishing that there is any

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<sup>13</sup> Conversion "from wet- to dry-handling of wastes" is not mandated, since that change was only necessitated under the proposed Subtitle C approach. *See* 75 Fed. Reg. at 35,202 ("Although EPA expects that many surface impoundments will choose to close rather than install a liner, wet-handling of CCRs can continue, even in existing units," under Subtitle D).

significant number of impoundments that are not in compliance with the dam safety factors Petitioners are challenging. To the contrary, EPA's record, including comments from Industry representatives, indicates that most impoundments already have achieved the minimum safety standards. 80 Fed. Reg. at 21,315-17; JA\_\_\_ (EPA-HQ-RCRA-2012-0028-0060 at 6; EPA-HQ-RCRA-2012-0028-0065 at 3, EPA-HQ-RCRA-2012-0028-0066 at 4, EPA-HQ-RCRA-2012-0028-0067 at 3).<sup>14</sup>

In the end, this is a requirement that surface impoundments, which are subject to catastrophic structural failure, establish that they are in compliance with basic structural safety requirements, and they have two years to do so. That requirement is facially reasonable and should not be deemed to be arbitrary and capricious because some operators may choose an optional response (e.g., changing to dry ash handling) that could take substantial time. As EPA found, there are reasonable methods available to engineer the impoundment to meet these minimum requirements within the required time period. Industry-Petitioners' plea for five years to satisfy this critical requirement is simply another example of

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<sup>14</sup> Industry representatives repeated these statements when, in conjunction with a proposed rule governing electric generation units, they were specifically asked to comment on compliance deadlines for the CCR Rule. 78 Fed. Reg. at 34,441-42; comments at JA\_\_\_ (EPA-HQ-RCRA-2013-0209-0025 at 15-17; EPA-HQ-RCRA-2013-0209-0040 at 12-13).

seeking a special exception from regulatory criteria that are necessary to protect health or the environment, and it is not arbitrary for EPA to refrain from granting such an accommodation in this instance.

**2. The Deadline for Compliance with the Seismic Safety Factor Does Not Conflict with Seismic Location Requirements**

Industry-Petitioners alternatively assert that because the compliance date for the seismic *location* restriction is four years, that renders the two-year compliance requirement for demonstrating compliance with the seismic *safety* criterion arbitrary. Ind. Br. 43-44. Though both requirements are premised on the same magnitude of seismic event (one projected to occur within 2,500 years), the requirements are quite different.

The safety factor assessment is only required for larger, dam-like surface impoundments, which EPA determined already have satisfied or can readily meet this requirement. 80 Fed. Reg. at 21,316-18. The location restriction, in contrast, applies to all existing surface impoundments, regardless of size. This wider universe of CCR units was not evaluated in EPA's Impoundment Assessment. Consequently, the record does not support a shorter timeframe to comply with the Rule's seismic location restrictions.

Moreover, the compliance assessments associated with each requirement are fundamentally different. The location restrictions require the facility to evaluate

whether all structural components of the unit can meet the Rule's "withstand without discharge" standard." 80 Fed. Reg. at 21,366. This requires an evaluation not only of the foundation (i.e., embankments) of the impoundments, but also of all of the structures that control leachate, surface drainage, and erosion from the unit, such as the spillways. *Id.* By contrast, the seismic safety factor requires the facility to analyze only the most vulnerable cross-section of the embankments at the larger, dam-like units to "minimiz[e] risk from structural failure." 80 Fed. Reg. at 21,376.

The fact that differently-situated facilities might be subject to different compliance deadlines does not make a rule arbitrary or capricious. *Ace Motor Freight, Inc. v. ICC*, 557 F.2d 859, 862 (D.C. Cir. 1977); *Petroleum Commc'ns, Inc. v. FCC*, 22 F.3d 1164, 1172 (D.C. Cir. 1994). The agency need merely provide an explanation for its different treatment, *Fresno Mobile Radio, Inc. v. FCC*, 165 F.3d 965, 968 (D.C. Cir. 1999), *Chadmoore Commc'ns, Inc. v. FCC*, 113 F.3d 235, 242 (D.C. Cir. 1997), and a party carries a heavy burden in establishing that an agency acted irrationally because it treats one set of regulated entities differently from another with regard to regulatory requirements. *City of Las Vegas v. Lujan*, 891 F.2d 927, 935 (D.C. Cir. 1989). Industry-Petitioners have failed to carry that burden.

**E. The Location and Closure Requirements Based On Seismic Impact Zones Are Not Arbitrary**

As discussed immediately above, the Rule contains seismic location criteria. EPA's seismic (and other) location restrictions are designed to protect groundwater in vulnerable areas from contamination risks associated with existing surface impoundments and all new CCR units, including lateral expansions. Those restrictions prohibit the placement or expansion of certain landfills and impoundments in seismic impact zones, unless showings are made that an earthquake will not materially impact the waste unit. Industry-Petitioners' multiple arguments for asserting that the seismic impact zone requirement is arbitrary and capricious ignore the robust record underlying this requirement.

**1. EPA Reasonably *Extended* the Deadline to Comply With the Final Rule's Location Restrictions**

Industry-Petitioners first claim that the Final Rule shortens the timeframe suggested in the Proposed Rule for meeting the location restrictions, from five years to four, asserting that the "change" is arbitrary. This assertion misapprehends the applicable deadlines as proposed and finalized. In fact, the Final Rule *extends* the compliance window by many years.

Mirroring the mistake outlined above, Industry-Petitioners confuse the amount of time allocated to continued operations with the time permitted to complete closure. With few exceptions, the Proposed Rule "specifie[d] an

effective date of 180 days after publication of the final rule” to come into compliance with all regulatory requirements. 75 Fed. Reg. at 35,195. Six months was more than adequate, EPA explained, since the same timeframe would have been set to comply with the more rigorous requirements proposed under Subtitle C. 75 Fed. Reg. at 35,196. Industry-Petitioners cite 40 C.F.R. §257.65, as proposed, to argue that the location restrictions were an exception. Upon closer examination, however, §257.65 concerned the amount of time it takes to close a unit after closure is triggered, i.e., after an operator has the opportunity to come into compliance. 75 Fed. Reg. at 35,202.

The Final Rule, in fact, extends the compliance window – continued operating time before closure must be initiated – from the eighteen months originally contemplated in the Proposed Rule to four years. 80 Fed. Reg. at 21,428-29. After that, the Rule allows up to fifteen more years, depending on the circumstances, to complete closure. 40 C.F.R. §257.102(f); §257.103; 80 Fed. Reg. at 21,420-24. EPA thus reasonably lengthened the compliance period for the Final Rule’s location restrictions; it did not unreasonably shorten it.

**2. EPA Adequately Justified Excluding Existing CCR Landfills From Having to Satisfy the Seismic Location Restriction**

The Rule’s seismic impact zone location restrictions apply to new CCR landfills and both new and existing CCR surface impoundments, but they do not

apply to existing landfills. Relying on EPA's determination that landfills pose less of a danger than impoundments in seismic impact zones, Industry-Petitioners assert that it was arbitrary not to also exempt new landfills from these requirements. Ind. Br. 45-46.

In the Proposed Rule, EPA relied on the same determination that Industry-Petitioners now cite, to support its proposal to require existing surface impoundments, but not existing landfills, to meet the location requirements. 75 Fed. Reg. at 35,198-99. Yet, neither Industry-Petitioners nor any other party submitted comments challenging the application of the seismic location criteria to new landfills on the ground that all landfills pose less of a danger than impoundments in seismic impact zones.

In any challenge to an agency decision, the Petitioner – or at least some commenter – must have raised during the administrative process the specific issue the Petitioner is raising in court, or the claim is waived. *United States v. L.A. Tucker Truck Lines, Inc.*, 344 U.S. 33, 37 (1952). *See also, Sims v. Apfel*, 530 U.S. 103, 112 (2000) (O'Connor, J., concurring); *Military Toxics Project v. EPA*, 146 F.3d 948, 956 (D.C. Cir. 1998) (RCRA case); *NRDC v. EPA*, 25 F.3d 1063, 1073 (D.C. Cir. 1994) (RCRA case). Having not provided EPA with the occasion to address this argument during the administrative process, Industry-Petitioners may not raise it here.

Even if one were to examine EPA's reasoning for applying this requirement only to new landfills, it assuredly is not arbitrary. EPA excluded existing landfills based in part on concerns that retrofitting an existing landfill to meet the seismic location standard would force operators to close a significant number of landfills. 75 Fed. Reg. at 35,198. This raised concerns about resulting "disposal capacity shortfalls ... [which] raise greater environmental and public health concerns than the potential risks caused by existing units in these locations." *Id.*

EPA weighed these consequences against the harm associated with exempting existing landfills from this specific requirement, which as Industry-Petitioners note "pose less risks and are structurally less vulnerable than surface impoundments." 75 Fed. Reg. at 35,198. Based on a similar set of considerations, EPA did not exempt existing CCR landfills from meeting the Rule's separate location restriction for unstable areas (40 C.F.R. §257.64), because the impacts "from the failure of CCR units from location instability are of far more concern than any disposal capacity concerns resulting from the closure of existing CCR units in unstable areas." 80 Fed. Reg. at 21,361/3. The Final Rule exempted existing landfills, without change from the Proposal, based on this reasoning. *Id.* at 21,359-60.

But these considerations do not apply in the case of new landfills, which can easily be constructed to meet the Rule's engineering performance standards. As

explained in the Proposal, the source of the seismic location standard was EPA's existing regulations for municipal solid waste landfills; all municipal solid waste landfills constructed since 1990 have met this exact requirement. 75 Fed. Reg. at 35,198. EPA also relied on the Agency's Guide for Industrial Waste Management, JA\_\_\_\_ (EPA530-R-03-001, February 2003), which identifies the seismic location restriction as a best management practice that industrial waste disposal facilities have generally adopted. 75 Fed. Reg. at 35,193, 35,198. Nothing in the record suggests that new CCR landfills could not likewise meet these requirements.

Throughout the environmental regulatory regime, EPA often sets different requirements for existing versus new or expanded facilities, weighing various factors in such determinations. Here, EPA explained those factors and they clearly are rational. Indeed, the notion that a yet-to-be-built landfill need *not* comply with basic seismic location restrictions that are designed to avoid the potentially catastrophic events identified in the record, borders on irrational.

**3. The Record Adequately Supports the Application of the Seismic Location Restriction to CCR Landfills, Not Just Impoundments**

CCR units, including new or expanded landfills (and those proposed for location) in a seismic impact zone area, must demonstrate that "all structural components, including liners, leachate collection and removal systems, and surface water control systems, are designed to resist the maximum horizontal acceleration

in lithified earth material” from a probable earthquake. 80 Fed. Reg. at 21,366, 21,473. This demonstration is to include a “response analysis” tailored to the facility design (*e.g.*, whether the unit is a surface impoundment or landfill). *Id.* at 21,366. Industry-Petitioners allege that CCR landfills should not be subject to this requirement because EPA did not explain “why the regulatory standard to address risks to CCR landfills ... was appropriately based on a 2,500-year earthquake rather than, for example, a lower 250-year earthquake test.” Ind. Br. 48.

EPA explained that its definition of “seismic impact zones” incorporating the 2,500-year earthquake standard is based on not one, but two, recognized standards and that those standards are, in fact, applicable to CCR landfills. 75 Fed. Reg. at 35,201. The first mirrors a previously promulgated definition in 40 C.F.R. §258.14, which is applicable to municipal solid waste landfills. 75 Fed. Reg. at 35,201. *See also* 56 Fed. Reg. 50,978 (Oct. 9, 1991). EPA found that “[t]he engineered structures regulated under part 258 are very similar to those found at CCR disposal facilities, and the regulations applicable to such units would be expected to address the risks presented by the constituents in CCR wastes.” 75 Fed. Reg. at 35,193. Industry-Petitioners provide no basis to conclude that, from a seismic vulnerability standpoint, the application of a standard for CCR landfills that is based on the identical standard applied to municipal waste landfills, which

also dispose of CCR, is so unreasonable -- or unreasonable at all -- that it renders EPA's reliance on this standard arbitrary and capricious.

Additionally, in adopting the 2,500 year standard, EPA also relied on the National Earthquake Hazards Reduction Program ("NEHRP") of the U.S. Geological Survey. 75 Fed. Reg. at 35,201. EPA cited "its common use in seismic design criteria throughout engineering." 80 Fed. Reg. at 21,384. Industry-Petitioners' suggestion that the standard "is overly protective" because it more generally applies to structures different from a landfill is incorrect. As noted previously, the Guide for Industrial Waste Management identifies the seismic location restriction as a best management practice in general use by industrial waste disposal facilities. 75 Fed. Reg. at 35,193, 35,198. Similarly, the Southern Company, a member of one of Petitioners, explained that "[t]he NEHRP/USGS 2%PE/50y standard provides a sufficient margin of safety." JA\_\_\_ (EPA-HQ-RCRA-2009-0640-6300 at 34). While other members of Industry-Petitioners may disagree, that does not make application of this well-accepted standard to CCR waste units arbitrary.

**F. It Was Not Arbitrary for EPA to Require CCR Facilities to Comply with Objective Contamination Thresholds, Rather Than Allow Them to Rely on Their Own Engineers' Subjective Judgments**

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In the Proposed Rule, EPA considered addressing certain groundwater monitoring and corrective action requirements through certifications provided by

independent engineers employed by owners/operators. The proposal called for engineers to make determinations on threshold contaminant levels, which involved not only the collection of data but subjective judgments. *See* proposed 40 C.F.R. §257.95(h) (printed at 75 Fed. Reg. at 35,249-50), calling for the engineer to set the threshold for systemic toxicants at the level that represents a concentration to which the human population (including sensitive subgroups) could be exposed that is likely to be without appreciable risk of deleterious effects during a lifetime; *id.* at 35,251/1 (proposed §257.97(e)), proposing that company engineers determine if a remediation waiver is appropriate, calling for the engineer to determine when and if remediation practices result in unacceptable cross-media impacts.

The Final Rule instead applies more objective standards in these two areas. Specifically, the Rule sets groundwater protection standards at background levels for certain constituents, 40 C.F.R. §257.95(h)(2), and rejects the discretionary remediation waiver proposed at §257.97(e)-(f). 80 Fed. Reg. at 21,405-08. Industry-Petitioners contend that EPA's final determination to use objective standards, rather than subjective and unreviewable determinations made by engineers working on behalf of the regulated entity, is arbitrary and capricious.

Industry-Petitioners overemphasize the importance of a suggested approach appearing in the Proposed Rule. EPA is free to alter or wholly eliminate proposed provisions after considering comments and other factors. Indeed, that is the very

purpose of the rulemaking process. *NRDC v. Thomas*, 838 F.2d 1224, 1242 (D.C. Cir. 1988) (“[T]he EPA can obviously promulgate a final regulation that differs in some respects from its proposed regulation.”); *Long Island Care at Home, Ltd. v. Coke*, 551 U.S. 158, 175 (2007) (“[A]fter ... consideration the [agency] might choose to adopt the proposal or to withdraw it.”).

As EPA explained in response to concerns raised by commenters, it “re-evaluated the performance standards throughout the final rule to ensure that the requirements are sufficiently objective and technically precise that a qualified professional engineer will be able to certify that they have been met.” 80 Fed. Reg. at 21,337. *See also, id.* at 21,335-37. As part of this process, EPA determined that its proposal relating to alternative groundwater protection standards warranted modification because as written it was “inappropriate in a self-implementing rule ... and was too susceptible to potential abuse.” *Id.* at 21,405. *See also* 75 Fed. Reg. at 35,194, 35,205 (declining to include similar provisions based on the same concerns).

As proposed, §257.95(h) allowed owners/operators to establish alternative protection health-based standards for constituents for which Maximum Contaminant Levels (“MCLs”) have not been established, based on their engineers’ qualitative judgments. 75 Fed. Reg. at 35,249. And establishing an alternative health-based standard would necessarily require scientific expertise

well outside of the normal expertise of a professional engineer, including, e.g., from toxicologists, hydrologists and other scientists. In the Final Rule, EPA concluded the proposal was inappropriate “because there is no regulatory entity to judge the reasonableness of the desired alternatives.” 80 Fed. Reg. at 21,407/2-3, referencing discussion at 75 Fed. Reg. at 35,194, 35,205. *See also* JA\_\_ (RTC Vol. 9 at 4-5).

EPA also was “concerned that such provisions would render the requirements appreciably more difficult for citizens to effectively enforce.” JA\_\_\_\_ (RTC Vol. 9 at 5). Accordingly, in the Final Rule EPA set groundwater protection standards for all constituents lacking a maximum contaminant level at background levels, which are “sufficiently precise” and “enforceable.” 80 Fed. Reg. at 21,405. There simply is no basis to conclude that use of this much more precise, objective, and enforceable standard is arbitrary and capricious.<sup>15</sup>

EPA rejected the remediation waiver on similar grounds. Like §257.95(h), the remediation waiver was borrowed from Part 258 regulations applicable to municipal solid waste landfills. 75 Fed. Reg. at 35,205. Those requirements, EPA pointed out, rely “on approved states to implement the federal criteria through a

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<sup>15</sup> EPA’s determination in the Final Rule that the reliability of company engineers is equivalent to that of independent engineers, Ind. Br. 49-50, is irrelevant. The direct employer of the engineer was not a factor in EPA’s conclusion that objective thresholds more effectively implement statutory and regulatory requirements.

permitting program.” JA\_\_\_ (RTC Vol. 9 at 5). For instance, under 40 C.F.R. §258.57(e), a state director may determine that a remediation waiver is appropriate. Contrastingly, the CCR analog at 40 C.F.R. §257.97(e), as proposed, would have allowed the regulated entity to make the waiver determination, without State oversight. For that reason, EPA solicited comment on whether “certification by an independent professional engineer would be effective or appropriate.” 75 Fed. Reg. at 35,205. After considering comments and the statutory context for the Final Rule, EPA concluded that while a remediation waiver is “appropriate where there is state oversight,” where there is none, “there is no similar guarantee than an individual facility will act in the public interest.” 80 Fed. Reg. at 21,407.

EPA’s decision not to rely on a regulated party’s self-determination of compliance with regulatory requirements, but to instead require adherence to objective standards, should be accorded the utmost deference. *Massachusetts v. EPA*, 549 U.S. 497, 527 (2007); *Negusie v. Holder*, 555 U.S. 511, 530 (2009) (Stevens, J., concurring and dissenting) (“Courts are expert at statutory construction, while agencies are expert at statutory implementation. That the distinction can be subtle does not lessen its importance.”). So long as the agency exercises its delegated authority with common sense and fidelity to the intent of Congress, its decision must be upheld. *Cablevision Sys. Dev. Co. v. Motion Picture Ass’n of Am.*, 836 F. 2d 599, 612 (D.C. Cir. 1988). EPA’s decision to

require compliance with objective standards in a self-implementing regulatory regime, although disappointing to Industry-Petitioners who hoped for application of proposed subjective procedures, nevertheless is both sensible and non-arbitrary.

### **ENVIRONMENTAL-PETITIONERS' CLAIMS**

Notwithstanding the comprehensiveness of the Rule's criteria mandating structural, operating, monitoring and numerous other procedures required for the disposal and handling of CCR, Environmental-Petitioners contend that those criteria must be even stronger, postulating where and when operator adherence to the criteria might go awry, given EPA's lack of direct enforcement authority. But the self-enforcement structure of Subtitle D was affirmatively created by Congress, and projecting hypothetical situations where State authorities may not be as diligent in enforcing the criteria as one might hope, does not render the criteria EPA promulgated arbitrary, capricious or beyond its authority.

#### **IV. SUBTITLE D OF RCRA FAILS TO MANDATE THAT EPA REQUIRE UNLINED IMPOUNDMENTS THAT ARE *NOT* LEAKING TO CLOSE**

EPA promulgated comprehensive regulations requiring all impoundments to conduct groundwater monitoring and remediate contamination identified through such monitoring. 40 C.F.R. §257.90. The regulations set forth in detail the types of groundwater monitoring systems required (§257.91), sampling and analysis requirements (§257.93), detection monitoring programs (§257.94), assessment

monitoring programs (§257.95), assessment of corrective measures (§257.96), selection of remedies (§257.97), and implementation of groundwater corrective action programs (§257.98).

The corrective measures established in these regulations (§§257.96-98) are the sole remedy required for *lined* impoundments that leak. 40 C.F.R. §257.101(a); 80 Fed. Reg. at 21,371. By contrast, *unlined* impoundments must also initiate closure or retrofit, if, at any time, groundwater monitoring shows concentrations of one or more regulated CCR constituents detected at a statistically significant level above groundwater protection standards (“constituent leaking”). *Id.* Thus, whenever these conditions are detected at an unlined impoundment, closure or retrofit with a state-of-the art composite liner is mandated. EPA determined that closure was appropriate for unlined impoundments, even though in some instances it might technically have been possible to engineer a targeted solution to address the identified leaking. *Id.* Accordingly, leaking unlined impoundments must cease receiving CCR and initiate closure or retrofit activities within six months. *Id.*

Finding the above-described requirements for leaking unlined impoundments to be irrelevant, Environmental-Petitioners demand that EPA regulate with an axe rather than a scalpel. They assert that EPA is *required* to close *all* existing unlined impoundments because they *could* leak, rather than the

path chosen by EPA: to require the closure of all unlined impoundments that *do* leak.

The record documents a greater likelihood that regulated CCR constituents will leak from unlined impoundments than from lined impoundments. That is why the Rule requires new impoundments to be constructed with a composite liner and why the Rule requires leaking unlined impoundments to close, rather than merely remedy the contamination. 80 Fed. Reg. at 21,406, 21,418. However, this greater probability of leaking does not translate into a finding that there is a reasonable probability that *each and every* unlined impoundment will, in fact, result in adverse effects on health and the environment. It is well within EPA's discretion to evaluate and treat different types of sources of contaminants differently, so long as it explains the reasons for such different treatment. *See p. 68, supra.*

EPA concluded that unlined impoundments that are not leaking and are in compliance with all requirements of the Rule are *not* reasonably probable to cause adverse health or environmental effects. Env. Br. 22, citing JA\_\_\_\_ (EPA-HQ-RCRA-2009-0640-12132 at 38). In fact, as Environmental-Petitioners point out, EPA estimates that existing unlined impoundments have a 36.2% *chance* of leaking over their remaining lifetime. Env. Br. 23, citing Risk Analysis at 5-22 (JA\_\_\_\_). This hardly supports a conclusion that EPA's determination not to require the closure of 100% of all unlined impoundments is arbitrary and

capricious or that EPA exceeded its authority by requiring closure of unlined impoundments *when* they leak.

As Environmental-Petitioners themselves explain, leaching of CCR constituents from an impoundment can, in fact, be mitigated “when effective groundwater monitoring systems are in place and when the monitoring can trigger remedial action ....” Env. Br. 7-8. EPA instituted exactly these requirements, requiring extensive monitoring of groundwater to detect constituent leaking and corrective action to remedy contamination above health thresholds. In the case of unlined impoundments, EPA went even further, requiring their closure upon such detection, which is precisely the remedy Environmental-Petitioners seek. 80 Fed. Reg. at 21,371.

Environmental-Petitioners complain that the mandate to close the impoundment upon detection of a leak will be ineffective because some States may not enforce the groundwater monitoring requirements or may not do so in a vigilant enough manner to protect against harm to health or the environment. Env. Br. 25. But even if this hypothetical scenario of inadequate enforcement might arise in given instances, it stems from Congress’ decision not to bestow EPA with authority under Subtitle D to enforce the promulgated criteria; it is not a defect in

the Rule.<sup>16</sup> Indeed, even if EPA were to require all existing unlined impoundments to close as Environmental-Petitioners suggest, it is those same States (and citizens) that would have to enforce such closure requirements. Environmental-Petitioners' real complaint is one that should be taken to Congress; it is not a basis to overturn a comprehensive regulatory regime that, when properly applied, is protective of public health and the environment.

In applying statutory requirements mandating that EPA make determinations on how and when to protect against environmental impacts, considerable deference is given to EPA to enforce those requirements based on the circumstances and actions of individual regulated parties, rather than through blanket prohibitions applicable to an entire class:

When we apply the deference due an administrative agency which *Chevron* mandates, '[t]he permissive nature of the statute implies broad agency discretion in selecting the appropriate manner of regulation.' EPA's position that the statute allows the agency to impose limits for [nitrogenous biochemical oxygen demand] on a case-by-case basis through the permitting process is a reasonable and permissible reading of the statute, to which we must defer.

*Maier v. EPA*, 114 F.3d 1032, 1043 (10th Cir. 1997), quoting *Professional Drivers Council v. Bureau of Motor Carrier Safety*, 706 F.2d 1216, 1221 (D.C.Cir.1983).

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<sup>16</sup> As discussed at Section VI, *infra*, EPA does have response authority that can be applied when an unlined impoundment actually leaks such that it presents an imminent and substantial endangerment to public health or the environment. 42 U.S.C. §6973(a). This is authority to address the imminent harm, not to enforce specific regulatory criteria.

*See also, National Wildlife Federation v. EPA*, 286 F.3d 554, 566 (D.C. Cir. 2002) (decision to establish effluent limits on a case-by-case basis rather than by blanket category is not unreasonable); *Weyerhaeuser v. Costle*, 590 F.2d 1011, 1058 (D.C. Cir. 1978). Here, the operable statutory provision, 42 U.S.C. §6944(a), directs EPA to ensure that there will be no reasonable probability of harm to health or the environment, but leaves it wholly to EPA's discretion to determine how to implement that mandate.

Addressing potential risks from leaking unlined impoundments through a comprehensive groundwater monitoring program with closure to occur upon identification of any leaks, is not only within EPA's discretion, it is reasonable on a number of additional bases. While the lack of a liner is a key element that leads to groundwater contamination, it is not the only factor. Impoundments are located in geologically diverse areas, where groundwater table(s) can be close to the surface or at greater depth, and where soils and bedrock may easily transmit water containing contaminants or can work as a barrier or filter to such substances. 80 Fed. Reg. at 21,450. Thus, potential – or even actual – leaking of a CCR impoundment will not necessarily result in contamination of groundwater, either above allowable regulatory thresholds, or at all.

Additionally, Environmental-Petitioners make no showing that the Rule's groundwater monitoring and corrective action requirements will be ineffective to

prevent any potential harm to health or the environment, other than unsubstantiated fears that the monitoring will not be properly implemented. To the contrary, the identical groundwater monitoring is used to determine when a lined impoundment must take corrective actions (*see* Part V, *infra*), and Environmental-Petitioners make no argument that groundwater monitoring in that instance is ineffective or inadequate. The remedies may be different (closure for unlined impoundments and corrective action for lined impoundments), but the trigger (constituent leaking discovered through groundwater monitoring) is the same.

As this Court explained regarding the Agency's authority to regulate under RCRA, "EPA is not obligated to promulgate regulatory programs [that the parties] or this court judges preferable as long as the option chosen is permissible under the statute as written and justified by 'consider[ation of] relevant factors and articulat[ion of] a rational connection between the facts found and the choice made.'" *Environmental Defense Fund*, 852 F.2d at 1315 (citation omitted). EPA's determination to require the closure of unlined impoundments *when* they leak is based on relevant factors and presents a rational mechanism for protecting against the reasonable probability of harm to health or the environment.

**V. EPA DID NOT ACT ARBITRARILY IN CLASSIFYING IMPOUNDMENTS THAT CONTAIN AN ACTUAL LINER AS “LINED”**

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Unlike unlined impoundments, which must close in the event groundwater monitoring establishes exceedances of contaminant thresholds, lined impoundments that experience such a leak need only implement corrective action. 40 C.F.R. §§257.96-98. Upon detection of a statistically significant level of contaminants exceeding groundwater protection standards, the owner/operator of a lined impoundment must, using qualified professional engineers, perform an assessment of the cause and impact of the contamination and design and implement a remedy which must, at a minimum: (a) attain groundwater protection standards; (b) control the source(s) of the release; (c) remove from the environment as much of the contaminated material as is feasible; (d) comply with EPA-mandated management standards; and (e) be protective of human health and the environment. 40 C.F.R. §257.97. Thus, should a leak occur, swift action must be taken to ensure that the waste unit operates in a manner that does not cause adverse effects to health or the environment.

EPA defines an existing lined impoundment to include: (a) a liner consisting of a minimum of two feet of compact soil (clay) with hydraulic conductivity of no more than  $1 \times 10^{-7}$  cm/sec; (b) a composite liner, which contains the characteristics of (a) plus an upper component with at least a 30-mil geomembrane and additional

characteristics; and/or (c) an alternative composite liner, with equivalent characteristics. 80 Fed. Reg. at 21,371; 40 C.F.R. §257.70-72.

Environmental-Petitioners do not dispute that an impoundment with a two-foot clay liner does, in fact, have a liner. Yet, Environmental-Petitioners assert that it is arbitrary and capricious for EPA to define a lined impoundment to include those that utilize only the two-foot clay liner. Env. Br. 27. They do so because they believe that an impoundment with a clay liner that detects a leak should, like an unlined impoundment, be forced to close, rather than to fix the leaking liner.

First, as outlined above, EPA found that only about 36% of *unlined* impoundments have a chance of leaking during their lifetime. Environmental-Petitioners offer no evidence of the percentage of clay *lined* impoundments that are likely to leak. Thus, there is no basis for their assertion that EPA's definition of "lined" impoundments to include those that have a compacted clay liner, will, in their words, "result in an endless cycle of spills and cleanups." Env. Br. 28.

Moreover, as EPA explains, there is a significant difference between a leak at a waste unit that has a liner and one that is unlined. Leaks at lined facilities are often localized (e.g., punctures or seam failures) and can be addressed in a localized manner. 80 Fed. Reg. at 21,371 (contrasting lined impoundments from unlined, noting that in the former case, it is reasonable to "afford[] the owner or operator with the opportunity to rely on corrective action measures to bring the

risks back to acceptable levels (i.e., control the source of the release and remediate the contamination), without mandating closure of the unit.”).

Environmental-Petitioners cite EPA’s Risk Assessment at E-7 (JA\_\_\_\_) in support of their proposition that impoundments with a two-foot clay liner will not be protective of health or the environment. Env. Br. 29. But that page of the Risk Assessment merely states that impoundments with such liners present risks that are “lower than for unlined units” and that, as is usually the case with a national risk assessment, such lined units “*can* exceed risk criteria at *individual* sites.” JA\_\_\_\_ (emphasis added). In fact, EPA’s Risk Assessment showed that the risks from impoundments lined with two feet of clay fall squarely within EPA’s range of acceptable risks.

EPA has historically relied on a range of calculated risk levels rather than a single “magic number” to determine the point at which regulation is appropriate. This generally corresponds to an acceptable risk level ranging between  $1 \times 10^{-4}$  and  $1 \times 10^{-6}$ . 75 Fed. Reg. at 35,168, 35,193; 80 Fed. Reg. at 21,451. Wastes with a calculated high-end individual cancer-risk level of  $1 \times 10^{-5}$  or higher are considered *candidates* for regulation, which means that EPA also considers other factors, such as the existence of damage cases, in determining whether regulation is appropriate. By contrast, wastes with calculated risks of  $1 \times 10^{-4}$  or higher will generally be

considered to pose a substantial present or potential hazard to human health and the environment and generally will be regulated. *Id.*<sup>17</sup>

EPA calculated the risks from the leaching of CCR constituents into groundwater from impoundments with clay liners that are two feet thick and three feet thick. Only one of the estimates for all constituents exceeded  $1 \times 10^{-5}$ , arsenic III. Assuming a CCR impoundment with a two-foot clay liner, EPA estimated the human health risk nationally to be  $2 \times 10^{-5}$ . JA\_\_\_\_ (RA at Table 5-22, p. 5-30). This represents only a slight exceedance of EPA's level of concern, and only for one contaminant. Moreover, uncertainties remain with respect to this estimate. As EPA explained, field data on the performance of clay liners was limited and the available data show that even those liners designed to meet EPA's regulatory standard of  $1 \times 10^{-7}$  hydraulic conductivity "may perform differently in practice due to compaction, thixotropy, and other factors." JA\_\_\_\_ (*Id.* at 5-31). Petitioners' reflexive claim that this single estimate demands treating lined and unlined impoundments identically, ascribes a level of precision to EPA's assessment that is at odds with both the notion of a "range of acceptable risks" and with the conclusions of the Risk Assessment itself.

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<sup>17</sup> Wastes with estimated risks of  $1 \times 10^{-6}$  or lower will usually be considered not to pose a substantial present or potential hazard to human health and the environment and generally will not be regulated.

The information available from the damage cases suggests that EPA's Risk Assessment does not significantly underestimate these risks. Over 90% of the units implicated in the damage cases either had no liner, some sort of ash-based liner, or a partial or high-permeability liner. 80 Fed. Reg. at 21,458. While there were clay-lined units in some damage cases, the information was generally insufficient to allow EPA to determine the characteristics of the clay liner (e.g., thickness or hydraulic conductivity). *Id.* at 21,455, 21,458.

Ultimately, the Final Rule must be judged on whether its requirements for clay-lined impoundments will protect health and the environment. It is indisputable that the risks of clay lined impoundments are lower (generally by an order of magnitude) than the risks of unlined impoundments. JA\_\_\_ (RA at Table 5-4, p. 5-6). It is hardly unreasonable for EPA to tailor its requirements to reflect these differences. Consequently, as with other lined units, if a clay-lined impoundment leaks, EPA has imposed a series of requirements to ensure that a remedy is promptly implemented that will protect health and the environment. 40 C.F.R. §§257.96-98.

Environmental-Petitioners do not dispute this point. Instead, they simply state, citing no factual support, that the impoundment operator "may make only minor repairs" to address any leak. Env. Br. 30. But that clearly is not the case, since a facility must also remediate any contamination to levels that will protect

health and the environment. 40 C.F.R. §§ 257.96-98. Once again, Environmental-Petitioners' real fear is that the regulatory criteria will not be enforced as written; which as stated, is a matter to be addressed to Congress, not a basis to find the Rule inadequate or arbitrary and capricious. Alternatively, this concern would be addressed if CCR were regulated under Subtitle C, but EPA's determination that it could not presently apply Subtitle C (and its permit and enforcement procedures) under the Bevill Amendment parameters, is not at issue in this case.

Environmental-Petitioners also assert that because the Rule requires a composite liner for *new* impoundments, that makes any regulation that allows an existing unit to operate with anything less, arbitrary and capricious. Env. Br. 29-30. As outlined at pp. 68, *supra*, it is fully within EPA's discretion to treat existing facilities and facilities that have not yet been constructed differently. Here, EPA actually found that composite liners would reduce "risks from all pathways and constituents *far below* human health and ecological criteria," i.e., to risks lower than  $1 \times 10^{-10}$ . Env. Br. 21, 29, quoting Risk Assessment at ES-7 (emphasis added). That estimation does not undermine the determination that procedures required for existing lined impoundments are sufficiently protective, which as explained is more generally defined as a risk ranging between  $10^{-4}$  to  $10^{-6}$ .

In the end, EPA must determine whether facility operations are reasonably probable to cause adverse effects on health and the environment and must

determine the actions that will adequately mitigate such threats. 42 U.S.C. §6944(a). These quite clearly are technical and scientific judgments made under a comprehensive statutory scheme (RCRA) that EPA administers, which are to be accorded “an extreme degree of deference.” *Huls Am. Inc. v. Browner*, 83 F.3d 445, 452 (D.C. Cir. 1996). *See also, St. Luke's Hosp. v. Sebelius*, 611 F.3d 900, 904-05 (D.C. Cir. 2010); *Am. Farm Bureau Fed'n v. EPA*, 559 F.3d 512, 519 (D.C. Cir. 2009); *Chemical Mfrs. Ass'n v. EPA*, 919 F.2d 158, 167 (D.C. Cir. 1990) (“It is not the role of courts to ‘second-guess the scientific judgments of the EPA’ [citation omitted] and we give considerable latitude to the EPA in drawing conclusions from scientific and technological research, even where it is ‘imperfect’ or ‘preliminary.’”). Under these standards, it cannot be said that it was arbitrary or beyond EPA’s authority to treat an impoundment that actually has a liner as a lined impoundment, which nevertheless must promptly address and correct any constituent leak that may occur.

## **VI. EPA DID NOT ACT ARBITRARILY IN ADDRESSING LEGACY IMPOUNDMENTS ON A SITE-BY-SITE BASIS**

The substantive regulatory requirements do not apply to impoundments at “non-operating” power facilities, i.e., those where the utility ceased producing electricity prior to the effective date of the Rule, October 19, 2015. 40 C.F.R. §257.50(e). As Environmental-Petitioners explain, these are generally termed legacy ponds, because often the operating utility is no longer present at the site.

EPA chose to address the hazards from these legacy ponds on a site-by-site basis, utilizing its direct response authority under 42 U.S.C. §6973 to address actions that “may present an imminent and substantial endangerment to health or the environment.” 80 Fed. Reg. at 21,311, n.1. EPA also determined that it may address these non-operating legacy units through clean-up procedures under CERCLA. *Id.* at 21,312 n.2. This is an approach that makes sense at legacy ponds, where the absence of a present operator makes implementation of continuing and ongoing regulatory requirements difficult or often impossible. *Id.* at 21,344.

Congress delegated to EPA broad discretion to determine which facilities should be considered open dumps under 42 U.S.C. §6944(a). 80 Fed. Reg. at 21,345/1. *See also, Environmental Defense Fund*, 852 F.2d at 1315 (finding that the statute does not “abrogate EPA’s complete discretion to choose among possibilities – including regulations under Subtitle D – that might prove satisfactory in light of the agency’s findings.”). It follows that this “complete discretion” includes how to regulate under Subtitle D, not merely whether to regulate under that Subtitle.

As Environmental-Petitioners point out, EPA has interpreted RCRA to allow it to address contamination concerns from non-operational facilities through application of its powers under §6973 (and under CERCLA) for the last thirty-five

years. Env. Br. 33. *See also*, 80 Fed. Reg. at 21,343-44. Given that, EPA's interpretation of its authority to address these legacy ponds in this same manner should be accorded substantial deference. *Environmental Defense Fund v. Duke Energy Corp.*, 549 U.S. 561, 575 (2007); *Alaska Dep't of Environmental Conservation v. EPA*, 540 U.S. 461, 487 (2004) ("We 'normally accord particular deference to an agency interpretation of 'longstanding' duration.") (Citations omitted).

Environmental-Petitioners do not deny EPA's authority to deal with legacy ponds on a case-by-case basis, but instead argue that the evidentiary burden to establish "imminent and substantial endangerment," as required under section 6973, is in their view too high to make such enforcement meaningful. Env. Br. 35. But that is not the view that has been adopted by Congress, EPA, or the courts.

42 U.S.C. §6973 requires EPA to find that the disposal of solid waste "*may* present an imminent and substantial endangerment to health or the environment" in order to proceed with actions to require remediation of the effects of disposal. (Emphasis added). This is comparable to the standard for imposing the Rule's regulatory criteria pursuant to which EPA determines whether the disposal of solid waste will result in a "reasonable probability of adverse effects on health and the environment." 42 U.S.C. §6944. Indeed, EPA has historically interpreted RCRA to establish the same level of protection, corresponding to an acceptable risk level

ranging between  $10^{-4}$  to  $10^{-6}$ , irrespective of the particular statutory provision at issue. 75 Fed. Reg. at 35,193.

While §6944 does not require imminent harm to health and the environment for a facility to be classified as an open dump, EPA may take responsive action under §6973 if the afore-mentioned risks *may* be present. This showing contains many of the same considerations as the standard under section §6944, which focuses on a “reasonable probability of adverse effects.” The word “may” in the direct enforcement provision was affirmatively added to RCRA in 1980 to alter the standard for direct EPA intervention. Until this change, the statute allowed EPA to take direct enforcement action only where disposal or other activity “is presenting” significant harm. This change clearly “loosen[ed] the standard for liability” under §6973. *Maine People’s Alliance & Natural Res. Def. Council v. Mallinckrodt, Inc.*, 471 F.3d 277, 287 (1<sup>st</sup> Cir. 2006) (Emphasis in original) (quoting Pub. L. No. 96-482, §25, 94 Stat. 2334, 2348). *See also, United States v. Price*, 688 F.2d 204, 213-14 (3<sup>rd</sup> Cir. 1982) (“The expansive language of this provision ... and this legislative history make it clear that Congress ... intended to confer upon the courts the authority to grant affirmative equitable relief to the extent necessary to eliminate *any* risks posed by toxic wastes.”) (emphasis added).

Examining the standard to be met under 42 U.S.C. §6973 for EPA to take decisive action to address the potentially harmful disposal of solid waste, courts

have recognized that “a finding that an activity may present an imminent and substantial endangerment does not require actual harm.” *Dague v. City of Burlington*, 935 F.2d 1343, 1356 (2<sup>nd</sup> Cir. 1991), *rev’d in part on other grounds*, 505 U.S. 557 (1992). The Supreme Court made clear that it is only the threat of harm that must be imminent, not the actual injury that may ensue from that threat. *Meghrig v. KFC Western*, 516 U.S. at 486. And the threat of future harm to health or the environment need not be firmly established, it need only be a “probabilistic ... prospect of future harm.” *Brod v. Omya, Inc.*, 653 F.3d 156, 163 (2<sup>nd</sup> Cir. 2011). That is akin to the standard §6944, where the threat of harm must be “reasonably probable.”

Moreover, courts generally err on the side of protecting public health in applying §6973. *Burlington N. Santa Fe Ry. Co. v. Grant*, 505 F.3d, 1013, 1021 (10<sup>th</sup> Cir. 2007); *Interfaith Cmty. Org. v. Honeywell Int’l., Inc.*, 399 F.3d 248, 259 (3d Cir. 2005). Thus, the standard of imminent harm is generally satisfied if there is a “reasonable scientific concern for the environment.” *Maine People’s Alliance*, 471 F.3d at 282.

EPA has not ignored legacy CCR impoundments. Instead, EPA has chosen to use its limited resources to deal with such facilities directly and individually, i.e., not to rely on sporadic State enforcement for which Environmental-Petitioners express concern. That is a reasonable position to take with regard to a class of

waste units (legacy units) where there often is no operator to generate the certifications, complete the inspections, and otherwise conduct the regular actions required under the Rule. Under these circumstances, EPA's case-by-case approach is not arbitrary.

**VII. THE RULE CONTAINS A COMPREHENSIVE PUBLIC NOTICE PROGRAM THAT COMPLIES WITH ALL STATUTORY REQUIREMENTS**

Acknowledging that, with the exception of limited case-by-case responsive action by EPA discussed in Section VI, *supra*, enforcement of the regulatory criteria lies in the hands of States and citizens, the Rule establishes a comprehensive recordkeeping and public notice regime. 80 Fed. Reg. at 21,426-27. Each facility must generate and maintain numerous specific records evidencing adherence to: location criteria, design criteria, operating criteria, groundwater monitoring, corrective actions, and closure and post-closure criteria. Each owner/operator must: (a) maintain such records in an operating record; (b) notify the State when documentation has been placed in the operating record and include required certifications from qualified engineers and supporting data; and (c) publish this information on a public website. 40 C.F.R. §257.105 (“Recordkeeping requirements”), §257.106 (“Notification requirements”); §257.107 (Publicly accessible internet site requirements); 80 Fed. Reg. at 21,426-27.

Environmental-Petitioners recognize that they will receive notice of the actions taken to comply with the technical criteria established in the Rule. Nevertheless, they protest that in certain circumstances public website notice of compliance with the regulatory criteria will not be provided at a time when Environmental-Petitioners believe it would be most useful. Env. Br. 47-50.

**A. Petitioners' Notice Claims are Barred Because They Were Not Raised in the Administrative Process**

In the Proposed Rule, EPA set out the technical criteria proposed to be applied for each category of requirements. The Proposed Rule further called for the facility to place in its operating record the certifications and data required to show compliance, to notify the State of such information, and to place such certifications, demonstrations and information in the facility's publicly accessible internet site. *See, e.g.*, 75 Fed. Reg. at 35,241/3; 35,246, 35,247/2.

Neither Environmental-Petitioners nor any other party submitted comments asserting that website notice had to be made at a particular point in time in order to be, in their view, fully effective. *See* 80 Fed. Reg. at 21,436 (EPA noting that it received very little comment from any party on the recordkeeping and notice requirements). Nor did any commenter propose any timing regime for website publication of information. If they had, EPA could have considered such requests and provided explanations as to the public notice process ultimately adopted or even adopted such proposals, if they were prudent. As explained at pp. 71, *supra*,

Petitioners may not maintain a challenge absent comment during the administrative process. For this reason, Environmental-Petitioners' claim of inadequate website notifications should be rejected.

**B. The Public Notice Requirements Provide Ample Bases to Ensure Adequate Enforcement of the Regulatory Criteria**

Even if the Court were to consider Environmental-Petitioners' arguments, they do not form a basis for overturning the notice requirements. 40 C.F.R. §257.105 requires CCR waste facilities to generate and place in their operating files documents reflecting compliance with virtually every aspect of the regulatory criteria established in the Rule. The provision governing posting of information to a public website requires posting of most of the information placed in the owner/operator's files (which is listed in §257.105) within thirty days of its placement by the owner/operator in the operating record. 40 C.F.R. §257.107(d). This includes: thirteen categories of information relating to design criteria, including safety factor assessments, construction history, and hazard classifications (§257.105(f)); nine categories of information relating to operating criteria, including run-off and run-on control systems and weekly and periodic inspection reports (§257.105(g)); thirteen categories of information relating to groundwater monitoring requirements (§257.105(h)); thirteen categories of closure and post-closure requirements (§257.105(i)); and six categories of retrofit requirements (§257.105(j)).

Nevertheless, Environmental-Petitioners explain that an owner/operator must have an engineer certify that a new or expanded landfill or impoundment “*has been built*” with a composite or equivalent liner, citing 40 C.F.R. §§257.105(f)(1) and 257.70(f), and that this certification must be posted to the internet no later than the initial receipt of CCR, citing section §257.107(f)(2). Env. Br. 48. Environmental-Petitioners complain that notice of this “construction certification,” which is after construction has occurred, is too late for the public to have meaningful input. But quite naturally a requirement that an operator certify that its facility “has been built” in compliance with certain requirements, can only occur after the unit has actually been built.

A waste unit owner/operator must also obtain certification from a qualified professional engineer “*prior to construction*” that the liner design (and leachate collection and removal system) for the contemplated new unit (which includes lateral expansions) “meets the requirements of this section.” 40 C.F.R. §§ 257.70(e), 257.72(e) (emphasis added). This “design certification” must be placed in the operating record “as it becomes available,” which by definition is before construction is commenced, and is to be posted on the website within at least 60 days of commencement of construction of the new or expanded unit. 40 C.F.R. §257.107(f)(1). Thus, the public has notice that the unit is, in fact, designed to

comply with all liner requirements, well before the unit would ever go into operation.

Ultimately, Environmental-Petitioners' argument on this website notice provision -- and those discussed *infra* -- center on the concern that although they will receive notice, it might be too late for them to act. There is, however, no basis to support this view. If Environmental-Petitioners (or any other person) believe that the notice and certifications of compliance by a specific owner/operator with liner and design criteria or other requirements are inadequate, they may file a citizen suit to force compliance, which if the allegations are correct would presumably halt construction and prohibit the use of the unit as a sanitary landfill unless full compliance is established. As detailed above, a facility that does not comport with the regulatory criteria is an "open dump" subject to closure.

There is nothing in the statute that requires notification at an earlier time, although prudent owner/operators are likely to post relevant documentation well in advance of construction so that closure is not required after substantial construction has occurred. Any speculation that a given judge will be reluctant to enforce the law as required because the operator has initiated -- or even completed -- construction, is just that, speculation.

Environmental-Petitioners next assert that the "situation is even worse for lateral expansions of existing impoundments and landfills," contending that no

internet posting is required for certifications of compliance with liner requirements of lateral expansions of existing units. Env. Br. 49. But that is not accurate. Environmental-Petitioners may be confused by the reference to a “new unit” in 40 C.F.R. §§257.107(f)(1),(2). But those provisions call for publication of the certifications required under 40 C.F.R. §§257.105(f)(1),(3), which in turn refer to the certifications required under 40 C.F.R. §§257.70(a)(1),(e),(f). These provisions expressly call for liner certifications for the “construction of the CCR landfill or any *lateral expansion* of a CCR landfill.” *Id.* (emphasis added). And the definition of “new CCR landfill” expressly includes the “lateral expansion of a CCR landfill.” 40 C.F.R. §573.53. Indeed, Environmental-Petitioners state on a different page of their brief that this certification applies to lateral expansions and must be published to the website. Env. Br. 48.

Turning to location criteria, Environmental-Petitioners recognize that an owner/operator must publish notice of compliance with such criteria within 30 days of placing location certifications in its operating record. Env. Br. 49-50, citing §257.107(d) and (e). Environmental-Petitioners complain, however, that those certifications will not be available until after CCR is placed in the unit. *Id.* But while in some instances this may occur, EPA does not expect this to be normal practice or that the delay will be substantial. The location or “siting” provisions cited by Environmental-Petitioners prohibit the facilities from placing any CCR in

the unit unless they have obtained the relevant certifications. 40 C.F.R.

§§257.60(c)(5)-63(c)(5). Thus, such certifications must be obtained before operations have begun.

The certifications must be placed in the operating record “as it becomes available” and posted to the website within 30 days thereafter. 40 C.F.R. §§257.105(e), 257.107(d). In normal circumstances, facilities will take care to obtain the certification well before scheduling the initial receipt of CCR, to ensure they will be able to put waste into the unit. EPA expects that in many circumstances, there will be a sufficient amount of time between the certification and the initial receipt of CCR that the public posting will be made either before operations begin, or very shortly thereafter.

Finally, Environmental-Petitioners argue, in a single sentence, that the Rule fails to provide timely notice regarding compliance with structural integrity criteria, air criteria, run-off and run-on controls, hydrologic capacity requirements for impoundments, and groundwater monitoring systems. Env. Br. 50.

Environmental-Petitioners provide no argument, no explanation of how or why notice is inadequate, or even references to what the notice requirements or timing are. As this Court has explained:

“In this circuit, it is not enough merely to mention a possible argument in the most skeletal way, leaving the court to do counsel’s work, create the ossature for the argument, and put flesh on its bones.” *Davis v. Pension Benefit Guar. Corp.*, 734 F.3d 1161, 1166-67 (D.C.

Cir. 2013). Two sentences of argument, a threadbare conclusion, and a handful of marginally relevant citations do not provide us with enough to adequately assess the strength of their legal conclusions.

*Allaithi v. Rumsfeld*, 753 F.3d 1327, 1334 (D.C. Cir. 2014). *See also, Bode & Grenier, LLP v. Knight*, 808 F.3d 852, 861 (D.C. Cir. 2015); *Anna Jaques Hosp. v. Sebelius*, 583 F.3d 1, 7 (D.C. Cir. 2009) (“We will not consider ‘asserted but unanalyzed’ arguments”). With no basis to even address this allegation, Environmental-Petitioners’ claim should be denied.

### **CONCLUSION**

For the foregoing reasons, all elements of the Rule discussed herein should be upheld and the Petitions should be denied.

Respectfully submitted,

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**CERTIFICATE OF COMPLIANCE UNDER FED. R. APP. P. 37(A)(7)(b)**

This brief complies with the type-volume limitation of Fed. R. App. P. 32 (a)(7)(B) and this Court's briefing order because this brief contains 23,905 words, excluding the parts of the brief exempt under Fed. R. App. P. 32 (a)(7)(B)(iii).

This brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the typeface style requirements of Fed. R. App. P. 32(a)(6) because the brief was prepared in proportionally spaced typeface using Microsoft Word 14 point Times New Roman type.

So certified this 18<sup>th</sup> day of April, 2016 by

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**CERTIFICATE OF SERVICE**

I hereby certify that the foregoing Brief of Respondent Environmental Protection Agency was electronically filed with the Clerk of the Court using the CM/ECF system, which will send notification of said filing to the attorneys of record for Petitioners and all other parties, who have registered with the Court's CM/ECF system.

Date: April 18, 2016

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