

November 14, 2011

Hazardous and Solid Waste Management System: Identification
and Listing of Special Wastes; Disposal of Coal Combustion Residuals
from Electric Utilities: Notice of Data Availability and Request for Comment
Attention Docket ID No. EPA-HQ-RCRA-2011-0392
Environmental Protection Agency
Mailcode: 28221T
1200 Pennsylvania Ave., NW
Washington, DC 20460

Re: Comments on EPA's *Notice of Data Availability* for the proposed rulemaking for *Hazardous and Solid Waste Management System: Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals from Electric Utilities* (Docket ID # EPA-HQ-RCRA-2011-0392)

Dear Madam/Sir:

The Association of State and Territorial Solid Waste Management Officials (ASTSWMO) offers the following comments on EPA's *Notice of Data Availability* for the proposed rulemaking for the *Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes: Disposal of Coal Combustion Residuals from Electric Utilities* published in the Federal Register on October 12, 2011 (75 FR 63252).

ASTSWMO's members are responsible for State solid and hazardous waste management programs, including environmental remediation, recycling, and beneficial use. As such, they have a significant interest in the Environmental Protection Agency's (EPA's) final determination with respect to regulating the disposal of coal combustion residuals (CCR). Please note that these comments are submitted on behalf of the Association. Individual State waste programs may also submit comments to EPA based on their State program perspectives and experiences in managing CCRs.

Please do not hesitate to contact me (406-444-6748) or ASTSWMO Executive Director Mary Zdanowicz (202-624-5351) if you have any questions or need any additional information.

Sincerely,



Ed Thamke (MT)
ASTSWMO President

Enclosure:

Comments on Damage Cases (Trans- Ash Landfill, Benton County, Tennessee Class II Disposal Facility & Tennessee Valley Authority, John Sevier Fossil Plant, Class II Disposal Facility)

*Hazardous and Solid Waste Management System:
Identification and Listing of Special Wastes;
Disposal of Coal Combustion Residuals from Electric Utilities:
Notice of Data Availability and Request for Comment
(Docket ID # EPA-HQ-RCRA-2011-0392)*

ASTSWMO COMMENTS

VII. ADEQUACY OF STATE PROGRAMS

EPA is noticing the comments on the 2010 proposed rule, submitted by Earthjustice, Environmental Integrity Project, Sierra Club, Natural Resources Defense Council, Southern Alliance for Clean Energy, Southern Environmental Law Center, and Physicians for Social Responsibility Document No. EPA-HQ-RCRA-2009-0640-6315), addressing gaps in state government regulatory programs applicable to the management of CCRs (pgs. 17-63): (hereinafter, "Earthjustice" or "Earthjustice Comments").

OVERVIEW

In these comments, ASTSWMO directly addresses the criticism of State programs for the management of coal combustion residuals (CCR) in the Earthjustice Comments. However, there is simply not enough time to analyze and comment on *every claim* that Earthjustice makes about *each aspect of individual State programs*. Nor is there time to assess the validity of Earthjustice's reliance on the reports and studies that are cited to support claims made in their Comments.

Before addressing some of the specifics, there are several recurring themes in the Earthjustice Comments that warrant notice first. The problems outlined below are important because they cast a shadow of doubt over the reliability of the Comments. The following themes are pervasive enough that the end user of the information presented in Earthjustice's Comments should closely scrutinize it, keeping in mind the deficiencies described below.

1. A statement based on a cited reference is ***incorrect***:

Earthjustice Comment:

"The 2010 RIA, prepared by the EPA's Office of Resource Conservation & Recovery ... updated the 2005 DPRA Report's examination of the regulatory programs of 34 states."¹

Fact Check:

The 2005 data is not updated. The tables identifying the State regulatory requirements are identical in the two reports.

The tables are identified as Exhibits 2-1 through 2-3 in the 2005 report and Exhibits E-1 through E-4 in the 2010 report.

2. A conclusion that Earthjustice draws from a referenced report **contradicts** the conclusion in the report itself:

Earthjustice Comment:

“As EPA’s own reports have revealed, the discretion given to state regulators and the variances that they subsequently grant may significantly compromise the safety of a waste disposal unit.”²

Fact Check:

The DOE/EPA Report expresses confidence in the exercise of discretion:

“A detailed analysis of variance requests in 65 permits in 16 states indicates that state regulators have not issued variances unless a sound scientific basis supports the request.”³

3. The content in a cited reference is **exaggerated**:

Earthjustice Comment:

“In its May 2000 Regulatory Determination, EPA expressed significant concern about the lack of adequate state regulation of CCR disposal.”⁴ Citing to the Notice of Regulatory Determination on Wastes from the Combustion of Fossil Fuels (May 2000)⁵

Fact Check:

The only related comment at the cited page in the reference does not express a significant concern:

“Our ongoing review will include consideration of: (3) the adequacy of existing state and/or federal regulation of these wastes.”⁶

Furthermore, the following statement on page 32217, the page previous to the page cited in the 2000 Determination, contradicts the Earthjustice description of the referenced document:

“given most of the states’ current regulatory capabilities and the evidence that basic controls are increasingly being put in place by the states...”⁷

4. Earthjustice interpretation of information is **too literal**:

Earthjustice Comment:

“For landfills, the 2006 DOE/EPA Report found that:

- No state surveyed requires a composite liner for all coal ash landfills.”⁸

Fact Check:

The DOE/EPA Report lists States with a composite liner requirement. For example:

“Missouri - Utility waste landfill: Composite or clay liner meeting required thickness, compaction percentage, and hydraulic conductivity specifications.”⁹

In Earthjustice’s evaluation of program requirements, anything that is *not mandatory is not considered a requirement*. Because Missouri allows an alternative to a composite liner if technical specifications are met, it is considered a State that does not have a composite liner requirement.

5. Earthjustice is ***inconsistent*** in the way that certain standards are used to form conclusions:

Earthjustice Comments:

1. “The 2006 DOE/EPA Report’s conclusion that ‘improved disposal unit management practices and state application of environmental regulations appear to be occurring’ is based largely on a narrow sample of permitted new or expanded units in 11 states.”¹⁰
2. The 2006 DOE/EPA reviewed permit variances in 9 States which Earthjustice finds sufficient to “reveal that when state law gives regulators discretion to waive basic safeguards such as liners and cover, the states use that discretion liberally.”¹¹

Fact Check:

In the first example, Earthjustice criticized the authors’ ***positive finding*** based on a review of a small number of States (11). In the second example, Earthjustice draws a sweeping ***negative conclusion*** based on a review of nine States.

Earthjustice Comments vs. the Referenced DOE/EPA Report

As noted previously, there is simply not enough time to perform a comprehensive critical analysis of Earthjustice’s comments. ***Five substantive problems*** were identified in a single paragraph (below) in which Earthjustice attempted to rely upon information in a technical report to substantiate its claims. This suggests that every paragraph in Earthjustice’s comments should be scrutinized to be certain that its claims hold up. However, to do so for a 102-page Comment would require more time than was allotted for this response.

Side-by-Side Comparison of one paragraph (below) from the Earthjustice Comments vs. the Referenced DOE/EPA Report

Paragraph from Page 18-19 Earthjustice Comments:

"The 2006 DOE/EPA Report, which reviewed in detail the regulatory frameworks of 11 states, also documented continuing substantial deficiencies in state regulation of CCR management. The report found that between 1999 and 2005 none of the states surveyed tightened regulatory controls on CCR landfill disposal; that is, no state added specific requirements governing liners, groundwater monitoring, leachate collection, closure and postclosure, siting, and financial assurance since the 2000 Regulatory Determination. In addition, the report identified four states (Alabama, Florida, Illinois, and Texas) that had relaxed certain CCR disposal controls since 1988. According to the EPA, these four states collectively were responsible for generating 26.4 million tons of CCR, approximately 19% of total CCR generation in 2005."

| Earth Justice Comments | DOE/EPA Report (page from DOD/EPA Report) |
|---|--|
| "The 2006 DOE/EPA Report ... documented continuing substantial deficiencies in state regulation of CCR management." ¹² | "the absence of details ... in most States reviewed in the 1999 RTC ... made it difficult to ascertain whether regulatory changes occurred ... for the majority of the States." "it was possible to confirm that, during the period between data collection for the 1988 RTC and 2005, the regulation of landfill liners, leachate collection systems, and groundwater monitoring tightened in most States reviewed. " ¹³ |
| " reviewed in detail the regulatory frameworks of 11 States. " ¹⁴ | Detailed review was performed for only 5 States ¹⁵ |
| "The report found that between 1999 and 2005 none of the states surveyed tightened regulatory controls on CCR landfill disposal." ¹⁶ | "For the period between collection of data for the 1999 RTC and 2005, the change observed was neutral for either all or all but one State. " ¹⁷ Wisconsin tightened the regulatory designation of CCW and Missouri tightened solid waste permitting. ¹⁸ |
| " no state added specific requirements governing liners, groundwater monitoring, leachate collection, closure and postclosure, siting, and financial assurance." ¹⁹ | Two states added requirements not listed in the statement (regulatory determination of CCW and permitting); five States were not evaluated for closure and postclosure, siting, and financial assurance requirements. ²⁰ |
| The four states that relaxed controls "were responsible for generating 26.4 million tons of CCR, approximately 19% of the total CCR generated in 2005." ²¹ | The eight States that tightened controls were responsible for generating 62 million tons of CCR, approximately 44% of the total CCR generated in 2005. ²² |

RESPONSE TO SPECIFIC CRITICISMS OF STATE PROGRAMS

Earthjustice's Reliance on Previous EPA Reports is Misplaced

Earthjustice relies on three EPA reports that describe aspects of State CCR disposal programs to document what it characterizes as “Substantial Gaps Persisting in State Regulatory Programs.” However, the conclusions drawn about State programs in pages 17-21 of the Earthjustice Comments are not supported by the information in the cited reports.

The first report is a joint study conducted by the Department of Energy (DOE) and the Environmental Protection Agency (EPA) to determine what progress had been made in CCR management practices since EPA’s 1999 Report to Congress (hereinafter, DOE/EPA Report²³). Both industry practices and State regulatory requirements were evaluated. The State regulatory evaluation was based on information collected in 2005.

The second is a report prepared by DPRA Incorporated in 2005 (hereinafter, DPRA Report²⁴) to perform a cost estimate for regulatory proposals for the management of CCR based on Part 258 which were under consideration by EPA. State regulations for the top 34 coal usage States were reviewed to determine what groundwater monitoring and environmental control requirements for CCR landfills and surface impoundments were in place. The existing State regulatory requirements were compared with the regulatory requirements in EPA’s proposal to determine the potential cost of implementing the proposed regulatory scheme.

The third report is the 2010 Regulatory Impact Analysis prepared by EPA (hereinafter, 2010 RIA²⁵) to evaluate the expected regulatory compliance costs, economic and environmental benefits, and potential impact on CCR beneficial use of EPA’s June 21, 2010 proposed regulation of coal combustion residual (CCR) disposal by coal-fired electric utility plants. The analysis was based on the 2005 data collection about State regulatory program requirements that was used in the DPRA Report.

None of the reports can be said to represent current “persisting” gaps because the information characterizing State programs was gathered 6 years ago or more. It is not accurate to assume that State CCR regulatory programs have been stagnant for such a long period of time. If anything, the 2006 DOE/EPA report documented improvements in State programs over the study period:

“Therefore, from these data it was possible to confirm that, during the period between data collection for the 1988 RTC and 2005, the regulation of landfill liners, leachate collection systems, and groundwater monitoring tightened in most States reviewed.”²⁶

Earthjustice also claims that a “finding” in the reports is “that state regulations routinely lack requirements for essential safeguards for the disposal of CCR in landfills and surface impoundments.”²⁷ This suggests that the purpose of the reports was to evaluate whether the State regulations provided “essential safeguards.” Neither report contained any subjective review or analysis of the regulations. The findings in both reports were limited to conclusions about the cost of regulatory proposals or changes in the regulation and implementation of CCR disposal requirements. None of the reports drew any conclusions comparable to that which is claimed by Earthjustice.

2010 Regulatory Impact Analysis Is Not an “Updated” Reflection of State Regulatory Programs

Earthjustice mistakenly claims that the 2010 RIA updates the examination of State regulatory programs that was performed in the 2005 regulatory cost estimate (DPRA Report):

“The 2010 RIA, prepared by the EPA’s Office of Resource Conservation & Recovery, illustrates a shocking absence of CCR disposal requirements across the nation. The report updated the 2005 DPRA Report’s examination of the regulatory programs of 34 states.”²⁸

If Earthjustice was correct in saying that the 2005 data was updated for the 2010 report, it would indeed show an absence of improvements in CCR programs. However, the data was not updated for the 2010 report. Both the 2005 and 2010 reports contain tables listing the minimum State groundwater monitoring criteria and minimum State engineering controls for CCR landfills and surface impoundments. The data presented is **exactly the same** in the 2005 report (Exhibits 2-1 through 2-3) and the 2010 report (Exhibits E-1 through E-4). In other words, the characterization of State programs was not updated and Earthjustice relies upon outdated information to characterize the current state of regulatory programs. It is not likely that Earthjustice deliberately misrepresented the facts. But failing to accurately identify the nature of the data that it relied upon weighs heavily against the credibility of the Earthjustice Comments.

Additionally, the data collection is inaccurately portrayed as a survey, which might suggest a greater likelihood that the information was accurate if provided by the States. In fact, the information is based on a 3rd party review of State regulations, which alone may not accurately reflect program requirements, such as permit conditions.²⁹

Compounding the problem is the fact that Earthjustice’s summary of the raw data does not match the data itself. For example, Earthjustice reports that “85 percent of the states surveyed do not require groundwater monitoring and leachate collection at all surface impoundments (both new and existing).”³⁰ The implication is that only 15 percent of States require groundwater monitoring and leachate collection at surface impoundments. However, according to the reported data, 50 percent of the States required groundwater monitoring for surface impoundments and 41 percent required leachate collection. The Earthjustice summary of the raw data underestimates the adequacy of State programs by a significant margin.

Contrary to Earthjustice’s claim, the five year span between the 2005 and 2010 EPA reports cannot be used to characterize stagnancy in State CCR disposal programs because the data used in both reports are from the same point in time.

2006 DOE/EPA Report Documents More Improvements Than Deficiencies in State Programs

The third report that Earthjustice includes among the EPA analyses claimed to “reveal that states have not improved their regulations to close these gaps over the last decade”³¹ is the 2006 DOE/EPA report. It is correct to characterize this report as an analysis of State program requirements over time and can rightly be used to evaluate the progress that States have made. The initial objective of the study was to compare current CCR related regulatory requirements with comparable information from earlier

reports. In light of this, the EPA revisited information already available from other sources about current State CCW regulatory programs and concluded that its priority should be on updating *how States were actually implementing programs*, rather than simply gathering further information on State regulations.

Based on a re-evaluation of a subset of State CCR disposal programs (11 out of 24 States) that had been evaluated previously in 1988 and 1999, the authors of the report concluded, in part, that “For the period between collection of data for the 1999 [Report to Congress] and 2005, the change observed was “neutral” for either all or all but one State in every category of regulatory control.”³² As noted previously, Earthjustice relies upon this single statement in a 286 page report to support the implication that States have not improved their CCR programs since 2000. From this, Earthjustice draws the conclusion that:

“no state added specific requirements governing liners, groundwater monitoring, leachate collection, closure and postclosure, siting, and financial assurance since the 2000 Regulatory Determination.”³³

However, the DOE/EPA report is more subtle and does not support Earthjustice’s conclusion:

“This suggests that the absence of details about regulatory controls in most states reviewed in the 1999 RTC and its supporting technical documents made it difficult to ascertain whether regulatory changes occurred before or after data were collected for the 1999 RTC for the majority of the states.”³⁴

There are additional reasons for conclusion that the data in the report is insufficient to characterize the progress that States have made since 2000:

1. An evaluation of 11 States is not enough to make any assumptions about the progress in all State programs;
2. The data is not current; it as collected at least six years ago and State programs have changed during that time.

The Earthjustice statement above is not the only selective use of information in the report. For example:

Earthjustice report of a negative finding in the DOE/EPA Report:

“The report found that a **substantial percentage of the large coal ash-producing states** evaluated **failed to mandate one of the most basic mechanisms for regulating waste disposal**, namely the authority to permit CCR landfills and surface impoundments.”
Earthjustice Comments, page 19

A related positive finding in the DOE/EPA Report:

“The comparisons suggest that in all eight of the areas of regulatory control reviewed, **more net disposable CCWs** in the States reviewed **underwent a tightening of regulatory controls** than underwent a relaxation between the times data were collected for the 1988 RTC and for this report.” DOE/EPA Report, page 50

Earthjustice report of a negative finding in the DOE/EPA Report:

“Table 20 in the report identifies an additional three states (Colorado, Maryland, and Utah) that exempt on-site CCR landfills from state solid waste permitting requirements.”
Earthjustice Comments, page 19

A related positive finding in the DOE/EPA Report:

“Table 20 Identifies 30 States that Do Not Exempt On-Site CCW Landfills from State Solid Waste Permitting Requirements.” DOE/EPA Report, page 50

Earthjustice report of a negative finding in the DOE/EPA Report:

The report found that a substantial percentage of the large coal ash-producing states evaluated failed to mandate one of the most basic mechanisms for regulating waste disposal, namely the authority to permit CCR landfills and surface impoundments.
Earthjustice Comments, page 19

A related positive finding in the DOE/EPA Report:

The report identified only 2 states out of 38 that do not permit CCR landfills (Table 20)
DOE/EPA Report, page 50

In general, Earthjustice selectively uses only the facts that support its case.

ASTSWMO Survey Revisited

Earthjustice cites select data from a survey that ASTSWMO performed and submitted to EPA prior to the June 21, 2010 proposal. Although it is in the Docket for the proposed rule, the survey data was not intended to be taken as official comments to the proposal. As Earthjustice notes, “it is not clear from the ASTSWMO survey how many states responded, so these percentages may”³⁵ provide an accurate picture of State regulatory requirements.

ASTSWMO has since reexamined the data and the results are presented below. It should be noted that ASTSWMO and the States do not limit data presentation to those aspects of the programs that “look good.” While State programs are far better than portrayed in the Earthjustice Comments, most States would agree that improvements can be made.

Based on information ASTSWMO received in response to a survey of States, following are answers to questions relevant to the adequacy of State programs:

How many States currently generate coal combustion residuals?

Forty-five States generate coal combustion residuals (CCR). Not all States in which CCR is generated have disposal of CCR. CCR is disposed in only 42 of those States.

ASTSWMO does not have the information for 3 of the 42 States in which CCR is disposed. Additionally, ASTSWMO may not have complete information for all 39 of the remaining States. For each question presented, the number of States that ASTSWMO has information for is provided with the information that is available for those States.

How many States require permits for disposal?

Thirty-six out of 42 States require permits for disposal of CCR in landfills. Twenty-nine out of 32 States require permits for the management of CCR in surface impoundments. In some States, the permits may not be specifically for disposal of CCR in surface impoundments. In those cases, the permit may be for effluent discharge.

In the States that require permits for disposal of coal combustion residuals, what are the liner requirements?

ASTSWMO has information about landfill liner requirements for 38 States. In 27 of the 38 States, a bottom liner is required for landfills. Eleven of the 38 States do not require a bottom liner. Seven of those 11 States make a determination about requiring a bottom liner on a case-by-case basis. Liner requirements in 32 States are as follows: dual/multiple liner in 9 States; composite liner in 14 States; clay liner in 7; and 2 States require another type of liner. Variances are allowed in 23 States and exemptions in 7 States. Liner requirements apply to both existing and new lateral expansions of landfills in 13 States and only new expansions in 23 States.

ASTSWMO has information about surface impoundment liner requirements for 26 States. In 17 of the 26 States, a bottom liner is required for surface impoundments. Eleven of the 26 States do not require a bottom liner. Five of those States make a determination about requiring a bottom liner on a case-by-case basis. Liner requirements in 19 States are as follows: dual/multiple liner in 9 States; composite liner in 5 States; clay liner in 5 States. Variances are allowed in 7 States and exemptions in 3 States. Liner requirements apply to both existing and new lateral expansions of surface impoundments in 12 States and only new expansions in 9 States.

In each of the States that require permits for disposal of coal combustion residuals, what are the groundwater monitoring requirements?

ASTSWMO has information about landfill groundwater monitoring requirements for 39 States. In 34 of the 39 States, groundwater monitoring is required for landfills. Five of the 39 States do not require groundwater monitoring. Groundwater monitoring requirements apply to both existing and new lateral expansions of landfills in 32 States and only new expansions in 4 States.

ASTSWMO has information about surface impoundment groundwater monitoring requirements for 27 States. In 18 of the 27 States, groundwater monitoring is required for surface impoundments. Nine of the 27 States do not require groundwater monitoring. Six of those 9 States make a determination about requiring groundwater monitoring on a case-by-case basis. Groundwater monitoring requirements apply to both existing and new lateral expansions of surface impoundments in 20 States and only new expansions in 3 States.

In each of the States that require permits for disposal of coal combustion residuals, what are the requirements or regulations regarding structural stability?

ASTSWMO has information about landfill structural stability monitoring requirements for 36 States. In 30 of the 36 States, structural stability monitoring is required for landfills. Six of the 36 States do not require structural stability monitoring. Structural stability monitoring requirements apply to both existing and new lateral expansions of landfills in 26 States and only new expansions in 7 States.

ASTSWMO has information about surface impoundment structural stability monitoring requirements for 25 States. In 16 of the 25 States, structural stability monitoring is required for surface impoundments. Seven of the 25 States do not require structural stability monitoring. Two of the 7 States make a determination about requiring structural stability monitoring on a case-by-case basis. Structural stability monitoring requirements apply to both existing and new lateral expansions of surface impoundments in 13 States and only new expansions in 3 States.

How is CCR disposal regulated in the States?

In many States, the authority to regulate surface impoundments is vested in other State agencies pursuant to statutes other than solid waste statutes. While it may be other State agencies that have enforcement authority for surface impoundments, 43 out of 44 States indicated that they coordinate with the enforcing entities to require that steps are taken to protect human health and the environment.

Despite the concerns expressed in the proposed rule, the State enforcing entities in 42 out of 42 States have the authority to require remediation. The majority of State agencies noted State authority for surface impoundments include repair and maintenance during operation (43 out of 44 States) and closure (41 out of 43 States), as well as:

- impoundment design and engineering
- leachate collection
- gas collection
- groundwater and leachate monitoring
- financial assurance
- post-closure care and maintenance
- removal
- replacement of water supply

Earthjustice's Evaluation of Regulatory Requirements is Unconventional

Variances and Exceptions to Regulatory Requirements

Earthjustice criticizes the 2010 RIA (that it relies upon to show the deficiencies in States programs) in terms of how it deals with variances and exemptions. Earthjustice asserts that EPA:

“drastically ***underestimates the inadequacy of state regulations*** by ignoring exemptions from and opportunities for variance of state regulatory requirements and ***by failing to distinguish***

between the mandatory requirement of essential safeguards and state standards that are merely discretionary.

That is, if a State requires groundwater monitoring but allows a variance of a monitoring requirement, Earthjustice does not credit that State program with requiring groundwater monitoring. Earthjustice's overview of State CCR regulatory requirements, presented in Table 1 in the Comments and elsewhere in the report, only include States with **mandatory** requirements, not those that have requirements that may be waived under certain conditions, such as site-specific characteristics.

While it may be technically correct to characterize only "mandatory" specifications as "requirements," it is not the common understanding when it comes to characterizing a regulatory program. Not only is Earthjustice's interpretation of what constitutes a program "requirement" unusual, it is contrary to the statute that governs disposal - the Resource Conservation and Recovery Act (RCRA). Section 3004(x) of RCRA allows for the modification of certain requirements, such as liners and groundwater monitoring:

"to take into account the special characteristics of such wastes, the practical difficulties associated with implementation of such requirements, and site-specific characteristics, including, but not limited to, climate, geology, hydrology, and soil chemistry at the site."

The difference in Earthjustice's interpretation of a program requirement is subtle but critical - States that require groundwater monitoring, but may grant a variance under certain conditions, are not included in its inventory of States in Table 1. As a result, the information in Table 1, and elsewhere in the Comments, is unsuitable for EPA's evaluation of the Adequacy of State Programs, provided that analysis is to be done in a manner that is consistent with RCRA.

Earthjustice's unconventional methods for evaluating State Programs are not obvious; it requires a lot of reading-between-the-lines to understand. Clarifying Earthjustice's definition of a "program requirement" as one that is mandatory and does not allow for variances explains, in part, why so many States disagree with Earthjustice's characterization of their program requirements. Using conventional measures, the Earthjustice Comments ***underestimate the adequacy of State programs.***

Issuance of Permit Variances

The DOE/EPA Report includes the results of a comprehensive review of 65 permits, covering 39 newly constructed or expanded units in 16 States during the timeframe of 1994 to 2004. The purpose of the review was to evaluate the implementation of State requirements. As Earthjustice notes, of the 52 variance requests identified, 5 were rejected and 47 were granted. Relying exclusively upon a quantitative review (47 out of 52 variances were granted), Earthjustice concludes that the report ignores the discretionary nature of the State programs, thereby grossly exaggerating the effectiveness of State programs.³⁶

Earthjustice's comments about the analysis of State permit variances in the DOE/EPA Report provide another example of the rigidity of Earthjustice's standards for evaluating State programs. Earthjustice presumes that all variances are harmful, without explaining how and without distinguishing between the different types of variances analyzed in the report (which range from those that are related to construction and monitoring requirements to those that are inherently innocuous because they do not apply to coal ash disposal, such as "methane gas control"):

“the discretion given to state regulators and the variances that they subsequently grant may significantly compromise the safety of a waste disposal unit.”³⁷

However, the authors of the DOE/EPA report concluded:

“A detailed analysis of variance requests in 65 permits in 16 States indicates that State regulators have not issued variances unless a sound scientific basis supports the request. Variances are generally granted only when the underlying regulation was developed for settings unlike those of CCW units (e.g., a municipal solid waste or commercial landfill where landfill gas or vectors are issues), or when the operator has demonstrated that an alternative approach or material will achieve the same objective as intended by the regulation.”

This conclusion also dispels Earthjustice’s claims, based on the report, that:

“These variances reveal that when state law gives regulators discretion to waive basic safeguards such as liners and cover, the states use that discretion liberally.”

and

“As EPA’s own reports have revealed, the discretion given to state regulators and the variances that they subsequently grant may significantly compromise the safety of a waste disposal unit.”

While the DOE/EPA report did not evaluate permits in enough States to draw any broad conclusions, the authors did state that the “data and analyses documented in this report provide new information that appears to show improved management of CCWs in both landfills and surface impoundments.”

Earthjustice’s Characterization of State Programs is Plagued with Problems

Earthjustice presents the results of its “Earthjustice 2010 37-State Review” of groundwater and liner requirements for landfills and surface impoundments in Tables 25, 26 and 27 (pages 39-45). The 37 States are those that were evaluated in 2005 and reported in the 2010 RIA. Earthjustice chose those States for purposes of comparison with EPA’s report.

Table 25 lists, side-by-side, the results reported in the 2010 RIA and the Earthjustice 2010 evaluations of State groundwater monitoring requirements for landfills. The results are so different that it appears that they found the exact opposite results. The 2010 RIA reports that **31 States do** require groundwater monitoring while Earthjustice reports that **30 States do not** require groundwater monitoring. Upon closer review, it is apparent that the Table is comparing two different types of data. The 2010 RIA reports States that have a groundwater monitoring requirement. Earthjustice only counts those States that require groundwater monitoring without exception. Fortunately, Earthjustice identifies the States that allow for a variance or discretion. If those States are included in Earthjustice’s count, the number of States that require groundwater monitoring increases significantly: 25 States require groundwater monitoring; 5 States exempt on-site disposal; and 2 States exempt monofills. According to the reported results, 5 States do not require groundwater monitoring. These results reflect more closely the results of the 2010 RIA, although not all are correct.

The strict interpretation of the groundwater “requirements” is not the only deficiency in the Earthjustice State Review. The review appears to be based on State regulations only. However, State management practices extend beyond what is explicitly specified in regulations.

Regulation by Permit

Kentucky is listed as having no liner requirements for disposal of CCR in landfills. Bruce Scott, Commissioner of the Kentucky Department of Environmental Protection, explained:

“While our regulations do not currently explicitly require liners, CCR landfills being permitted are including liners. There has not been a recent regulation revision. However, the Solid Waste Branch currently works with requests for CCR landfills and routinely requires liners for landfills in individual permits as a means to protect groundwater resources.

The Division of Waste Management (DWM) regulates CCR in two ways:

1. CCR is regulated as a special waste under KRS 224.50-760. Special waste permits for coal ash landfills are permitted consistent with 401 KAR Chapter 45, specifically 401 KAR 45:110 for design and 201 KAR 45:160 for groundwater monitoring.
2. Surface impoundments or ash ponds are authorized under a “permit-by-rule” consistent with 401 KAR 45:060 if the ash pond has an active NPDES (KPDES) permit.
3. There are 20 coal-fired power generating stations in Kentucky with a combined total of 13 landfills and 43 ash ponds managing CCR as a special waste. All of our CCR management requests of recent years and currently (6 pending) have been for CCR management in landfills where liners are being designed/permitted.”³⁸

Guidance Documents

Texas is listed as having neither liner nor groundwater monitoring requirements for surface impoundments. Texas characterizes waste as Class 1, 2, or 3 wastes. CCRs are a Class 2 waste pursuant to the Texas Administrative Code.³⁹ The Texas Commission on Environmental Quality provides a series of Technical Guidance Documents⁴⁰ to assist in the preparation of permit applications for the different Class landfills. Technical Guideline No. 4 applies to Nonhazardous Industrial Solid Waste Surface Impoundments. For a Class 2 surface impoundment, liner recommendations include Geomembrane (polyethylene 60 mil, other types 30 mil) and underlying leak detection system; or Compacted clay (2 feet); or Equivalent in-situ clay; or GCL overlain by protective soil (1 foot). Ground-water monitoring wells are recommended for all Class 1 and Class 2 sites, in addition to leak detection systems. TCEQ guidance for landfills receiving Class 1 and Class 2 wastes recommends a composite liner (compacted clay immediately beneath a synthetic membrane liner). While it is correct to say that the Guidelines are not mandatory, it is certainly a factor in permit decisions.

Statutory and Regulatory Revisions

Recently, States have advanced the regulation of CCR by statute or regulations. The Earthjustice State Review does not account for these developments, some of which occurred after its Comments were submitted. Some of the States that have adopted changes are identified below.

Earthjustice Prediction of States That Will Not Adopt Subtitle D Criteria Failed

In an elaborate evaluation, based in part on EPA's analysis in the 2010 RIA, Earthjustice makes predictions about the likelihood of States adopting EPA's June 21, 2010 Subtitle D proposal. The analysis is so convoluted and subjective that it is difficult to analyze. However, a critique of its method is not necessary, because the conclusions it draws about States have already been proved inaccurate.

Statutory Revisions

Alabama is at the top of the list of States that Earthjustice predicts are not expected to Implement Subtitle D requirements. Alabama is the State that Earthjustice typically uses to characterize the deficiencies in State CCR programs. Earthjustice notes repeatedly in their comments (at least six times⁴¹) that Alabama law exempts CCR from regulation. The implication is that Alabama exemplifies the States' reluctance to regulate CCR. Earthjustice recently identified Alabama as one of the *12 Most Dangerous States* "representing the worst of the worst when it comes to coal-ash disposal."⁴² In the report, which was published in August 2011, Earthjustice failed to acknowledge, or was unaware of, a significant change in Alabama's law governing the regulation of CCR disposal.

On May 25, 2011, Governor Robert Bentley signed a law that removes the exemption for coal combustion by-products from regulation as a solid waste.⁴³ Not only did Alabama elect to regulate coal ash as a solid waste effective immediately, it specifically authorized the future adoption and implementation of a federal regulatory program for disposal of CCR:

Upon the adoption and implementation of a federal regulatory program to govern the disposal of coal combustion by-products pursuant in whole or in part to Subtitle D of the Solid Waste Disposal Act, 42 U.S.C. §6941 et seq., the department is authorized to develop and adopt rules as necessary to implement a state regulatory program consistent with the federal requirements. Until such federal program requirements shall take effect, the disposal of coal combustion by-products shall be subject to the applicable requirements of this article.

Earthjustice's recent portrayal of Alabama as the worst State in its *State of Failure* report is unfounded, as is the characterization of States as being incapable and unwilling to regulate CCRs in a safe manner. Furthermore, it raises doubts about Earthjustice's ability to evaluate the progress that States have made improving their CCR programs.

Regulatory Revisions

Maryland - On December 1, 2008, Maryland adopted a new Chapter to its regulations governing solid waste disposal. The Chapter, entitled *Management of Coal Combustion Byproducts*, governs the disposal

of and prescribes requirements for permitting, construction, monitoring, etc. The regulation establishes specific criteria for granting a variance:

The Department may grant a variance if the basis for the variance application is demonstrated to the satisfaction of the Department to:

- (1) Provide equal or greater protection to prevent a release or discharge of coal combustion byproducts to the environment as would be provided by compliance with the regulation for which a variance is requested;
- (2) Conserve and protect the public health, the natural resources, and the environment of the State; and
- (3) Control pollution to at least the same extent as would be obtained by compliance with the regulation for which a variance is requested.⁴⁴

Pennsylvania – On December 11, 2010, Pennsylvania adopted comprehensive regulations for the storage, disposal and beneficial use of CCR. It is worth noting that the Background to the Final Rulemaking⁴⁵ indicates that “the Department ... had several meetings with citizens representing Earthjustice and the Environmental Integrity Project.”

Iowa - Iowa was in the process of developing a proposal to regulate coal ash disposal when EPA published the proposed rule on June 21, 2010. Consequently, Iowa postponed its rulemaking pending the outcome of the EPA regulatory proposal.⁴⁶

State Support for Federal Subtitle D Regulation

States have expressed overwhelming support for federal Subtitle D regulation of CCR. However, as demonstrated by Iowa’s experience, it is unlikely that States will proceed with regulations *until* it is clear what the course of federal regulation of CCR will be.

There are recent indications that States would adopt a federal proposal for Subtitle D regulation of CCR. There has been significant State support for the *Coal Residuals Reuse and Management Act* (H.R. 2273), which provides a federal framework for State regulation of CCR patterned after Subtitle D, Part 258 regulations. H.R. 2273 is considered more effective than EPA’s June 21, 2010 Subtitle D proposal, because, among other things, it provides for the implementation of State permitting programs.

Commonwealth of Virginia Governor Robert F. McDonnell wrote a letter of support for H.R. 2273 on October 11, 2011 recognizing that the bill’s State permit program:

“is a realistic approach to dealing with CCR and ***although it will require effort to implement in Virginia,it would provide the appropriate and necessary protection for Virginia’s environment and citizens ...***” [emphasis added]

The Governor’s letter acknowledges the required “effort to implement” the proposed permit program not only for its benefits to human health and the environment, but to avoid the negative impacts of Subtitle C regulation.

Numerous States wrote in support of H.R. 2273. States have also expressed their support in their response to this NODA:

Ohio letter to RCRA Docket ID# EPA-HQ-RCRA-2011-0392 dated October 28, 2011:

“Ohio is supportive of a subtitle D regulatory approach either through U.S. EPA rule adoption or passage of the Coal Residuals Reuse and Management Act (HR 2273).”

Pennsylvania’s letter to Docket ID# EPA-HQ-RCRA-2011-0392 dated November 8, 2011:

“Pennsylvania’s experience is a testament to how well and how responsively the individual states can and do regulate in this area. Indeed, as Pennsylvania’s experience with Chapter 290 demonstrates, the states are better and more agile at doing so than is the federal government, which is one of the main underpinnings of HR 2273 recently passed by the House of Representatives. HR 2273 would provide general management guidelines under which states would be able to implement environmentally protective programs that meet individual state needs, a much better approach than designating a non-hazardous material a hazardous waste.”

COMMENT REGARDING THE BRIEF COMMENT PERIOD

The decision about federal regulation of CCR will have far-reaching implications for State waste management programs. ASTSWMO has used the limited time of the comment period for the NODA to focus our response on one aspect, the adequacy of State programs, given the critical importance of this issue to our members. Our lack of comments regarding other aspects of the NODA, such as beneficial use, should not be interpreted as a lack of interest in those areas. On the contrary, the areas on which the NODA invited comment are of broad interest to our members. ASTSWMO was not able to provide comments as complete and comprehensive as we would have liked in light of the 30-day comment period.

CONCLUSIONS

The Earthjustice Comments drastically underestimate the adequacy of State coal combustion residuals management programs in two ways. The manner in which Earthjustice uses information from reports and studies casts a shadow of doubt over the reliability of their Comments. The recurring themes in their comments include: drawing conclusions that contradict the conclusions in the reports themselves; exaggerating the content in a cited reference; interpreting referenced information incorrectly; and interpreting referenced information too literally. As a result, information about State programs is interpreted in a way that makes the programs appear to be less effective than actually reported. Another significant issue is that the methods that Earthjustice uses to evaluate State programs are unconventional. It is not obvious and it requires a lot of reading-between-the-lines to understand that Earthjustice’s definition of a “program requirement” is one that is mandatory and does not allow for variances. Earthjustice’s interpretation is contrary to the statute that governs disposal - the Resource Conservation and Recovery Act –which provides in Section 3004(x) that specific characteristics of waste of disposal sites may be taken into account to modify certain requirements, such as liners and groundwater monitoring. The Earthjustice review of State programs did not include the many State management practices that extend beyond what is explicitly specified in State regulations.

ASTSWMO places a very high priority on our relationship with our Federal EPA partners and we have always valued opportunities to interact and achieve solutions that are in the best interest of United States citizens for whom we serve. Few things have galvanized our organization as this proposed rulemaking. The notion that somehow States are incapable of performing our statutory responsibilities to protect human health and environment is inaccurate and, frankly, insulting. State regulators live, work, and play where authority is applied and we not only have professional and ethical interests, but are morally vested in our land and communities.

¹ Earthjustice Comments, page 18

² Earthjustice Comments, page 23

³ Doe/EPA Report, page 67

⁴ Earthjustice Comments, page 17

⁵ 65 FR 32214, 32218

⁶ 65 FR 32214, 32218

⁷ 65 FR 32214, 32217

⁸ Earthjustice Comments, page 19

⁹ DOE/EPA Report, Table A.6., page 29

¹⁰ Earthjustice Comments, page 21

¹¹ Earthjustice Comments, page 23

¹² Earthjustice Comments, page 18

¹³ DOE/EPA Report, page A-63

¹⁴ Earthjustice Comments, page 18

¹⁵ DOE/EPA Report, Table 18, page 41

¹⁶ Earthjustice Comments, page 18

¹⁷ DOE/EPA Report, page 48

¹⁸ DOE/EPA Report, Table 22, page 49

¹⁹ Earthjustice Comments, page 18

²⁰ DOE/EPA Report, Table 18, page 41 and Table 22, page 49

²¹ Earthjustice Comments, page 19

²² DOE/EPA Report, Table 22, page 49 and 2010 RIA, Exhibit 3D

²³ Dep't of Energy and EPA, Coal Combustion Waste Management at Landfills and Surface Impoundments, 1994-2004 (Aug. 2006), available at www.regulations.gov (Document ID No. EPA-HQ-RCRA-2006-0796-0002)

²⁴ DPRA Inc., Estimation of Costs for Regulating Fossil Fuel Combustion Ash Management at Large Electric Utilities Under Part 258 (Nov. 30, 2005), available at www.regulations.gov (Document ID No. EPA-HQ-RCRA-2006-0796-0469)

²⁵ Office of Res. Conservation & Recovery, U.S. EPA, Regulatory Impact Analysis for EPA's Proposed RCRA Regulation of Coal Combustion Residues (CCR) Generated by the Electric Utility Industry (Doc. No. EPA-HQ-RCRA-2009-0640-0003) (Apr. 2010), available at www.regulations.gov

²⁶ DOE/EPA Report, page 48

²⁷ Earthjustice Comments, page 18

²⁸ Earthjustice Comments, page 18

²⁹ DPRA Report, page 2-2

³⁰ Earthjustice Comments, page 18

³¹ Earthjustice Comments, page 4

³² DOE/EPA Report, page 48

³³ Earthjustice Comments, page 18

³⁴ DOE/EPA Report, page 48

³⁵ Earthjustice Comments, page 19

³⁶ Earthjustice Comments, page 23

³⁷ Earthjustice Comments, page 23

³⁸ E-mail correspondence with R. Bruce R. Scott, Commissioner, Kentucky Department for the Environment, November 10, 2011.

³⁹ Texas Administrative Code **§335.1(20)**

⁴⁰ Texas Commission on Environmental Quality, Hazardous and Industrial Waste - Technical Guidance Document Index at http://www.tceq.texas.gov/permitting/waste_permits/iHW_permits/tech_guidance_index.html

⁴¹ Repetitive references to Alabama's lack of regulation of coal ash in the Earthjustice Comments. Citations from Docket # EPA-HQ-RCRA-2009-0640-6315.:

Pg. 19 - excludes all CCR from its definition of solid waste; thus, solid waste permits are not required for CCR disposal;

Pg. 22 - excluded completely from regulation;

Pg. 25 - exempt coal ash completely from regulation as a solid waste, leaving the disposal of CCR virtually unregulated;

Pg. 25 - completely exempt all or most of coal ash disposal from regulation;

Pg. 26 - exclude CCR from the definition of solid waste; and

Pg. 49 - no regulations whatsoever that apply to coal ash.

⁴² "State of Failure: How states fail to protect our health and drinking water from toxic coal ash." Earthjustice and Appalachian Mountain Advocates, August 17, 2011

⁴³ Alabama Act 2011-258, HB50, amends Sections 22-27-2 and 22-27-3, Code of Alabama 1975, to remove an existing exemption from regulation for fly ash waste, bottom ash waste, boiler slag waste, and flue gas emission control wastes which result primarily from the combustion of coal or other fossil fuels at electric generating plants. The act also authorizes the regulation of these substances as a solid waste and, to the extent permissible under federal law, to allow beneficial uses of coal combustion by-products as an alternative to disposal as part of any adopted state program. EFFECTIVE DATE: May 25, 2011 <http://e-lobbyist.com/gaits/text/286329>

⁴⁴ COMAR 26.04.10.07

⁴⁵ <http://www.pabulletin.com/secure/data/vol40/40-50/2359.html>

⁴⁶ E-mail correspondence with Brian Tormey, Chief, Land Quality Bureau, Iowa Department of Natural Resources, November 10, 2011