

ONE HUNDRED TWELFTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
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MEMORANDUM

October 7, 2011

To: Committee on Energy and Commerce Members and Staff

Fr: Committee on Energy and Commerce Democratic Staff

Re: EPA Technical Assistance on H.R. 2273, the “Coal Residuals Reuse and Management Act”

On September 26, 2011, the Energy and Commerce Committee reported H.R. 2273, the “Coal Residuals Reuse and Management Act.” No hearing was ever held on H.R. 2273. In fact, the final text of H.R. 2273 was made available to the Committee members only moments before it was voted to be reported. As a result, there was significant disagreement and confusion as to the practical effect of this legislation during the full committee markup.

In order to better understand how H.R. 2273 would be implemented and its strengths and weaknesses, Rep. Waxman requested a technical analysis of the legislation from the U.S. Environmental Protection Agency. That technical assistance is attached.

As you will see from EPA’s analysis, H.R. 2273 in its current form has many shortcomings. The most significant concerns raised by the technical assistance are as follows:

- **H.R. 2273 does not establish any legal standard for state programs.** Under each of our environmental laws, Congress has established a legal standard when delegating programs to the states. These standards are the yardsticks by which it is determined whether a state’s efforts measure up and they ensure a consistent level of effort and protection throughout the nation. This approach has worked well, because it prevents a race to the bottom among the states in which a state willing to have the laxest protections becomes the dumping ground for the nation.

In the case of municipal solid waste, the legal standard is “protect human health and the environment,” but under H.R. 2273, this standard does not apply to coal combustion residuals (CCR). According to EPA, “the absence of an explicit legal standard of protection will significantly complicate EPA’s ability to effectively determine that a state program is deficient under section (d).”

- **H.R. 2273 will not ensure structural integrity of wet impoundments.** H.R. 2273 requires that structures, including wet impoundments, be designed, constructed, and maintained in accordance with generally accepted engineering standards to contain “the maximum volumes of coal combustion residuals appropriate for the structure.” These impoundments, however, are often used for other purposes too, such as a repository for storm runoff, and there is no requirement that they be built and maintained to contain the actual volumes of liquid they will hold. According to EPA, this will exclude “several key design requirements that relate to the long-term structural stability of a surface impoundment.”
- **H.R. 2273 will not ensure groundwater protection or require necessary dust controls.** According to the EPA, “the bill would not require facilities to conduct ‘assessment monitoring’ for the following constituents or parameters that are particularly associated with coal ash: aluminum, boron, chloride, fluoride, iron, manganese, molybdenum, ph, sulfate, and total dissolved solids.” This failure, if not addressed by changes to the legislation, “could result in further contamination of groundwater and surface water resources to levels that exceed safe drinking water maximum contaminant levels.” Another deficiency, according to EPA, is that the bill does “not establish any minimum Federal requirement specific to dust control. Consequently, the bill would not require all CCR landfills to control fugitive dust by covering or managing CCR to control wind dispersal, wetting CCR to control wind dispersal, or requiring storage in tanks or buildings.”
- **H.R. 2273 does not ensure other appropriate criteria for disposal of coal ash.** Because of its toxic constituents, coal ash poses different disposal challenges than municipal solid waste. In addition to needing different standards for groundwater monitoring and dust control than conventional solid waste facilities, coal ash sites also need tailored requirements relating to runoff controls, disease vectors, and waste handling. According to EPA, however, “EPA is not authorized under H.R. 2273 to develop criteria that are specific to CCR.” EPA states that the bill contains no requirements or authority for EPA to promulgate requirements “relating to run on or runoff control systems, procedures for receipt or handling of wastes, or controls to protect surface water, among others.”

- **H.R. 2273 does not authorize meaningful review of state programs.**
According to EPA, “H.R. 2273 does not grant EPA the authority to meaningfully evaluate the substance or adequacy of state coal combustion residuals programs.”
There are multiple provisions in the legislation that work together to limit the effectiveness of EPA’s review. They include a requirement that EPA “defer” to state officials, broad authority for states to waive requirements of the legislation, a time-consuming and cumbersome procedure for EPA to override state determinations, and the absence of requirements that state officials notify EPA of changes in their policies.

If you have questions, please contact Jacqueline Cohen or Kelley Greenman with the Committee Democratic staff, at 5-4407.

**EPA Response to Chairman Waxman
Technical Assistance on H.R. 2273
September 2011**

These comments are being provided to Committee staff solely as EPA technical drafting assistance. The comments should not be construed in any way as representing the policy positions of the Agency or the Administration on this bill.

Question 1: Appropriate Criteria: Existing criteria in place for municipal solid waste disposal were developed to protect human health and the environment from the risks associated with disposal of municipal solid waste. EPA's regulatory proposals sought to develop specific criteria to protect human health and the environment from the risks associated with disposal of CCR. Why is this important, and does H.R. 2273 instruct EPA or the states to develop protective criteria for CCR disposal?

Response: CCRs are different in many respects from municipal solid waste (MSW); the CCR contaminants of concern are generally aluminum, arsenic, boron, cadmium, chloride, fluoride, iron, lead, manganese, mercury, molybdenum, and sulfate. The MSW criteria required in the bill will address a number of the release pathways to help protect public health and the environment, however, more complete protection can be achieved by tailoring the requirements to the specific waste streams being managed. This is one of the reasons EPA included specific criteria for CCR disposal in its proposed rule.

H.R. 2273 does not require states to develop protective criteria that are specific to CCR disposal. The bill identifies specific elements that a state permit program must include, except as noted below, and directly incorporates certain provisions of the Resource Conservation and Recovery Act (RCRA) 40 CFR Part 258 regulations for municipal solid waste landfills. Some of the bill elements are so specific that no additional criteria could be issued; for example section (c)(1)(E) requires that new CCR disposal units be “constructed [with] a minimum of two feet above the upper limit of the natural water table.” Other provisions grant states more discretion in determining the precise requirements. States may, but are not required to, modify or tailor the part 258 criteria to address the disposal of CCRs. Although the bill expressly preserves the states’ right to regulate more stringently, it also authorizes the states to modify or waive one or more of the permit program requirements in section (c)(2) provided the state determines that such provision(s) are not needed for the management of CCRs in that state. It is unclear whether states may waive the requirements in section (c)(1)(B) or (E)-(G).

EPA is not authorized under H.R. 2273 to develop criteria that are specific to CCRs. Rather, it appears that EPA must rely exclusively on a subset of the existing regulatory requirements in 40 CFR Part 258 identified in the bill, but without any modifications to address issues specific to CCRs. In addition, because the 40 CFR Part 258 criteria were only designed to address landfills, the bill does not authorize EPA to revise or tailor the existing requirements to address the specific risks associated with surface impoundments, other than with respect to those relating to dam stability that are identified in section (c)(1)(B), and possibly, the criteria in section (c)(1)(E).

Question 2: Legal Standard. Under the existing program for municipal solid waste, state permit programs are required to meet a legal standard of protection. Specifically, the programs must "protect human health and the environment." Why is this important, and does H.R. 2273 require state permit programs for CCR to meet a legal standard of protection? If so, what is that standard?

Response: H.R. 2273 does not explicitly establish a legal standard of protection that state permit programs must meet. Instead, the bill identifies specific elements that a state permit program must include, and directly incorporates a subset of the existing Part 258 regulations applicable to municipal solid waste landfills.

Because the bill language is based upon the existing Part 258 municipal solid waste provisions, one can interpret the bill as implicitly incorporating the safety standard in RCRA section 4010(c). However, the bill allows states significant discretion in developing a permit program that contains the minimum elements. In particular, the bill allows states to "decline to apply" the minimum criteria established in section (c)(2) based on a finding that the requirement(s) "is not needed for the management of coal combustion residuals in that state." Although the bill provides that EPA may consider that to be a deficiency in the state's implementation of its permit program, the bill does not provide a clear standard against which to make that determination (*i.e.*, it fails to establish a minimum legal standard). Instead, subsection (c)(3) provides that EPA is to determine whether "a state determination under this paragraph does not accurately reflect the needs for management of coal combustion residuals in the State." At a minimum, the absence of an explicit legal standard of protection will significantly complicate EPA's ability to effectively determine that a state program is deficient under section (d).

EPA's determination is complicated by the provision in section (i)(2), establishing an open-ended, general directive that EPA defer to the states "with respect to the regulation of [CCRs]." Because this provision is so broadly worded, it is unclear how it is intended to relate to EPA's ability to determine a state program is deficient.

Question 3: Regular Inspections: EPA's regulatory proposals would require periodic inspections of wet impoundments. Why is this important and does H.R. 2273 require wet impoundments to be periodically inspected?

Response: As a general matter, periodic inspections enable potential deficiencies to be discovered and corrective measures taken before serious consequences, such as catastrophic failures or major releases, occur. Thus, routine inspections are a cost-effective prevention measure and are generally included throughout environmental regulations. Moreover, there are many studies that show a positive relationship between inspections and improved compliance with environmental or other regulations.

Section (c)(1)(G) of H.R. 2273 requires that a state have the authority "to inspect structures." In addition section (c)(1)(B) requires that each structure covered by a permit program must "in accordance with generally accepted engineering standards for the

structural integrity... [be] maintained...” thus routine inspections can be considered to be one of the “generally accepted engineering standards.” Based on both of these provisions, a state program would be required to include some requirements relating to the need for periodic inspections, but as long as the state program included any inspection requirements, it would be consistent with the bill. However, it is not clear whether a state may waive these requirements.

Question 4: Dust Control. EPA's regulatory proposals would require CCR landfills to control fugitive dust by covering or managing CCR to control wind dispersal, wetting CCR to control wind dispersal, or requiring storage in tanks or buildings. Why is this important and does H.R. 2273 require dust control?

Response: The bill establishes requirements relating to the control of fugitive dust at CCR facilities, but would not cover all of the activities identified in the question. H.R. 2273 requires state CCR regulatory programs to adopt the existing 40 CFR Part 258 requirements for dust and particulates. These requirements are only associated with disposal activities, and require compliance with requirements that might be established under a Clean Air Act (CAA) State Implementation Plan (SIP), but do not establish any minimum Federal requirement specific to dust control. Consequently, the bill would not require all CCR landfills to control fugitive dust by covering or managing CCR to control wind dispersal, wetting CCR to control wind dispersal, or requiring storage in tanks or buildings. In addition, as stated previously, the bill authorizes states to determine whether certain requirements are “not needed for the management of CCR in that State.” By contrast, EPA’s proposed rule would establish a minimum safety standard requiring CCR units to ensure that fugitive dusts not exceed 35µg/m³ or an alternate standard established under a SIP.

As previously noted, EPA would be restricted to following the existing Part 258 requirements in an EPA-implemented program for managing CCR. H.R. 2273 does not grant EPA authority to regulate the storage and transportation of CCRs, including the authority to control airborne dust and particulate matter from these activities. Consequently, while states could choose to adopt more stringent measures such as requiring storage in tanks or buildings, EPA could not impose such a requirement under an EPA-implemented program.

Question 5: Groundwater Monitoring: EPA's regulatory proposals would require groundwater monitoring to detect and assess contamination with constituents specific to CCRs. The list of constituents proposed to be required to be monitored during detection monitoring would be boron, chloride, conductivity, fluoride, pH, sulphate, sulfide, and total dissolved solids. The constituents proposed to be required to be monitored during assessment monitoring would be aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chloride, chromium, copper, fluoride, iron, lead, manganese, mercury, molybdenum, pH, selenium, sulphate, sulfide, thallium, and total dissolved solids. Why is this important and does H.R. 2273 require detection and assessment monitoring of these constituents?

Response: H.R. 2273 would require detection monitoring for all of the CCR constituents included in EPA's proposed rule: boron, chloride, conductivity, fluoride, pH, sulphate, sulfide, and total dissolved solids. However, subsection (c)(2)(A)(ii) (2) of the bill restricts assessment monitoring to the constituents required under the existing 40 CFR Part 258 municipal solid waste regulations. This would require facilities to monitor for constituents (such as volatile organics) that are not likely to be present in CCR wastes, and omits certain CCR constituents. Therefore, the bill would not require facilities to conduct "assessment monitoring" for the following constituents or parameters that are particularly associated with CCRs: aluminum, boron, chloride, fluoride, iron, manganese, molybdenum, ph, sulfate, and total dissolved solids. Failure to require comprehensive assessment monitoring as required under EPA's CCR proposal could result in further contamination of groundwater and surface water resources to levels that exceed safe drinking water maximum contaminant levels (MCLs).

Question 6: Impoundment Volume: EPA's subtitle D proposal would require that wet impoundments be designed for the maximum volume of CCR that will be impounded. Why is this important and would H.R. 2273 require impoundments to be designed for the maximum volume of CCR they will contain?

Response: Subsection (c)(1)(B) includes a general requirement that a CCR structure be "designed, constructed and maintained" in accordance with generally accepted engineering standards.¹ However, this only requires that the structure account for some of the material in the unit--the maximum volume of CCRs appropriate for the structure--without regard for the water or slurry contained in the unit, or for any stormwater runoff that the unit would also need to accommodate. Because of this omission, there are several key design requirements that relate to the long-term structural stability of a surface impoundment that state programs would not be required to include, and that could not be required in an EPA-implemented program, thus making it more difficult to ensure the structural integrity of surface impoundments. These requirements include: maintaining adequate slope protection to protect against surface erosion, specific upstream and downstream embankment slope ratios and slope stability analyses conducted in accordance with U.S. Army Corps of Engineers specifications, a minimum static safety factor and seismic safety factor, faces of embankments and surrounding areas vegetated or riprapped, and certification by a registered engineer that the design of the surface impoundment is in accordance with current, prudent engineering practices for the maximum volume of waste and other material, such as water, sediment, and slurry that can be impounded and for the passage of runoff from the designed storm which exceeds the capacity of the impoundment.

Question 7: Operating Criteria: EPA's regulatory proposals would require wet impoundments to meet operating criteria based on the long-standing Mine Safety and

¹ H.R. 2273 contains some additional provisions relating to the design of CCR units. However, those provisions expressly restrict the revised criteria for new CCR disposal units to the existing "design requirements described in section 258.40." [section (c)(2)(A)(i)] These requirements were designed to address the risks from landfills, rather than surface impoundments, and so would not authorize the kind of requirements addressed by the question.

Health Administration requirements. These operating criteria address risks posed by the day-to-day operation of wet impoundments, such as runoff from impoundments. Why is this important and does H.R. 2273 apply those or other operating criteria?

Response: EPA proposed the operating criteria to prevent catastrophic releases based on the Mine Safety and Health Administration's (MSHA) requirements. The MSHA regulations were created as a result of the dam failure at Buffalo Creek, West Virginia on February 26, 1972, which released 138 million gallons of stormwater run-off and fine coal refuse and resulted in 125 persons being killed, another 1,000 injured, more than 500 homes demolished, and nearly 1,000 others damaged.

Neither subsection (c)(1) nor (2) of the bill establish minimum operating requirements applicable to CCR disposal units or directly incorporate the MSHA requirements. Sections (c)(1)(B), (E), and (G) impose some requirements that relate to the long-term structural stability of surface impoundments, but those requirements are not as protective as the MSHA requirements. In addition, subsection (c)(2)(B)—which references specifically identified provisions in the existing Part 258 regulations—omits most of the existing Part 258 operating criteria. Thus, in any EPA implemented program, neither landfills nor surface impoundments would be required to comply with requirements relating to run on or runoff control systems, procedures for receipt or handling of wastes, or controls to protect surface water, among others. Nor would a state program be required to address these issues, although it would have the authority to do so.

Question 8: Review of State Programs: Under the existing program for municipal solid waste, the Administrator is required to review state permit programs and disapprove inadequate programs. Why is this important and does H.R. 2273 include such a requirement?

EPA review of state programs helps ensure a minimum level of protection of public health and the environment that is consistent in all states. While H.R. 2273 provides that EPA review state permit programs and disapprove inadequate programs, the bill contains limitations on EPA's authority to review state programs. Further, because the bill does not provide EPA with independent authority to inspect and take enforcement action when a program is being implemented by the state, should problems arise, these limitations are compounded.

RCRA provides EPA the authority to review and approve state municipal solid waste landfill permitting programs. However, H.R. 2273 does not grant EPA the authority to meaningfully evaluate the substance or adequacy of state CCR programs at the time of the initial certification—that is, at the time a state submits a certification, and prior to state implementation of the permitting program. The bill provisions that appear to contemplate EPA evaluation of the adequacy of a state program (sections (d), (e) & (f)) only apply after the state begins implementation of their program. In addition, EPA can only evaluate the state's implementation of the CCR permit program, as opposed to the regulations that have been promulgated by the state to implement the program. Finally, as noted previously, although EPA may evaluate a state's decision to waive some of the

mandatory criteria, the bill also generally requires EPA to defer to states, so it will significantly complicate EPA's ability to effectively determine that a state program is deficient.

In addition, as subsection (d)(2)(B) is currently drafted, there will likely be a significant delay before EPA can begin to assume implementation of an inadequate program. EPA can only find a state program to be substantively deficient based on the state's implementation. Such an evaluation could only occur after EPA had allowed a reasonable period of time for the state to implement its program. Further, even after EPA determines that a state's implementation of the permit program is deficient, the procedures in the draft bill could create further significant delay. EPA must establish a deadline to remedy the deficiencies "in collaboration with the state." Because EPA may not begin to implement the program until a state misses that deadline, and after the conclusion of any judicial challenge brought by a state, there is likely to be a significant delay before EPA can begin to assume implementation of the program.

Question 9: Notification of Unneeded Requirements: H.R. 2273 authorizes a state to decline to apply one or more of the listed requirements, if the state determines that the requirements are not needed. Notification of that determination would be provided to the EPA along with the state's required certification. Does H.R. 2273, as reported by the Committee, require a state to notify EPA or the public if it decides not to implement a requirement after its certification is filed?

Response: H.R. 2273 does not contain a requirement for a state to notify EPA or the public if it significantly revises its permit program after the initial certification, including if the state decided to waive a requirement pursuant to section (c)(3). However, EPA is required to issue a notice of deficiency at any time EPA determines that the state is not implementing a permit program consistent with the bill.

Question 10: Legal Standard for EPA in Non-Implementing States: If EPA implements a CCR permit program within a state, would H.R. 2273 require that federal program to meet any legal standard of protection?

Response: H.R. 2273 does not explicitly establish a legal standard of protection that an EPA-implemented permit program must meet. As discussed in our response to Question 2, it is possible to interpret the bill as implicitly incorporating the safety standard in section 4010(c) as a result of the bill's reliance on the existing Part 258 municipal solid waste requirements. In addition, under an EPA-implemented program, facilities would be subject to the specific requirements in the bill.

Question 11: EPA Authority in Non-Implementing States: H.R. 2273 explicitly preserves the existing authority of states to establish requirements for CCR disposal beyond those listed in the legislation. When EPA is the implementing agency, does H.R. 2273 authorize EPA to establish requirements beyond those listed in the legislation?

Response: H.R. 2273 does not authorize EPA to establish any requirements beyond those identified in the bill. As noted previously, EPA must rely exclusively on a subset of the existing regulatory requirements in 40 CFR Part 258 regulations, specific to municipal solid waste landfills, which were not developed to address the threats posed by CCR disposal. Nor could EPA rely on its existing RCRA authority to issue revised criteria that are specific to CCRs or to establish requirements beyond those in the bill.

Several provisions in the draft bill would prevent EPA from implementing additional requirements. Subsection (e)(2), which describes EPA's authority to implement the permit program, expressly provides that the permit program shall consist of the specifications described in subsection (c)(1). The use of the phrase "consist of" restricts EPA to a program that contains only the elements in sections (c)(1) and (c)(2). In addition, critical sections of the bill define the criteria solely in terms of the existing part 258 regulations. For example, section (c)(1)(C) states "The coal combustion residuals permit program shall apply the revised criteria promulgated pursuant to section 4010(c)..." Similarly, section (k)(4) of the bill defines "revised criteria" as the Part 258 regulations promulgated for municipal solid waste landfills under section 4010(c).

RCRA section 4010(c), the statutory provision that is the authority for the part 258 regulations, only authorizes EPA to establish disposal criteria for 2 classes of wastes: Conditionally Exempt Small Quantity Generator wastes and household hazardous wastes. The bill does not amend section 4010. Nor does the bill establish general requirements on which EPA could rely, in conjunction with its existing rulemaking authority under RCRA section 2002, to establish such standards. Even though subsections (c)(1)(C) and (c)(2)(A) establish a list of minimum requirements, as noted, other provisions clarify that these are to be exclusively defined in terms of the existing Part 258 regulations. See sections (k)(4) and (c)(2)(A)-(D).

The sole exception is related to the requirements for dam stability, identified in section (c)(1)(B), and possibly the criteria in section (c)(1)(E). These requirements are drafted in sufficiently broad terms that EPA could rely on its existing rulemaking authority in section 2002 of RCRA to define the specifics of those requirements.

The criteria outlined in the bill has several implications for EPA implementation of the bill. In the event that EPA implements a program from the onset, EPA would be unable to tailor any of the existing requirements to address the risks specific to the disposal of CCRs for either landfills or surface impoundments, other than with respect to those relating to dam stability that are identified in section (c)(1)(B), and possibly, the criteria in section (c)(1)(E). For example, the groundwater (assessment) monitoring requirements in H.R. 2273 omit several significant CCR constituents, and EPA could not remedy this omission. Failure to require comprehensive assessment monitoring could result in further contamination of groundwater and surface water resources to levels that exceed safe drinking water MCLs. Nor could EPA impose all of the structural stability requirements that would be necessary to help prevent surface impoundment failures.

Additional issues arise related to a state's authority to alter (or waive) the minimum requirements in subsection (c)(2), authority not given to EPA. Should EPA assume the implementation of a permit program in a given state, the requirements to which facilities will be subject will revert back to the minimum requirements provided expressly for in the bill. Subsection (e)(2) expressly provides that "if the Administrator implements a coal combustion program for a state under paragraph (1), such permit program shall consist of the specifications described in subsection (c)(1);" subsection (e)(3) is also limited to "the requirements of this section." In the event the state resumes implementation, presumably the requirements would again change, although the bill does not address this scenario.

While subsection (f)(3) provides for a transition period during which existing requirements (e.g., permits and orders) would continue, it appears that EPA would be unable to implement or enforce the permits or orders to the extent they are based on the modified state law. This is because subsections (e)(2) and (e)(3) restrict EPA's authority to implementing and enforcing the requirements of the legislation. Thus, for the transition period, it appears that there would be no oversight of a facility until EPA modified the individual permit or order under which the facility was operating. It is also unclear how this provision would affect a state's authority when it resumed implementation of the state program.