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# **Background on and Implementation of the Bevill and Bentsen Exclusions in the Resource Conservation and Recovery Act: EPA Authorities to Regulate “Special Wastes”**

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## Summary

The federal program to manage hazardous waste was established in 1976 by the Resource Conservation and Recovery Act (RCRA). Under RCRA Subtitle C, Congress directed the Environmental Protection Agency (EPA) to promulgate standards applicable to persons who generate, transport, treat, store, or dispose of such waste. Under the program, federal waste handling requirements govern every phase of waste management, from its generation to its final disposition and beyond (“cradle to grave”).

The stringent Subtitle C standards apply only to waste identified as “hazardous” according to regulatory criteria established by EPA. This report discusses waste excluded from the regulatory definition of hazardous waste pursuant to amendments to Subtitle C in the Solid Waste Disposal Act Amendments of 1980. Sometimes referred to by the names of their sponsors, Representative Thomas Bevill and Senator Lloyd Bentsen, the amendments exclude specific large-volume industrial solid waste from Subtitle C, as follows:

- **The Bevill Amendment**—fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels; solid waste from the extraction, beneficiation, and processing of ores and minerals, including phosphate rock and overburden from the mining of uranium ore; and cement kiln dust (42 U.S.C. §6921(b)(3)(A)(i)-(iii)).
- **The Bentsen Amendment**—drilling fluids, produced waters, and other wastes associated with the exploration, development, and production of crude oil or natural gas or geothermal energy (42 U.S.C. §6921(b)(2)(A)).

The exclusions were temporary, pending EPA study of each waste, followed by reports to Congress and regulatory determinations explaining whether or not regulation under Subtitle C was warranted.

### Regulatory Determinations for Bevill-Bentsen Waste

EPA issued regulatory determinations for each type of waste between 1988 and 2002. With limited exceptions, the agency determined that regulation under Subtitle C was not warranted. EPA noted that the exclusion is not equivalent to determining the waste is nonhazardous. EPA identified conditions under which management of each waste poses some threat to human health and the environment. The exemption meant that Subtitle C’s strict cradle-to-grave management may not be practical for the waste, but that other potentially applicable state or federal requirements could be adequate to address waste-specific risks. For example, wastewater excluded from Subtitle C may be subject to National Pollutant Discharge Elimination System permitting requirements established under the Clean Water Act (CWA) if its disposal involves discharge to surface water or processing at a municipal wastewater treatment facility.

### Existing EPA Authority to Regulate Bevill-Bentsen Waste

Two categories of Bevill-Bentsen wastes that have recently drawn national attention include wastewater generated from natural gas production that involves hydraulic fracturing and coal combustion waste (CCW) generated at coal-fired power plants (e.g., “coal ash”). That attention has been due, in part, to changes in the volume or nature of the waste or as a result of risks to human health and the environment associated with improper management of the waste.

The potential for EPA to regulate spent fracking fluid, CCW, or any other Bevill-Bentsen wastes has drawn the attention of some Members of Congress, generally for two opposing reasons: (1) given its current authority under RCRA, EPA may not be able to regulate the waste adequately to address risks associated with its disposal; or (2) given existing state and other federal requirements applicable to the management of the waste, EPA will subject the waste to unnecessary requirements that are costly and burdensome to states and to industry.

This report discusses EPA's existing authorities under RCRA Subtitle C (with regard to hazardous waste management) or Subtitle D (solid waste management) from which the agency could draw to establish new requirements applicable to Bevill or Bentsen wastes, including any limitations on its Subtitle C authorities established under the Bevill-Bentsen amendments. The report does not attempt to identify or discuss issues specific to each Bevill-Bentsen waste, such as risks associated with improper management, or what EPA has identified as improper management.

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## Introduction

The Resource Conservation and Recovery Act of 1976 (RCRA; 42 U.S.C. §6901 *et seq.*, as amended) is a comprehensive environmental statute that authorizes the Environmental Protection Agency (EPA) to regulate hazardous wastes in accordance with stringent waste management procedures, established largely in Subtitle C of the law.<sup>1</sup> Pursuant to explicit directives from Congress in that subtitle, EPA has promulgated and is authorized to enforce standards applicable to hazardous waste generators and transporters, and to owners and operators of hazardous waste treatment, storage, and disposal facilities (TSDFs).<sup>2</sup> This regulatory program is sometimes referred to as “cradle-to-grave” management.

RCRA does not identify which wastes are hazardous and therefore subject to Subtitle C regulation. Instead, Congress left that designation to EPA.<sup>3</sup> However, in 1980 amendments to RCRA, several categories of high-volume industrial waste were statutorily excluded from Subtitle C requirements, pending further study by EPA. Commonly referred to as the Bevill and Bentsen amendments, those exclusions are for waste generated from the exploration and production of crude oil or natural gas (“Bentsen waste”), and cement kiln dust, mining and mineral processing waste, and waste from the combustion of coal and other fossil fuels at electric utilities and industrial facilities (“Bevill waste”).

A key reason Bevill-Bentsen wastes were excluded from Subtitle C was because they were generated in tremendous amounts, particularly when compared to other waste intended to be regulated under Subtitle C. That remains the case today. In 2011, *all* regulated hazardous waste was produced by a total of 16,447 industrial waste generators, and totaled 34.3 million tons.<sup>4</sup> That year, there were 589 coal-fired power plants in the United States.<sup>5</sup> According to industry estimates, such plants generated approximately 130 million tons of coal combustion waste (CCW, a Bevill waste).<sup>6</sup> Other Bevill-Bentsen waste is generated in similarly large quantities.

EPA’s study of each waste, prepared in accordance with study criteria specified in each amendment, resulted in its determination that regulation under Subtitle C was not warranted for most Bevill-Bentsen wastes. With some exceptions, regulatory determinations were made for each waste between 1988 and 2002. Since that time, however, EPA has gathered additional information about some of the wastes, including information regarding changes in the waste’s volume and hazardous characteristics, as well as risks of and actual damages tied to the improper management of the waste.<sup>7</sup> One such case of actual damages occurred after a breach in an

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<sup>1</sup> 42 U. S. C. §§6921-6934.

<sup>2</sup> 42 U. S. C. §§6922-6924.

<sup>3</sup> 42 U. S. C. §6921(a); as reflected in regulations promulgated in 1980 at 40 C.F.R. Part 261.

<sup>4</sup> EPA’s “National Analysis: National Biennial RCRA Hazardous Waste Report (Based on 2011 Data).”

<sup>5</sup> U.S. Energy Information Administration, *Electric Power Annual*, data table 4.1, “Count of electric power industry power plants, by sector, by predominant energy sources within plant,” [http://www.eia.gov/electricity/annual/html/epa\\_04\\_01.html](http://www.eia.gov/electricity/annual/html/epa_04_01.html).

<sup>6</sup> American Coal Ash Association, “2011 Coal Combustion Product (CCP) Production & Use Survey Report,” available at <http://www.acaa-usa.org/associations/8003/files/Final2011CCPSurvey.pdf>.

<sup>7</sup> In both the statute and regulations implementing RCRA, the terms “proper” or “improper” are used in some form to refer to the methods used to treat, store, dispose, or otherwise manage solid and hazardous waste. Neither RCRA nor its implementing regulations explicitly define those terms. However, as the terms are used, improper waste management refers to practices that pose a threat to human health and the environment; proper management does not pose such a (continued...)

impoundment pond at the Tennessee Valley Authority's (TVA's) Kingston, TN, power plant released 1.1 billion gallons of coal ash slurry.

After the Kingston release, EPA revisited its May 2000 regulatory determination that Subtitle C requirements were not necessary for CCW. To establish national standards to address risks associated with the management of CCW, in June 2010 EPA proposed two regulatory options to manage the waste. Under the first option, EPA would reverse its previous Bevill determination and use its existing authority under Subtitle C to subject the waste to Subtitle C requirements, including tailored TSDF requirements applicable to "special waste."<sup>8</sup> Under the second option, EPA would promulgate regulations applicable to disposal facilities that receive CCW, pursuant to its authority under Subtitle D to manage solid waste. Under Subtitle D EPA is not authorized to directly enforce any new standards applicable to Bevill-Bentsen waste disposal. Instead, EPA would rely on states or citizens<sup>9</sup> to enforce those standards.

EPA's 2010 regulatory proposal (not yet finalized) illustrates potential authorities from which EPA could draw to regulate Bevill waste and, to a limited extent, Bentsen waste. Interested stakeholders, including some Members of Congress, have expressed concern over EPA's potential to apply any new federal requirements on any Bevill or Bentsen waste under Subtitles C or D.

The purpose of this report is to identify EPA's existing authorities to regulate the Bentsen or the Bevill waste, absent the provision of any additional authority or directive from Congress. The report also provides background on the Bevill and Bentsen amendments and EPA's authorities to regulate the waste pursuant to those amendments. The report discusses specific Bevill or Bentsen waste only as necessary to provide examples of recent issues that have called attention to the waste, particularly issues that may lead EPA to determine that new federal waste management requirements should be established for any one or more of the currently excluded wastes.<sup>10</sup>

## Background

RCRA is the primary federal law governing the management of solid and hazardous waste.<sup>11</sup> Enacted in 1976, RCRA recodified and amended the Solid Waste Disposal Act of 1965. The most

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threat (see 42 U.S.C. §6902(a)(5) and 40 C.F.R §§261.10(a)(1)(ii) and 261.11(a)(3)). Similarly, waste management requirements promulgated by EPA, pursuant to directive from Congress in Subtitle C, are those determined to protect human health and the environment from risks associated with improper waste management (i.e., the regulations specify how to properly manage hazardous waste).

<sup>8</sup> As explicitly authorized at 42 U. S. C. §6924(x).

<sup>9</sup> Pursuant to citizen suit provision in RCRA Section 7002 (42 U.S.C. §6972).

<sup>10</sup> For information on each Bevill-Bentsen waste, see EPA's "Special Waste" website at <http://www.epa.gov/osw/nonhaz/industrial/special/ckd/index.htm>. Information available on that site includes the legislative and regulatory timeline for each waste, including reports to Congress, regulatory determinations, and supporting technical documents.

<sup>11</sup> The term "solid waste management" is broadly defined in RCRA as "the systematic administration of activities which provide for the collection, source separation, storage, transportation, transfer, processing, treatment, and disposal of solid waste." The term "disposal" is defined, in part, as the discharge, deposit, dumping, or placing of any solid waste or hazardous waste into or on any land or water so that the waste or any constituent in that waste may enter the environment or be emitted into the air or discharged into any waters, including groundwaters (see definitions at RCRA Section 1004(3) and (28); 42 U.S.C. §6903(3) and (28)). That is, disposal is one of several activities that may be referred to as waste management.

significant aspect of RCRA's 1976 amendments was the establishment of the federal hazardous waste management program under Subtitle C. EPA has primary authority to implement the federal hazardous waste program,<sup>12</sup> but has developed procedures for states to become authorized to implement that program.<sup>13</sup> Most states have chosen to do so.<sup>14</sup>

Also significant was RCRA's prohibition on waste management practices that constitute open dumping of solid or hazardous waste, under Subtitle D.<sup>15</sup> In contrast to its authorities under Subtitle C, EPA has no authority to directly enforce any regulations it may establish for the management of solid waste under Subtitle D. Instead, states have primary authority to regulate solid waste.

## RCRA Subtitle C Requirements and "Special Waste"

Under Subtitle C of RCRA, Congress established a framework for EPA, or authorized states, to regulate hazardous waste from its initial point of generation to its ultimate point of disposal (and beyond, if disposal leads to contamination of air, soil, or water). This "cradle-to-grave" approach to managing hazardous waste is reflected in regulatory standards applicable to hazardous waste generators and transporters, and to owners and operators of hazardous waste treatment, storage, and disposal facilities (TSDFs).<sup>16</sup>

Regulations established under Subtitle C apply only to the management of solid waste identified as hazardous. Under Section 3001, EPA was required to promulgate criteria for identifying the characteristics of hazardous waste and for listing hazardous waste.<sup>17</sup> In developing those criteria, EPA was required to take into account factors including "toxicity, persistence, and degradability in nature, potential for accumulation in tissue, and other related factors such as flammability, corrosiveness, and other hazardous characteristics."<sup>18</sup>

In 1978, EPA proposed its "Hazardous Waste Guidelines and Regulations."<sup>19</sup> In the preamble, EPA identified the following solid wastes that, if deemed hazardous, it would defer from applying the full set of Subtitle C standards:<sup>20</sup>

- cement kiln dust;
- utility waste, including fly ash, bottom ash, and scrubber sludge;
- phosphate mining and processing waste;

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<sup>12</sup> 42 U.S.C. §§6927-28.

<sup>13</sup> Pursuant to 42 U.S.C. §§6926 and 6929.

<sup>14</sup> See EPA's "RCRA State Authorization" web page at <http://www.epa.gov/osw/laws-regs/state/index.htm>.

<sup>15</sup> 42 U.S.C. §6945.

<sup>16</sup> 42 U.S.C. §§6922-25.

<sup>17</sup> 42 U.S.C. §6921.

<sup>18</sup> 42 U.S.C. §6921(a).

<sup>19</sup> Environmental Protection Agency, "Hazardous Waste Guidelines and Regulations," 43 *Federal Register* 58946, 1978.

<sup>20</sup> *Id.* at 58991-58992.

- uranium and other mining waste; and
- oil drilling muds and oil production brines.

EPA stated that it had limited information about the waste. Information the agency did have indicated it “occurs in very large volumes, that the potential hazards posed by the waste are relatively low, and that the waste generally is not amenable to the control techniques developed by EPA [for TSDFs].” In the interim, EPA proposed a limited subset of Subtitle C standards (i.e., “special waste standards”) for owners and operators of TSDFs that receive special wastes.<sup>21</sup>

## The Bevill and Bentsen Amendments to Subtitle C

In the debate leading up to RCRA’s reauthorization in 1980, various issues and concerns were raised by some Members of Congress regarding the potential management of special waste (identified as such by EPA, but not necessarily by Members of Congress). If regulated or explicitly not regulated under Subtitle C, those concerns included the potential cost to industry, given uncertainties of risks associated with such wastes; conflicts with other federal law, such as wastewater treatment requirements being implemented under the Clean Water Act (CWA); and precedent that would be set by giving preferential treatment to certain industries to be exempt from strict Subtitle C requirements.<sup>22</sup>

Ultimately, the Solid Waste Disposal Act Amendments of 1980 (P.L. 96-482) included provisions commonly referred to as the Bentsen amendment and Bevill amendment, named for the sponsors of the amendments, Senator Lloyd Bentsen and Representative Thomas Bevill. Wastes excluded from Subtitle C pursuant to those amendments are similar to those identified by EPA as special waste. More specifically, the Bentsen amendment added Subsection 3001(b)(2), which excludes “drilling fluids, produced waters, and other wastes associated with the exploration, development, and production of crude oil or natural gas or geothermal energy” from Subtitle C requirements.<sup>23</sup> The Bevill amendment added Subsection 3001(b)(3) to exclude the following from Subtitle C:<sup>24</sup>

- fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated from the combustion of coal or other fossil fuels;
- solid waste from the extraction, beneficiation, and processing of ores and minerals, including phosphate rock and overburden from the mining of uranium ore; and
- cement kiln dust.

In lieu of Subtitle C requirements, the waste is subject only to regulation under other applicable state or federal law.<sup>25</sup> Exemptions for both the Bevill and Bentsen wastes would be held pending

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<sup>21</sup> *Id.* at 59015-59016.

<sup>22</sup> See *Congressional Record*, June 4, 1979, pp. 13242-13247.

<sup>23</sup> At 42 U.S.C. §6921(b)(2).

<sup>24</sup> Individual categories of Bevill wastes are listed at 42 U.S.C. §6921(b)(3)(A)(i)-(iii).

<sup>25</sup> Worded slightly differently in each exclusion, in lieu of Subtitle C requirements, the Bentsen amendment specifies that the waste “shall be subject only to existing State or Federal regulatory programs” (at 42 U.S.C. §6921(b)(2)(A)), and the Bevill amendment specifies that the waste “shall be subject only to regulation under other applicable provisions of Federal or State law” (at 42 U.S.C. §6921(b)(3)(A)).

further study by EPA.<sup>26</sup> After completing its study, EPA was required to report its findings to Congress; determine whether or not regulation under Subtitle C was warranted; and publish its regulatory determination in the *Federal Register*, with an explanation justifying its reasons.<sup>27</sup>

Over the next 20 years, with limited exceptions, EPA determined that regulation under Subtitle C was not warranted for each waste excluded under the Bevill and Bentsen amendments. Each determination to exempt the waste from the federal hazardous waste management program was not equivalent to determining each waste is nonhazardous or poses no potential hazard. Generally, for each waste, EPA identified hazardous constituents in the waste and conditions under which those constituents could find a pathway of exposure to humans at levels deemed unsafe. EPA also identified waste management practices that it found to be proper and improper (i.e., practices that generally would or would not result in threats to human health and the environment).

Exemption from Subtitle C does not mean the waste is unregulated. As noted above, the waste is subject to other state or federal regulatory requirements. Those “other” requirements would include any established by individual states, including requirements established under their solid waste management programs. Potentially applicable federal regulatory requirements include those established under the Clean Water Act (CWA) and Safe Drinking Water Act (SDWA). Commonly implemented by authorized states, both CWA and SDWA requirements apply to the management of some Bevill-Bentsen waste. For example, CWA requires that discharges of pollutants to surface waters (e.g., wastewater discharges to a river, bay, or ocean) must be authorized by a permit issued under the National Pollutant Discharge Elimination System (NPDES) program. Wastewater discharges to publicly owned treatment works (POTWs) are also subject to NPDES permitting requirements. Also, the SDWA regulates subsurface injection of fluids, including wastewater, pursuant to regulations established under the Underground Injection Control (UIC) program.

(A discussion of state and federal requirements potentially applicable to the management of Bevill-Bentsen waste is beyond the scope of this report. For information on how federal requirements may apply to the management of a Bentsen waste, see CRS Report R42333, *Marcellus Shale Gas: Development Potential and Water Management Issues and Laws*, by Mary Tiemann et al.)

## Recent Attention on Bevill-Bentsen Waste

Since EPA determined that regulation under Subtitle C was not warranted, various stakeholders representing environmental, public health, and industry groups have disagreed over whether the exclusion results in risks to human health and the environment. Those stakeholders, as well as EPA and state regulatory agencies, have disagreed on a wide range of issues, including the level of risk posed by the waste; whether or not existing state or other federal requirements are adequate to address risks associated with the waste; the degree to which there are gaps in local or state regulation of the waste; and whether regulation under Subtitle C is an appropriate mechanism to manage the waste. In recent years, issues common to that debate have been raised

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<sup>26</sup> Criteria that applied to EPA’s initial study of Bentsen waste are specified in 42 U.S.C. §6982(m); criteria that applied to EPA’s initial study of each Bevill waste are specified in 42 U.S.C. §6982(f),(n),(o), and (p).

<sup>27</sup> See directive in 42 U.S.C. §6921(b)(2)(B) for Bentsen waste; and 42 U.S.C. §6921(b)(3)(B) for Bevill waste.

with regard to two exclusions from Subtitle C—the Bentsen exclusion for waste generated from natural gas exploration and production (E&P waste), and the Bevill exclusion for CCW.

With regard to E&P waste, the recent increase in the use of hydraulic fracturing to extract natural gas from shale formations has resulted in a dramatic increase in the generation of associated wastewater. Neither the volume nor the nature of wastewater produced during shale gas extraction was considered by EPA in its 1988 regulatory determination for E&P waste. That is not to suggest that Subtitle C requirements necessarily provide the most appropriate mechanism to regulate such wastewater, but rather details specific to the waste as it is currently being produced were not considered when evaluating whether existing state or other federal requirements were adequate to protect human health and the environment from risks associated with managing the waste.<sup>28</sup>

The current approach to managing CCW has also drawn national attention in recent years. In 2008, a breach in a surface impoundment pond at the Tennessee Valley Authority's (TVA's) Kingston, TN, plant released 1.1 billion gallons of coal fly ash slurry. The release covered more than 300 acres and damaged or destroyed homes and property. Four years later, the spill is still being cleaned up, at an estimated cost of \$1.2 billion. According to EPA, however, a more common risk associated with the improper management of CCW is from the leaching of toxic constituents in the material (primarily heavy metals such as arsenic, selenium, and lead). To address those risks, in June 2010 EPA proposed for public comments two regulatory options to manage the waste, under its respective authorities under RCRA Subtitles C and D.<sup>29</sup> The options included in EPA's proposal provide an example of the agency's current authorities to regulate Bevill-excluded waste and, to a limited degree, Bentsen-excluded waste (discussed in the section "EPA Authorities to Regulate Bevill-Bentsen Waste").

Various stakeholders representing industry, state regulatory agencies, public health, and environmental groups, to name a few, reacted strongly to EPA's 2010 proposal to subject a Bevill waste to new RCRA requirements. Concerns raised by those stakeholders were also reflected in the reaction from some Members of Congress. For example, some Members expressed concern over the cost to industry and state regulatory agencies, as well as broader impacts to the economy, energy prices, or recycling opportunities. Others have expressed concern that, given the risk associated with improper management, Subtitle C provides EPA with the only available option to establish enforceable national standards to protect human health and the environment from risks associated with the waste. Similarly, EPA's lack of authority to enforce any regulations it may establish under Subtitle D has led some Members to oppose any proposal to regulate only solid waste disposal facilities that may receive the waste. Other Members have also expressed concern that subjecting industry to regulation, under Subtitle C or D, could prove burdensome to industry by expanding actions potentially subject to citizen suits under RCRA.

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<sup>28</sup> Pursuant to its authorities under the CWA, EPA is developing national standards that will apply to wastewater discharges produced by natural gas extraction from underground coalbed and shale formations. Information about EPA's proposed "Oil and Gas Extraction Effluent Guidelines" is available at <http://water.epa.gov/scitech/wastetech/guide/oilandgas/>.

<sup>29</sup> Environmental Protection Agency, "Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals From Electric Utilities," 75 *Federal Register* 35127, 2010. For detail on EPA's proposal, see CRS Report R41341, *EPA's Proposal to Regulate Coal Combustion Waste Disposal: Issues for Congress*, by Linda Luther.

## EPA Authorities to Regulate Bevill-Bentsen Waste

EPA's existing authority to subject Bevill-Bentsen waste to any new federal waste management requirements under RCRA is established under Subtitle C, subject to limitations specified in the Bevill and Bentsen amendments. EPA could also develop regulations applicable to solid waste disposal facilities that receive Bevill-Bentsen waste under its Subtitle D authorities.

### EPA Authority Under RCRA Subtitle C

In the future, under its Subtitle C authority, EPA could reverse previous regulatory determinations and promulgate regulations for any Bentsen-Bevill waste. EPA authority to implement those regulations is different under the Bevill and Bentsen amendments. Pursuant to the Bentsen amendment, if EPA determines that Subtitle C regulations are necessary, any regulations the agency may promulgate must be submitted to Congress. Those regulations could take effect, however, only when authorized by an act of Congress.<sup>30</sup> The Bevill amendment includes no explicit requirement that a separate act of Congress would be required before proposed regulations under Subtitle C could take effect.

The Hazardous and Solid Waste Amendments of 1984 (HSWA) amended RCRA in several key ways that are relevant to any future effort to regulate Bevill waste. In particular, amendments to Subtitle C directed EPA to strengthen the federal standards applicable to owners and operators of hazardous waste treatment, storage, and disposal facilities (TSDFs). Among the additions to Section 3004, EPA was required to promulgate regulations to prohibit the land disposal of hazardous wastes, including land disposal of bulk liquids, and required EPA to determine standards that could apply to deep-well injection of hazardous waste.<sup>31</sup> However, HSWA also added Subsection 3004(x) regarding standards for TSDFs that receive "mining and other special waste."<sup>32</sup> Under that provision, if EPA determines that any waste listed under the Bevill amendment is subject to Subtitle C, the agency is authorized to modify selected TSDF requirements applicable to landfills and surface impoundments that receive the waste. For example, EPA could modify the prohibition on land disposal and on liquids in landfills to take into consideration issues specific to each waste.

Given these existing requirements, for any Bevill waste, EPA could promulgate and enforce the hazardous waste requirements, tailoring regulations applicable to TSDFs pursuant to Section 3004(x).<sup>33</sup> Regardless of its authority to do so, it is uncertain, at best, whether EPA would reverse any Bevill determination to regulate the waste as hazardous. EPA efforts to regulate CCW provide evidence of the challenges posed to regulating an excluded waste under Subtitle C. In 2000 and 2009, EPA submitted draft regulatory determinations for review to the White House Office of Management and Budget (OMB) recommending that risks associated with the improper management of CCW warrant its regulation according to national standards established under Subtitle C.<sup>34</sup> In both instances, after OMB review, those draft recommendations were revised—in

<sup>30</sup> 42 U.S.C. §6921(b)(2)(C).

<sup>31</sup> 42 U.S.C. §6924(c)-(d).

<sup>32</sup> 42 U.S.C. §6924(x).

<sup>33</sup> Most states are authorized to implement the federal Subtitle C program. EPA would not implement the regulations in those states. Instead, authorized states would need to adopt the rule before it would become effective.

<sup>34</sup> EPA's draft "Regulatory Determination on Wastes from Fossil Fuel Combustion" was submitted to OMB on March (continued...)

2000 to keep the Bevill exclusion in place, and in 2010 to include a Subtitle D option to regulate the waste. The 2010 regulatory proposal is not finalized.

Regulations proposed for Bentsen waste could take effect only after an act of Congress. EPA is not explicitly authorized to tailor regulations it may propose to apply to Bentsen waste. However, since any regulations would be required to be approved by Congress before they take effect, EPA could potentially propose regulations that are modified as the agency deems necessary. Whether Congress would authorize them is another matter.

## EPA Authority Under RCRA Subtitle D

Solid waste that does not meet the regulatory definition of a hazardous waste, including solid waste that is explicitly deemed not a hazardous waste (e.g., Bevill-Bentsen waste), is regulated under RCRA Subtitle D.<sup>35</sup> In contrast to Subtitle C requirements, Subtitle D regulates only the *disposal* of solid waste. It does not establish controls governing the transportation, storage, or treatment of such wastes prior to disposal. EPA could potentially draw from its Subtitle D authorities to establish requirements applicable to solid waste disposal facilities that receive a particular Bevill-Bentsen waste.

Congress established state and local governments as the primary planning, regulating, and implementing entities responsible for managing solid waste. EPA's authority to regulate solid waste under Subtitle D is limited. EPA's primary role is to promulgate sanitary landfill criteria necessary to define solid waste management practices that constitute open dumping, prohibited under RCRA.<sup>36</sup> Under RCRA Section 4004, EPA was required to promulgate criteria necessary to distinguish between facilities that would be classified as "sanitary landfills" or "open dumps."<sup>37</sup> At a minimum, a facility would be deemed a sanitary landfill if solid waste disposal at such a facility posed no reasonable probability of adverse effects on health or the environment.<sup>38</sup>

States have primary authority to implement and enforce federal standards applicable to waste management activities subject to the open dumping prohibition established under Subtitle D.<sup>39</sup> RCRA does not provide for direct federal enforcement of the open dumping prohibition/sanitary landfill criteria.<sup>40</sup> That is, under its existing authority, any new federal Subtitle D requirements

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(...continued)

5, 2005, and October 16, 2009.

<sup>35</sup> Solid waste is defined broadly in the law (at 42 U.S.C. §6903(27)), in part, as any "garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, [and] mining ... activities." With regard to solid waste management requirements under Subtitle D, the term primarily refers to nonhazardous wastes, but also includes hazardous wastes excluded from Subtitle C.

<sup>36</sup> 42 U.S.C. §6945(a).

<sup>37</sup> 42 U.S.C. §§6907(a) and 6944.

<sup>38</sup> 42 U.S.C. §6944(a). To achieve the standard of protection specified in that subsection, EPA promulgated "Criteria for Classification of Solid Waste Disposal Facilities and Practices" at 40 C.F.R. Part 257. For detail, see 44 *Federal Register* 53438, 1979.

<sup>39</sup> 42 U.S.C. §6945(a).

<sup>40</sup> Under Subtitle D, Congress specified limited circumstances under which EPA was authorized to directly enforce federal criteria applicable to municipal solid waste landfills (at 40 C.F.R. Part 258). That enforcement authority would not extend to any new regulations EPA may establish for the disposal of Bevill-Bentsen wastes.

established by EPA would be enforceable by states. EPA could encourage states to adopt the federal requirements as enforceable standards under state law. However, EPA could not compel states to do so. Any new federal Subtitle D standards that EPA may establish would also be enforceable by the public, pursuant to RCRA citizen suit provisions in Section 7002.<sup>41</sup>

Given the limits to EPA's ability to encourage state adoption and implementation of Subtitle D requirements, the agency's previously proposed Subtitle D regulations were drafted so they could be self-implementing. That is, they have been written with sufficient detail to allow the owner/operator of a regulated facility to comply without interaction with a regulatory agency.<sup>42</sup> Regardless of whether a state may choose to adopt and implement any new Subtitle D requirements, the owner/operator would be required to comply with the standards or risk a citizen suit. Because Subtitle D requirements rely heavily on citizen enforcement, EPA's previous proposals would require facilities to make any significant information related to their compliance with the proposed requirements publicly available.<sup>43</sup>

EPA stated its intent to promulgate or to consider promulgating regulations under its Subtitle D authority in the regulatory determinations for each Bevill-Bentsen waste. In 1999, the agency proposed Subtitle D standards for the management of cement kiln dust.<sup>44</sup> In 2010, Subtitle D standards were included as one of the two options to regulate CCW. To date, EPA has not finalized any solid waste management requirements applicable to the disposal of Bevill-Bentsen waste. However, the agency may finalize proposed or promulgate new Subtitle D requirements at some point in the future.

As noted previously, for each Bevill-Bentsen waste, EPA identified hazardous constituents in the waste and conditions under which those constituents could find a pathway of exposure to humans at levels deemed unsafe. The agency could take an enforcement action under RCRA Section 7003 to require an individual facility to abate conditions that may present an imminent and substantial endangerment to human health or the environment resulting from the past or present handling, storage, treatment, transportation, or disposal of solid waste.<sup>45</sup>

Other federal statutes authorize EPA to take similar enforcement actions to abate conditions that may present an imminent hazard to human health. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is the broadest of these authorities, and may address releases or threatened releases of hazardous substances, pollutants, or contaminants into the environment. Other examples include the CWA, which may address discharges of pollutants into U.S. waters, and the SDWA, which may address the threat of contaminants to public water systems or underground sources of drinking water.

Still, EPA authority to respond to an imminent hazard is not intended to function as a substitute for implementing waste management standards intended to prevent such a hazard. Further, under RCRA and the other statutes noted above, the imminent hazard threshold for EPA to intervene is

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<sup>41</sup> 42 U.S.C. §6972.

<sup>42</sup> See discussion under "Implementation and Enforcement of Subtitle D Requirements" in EPA's June 2010 proposal to regulate CCW at 75 *Federal Register* 35211 (see footnote 29).

<sup>43</sup> *Id.*

<sup>44</sup> Environmental Protection Agency, "Standards for the Management of Cement Kiln Dust; Proposed Rule," 64 *Federal Register* 45631, 1999.

<sup>45</sup> 42 U.S.C. §6973.

high. As a result, it is an authority EPA has not generally exercised to require owner/operators of solid waste disposal facilities to properly *manage* their waste.

## Conclusion

In 1976, Congress found that federal standards to properly manage waste were necessary, in part, because when improperly managed, corrective action was likely to be expensive, complex, and time-consuming. Consistent with that finding, waste management standards established by EPA were intended to prevent contamination associated with waste disposal, if at all practicable, rather than remedy it after discovery. The federally enforceable waste management requirements, established and implemented under Subtitle C, are those that would prevent a release of hazardous *constituents* in a regulated hazardous *waste*. This system represents a proactive approach to protecting human health and the environment.

RCRA Subtitle C does not, however, attempt to control all hazardous *wastes*. It regulates only materials that meet the *regulatory definition* of hazardous waste. An exemption from Subtitle C's requirements is not equivalent to determining that the waste is nonhazardous. If improperly managed, it may pose some threat to human health and the environment. As a result, Subtitle C establishes a proactive system of protection only insofar as its requirements apply to regulated waste. In contrast, CERCLA and other related authorities take a largely reactive approach by authorizing cleanup and enforcement actions to respond to actual or threatened releases of hazardous substances, upon discovery of such threats.

As EPA collects more information on the risks associated with managing Bevill-Bentsen waste and the degree to which state regulatory programs control those risks, the agency may determine that national standards applicable to Bevill or Bentsen wastes are needed. To do so, EPA may establish requirements in accordance with its existing Subtitle C or D authorities.<sup>46</sup> Regardless of those authorities, as a practical matter, the agency may find it difficult to promulgate new RCRA requirements for any Bevill or Bentsen waste. As evidenced by the opposition to EPA's previous attempts to regulate CCW as a hazardous waste, it is uncertain whether EPA would reverse previous regulatory determinations for CCW or any other Bevill or Bentsen waste. Also, the prospect of exposing Bevill-Bentsen waste disposal facilities to citizen suits may mean that promulgating regulations under Subtitle D could be similarly difficult for EPA.

Given the likely opposition to regulating the waste under Subtitle C or D, EPA may use certain other authorities as necessary to protect human health and the environment. Under RCRA, any "other authorities" available to EPA are generally those established under Section 7003.<sup>47</sup> While EPA may not have used its imminent hazard authorities in the past, it may do so in the future if the agency determines that it is the only plausible option to address risks associated with the improper management of Bevill-Bentsen waste.

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<sup>46</sup> Depending on the nature of any risks identified by EPA, the agency may also promulgate regulations applicable to the management of certain Bevill-Bentsen wastes under its existing authorities in other environmental laws such as the Clean Water Act or Safe Drinking Water Act. A discussion of EPA authority to establish federal standards applicable to the management of Bevill-Bentsen waste, under environmental laws other than RCRA, is beyond the scope of this report.

<sup>47</sup> As discussed in the previous section, CERCLA, the Safe Drinking Water Act, and the Clean Water Act also authorize EPA to take enforcement actions to address imminent hazards under certain conditions relevant to the management of Bevill-Bentsen waste.

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