



RIVERKEEPER.

NY's clean water advocate

October 8, 2010

The Honorable Lisa Jackson, Administrator
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator Jackson,

As provided for in the Administrative Procedure Act ("APA"), 5 U.S.C. § 553(e), petitioner, Riverkeeper, Inc., submits the enclosed petition for issuance of regulations under the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § § 6901 *et seq.* for the management of Cement Kiln Dust ("CKD"). These regulations were originally proposed August 20, 1999 under the title "Standards for the Management of Cement Kiln Dust."¹

The enclosed petition is also supported by the following groups who share petitioner's concerns with current CKD management practices and/or whose members have been affected by the mismanagement of CKD.

Please don't hesitate to contact me at 914-478-4501 x247 or jverleun@riverkeeper.org if you have any questions. Thank you for your consideration.

Sincerely,

Joshua S. Verleun, Esq.
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Riverkeeper, Inc.
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¹ Standards for the Management of Cement Kiln Dust, 64 Fed. Reg. 45632 (proposed Aug. 20, 1999) (to be codified at 40 C.F.R. §§ 259, 261, 266, and 270).

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The Honorable Lisa Jackson, Administrator
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Re: Petition for Issuance of the Proposed Rule “Standards for the Management of Cement Kiln Dust”

Dear Administrator Jackson,

Please consider this petition for issuance pursuant to the Administrative Procedures Act (“APA”). Petitioner Riverkeeper, Inc. respectfully requests that the Administrator of the Environmental Protection Agency (“Administrator” or “EPA”) exercise rulemaking authority pursuant to the Administrative Procedure Act, 5 U.S.C. §§ 551-559, 701-706, (pursuant to 5 U.S.C. § 553(e), “[e]ach agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule.”), the Resource Conservation and Recovery Act (“RCRA”), 42 U.S.C. § § 6901-6992, and the Act’s implementing regulations, by issuing the regulations, as originally proposed August 20, 1999 under the title “Standards for the Management of Cement Kiln Dust.”¹ Specifically we request that the EPA issue these regulations retaining Subtitle D classification for Cement Kiln Dust (“CKD”) which is recycled or properly managed in lined and capped landfills and deeming CKD not recycled or managed in this manner a Subtitle C hazardous waste. This request is premised on the EPA’s own determinations that “current [CKD disposal] practices are inadequate to limit contaminant releases and associated risks” and that “Federal and State regulatory controls need to be improved for the proper management of CKD.”² Issuance of the proposed regulation is in accordance with these findings and in furtherance of the EPA’s mission “to protect human health and to safeguard the natural environment.”³

¹ Standards for the Management of Cement Kiln Dust, 64 Fed. Reg. 45632 (proposed Aug. 20, 1999) (to be codified at 40 C.F.R. §§ 259, 261, 266, and 270).

² Regulatory Determination on Cement Kiln Dust, 60 Fed. Reg. 7366, 7373 (Feb. 7, 1995)

³ U.S. Env’tl. Prot. Agency, Our Mission and What We Do, <http://www.epa.gov/aboutepa/whatwedo.html> (last visited July 19, 2010).

I. Introduction

A. About the Petitioner

Riverkeeper is an independent member-supported organization focused on protecting the environmental, recreational and commercial integrity of the Hudson River and its tributaries, and safeguarding New York City's drinking water supply. Riverkeeper began in 1966 as the Hudson River Fishermen's Association (HRFA), an environmental watchdog and enforcement organization founded by a group of concerned fisherman. Through civil enforcement and litigation, advocacy of environmental policies and legislation, community outreach and education, and extensive investigative efforts, Riverkeeper has grown into New York's leading clean water advocate. The organization has helped to establish globally recognized standards for waterway and watershed protection and serves as the model and mentor for a growing Waterkeeper movement that includes more than 180 Waterkeeper programs across the country and around the globe. Riverkeeper's 5,000-plus annual members represent a spectrum of stakeholders in the long-term health of the Hudson River Valley's ecosystem and community as well as various users of the river's plentiful resources.

B. History of CKD-Related Federal Regulation Under RCRA

Shortly after RCRA was enacted by Congress in 1976, the EPA determined that more research was needed to determine whether the toxicity levels of cement kiln dust justified classifying the substance as a hazardous waste. In lieu of this determination, CKD and five other categories of waste were deemed "special wastes." Congress later amended RCRA by enacting the Solid Waste Disposal Act Amendments of 1980,⁴ including the so-called Bevill Amendment, which granted certain categories of waste, including CKD, a temporary reprieve from classification as hazardous waste pending further study.⁵ A provision of these Amendments required the EPA to report to Congress on current procedures for the management of CKD waste and the potential health risks associated with these substances by October of 1983.⁶ The EPA was also mandated to issue a determination within six months of this report as to whether additional regulation of CKD was required to safeguard human and environmental health.⁷

On December 31, 1993, more than ten years after the statutory deadline, the EPA issued its report to Congress on CKD.⁸ This report included a finding that "there is a potential... for CKD to pose a danger to human health and the environment, and it may do so in the future."⁹ The EPA's final regulatory determination on CKD was issued on February 7, 1995 and held that new regulations on CKD disposal practices were warranted.¹⁰ In keeping with this determination a proposed rule was published on August 20, 1999 entitled "Standards for the Management of Cement Kiln Dust." Under this proposal CKD waste would retain a Subtitle D classification as a

⁴ Solid Waste Disposal Act Amendments of 1980, Pub. L. No. 96-482, 94 Stat. 2334 (1980).

⁵ Resource Conservation and Recovery Act of 1976 § 3001(b)(3)(A)(iii), 42 U.S.C. § 6921 (2006).

⁶ See 42 U.S.C. § 6982(o) (2010).

⁷ See *Id.*

⁸ U.S. ENVTL. PROT. AGENCY, REPORT TO CONGRESS ON CEMENT KILN DUST (1993).

⁹ *Id.* § ES, at 9.

¹⁰ See Regulatory Determination, *supra* note 2, at 7366.

solid waste so long as it was managed according to the EPA's standards. Specifically, CKD waste would either need to be recycled or stored in lined and capped landfills in order to prevent leachate and fugitive dust pollution. If these minimum protective measures were not met the mismanaged waste would be deemed a Subtitle C hazardous waste and the operators of the disposal facility would be subject to a range of federal enforcement options.¹¹

Following an active public comment period on the proposed rule the EPA released a notice of data availability ("NODA") on CKD waste on July 25, 2002.¹² This included an announcement that the EPA was considering finalizing the proposed management requirements for CKD waste but allowing mismanaged material to retain a Subtitle D classification as solid waste.¹³ This framework would spare polluters some risk of federal involvement and put the onus on the states to enforce the disposal requirements.¹⁴ The promulgation of this amended rule was subject to a three to five year study period wherein any advances in industry management practices and state regulatory schemes related to CKD waste would be monitored and taken into consideration.¹⁵ The three-to-five year study period should have concluded no later than July of 2007. However, no portion of the proposed rule on CKD management has yet been formally promulgated or withdrawn as of August, 2010.¹⁶

C. Petitioner's Involvement in CKD-Related Pollution Issues

Riverkeeper first observed evidence of CKD leachate migration into the Hudson River watershed during a 2006 aerial patrol. Investigators spotted three gold colored ponds while flying over the Lehigh Northeast Cement Company plant in Catskill, New York. These man-made stormwater retention ponds were built into a natural wetland adjacent to and down gradient from the facility's Alsen landfill, which holds approximately 1,400,000 cubic yards of CKD.¹⁷ Riverkeeper conducted a thorough investigation of the site and discovered that leachate from the plant's CKD landfill was polluting the ponds and overflowing into Duck Cove, a shallow-water mudflat that feeds the Hudson River.

Soon after this discovery, Riverkeeper obtained a report through a Freedom of Information Law (FOIL) request that outlined the methods that had been used to permanently close the Alsen landfill. This report, published by independent consultants retained by Lehigh, indicated that the natural composition of the ground beneath the landfill was unlikely to allow for the migration of leachate.¹⁸ For this reason, no impermeable liners or leachate collection and treatment facilities were installed at the site.¹⁹ Alarming, a subsequent study conducted by the

¹¹ 42 U.S.C. § 6928 (2010).

¹² Additional Data Available on Wastes Studied in the Report to Congress on Cement Kiln Dust, 67 Fed. Reg. 48648 (July 25, 2002).

¹³ *Id.*

¹⁴ See U.S. ENVTL. PROT. AGENCY, *supra* note 8, § 7.3.1, at 7-28

¹⁵ *Id.*

¹⁶ See U.S. Env'tl. Prot. Agency, Cement Kiln Dust Waste – Legislative and Regulatory Timeline, <http://www.epa.gov/wastes/nonhaz/industrial/special/ckd/index.htm> (last visited July 21, 2010).

¹⁷ U.S. ENVTL. PROT. AGENCY, TECHNICAL BACKGROUND DOCUMENT ON GROUND WATER CONTROLS AT CKD LANDFILLS, § 6.4.2.1.2 at 6-24 (1998).

¹⁸ DUNN GEOSCIENCE ENGINEERING COMPANY, P.C., REVISED CLOSURE REPORT ALSSEN DUST DISPOSAL FACILITY GREENE COUNTY, NEW YORK 9 (1992).

¹⁹ *Id.*

EPA of geologic conditions at various CKD disposal sites across the country was at odds with this determination, as the Catskill, NY plant was listed as an area where porous and fractured bedrock was prevalent, and where a high risk for leachate migration exists.²⁰ Furthermore, although an eighteen-inch thick cover was installed on top of the landfill, the consultant's report indicated that this barrier was constructed from compacted CKD waste itself, the very material the cover was intended to protect from exposure to groundwater.²¹ This counter-intuitive management strategy allowed Lehigh to dispose of additional CKD in the landfill while doing nothing to prevent groundwater from coming into contact with CKD. This is a striking example of the failure of the cement industry to adequately self-regulate their CKD disposal practices.

On July 10, 2006 Riverkeeper served Lehigh with a Notice of Intent to Sue based on citizen suit provisions of RCRA and the Clean Water Act.²² Increased involvement by the New York State Department of Environmental Conservation ("NYSDEC") eventually led Lehigh to enter into a series of Consent Orders between September, 2008 and December, 2009, and to pay \$200,000 in fines to the NYSDEC for violations related to CKD leachate pollution.²³ These settlements required Lehigh to fund a comprehensive study of the site and to commence remediation efforts for the polluted waters.²⁴ Geosyntec Consultants performed an independent technical analysis of the site in the spring and summer of 2009 and found that leachate from the Lehigh landfills was polluting the waters and sediment of Duck Cove with arsenic, calcium, chromium, lead, mercury, and potassium, and was elevating the pH of the water to corrosive levels.²⁵ Sediment toxicity tests for at least two sample sites in the effected area revealed a 0% survival rate.²⁶ Remediation efforts at the site are ongoing and Riverkeeper continues to monitor water quality in Duck Cove and the adjacent stretch of the Hudson River.

Riverkeeper was recently made aware of another potentially ongoing incident of CKD leachate migration from a separate cement plant into a tributary of the Hudson River. Investigations into this site are in the initial stages. The revelation that CKD leachate pollution of the Hudson River and its tributaries may be more pervasive than the simple mismanagement of waste at one cement plant led Riverkeeper to look into the status of federal CKD waste regulations under RCRA. This research brought the static state of the proposed 1999 regulations to Riverkeeper's attention, and was the impetus behind this petition.

²⁰ See U.S. ENVTL. PROT. AGENCY, *supra* note 15, Table 2.3 at 2-34 (identifying the facility as situated on soluble and possibly fractured bedrock, and indicating a high potentiality for the existence of conduits through which leachate could migrate into the surrounding groundwater).

²¹ *Id.* at 7.

²² Letter from Riverkeeper, Inc. to Lehigh Cement Company (July 10, 2008) (on file with author).

²³ See John Lipscomb, Tina Posterli & Josh Verleun, *The Next Chapter: Riverkeeper, Clean Water & You!*, RIVERKEEPER, 2010, at 20-21.

²⁴ *In re* Lehigh Ne. Cement Co., No. R4-2008-0721-113 (N.Y. Dep't of Env'tl. Conservation Sept. 10, 2008) (Order on Consent).

²⁵ See GEOSYNTEC CONSULTANTS, WETLAND BIOLOGICAL, SEDIMENT, AND SURFACE WATER STUDY REPORT 18-27 (2009).

²⁶ *Id.* at 1.

II. New Regulations on CKD Waste Disposal are Necessary to Prevent Harm to Human Health and the Environment

The EPA's evaluations of CKD indicate dangers to human health that include "both acute and chronic effects."²⁷ Many of these risks are due to the extreme alkalinity of groundwater affected by leachate from CKD landfills, which "may result in a variety of adverse effects, including the mobilization of certain metals and other constituents that could pose toxicological problems... [and] human tissue burns."²⁸ Metals listed as "constituents of concern" in the surface and groundwater surrounding CKD landfills include aluminum, arsenic, cadmium, chloride, chromium, copper, fluoride, iron, lead, manganese, molybdenum, nickel, potassium, selenium, thalium, and zinc.²⁹

Beyond the negative impacts of CKD waste on humans, the EPA's 1993 Report to Congress on CKD explained that the extreme alkalinity that is commonly found in CKD runoff "could cause a wide variety of adverse ecological effects."³⁰ These environmental threats include "[s]ignificant impairment of natural resources... degradation of the structure or function of natural ecosystems and habitats and... reduction in species' diversity or density."³¹ These significant risks to human and environmental health are not being mitigated by existing federal regulations.

A. Current Disposal Methods Result in Human Exposure to CKD Contaminants

The use of on-site landfills and waste piles are the most prevalent methods of CKD waste disposal.³² As of 1993 less than 20% of on-site CKD landfills and waste piles had any type of control or collection technologies installed to prevent leachate from escaping into the groundwater, and nearly half did not employ any run-off collection or treatment techniques.³³ Furthermore, less than 45% of these facilities utilized any dust suppression or compaction methods to prevent fugitive dust pollution.³⁴ Such unsophisticated disposal methods have been shown to allow the migration of leachate to the outside environment.³⁵ A 1998 EPA report addressed the shortcomings of these disposal methods and deemed them "inadequate to protect ground water resources."³⁶

Toxic constituents of CKD waste enter the environment through three primary exposure pathways: groundwater, surface water, and the air.³⁷ Humans may be exposed to waterborne toxins through direct contact with contaminated water or through the ingestion of contaminated water or aquatic organisms that have bioaccumulated toxins in their tissues.³⁸ Potential for human exposure to airborne contaminants exists via direct inhalation of fugitive dust particles

²⁷ U.S. ENVTL. PROT. AGENCY, *supra* note 8, § 5.0, at 5-1.

²⁸ *Id.* § 6.0, at 6-4.

²⁹ *Id.* § 5.1.1, at 5-7.

³⁰ *Id.* § 6.0, at 6-4.

³¹ *Id.*

³² *See id.* § 4.1, at 4-1-2.

³³ *Id.* § 4.3, at 4-8.

³⁴ *Id.*

³⁵ *See id.* § 4.2.

³⁶ *See* U.S. ENVTL. PROT. AGENCY, *supra* note 15, § 6 at 6-1.

³⁷ U.S. ENVTL. PROT. AGENCY, *supra* note 8, § 4.2.

³⁸ *See id.* § 6.1.2, at 6-13.

that have been carried by the wind from CKD waste sites to areas of human use and habitation. Consumption of crops located near CKD landfills that have been contaminated by fugitive dust pollution also presents a danger to human health.³⁹

B. CKD Pollution Falls Through the Gaps in Federal Environmental Regulations

The EPA's 1995 Regulatory Determination on Cement Kiln Dust "concluded that additional control of CKD is warranted in order to protect the public from human health risks and to prevent environmental damage resulting from current disposal of this waste." The report went on to identify "documented damages to ground water and potable water supplies, and potential human health risks from inhalation of airborne CKD and ingestion via food chain pathways" as the "primary environmental concerns to be addressed."⁴⁰ These findings were reiterated in a 1998 EPA report which stated that "new regulatory controls under RCRA are justified based on potential and actual impacts to ground water from current CKD management practices."⁴¹ More than fifteen years have passed since this determination was published yet no additional federal regulations have been promulgated to address these shortcomings.⁴² The absence of specific rules to ensure that CKD landfills are capped and lined to prevent the release of leachate and fugitive dust into the surrounding environment is a failure of the EPA's mission to protect human health and the environment.

1. General Federal Environmental Standards Fail to Prevent CKD Pollution

The National Pollutant Discharge Elimination System ("NPDES") requires facilities involved in industrial processes, such as cement plants, to obtain permits for any water discharged into the environment and to monitor and disclose pollutant concentrations in stormwater runoff.⁴³ Although this Clean Water Act ("CWA") regulation outlaws the unpermitted discharge of pollutants from CKD landfills, it fails to mandate or adequately incentivize the installation of preventative measures. As the 1998 EPA report "Ground Water Controls at CKD Landfills" made clear, these facilities "are not required to comply with any operations code, meet any design criteria, or monitor for off-site leachate migration" on the federal level.⁴⁴

Additionally, various Clean Air Act ("CAA") provisions such as National Ambient Air Quality Standards ("NAAQS") and New Source Performance Standards ("NSPS") require states to implement plans to control airborne emissions of particulate matter from stationary sources based on limits deemed achievable through best available control technologies.⁴⁵ However, the EPA has interpreted these regulations as applicable only to emissions from specific point sources, such as cement kiln stacks, and not from potential fugitive dust pollution sources such as CKD disposal sites.⁴⁶

³⁹ See *id.* § 4.2.3.

⁴⁰ Regulatory Determination, *supra* note 2, at 7366.

⁴¹ U.S. ENVTL. PROT. AGENCY, *supra* note 15, § 1.4 at 1-9.

⁴² U.S. Env'tl. Prot. Agency, *supra* note 14.

⁴³ See EPA Administered Permit Programs: the National Pollutant Discharge Elimination System, 40 C.F.R. § 122.26(a)(1)(ii) (2010).

⁴⁴ See U.S. ENVTL. PROT. AGENCY, *supra* note 17, § 1.4, at 1-8.

⁴⁵ See Clean Air Act, 42 U.S.C. §§ 7401-7671 (2010).

⁴⁶ See U.S. ENVTL. PROT. AGENCY, *supra* note 8, § 7.1.1, at 7-5.

2. RCRA Allocates Federal Resources to Address Deficiencies in Current Waste Management Techniques

The Resource Conservation and Recovery Act outlines a national policy that waste “should be treated, stored, or disposed of so as to minimize the present and future threat to human health and the environment.”⁴⁷ Listed among the Act’s stated objectives are “providing for the promulgation of guidelines for solid waste collection, transport, separation, recovery, and disposal practices and systems.”⁴⁸ Additionally RCRA includes a congressional finding that while responsibility for ensuring safe waste disposal practices generally falls on states and municipalities, “the problems of waste disposal... have become a matter national in scope and in concern and necessitate Federal action.”⁴⁹ Therefore, where industry, state and local authorities have failed to sufficiently curtail the risks associated with the disposal of a particular waste, the task of introducing and enforcing a regulatory framework designed to address these threats falls on the federal government.

3. A Subtitle C Hazardous Waste Classification for Mismanaged CKD Waste is Necessary to Allow for Federal Enforcement

One major deficiency in the current federal regulations is that the EPA has very little enforcement authority over facilities that improperly store Subtitle D solid waste.⁵⁰ This was addressed in the 1999 rule proposal by a provision that would reclassify mismanaged CKD (that which is not put to beneficial reuse or disposed of in adequately equipped landfills) as a Subtitle C hazardous waste.⁵¹ This classification would allow the EPA to pursue both civil and criminal penalties against polluters.⁵² Federal enforcement options under this framework would include entering compliance orders against polluters to mandate remediation and levying fines of up to \$37,500⁵³ per day of noncompliance. The EPA would also be able to pursue significant criminal penalties for knowing violations under this framework, possibly amounting to fines of \$50,000 per day of noncompliance and prison terms as long as three to five years, depending on the severity of the violation.⁵⁴ Recidivist offenders would be subject to even more stringent penalties.⁵⁵ Additionally, the EPA would retain enforcement authority for Subtitle C offenses even in states that are authorized to administer independent hazardous waste management programs.⁵⁶

Alarming, the 2002 amendment to the proposed rule concedes to industry on this important point by agreeing to allow mismanaged CKD to retain a Subtitle D classification.⁵⁷ Under this classification the EPA is restricted from pursuing the enforcement options described

⁴⁷ Solid Waste Disposal Act § 1003, 42 U.S.C. §6902(b) (2010).

⁴⁸ *Id.* § 6902(a)(8).

⁴⁹ *Id.* § 6901(a)(4).

⁵⁰ See U.S. ENVTL. PROT. AGENCY, *supra* note 8, § 7.3.1, at 7-28 (“No statutory authority exists to enforce or adopt a federal Subtitle D program in lieu of a state's program”).

⁵¹ Standards for the Management of Cement Kiln Dust, *supra* note 1.

⁵² 42 U.S.C. § 6928 (2010).

⁵³ See 40 C.F.R. § 19.4 (outlining the schedule of inflation adjustments of fines and penalties for violations of various environmental statutes).

⁵⁴ 42 U.S.C. § 6928(d)(2) (2010).

⁵⁵ *Id.*

⁵⁶ *Id.* § 6928(a)(2).

⁵⁷ Additional Data Available on Wastes Studied in the Report to Congress on Cement Kiln Dust, *supra* note 12.

above.⁵⁸ Limited federal enforcement tactics exist for Subtitle D wastes so long as the violation can be shown to result in "imminent and substantial endangerment to health or the environment."⁵⁹ In this case the EPA could enter injunctive orders against the polluters to force them to cease illegal activities and remediate any damage caused to the environment. However, violators of such an order would only be subject to fines of no more than \$7,500 per day, an extremely light penalty relative to those possible under Subtitle C.⁶⁰ The omission of a Subtitle C provision removes the possibility of any meaningful federal involvement in violations of the proposed CKD law and instead puts the onus squarely on the states to design and implement effective enforcement strategies.

C. Reliance on State Regulation and Responsible Self-Management by the Cement Industry has Failed to Abate CKD Pollution

Since CKD is not designated a Subtitle C waste at the federal level, states have generally demonstrated little certainty, and in some cases little interest, regarding how best to address this source of pollution. Several states have not promulgated any rules to directly regulate the management of CKD waste while others have failed to diligently enforce the regulations they do have on the books, or to monitor the environmental degradation and human health problems caused by these wastes.⁶¹ The cement industry, meanwhile, has touted technological advances in CKD recycling capacity but has failed to address contamination at the disposal sites that already exist. Instituting federal standards for the disposal of CKD waste and designating mismanaged CKD a Subtitle C hazardous waste would compel states to establish permitting processes for CKD disposal sites or to allow the EPA regulate this process directly.⁶² Additionally, the threat of federal enforcement⁶³ would create an incentive for states to take an active role in the reduction, management, and remediation of CKD pollution, and would compel the cement industry to comply more readily with applicable state and federal regulations.

1. State Regulatory Schemes are Varied and Inconsistent

For purposes of this petition state regulations applicable to CKD disposal were evaluated for California, Pennsylvania, Florida, Texas, and Michigan. These five states were the top cement producers as of 2005⁶⁴ and include the four states surveyed for the EPA's 1993 report to congress.⁶⁵ Regulatory schemes vary greatly among these states. Some have tailored specific pollution control measures to regulate the disposal of CKD that are more stringent than the federal standards, while others have neglected to issue even non-binding guidelines that directly address CKD waste. Many states seem highly deferential to the cement industry's established practices and seem willing to allow these corporations to self-regulate. Significant variations in CKD regulatory schemes from state to state appear to be the only identifiable constant.

⁵⁸ U.S. ENVTL. PROT. AGENCY, *supra* note 8, § 7.3.1, at 7-28.

⁵⁹ 42 U.S.C. § 6973(a) (2010).

⁶⁰ 40 C.F.R. § 19.4 (2010).

⁶¹ U.S. ENVTL. PROT. AGENCY, *supra* note 8, § 7.0.4, at 7-4.

⁶² 42 U.S.C. § 6925(c) (2010).

⁶³ *Id.* § 6921(b)(3)(B)(iv).

⁶⁴ U.S. DEP'T OF COMMERCE, 2002 ECON. CENSUS: CEMENT MFG. 2 (2004).

⁶⁵ See U.S. ENVTL. PROT. AGENCY, *supra* note 8, § 7.0.2, at 7-1 (including analysis of state-level CKD regulations for California, Pennsylvania, Texas, and Michigan).

The State of California has chosen to regulate CKD waste more heavily than most, having gone so far as to classify CKD as a “non-RCRA hazardous waste” and to require cement plants to comply with all of the federal mandates associated with Subtitle C hazardous waste when disposing of CKD.⁶⁶ California’s regulations actually operate in a similar fashion to the EPA’s 1999 rule proposal. One major difference is that instead of classifying CKD as a solid waste *unless* it is mismanaged, and then declaring it hazardous, California classifies all CKD as hazardous waste *until* it is responsibly disposed of, at which time it becomes exempt from the default classification as a hazardous waste.⁶⁷ For the California exemption to apply, CKD waste must be disposed of on-site at the facility where it was generated in accordance with the standards set forth by the water quality control board for the region where the cement plant is located.⁶⁸

Pennsylvania also has a comprehensive CKD management strategy, but stops short of classifying CKD as a hazardous waste. CKD is instead deemed a “residual waste.”⁶⁹ This designation includes “[g]arbage, refuse, [and] other discarded material... resulting from industrial, mining and agricultural operations . . . [that] is not hazardous.”⁷⁰ Disposal of residual wastes is not as highly regulated as disposal of hazardous wastes, but facilities must apply for a special permit and the wastes still must be managed according to exacting state standards. Requirements for residual waste landfills in Pennsylvania include the installation of impermeable liners and leachate collection and disposal systems. Additionally, the Pennsylvania Department of Environmental Resources requires the CKD waste itself and the surrounding groundwater to be tested periodically for contaminants, and mandates that the facility formulate and periodically update a “source reduction strategy” in order to reduce the total amount of CKD that becomes waste at that site over time.⁷¹

In contrast to California and Pennsylvania, Florida does not classify CKD as anything other than solid waste.⁷² Under Florida law solid waste disposal facilities are subject to a permitting process that takes into account geotechnical and hydrogeological siting requirements⁷³ and requires consistent groundwater monitoring.⁷⁴ However, unlike hazardous waste landfills, landfills that hold only solid wastes are not required to install impermeable liners or caps, or to maintain leachate collection or treatment systems.⁷⁵ Florida does have general water quality standards with which these disposal facilities much comply.⁷⁶

Texas has designated CKD as a non-hazardous solid waste, and allows the material to be disposed of on-site with minimal protective measures in place to protect humans and the environment from exposure. In fact, cement plants in Texas need not even obtain a permit for

⁶⁶ *Id.* § 7.3.2, at 7-31.

⁶⁷ CAL. HEALTH & SAFETY CODE § 25143.8 (West 2010).

⁶⁸ *Id.*

⁶⁹ U.S. ENVTL. PROT. AGENCY, *supra* note 8, § 7.3.2 at 7-34.

⁷⁰ 25 PA. CODE § 287.1 (2010).

⁷¹ U.S. ENVTL. PROT. AGENCY, *supra* note 8, § 7.3.2, at 7-36.

⁷² Personal communication with Glen Perrigan, Florida Department of Environmental Protection, Division of Waste Management, July 19, 2010.

⁷³ FLA. ADMIN. CODE ANN. r. 62-701.410 (2010).

⁷⁴ *Id.* r. 62-701.510.

⁷⁵ *See id.* r. 62-701.330.

⁷⁶ *Id.* r. 62-701.340(1).

CKD disposal. The only applicable statutory language is a general requirement that a disposal site refrain from “caus[ing] a nuisance or endanger[ing] the public health or welfare.”⁷⁷ CKD landfill operators, as well as any other solid waste disposal sites, must notify the Texas Commission on Environmental Quality ninety days before disposal begins, record descriptions and amounts of any waste that is disposed of, and file a notice with the county where the disposal is taking place.⁷⁸ Texas has issued non-binding guidelines for groundwater monitoring around CKD disposal sites, but has not promulgated any enforceable regulations.⁷⁹

In Michigan at the time of the EPA’s 1993 Report to Congress on CKD dust, a complex regulatory scheme was in place under which CKD was designated a “Type II” waste. This classification was a middle ground between “inert” solid waste and hazardous waste. Construction and operating permits were required for landfills holding Type II waste and operators of these facilities were required to purchase a bond to cover the anticipated costs of closure.⁸⁰ This statute has since been repealed.⁸¹ Currently, CKD waste in Michigan is designated a Low Hazard Industrial Waste.⁸² While landfills holding this type of material must acquire an operating license, meet certain hydrogeologic site requirements, and maintain a monitoring system of the surrounding groundwater,⁸³ no composite liner or leachate collection system of any kind is required.⁸⁴ This change took place shortly after the EPA’s 1993 Report to Congress, but before the publication of the 2002 NODA. It is thus unclear whether Michigan’s deregulation of CKD disposal practices was considered in the EPA’s unreleased study of evolving state regulations.

This patchwork of regulations from state to state leaves the cement industry subject to a confusing array of compliance standards and results in some American citizens being less well-protected than others from the health threats of CKD pollution. The promulgation of federal minimum standards would serve to greatly simplify the varied landscape of CKD regulations by assisting states with the design and implementation of effective regulations and providing a baseline compliance standard for all CKD disposal facilities to meet regardless of location.

2. No Substantive State Regulations on CKD Disposal Practices have been Introduced Since the EPA Study was Launched

The EPA’s 2002 NODA suggested that new state regulations were anticipated in the coming years. However, an exhaustive search by Riverkeeper of statutes in all fifty states that directly addresses CKD management revealed only two relevant textual amendments that have been made since that time. Furthermore, neither of these amendments was a substantive modification concerning the manner in which CKD waste should be disposed of or how pollution

⁷⁷ *Id.* § 7.3.2, at 7-38.

⁷⁸ *See Id.*

⁷⁹ U.S. ENVTL. PROT. AGENCY, *supra* note 8, § 7.3.2, at 7-30.

⁸⁰ *Id.* § 7.3.2, at 7-33.

⁸¹ MICH. COMP. LAWS ANN. § 299.407 (West 2010) (repealed 1995).

⁸² *Id.* § 299.4122(b).

⁸³ *Id.* § 299.4302.

⁸⁴ Personal communication with Steve Sliver, Michigan Department of Natural Resources, Waste Management Division, July 16, 2010. Explained that landfills holding low hazard industrial wastes must demonstrate financial capability for remediating any environmental degradation, but are generally subject to less stringent leachate control standards than standard solid waste landfills.

from CKD landfills is mitigated. The first, a Michigan law passed in 2003, added CKD to an existing list of wastes for which 7.5 cents per ton or cubic yard of waste must be contributed to a perpetual care fund.⁸⁵ Utah passed a similar measure in 2006 that requires payments of \$2.50 per ton of CKD disposed of to the state's "Environmental Quality Restricted Account,"⁸⁶ which is used to help fund the regulatory agency that oversees the disposal of solid and hazardous wastes.⁸⁷ While these measures may help to ensure that funds are available to facilitate the government's remediation effort in the event that environmental degradation occurs at a CKD disposal site, they provide no proactive regulatory controls to help abate CKD pollution.

3. Reliance on Industry Self-Regulation is Insufficient

Not surprisingly, representatives of the cement industry have historically submitted the majority of public comments on each CKD-related rule proposal and NODA published by the EPA.⁸⁸ The EPA seems to have taken these industry concerns seriously, and has made concessions on important aspects of the proposed regulations in order to appease these stakeholders' interests.⁸⁹ The fact that the EPA launched a three-to-five year study in 2002 to "assess how CKD management practices and state regulatory programs evolve,"⁹⁰ instead of promulgating a final rule at that time, is indicative of the agency's significant if not excessive consideration for the cement industry's concerns. As of the filing of this petition, the results of the aforementioned study have not been made available to the public, and the agency's plan to "formally withdraw or promulgate the portion of the 1999 proposal that classifies as a RCRA hazardous waste CKD that has been egregiously mismanaged" has not been fulfilled.

Trade groups claim that the amount of CKD sent to landfills has decreased over the past two decades while the percentage that is recycled or otherwise put to beneficial use have increased.⁹¹ However, approximately 1.25 metric tons of CKD waste was still deposited in landfills in 2008 according to estimates released by the Portland Cement Association, a trade group representing the cement industry.⁹² While volume is down from the approximately 1.8 metric tons of CKD disposed of in 2002, significant quantities of this dangerous waste remain.⁹³ Furthermore, while the trends of decreased waste production and increased reuse are commendable, these efforts do not address the need for the cement industry to take steps to modernize disposal practices for the CKD that still does become waste, or to abate leachate migration from landfills where huge quantities of CKD were dumped in the past.

Riverkeeper supports the cement industry's voluntary efforts to abate the negative environmental impacts of CKD waste. Nevertheless, the EPA's mandate to promulgate regulations to standardize responsible waste disposal practices and criminalize irresponsible

⁸⁵ MICH. COMP. LAWS ANN. § 324.11525 (West 2010).

⁸⁶ UTAH CODE ANN. 1953 § 19-6-119(1)(a)(iii)(B)(VI) (West 2010).

⁸⁷ *Id.* § 19-1-108(4).

⁸⁸ U.S. ENVTL. PROT. AGENCY, CKD PROPOSED RULE NODA COMMENTS, (Mar. 2, 2005); U.S. ENVTL. PROT. AGENCY, CKD PROPOSED RULE COMMENTS, (Mar. 1, 2005).

⁸⁹ See Additional Data Available on Wastes Studied in the Report to Congress on Cement Kiln Dust, *supra* note 12.

⁹⁰ *Id.*

⁹¹ Portland Cement Alliance Report on Sustainable Manufacturing, http://www.cement.org/smreport09/sec_page3_2.htm (last visited July 19, 2010).

⁹² *Id.*

⁹³ *Id.*

environmental management is not satisfied by a credulous reliance on the cement industry to do the right thing. Promulgation of the rule proposed in 1999, including the Subtitle C provision, would allow the EPA to maintain the ability to readily bring enforcement actions against facilities that do not follow responsible management practices.

While the cement industry has complained that instituting these protective measures would be prohibitively expensive,⁹⁴ an appraisal of industry productivity compared to the stringency of CKD regulations on the state level reveals the fallacy of this assertion. For example, California was by far the biggest cement manufacturing state in 2002 with 246 total facilities and a total value added of more than \$4.5 billion,⁹⁵ despite the fact that the state classifies CKD as a hazardous waste and has perhaps the strictest controls on CKD disposal among the five states studied.⁹⁶ Unfortunately, precise estimates of the cement industry's actual compliance costs in California were unavailable to Riverkeeper. Nevertheless, even if the EPA were to assume that the industry's claim was justifiable, this should have no bearing on the agency's decision whether to promulgate the proposed rule. The EPA's mission is not to protect the economic viability of any particular industry, but to safeguard the human and environmental health of our country from preventable harm and degradation.

IV. Conclusion

Eight years have passed since the EPA indicated that a decision whether to promulgate the Subtitle C provision would be made “[b]ased on [an] assessment” of “how CKD management practices and state regulatory programs evolve over the next three to five years.”⁹⁷ Even after this ample opportunity for the industry to improve management practices, CKD waste continues to be mismanaged and states have neglected to institute effectual regulations. Existing federal regulations have proven insufficient to prevent CKD pollution and the state regulations that are in place are highly varied and inconsistently enforced. Reliance on the cement industry to voluntarily ensure the safety of their disposal techniques has proven inadequate, as several CKD pollution sites exist within Riverkeeper's relatively limited patrol area alone. Despite repeated declarations of the need for federal regulations, CKD remains the only “special waste” for which the EPA has yet to issue a final rule.⁹⁸ This unreasonable delay represents a failure of the EPA to fulfill their obligation to regulate the disposal of potentially dangerous wastes, and the time is long overdue for the agency to take action.

For these reasons, Riverkeeper respectfully requests that the EPA finalize the proposed rule “Standards for the Management of Cement Kiln Dust.” This regulation will help ensure that CKD is disposed of in a safe and responsible manner and that federal enforcement options exist to deter polluters and if needed, to force compliance. Furthermore, promulgation of the 1999 rule proposal will advance a national policy for waste to be “treated, stored, or disposed of so as

⁹⁴ See U.S. ENVTL. PROT. AGENCY, CKD PROPOSED RULE NODA COMMENTS 2, (Mar. 2, 2005); U.S. ENVTL. PROT. AGENCY, CKD PROPOSED RULE COMMENTS 35-36, 58, 90, 101, 108, et. al., (Mar. 1, 2005).

⁹⁵ U.S. DEP'T OF COMMERCE, *supra* note 55, at 17.

⁹⁶ See U.S. ENVTL. PROT. AGENCY, *supra* note 8, § 7.0.2, at 7-1.

⁹⁷ Additional Data Available on Wastes Studied in the Report to Congress on Cement Kiln Dust, *supra* note 12.

⁹⁸ U.S. Env'tl. Prot. Agency, Special Wastes, <http://www.epa.gov/wastes/nonhaz/industrial/special/index.htm> (last visited July 22, 2010).


to minimize the present and future threat to human health and the environment”⁹⁹ and is in keeping with the EPA’s mission “to protect human health and to safeguard the natural environment.”¹⁰⁰

Specifically, Riverkeeper requests that the EPA:

- 2) Promulgate rules to require CKD disposal facilities to maintain impermeable composite liners and caps to prevent leachate migration and fugitive dust pollution, mandate the installation and maintenance of comprehensive groundwater monitoring systems around disposal sites, require polluters to remediate contaminated sites, and classify mismanaged CKD as a Subtitle C hazardous waste.

- 2) Respond expeditiously to this petition for issuance.

Sincerely,



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⁹⁹ 42 U.S.C. § 6902(b) (2010).

¹⁰⁰ U.S. Env'tl. Prot. Agency, *supra* note 3.