

**ORAL ARGUMENT NOT YET SCHEDULED**

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

**NATIONAL ASSOCIATION OF CLEAN  
WATER AGENCIES,**

## Petitioner

**V.**

**ENVIRONMENTAL PROTECTION  
AGENCY and LISA PEREZ JACKSON,  
ADMINISTRATOR, ENVIRONMENTAL  
PROTECTION AGENCY**

## Respondents

**No. 11-1131**  
**(consolidated with Nos.**  
**11-1167 and 11-1185)**

## EMERGENCY JOINT MOTION FOR STAY OF THE SEWAGE SLUDGE INCINERATION RULE

Pursuant to Fed. R. App. P. 18 and Circuit Rule 18, the National Association of Clean Water Agencies (“NACWA”) and Hatfield Township Municipal Authority (“Hatfield Township”) (together, “Movants”) hereby move this Court for an order staying the effectiveness and implementation of the U.S. Environmental Protection Agency (“EPA” or “Agency”) action entitled “Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units,” 76 Fed. Reg. 15372 (Mar. 21, 2011)

(the “SSI Rule”).<sup>1</sup> As discussed in Section I below, Movants respectfully request that the Court expedite review of this Motion.

In the SSI Rule, EPA illegally promulgated numerous stringent emission limitations, operating conditions and other requirements under § 129 of the Clean Air Act (“CAA”), 42 U.S.C. § 7429, applicable to sewage sludge incinerators (“SSIs”). The regulated SSIs are owned and operated by an estimated 118 municipalities and public clean water agencies across the nation. As discussed below, the SSI Rule is demonstrably unlawful and, if allowed to remain in effect, will result in concrete and irreparable harm to the communities who rely upon incineration without concomitant benefits to other parties or to the environment.

NACWA and Hatfield Township are petitioners in Nos. 11-1131 and 11-1167, respectively; Movants have filed for leave to intervene in No. 11-1185. Per Fed. R. App. P. 18(a)(2)(C) and Circuit Rule 18(a)(2), Movants have coordinated by telephone regarding this motion with counsel for all parties in these consolidated cases. Counsel for EPA and for Sierra Club (petitioner in No. 11-1185) have indicated that they oppose this motion.

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<sup>1</sup> On September 7, 2011, Movants filed a Joint Motion to Exceed the Page Limit for this Motion for Stay (ECF #1328130). As of the time of filing this Motion for Stay, the Joint Motion to Exceed the Page Limit was still pending.

### **STANDARD FOR GRANTING A STAY**

Per Circuit Rule 18(a), the Court weighs four factors in considering motions to stay an agency rule on review: (1) Has the petitioner made a strong showing that it is likely to prevail on the merits of its appeal? (2) Has the petitioner shown that without such relief, it will be irreparably harmed? (3) Would the issuance of a stay substantially harm other parties interested in the proceedings? (4) Where lies the public interest? See Virginia Petroleum Jobbers Ass'n v. FPC, 259 F.2d 921, 925 (D.C. Cir. 1958). These factors are considered together and balanced against one another, such that a “stay may be granted with either a high probability of success and some injury, or *vice versa*.” Cuomo v. NRC, 772 F.2d 972, 974 (D.C. Cir. 1985). In this case, each of these factors weighs heavily in favor of staying the SSI Rule.

### **ARGUMENT**

EPA’s promulgation of the SSI Rule is an extreme example of Agency obduracy and regulatory corner-cutting with imminently harmful results for the communities who rely upon incineration as the only practical solution for managing the sewage sludge that their wastewater treatment facilities generate every day. By setting emission standards under § 129 of the CAA, EPA has circumvented the statutory mandate to regulate SSIs under § 112(d) and thereby upset the flexible regulatory framework that Congress expressly reserved for

publicly owned treatment works (“POTW”) under the CAA and the Federal Water Pollution Control Act (“CWA”).

Pressed for time during the rulemaking, EPA also subverted the CAA mandate to collect data from the requisite minimum number of SSIs. Then, when the Agency ran out of time to finalize the SSI Rule under the schedule set by the U.S. District Court for the District of Columbia, EPA ignored data and other information submitted during the comment period that would have changed the outcome of the standards, and failed to give weight to information submitted by commenters showing that the standards would not be achievable even for some of the best performing SSIs.

#### **I. EXPEDITED REVIEW OF THIS MOTION IS WARRANTED**

Pursuant to Circuit Rule 27(f), any party may request expedited action on a motion on the ground that, to avoid irreparable harm, relief is needed in less time than would ordinarily be required for the Court to consider a response. Although there is no specific date by which Court action is necessary in this instance, expedited consideration of this Motion for Stay is warranted to minimize the imminent and irreversible harm resulting from the SSI Rule to the over 100 communities who rely on incineration to manage the sewage sludge generated by their POTWs, as set forth more fully in Section IV below and in the attached declarations submitted by four POTWs. Movants are not seeking to expedite the

schedule for any responses to this Motion for Stay and any replies thereto, but instead are respectfully requesting that the Court expedite its own consideration of this Motion when briefing on the motion has concluded.

## **II. MOVANTS HAVE EXHAUSTED THEIR ADMINISTRATIVE REMEDIES WITH EPA.**

Movants have previously sought relief from EPA by submitting a Petition for Reconsideration and Stay (“Petition”) (Ex. 1) on May 24, 2011. NACWA submitted the Petition requesting an immediate stay of the SSI Rule pending reconsideration of the SSI Rule and promulgation of replacement regulations. After receiving no response, on June 27, 2011 NACWA submitted a supplement to the Petition (Ex. 2) reiterating the need for an immediate stay and providing information on regulatory developments further illustrating the immediate impact that the SSI Rule is having on NACWA’s members. After obtaining two extensions of time to act, EPA still has not formally announced a decision on the petition. However, on August 31, 2011 EPA’s counsel verbally informed Movants that the Agency will not reconsider the decision to regulate SSIs under § 129 of the CAA and will not grant the request for an administrative stay. Therefore, EPA has not afforded the relief requested.

### **III. MOVANTS ARE LIKELY TO PREVAIL ON THE MERITS OF THEIR CHALLENGES TO THE SSI RULE.**

The SSI Rule is substantively and procedurally unlawful in multiple respects.

#### **A. EPA's Interpretation that SSIs Must be Regulated Under § 129 of the CAA Is Contrary to the Text of the CAA and Arbitrary and Capricious.**

EPA's foundational claim that SSIs are subject to regulation under § 129 of the CAA fails both steps of analysis under Chevron U.S.A. Inc. v. Natural Res. Def. Council, 467 U.S. 837 (1984). The plain language of CAA § 112(e)(5) requires EPA to establish national emission standards for hazardous air pollutants ("NESHAP") for POTWs under CAA § 112. Because regulation of sources under § 112(d) and § 129 is mutually exclusive,<sup>2</sup> EPA lacks authority to regulate SSIs under CAA § 129. As discussed below, Congress placed SSIs under § 112 to ensure maximum flexibility in the regulation of hazardous pollutants from these sources. EPA's decision to regulate SSIs under § 129 using the more stringent requirements applicable to "solid waste incineration units" upsets this Congressional vision of providing the flexibility local governments need to choose the best sewage sludge management method for their circumstances.

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<sup>2</sup> CAA § 129(h)(2) provides that: "no solid waste incineration units subject to performance standards under [§§ 129 and 111] shall be subject to standards under [§ 112(d)]." Thus, § 129(h) makes regulation of sources under § 129 or § 112

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**1. SSIs Are an Essential and Inseparable Part of the Treatment Works and Congress Directed that They Be Regulated under § 112(d) of the CAA.**

In analyzing the interplay between §§ 112(e)(5) and 129, courts are “guided not by ‘a single sentence or member of a sentence, but [must] look[ ] to the provisions of the whole law, and to its object and policy.’” John Hancock Mut. Life Ins. Co. v. Harris Trust & Sav. Bank, 510 U.S. 86, 94-95 (1993) (quoting Pilot Life Ins. Co. v. Dedeaux, 481 U.S. 41, 51 (1987)). Section 112(e)(5) of the CAA states:

The Administrator shall promulgate standards pursuant to subsection (d) of this section [112] applicable to publicly owned treatments works (as defined in title II of the Federal Water Pollution Control Act [33 U.S.C.A. § 1281 *et seq.*]) not later than 5 years after November 15, 1990.

42 U.S.C. § 7412(e)(5). The definition of “treatment works” contained in Title II of the CWA is extraordinarily broad and includes SSIs. It defines treatment works as:

any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature to implement [section 201 of the Act], or necessary to recycle or reuse water at the most economical cost over the useful life of the works, including intercepting sewers, outfall sewers, sewage collection systems, pumping, power, and other equipment, and their appurtenances; extensions, improvements, remodeling, additions, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment

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mutually exclusive. EPA has consistently recognized that sources regulated under § 112 cannot also be regulated under § 129.

units and clear well facilities; and ***any works***, including site acquisition of the land that will be an integral part of the treatment process (including land used for the storage of treated wastewater in land treatment systems prior to land application) or is ***used for ultimate disposal of residues resulting from such treatment***.

33 U.S.C. § 1292(2)(A) (emphasis added).

This definition clearly encompasses the areas of a POTW used to manage sewage sludge resulting from the treatment of wastewater, including the SSIs that are “used for ultimate disposal of residues resulting from” the sewage treatment process. Congress’ use of this well-understood term from the CWA has no other meaning in Congress’ instruction for EPA to establish the emission standards under § 112.

Likewise, EPA’s regulatory definition of “treatment works” at 40 C.F.R. § 35.905 further reinforces the expansive meaning of the term under the CWA and just as clearly encompasses SSIs:

***Any devices and systems for the storage, treatment, recycling, and reclamation of municipal sewage, domestic sewage, or liquid industrial wastes*** used to implement section 201 of the Act, or necessary to recycle or reuse water at the most economical cost over the useful life of the works. ***These include*** intercepting sewers, outfall sewers, sewage collection systems, individual systems, pumping, power, and other equipment and their appurtenances; extensions, improvement, remodeling, additions, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities; and ***any works***, including site acquisition of the land that will be an integral part of the treatment process or is used for ultimate disposal of residues resulting from such treatment (including land for composting sludge, temporary storage of such compost, and land used for the storage of treated waste water in land



treatment systems before land application); ***or any other method or system for preventing, abating, reducing, storing, treating, separating, or disposing of municipal waste or industrial waste***, including waste in combined storm water and sanitary sewer systems.

Id. (emphasis added).

The § 112(e)(5) scheme placing SSIs under § 112 is consistent with the Congressional vision – expressed in § 405 of the CWA – for flexibility in regulating POTWs and their SSIs. See CWA § 405(e) (“[t]he determination of the manner of disposal or use of sludge is a local determination”). Section 405 of the CWA plays the primary role in regulating the use and disposal of sewage sludge generated at POTWs. EPA implements § 405 through comprehensive standards in 40 C.F.R. Part 503 that have been in place since the early 1990s, including risk-based standards regulating hazardous air pollutants from SSIs. When Congress decided to supplement that CWA program by using a technology-based approach under the CAA, it invoked the CWA to define the POTW source category that EPA was to regulate under § 112. The legislative history of § 112 shows that Congress was fully aware that emissions from POTWs were covered by the CWA and that Congress intended to supplement that authority using § 112. For example, the Senate Report stated that

[t]he Administrator is specifically directed to include publicly owned treatment works (as defined in the Clean Water Act) and [certain RCRA facilities] among the categories of major sources pursuant to this subsection. ... The Agency has also indicated that air emission standards for POTWs

may be promulgated under the Clean Water Act. There is no standard of protection of either human health or the environment from releases to air under that Act. It is more likely that appropriate standards would survive a legal test, if established pursuant to these new authorities of § 112 of the Clean Air Act.

Sen. Rep. No. 100-231, Committee on Environment and Public Works, 1990 CAA Legislative History, at 9436, 9668. There is no hint that Congress intended EPA to regulate an SSI differently from the rest of the POTW, much less through different authority under CAA § 129.

EPA's own regulatory pronouncements and actions make clear the Agency's understanding (prior to EPA's departure in the SSI Rule) that SSIs are part of the POTW for purposes of the CWA and the CAA. *First*, EPA has long viewed SSIs as included within the CWA "treatment works" definition through its implementation of the CWA Title II construction grant program. EPA has consistently and repeatedly provided federal funding to build and upgrade SSIs through its Title II grant fund, under which funding is specifically limited to "treatment works" as defined above. Examples include: (1) 10 SSIs owned by the Hampton Roads Sanitation District in southeast Virginia (N. LeBlanc Decl. ¶ 4 [Ex. 3]), (2) seven SSIs owned by the Northeast Ohio Regional Sewer District ("NEORS") (NEORS Decl. ¶ 4 [Ex. 4]), and (3) one SSI owned by the City of Cedar Rapids, Iowa (P. Ball Decl. ¶ 4 [Ex. 5]). Indeed, it may well be the case that many or all of the approximately 230 SSIs nationwide were constructed or

upgraded with EPA's Title II construction grants. This would have been contrary to the CWA – and EPA would have illegally approved the use of many millions of dollars in federal funds – if the Agency did not consider SSIs to be part of the “treatment works.”

*Second*, in numerous prior pronouncements over many years EPA has stated unequivocally that SSIs are part of the POTW. For example, EPA has consistently held that sewage sludge management, including incineration, is an inherent part of POTW operations for which CWA Title II funding was made available, and this position is also reflected in the Part 503 program. EPA has stated in the context of the Part 503 program that: “Treatment works treating domestic sewage, as noted above, include facilities dedicated to the disposal of sewage sludge (i.e., surface disposal sites and **incinerators**).” 58 Fed. Reg. 9248, 9359 (Feb. 19, 1993) (App. A) (emphasis added); see also 40 C.F.R. § 122.2 (treatment is expressly defined to include sewage sludge treatment systems).

*Third*, EPA has previously classified SSIs as Congress intended under CAA § 112, by identifying SSIs as an area source category under CAA § 112. In 1992, when EPA issued the initial list of major and area source categories under § 112, the Agency examined the categorization of SSIs under the CAA. See 57 Fed. Reg. 31576 (July 16, 1992) (App. B). That initial list of source categories included SSIs as a § 112 source category. In the related *Federal Register* notice, EPA expressly

states that “the Agency does not consider sewage sludge incineration units to be covered under § 129 so it has authority to list and set standards for these units under § 112.” See also 58 Fed. Reg. 9248, 9262, 9276-77 (Feb. 19, 1993) (noting that SSIs are regulated under § 112 of the CAA) (App. C).

In 1999, EPA promulgated a NESHAP under § 112 for POTW treatment plants. See 64 Fed. Reg. 57572 (Oct. 26, 1999). Significantly, although the definition of “POTW treatment plant” is appropriately focused on the wastewater treatment part of a POTW, the definition of POTW in that rule is much broader and encompasses everything that is eligible to receive grant assistance under Title II of the CWA. See 40 C.F.R. § 63.1595. Although EPA’s rulemaking preamble inexplicably stated that EPA then believed that SSIs were subject to regulation under CAA § 129, EPA nowhere elaborated on the rationale for this change from its prior approach or justified this new interpretation of the statute. See 62 Fed. Reg. 1868 (Jan. 14, 1997). In fact, shortly after EPA promulgated the POTW NESHAP, EPA reversed its position and expressly stated that SSIs would be regulated under § 112 instead of § 129. See Unified Agenda 65 Fed. Reg. 23460 (Apr. 24, 2000) (App. D). Then, in February 2002, EPA acted on this by revising its list of source categories under § 112 to delete SSIs, not because they were not covered by § 112, but because there were no major sources in that category. See 67 Fed. Reg. 6521 (Feb. 12, 2002) (App. E). EPA then added SSIs to the list of

area (*i.e.*, non-major) source categories under §§ 112(c) and 112(k) of the CAA. See 67 Fed. Reg. 43112 (Jun. 26, 2002) (App. F); 67 Fed. Reg. 70427 (Nov. 22, 2002) (App. G). These actions are entirely consistent with EPA's earlier view that SSIs are subject to regulation under § 112 of the CAA; and they are inconsistent with EPA's new view in the SSI Rule that SSIs are subject to regulation under § 129 – for example, there is no major source/area source distinction for sources subject to § 129, so basing these listing and delisting decisions on this distinction is incongruous with the Agency's current view that SSIs are subject to § 129.

**2. SSIs Are Not “Solid Waste Incineration Units” and Therefore Cannot Be Regulated Under § 129 of the CAA.**

Notwithstanding the clear language of § 112(e)(5) and evidence that Congress intends SSIs to be regulated as part of POTWs, EPA's preamble to the SSI Rule responded to commenters' arguments in conclusory fashion, stating that it “has taken the position in its regulation of POTW under the Clean Air Act that § 112(e)(5) does not apply to SSI units and for this reason did not regulate them in its POTW § 112(d) emission standards.” 75 Fed. Reg. 63264 (Oct. 14, 2000). EPA nowhere justifies how it reaches the conclusion that SSIs are not covered by the expansive CWA definition of “treatment works” incorporated into CAA § 112(e)(5), how its position is reasonable in light of the integral role SSIs play in the management of sewage sludge, or how SSIs could have been built and

improved using CWA Title II funds if they are not part of the CWA definition of “treatment works.”

The reason for these failures is apparent: There *is* no justification for EPA’s position. The plain meaning of Congress’ invocation in § 112(e)(5) of the CWA definition of POTW, coupled with EPA’s many regulatory pronouncements and actions, makes EPA’s current position on §§ 112(e)(5) and 129 clearly contrary to the text of the CAA and arbitrary and capricious. Section 112(e)(5) specifically compels regulation of POTWs under § 112(d), and nothing in the language of § 129 suggests that SSIs are not to be treated as part of the POTW to be regulated under § 112. The legislative history of § 129 is also silent as to SSIs.

SSIs also cannot be regulated under § 129 because they do not fit within the definition of “solid waste incineration unit” under § 129(g)(1). Per § 129(a)(1)(A) and (b)(1), EPA must set emission standards “for each category of solid waste incineration units.” Section 129(b) commands EPA to establish emission guidelines for existing solid waste incineration units. Thus, the definition of solid waste incineration unit serves a gate-keeping function – if the unit at issue is a solid waste incineration unit, then it is subject to standards under § 129. Section 129(g)(1) defines the term solid waste incineration unit as “a distinct operating unit of any facility which combusts any solid waste material from commercial or industrial establishments or the general public (including single and multiple

residences, hotels, and motels).”<sup>3</sup> By contrast, sewage sludge is generated in the POTW from the treatment of wastewater after several stages of filtering, chemical and physical treatment, and dewatering. Thus, the sewage sludge combusted in SSIs is generated within the POTW itself, a local government-owned facility, and so is not a solid waste material collected “from commercial and industrial establishments or the general public” as defined under § 129(g)(1). EPA has itself long acknowledged that sewage sludge is generated in the POTW and also concluded that these sludges are not solid waste. See, e.g., 55 Fed. Reg. 46354, 46364 (Nov. 2, 1990) (sludges generated in the POTW are covered under the domestic sewage exclusion) (App. H).<sup>4</sup>

Instead of addressing these central issues of statutory interpretation on the merits, EPA incorrectly claims that this Court’s decision in Natural Res. Def. Council v. EPA, 489 F.3d 1250 (D.C. Cir. 2007) (“NRDC”), “precludes” EPA from regulating SSIs under § 112 and that promulgation of the SSI Rule is

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<sup>3</sup> The section goes on to create exceptions for certain types of units used for metals recovery, energy production and disposal of wood and yard wastes.

<sup>4</sup> NACWA also contends in its separate challenge to EPA’s rule that defines Non-Hazardous Secondary Materials That Are Solid Waste, 76 Fed. Reg. 15456 (Mar. 21, 2011) (“NHSM”), that sewage sludge is excluded from “solid waste” under the RCRA domestic sewage exclusion (42 U.S.C. § 6903(27)), and thus SSIs cannot be solid waste incineration units for this reason as well. However, the reasons that SSIs do not fall under § 129 as set forth in this motion are independent of EPA’s NHSM rule.

necessary in order “to comply with the Clean Air Act and the court decision in *NRDC v. EPA*.” 76 Fed. Reg. 15383. Based on this view that NRDC is controlling, EPA discounts all of its earlier pronouncements regarding regulation of SSIs under § 112 as nullified by the NRDC decision. *Id.*

However, EPA’s reliance on the NRDC case is clearly erroneous. The NRDC decision invalidated EPA’s attempt to carve out new exceptions from the definition of “solid waste incineration units” based on energy recovery and other criteria that have nothing to do with SSIs. Thus, the decision has no bearing on the proper regulation of SSIs. The panel in that case did not address or rule on the proper application of § 112(e)(5), nor did it address or rule on the regulation of POTWs or SSIs or the issue of whether SSIs must be regulated as part of POTWs under § 112(d).<sup>5</sup> NRDC cannot “preclude” EPA from performing its fundamental obligation to interpret and apply the CAA properly in regulating SSIs.

Even if EPA had independently decided that SSIs can be covered by the general definition of a solid waste incineration unit, instead of justifying the SSI

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<sup>5</sup> EPA’s preamble accurately claims that the NRDC decision rejected EPA’s claim of discretion to “create” additional exemptions from regulation under § 129, beyond those already contained in § 129(g). *See* 76 Fed. Reg. 15383. But this argument is not at all pertinent to EPA’s obligation to honor the scheme *created by Congress* for SSIs under § 112(e)(5). Indeed, if anything in the spirit of the NRDC decision is important here, it is this Court’s admonition to EPA to apply the CAA as written.



Rule on an incorrect reading of NRDC, such an interpretation is not supportable for the reasons discussed above. Further, it is axiomatic that the specific direction of Congress contained in § 112(e)(5) is controlling over the general provisions of § 129 dealing with solid waste incineration. “However inclusive may be the general language of a statute, it will not be held to apply to a matter specifically dealt with in another part of the same enactment.” Fourco Glass Co. v. Transmirra Prods. Corp., 353 U.S. 222, 228 (1957).

CAA § 112(e)(5) unambiguously directs EPA to set emission standards for SSIs under CAA § 112(d), and this section does not contain language permitting EPA discretion to regulate SSIs under § 129. Although Congress under § 112(d)(1) allows EPA to promulgate differing standards for major and area sources at POTWs and for differing categories and subcategories of sources at POTWs, the Agency does not have authority to set standards under § 129 for POTWs or parts of POTWs, including SSIs. Indeed, EPA has previously held the very same interpretation of the proper way to regulate SSI. EPA can change its mind on *policy* issues if the Agency develops a reasoned analysis to support the change, Motor Vehicle Mfrs. Ass’n v. State Farm Mut., 463 U.S. 29 (1983); however, it cannot act contrary to a statutory directive that compels a singular outcome, as the CAA does here.

However, even if Congress had left some room in § 112(e)(5) for interpretation on the issue, EPA's current position fails under Chevron's "step two" analysis. EPA's position that it is compelled to regulate SSIs under § 129 is not an expression of the Agency's interpretation of the CAA, but rather an (incorrect) reading of this Court's decision in NRDC. Therefore, EPA's position is not entitled to any administrative deference under Chevron. EPA's rationale for using § 129 is grounded in and so tainted by its incorrect reading of NRDC that the Agency has essentially abdicated its role in interpreting the CAA. The Agency's reading of the NRDC decision does not bring to bear any special technical expertise, Agency political accountability or Congressionally delegated policymaking that justify judicial deference under Chevron.

Finally, for the several reasons discussed above, EPA's position is so fundamentally at odds with the inclusive definition of "treatment works" under Title II of the CWA and EPA's consistent interpretation of the term as including SSIs that it cannot be a permissible reading of the use of the same term within the context of § 112(e)(5).

**B. The SSI Rule Emission Standards are Based Upon Data from an Impermissibly Small Number of Sources, and EPA Failed to Use Representative Data to Set the Standards.**

Assuming *arguendo* that SSIs may be regulated under CAA § 129, the standards EPA has created are unlawful because (1) the database EPA used to set

the maximum achievable control technology (“MACT”) floors does not contain data from the statutorily mandated number of SSIs, and (2) EPA failed to consider and use available data showing the inherent variability of sewage sludge combusted in the best performing SSIs.

**1. EPA’s SSI Database Is Inadequate.**

In performing MACT floor calculations, § 129(a)(2) provides that the floor for existing sources cannot be less stringent than “the average emission limitation achieved by the best performing 12 percent of units in the category.” Unlike the MACT floor calculation provision in § 112(d), § 129(a)(2) does not permit the Agency to use a smaller number of sources in the calculation where data from the best performing 12 percent are not available.

The SSI Rule contains two subcategories of sources – fluidized bed incinerators (“FBIs”) and multiple hearth incinerators (“MHIs”) – based on the design of the incinerator technology. Because EPA identified 60 existing FBIs and 144 existing MHIs, § 129(a)(2) requires the Agency to derive the floor based on data from eight FBIs and 18 MHIs. See “Revised MACT Floor Analysis for the Sewage Sludge Incinerator Source Category,” EPA Docket No. EPA-HQ-OAR-2009-0559-01571 (Jan. 2011) (“Revised MACT Floor Memo”) at 6 (App. I). Instead, EPA set the MACT floor standards for FBIs based on data from as few as four (6.7 percent) and no more than six (10 percent) of the 60 FBIs identified by

EPA. EPA set the floors for MHIs based on data from less than 4 percent of the 144 units in that subcategory.<sup>6</sup>

By EPA's own admission, § 129 does not permit the Agency to stop short of collecting sufficient emissions information from the required number of SSIs. As EPA acknowledges:

While Congress adopted identical language describing the MACT floor calculation in section 129(a)(2) as it did in section 112(d)(3), the latter section includes a provision stating that the floor for existing sources cannot be less stringent than “the average emission limitation achieved by the best performing 12 percent of the existing sources (for which the Administrator has emissions information)[.]” Section 129, however, simply states that the existing source floor cannot be less stringent than the average emission limitation achieved by the best performing 12 percent of the existing sources in the category. Therefore, while EPA believes Congress intended for the MACT floor calculation under each section of the Act to be the same, **this difference in the text of the two provisions requires us to establish the MACT floor for section 129 source categories based on the best performing 12 percent of sources in the category. Because EPA does not have that data at this time, the statistical technique described below is the only manner in which we can establish the existing source floor on that basis.**

See Revised MACT Floor Memo at 8 (emphasis added). Statistical manipulations of an undersized database do not meet the mandate of § 129(a)(2) to base the emission standards on 12 percent of “units” in the category.

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<sup>6</sup> EPA's SSI count also appears erroneous. Commenters pointed out that a 2009 survey counted 234 active SSIs. EPA did not confirm its initial inventory of SSIs. The consequence of undercounting 30 SSIs means that EPA's MACT floor database is an additional four SSIs short of the statutory minimum.

Furthermore, this is not a case where EPA tried and failed to collect the requisite data. From the outset, EPA consciously decided not to obtain data from the required minimum number of SSIs. By limiting its information collection to only *nine* of the roughly 118 POTWs with SSIs, EPA circumvented the Paperwork Reduction Act, 44 U.S.C. § 3501, and Office of Management and Budget review and thereby gained several weeks under its District Court scheduling order. See P. Tsirigotis Decl. ¶ 43, Ex. 6 to Enclosure A of NACWA Petition (Ex. 1). By cutting corners, EPA guaranteed that it would not collect adequate emissions data from the requisite number of SSIs. Even after collecting additional data from state agencies (after proposal), EPA had data from only six FBIs and some of those units were not tested for all of the CAA § 129 pollutants. The MHI database also lacked data from 12 percent of the MHI units for seven of the nine pollutants to be regulated. Thus, even assuming the improbable – that all of the data EPA collected came from the top performing 12 percent of units within the subcategory – EPA’s database still falls far short of generating the minimum emissions information necessary to set the MACT floors.

**2. EPA Failed to Use Other Available Data Demonstrating Significant Variability in Emission Characteristics Among POTWs and Within a POTW Over Time.**

EPA’s rush through rulemaking also resulted in the Agency disregarding data provided by NACWA and other commenters that would have helped fill some

of these data gaps if the Agency had taken the time to evaluate the data and made reasonable requests for supporting information.

EPA had data – particularly data showing the concentration of metals and other pollutants in sludge combusted in SSIs for all POTWs under the Part 503 regulations – available to it prior to publishing the proposed SSI rule. Because these data show the high variability of emissions of these pollutants from SSIs, commenters urged EPA to use the data to determine the emission rates achieved by the best performing sources under the full range of operating conditions. However, perhaps pressed for time under the District Court’s scheduling order, EPA ignored these data and ended up relying on the original 17 stack tests from the nine informational collection request POTWs. As emphasized in the comments, these data do not represent the emission profiles of the large population of SSIs – or even the profiles of the tested units themselves over time – because they do not account for geographic variability in sludge characteristics among POTWs nor do they account for seasonal and daily variability of sludge characteristics within a POTW.

EPA explained its refusal to use the data in its files and submitted by commenters by claiming that it “did not receive adequate sampling data from the best performing sources” and, thus, concluded that “there is not enough information to determine whether it would be appropriate to incorporate variability in sludge feed into the rule.” 76 Fed. Reg. 15391.

This claim is patently untrue and highlights the Agency's refusal to abide by the CAA's substantive mandates and rulemaking procedures. EPA had available to it years of sludge metals concentration data from all of the POTWs it contends are the best performing sources, from as recently as late 2010 and dating back to the early 1990s. Under the Part 503 regulations, all POTWs are required to collect and submit these data directly to EPA or to the state permitting authorities in some states that have assumed primacy for the Part 503 program. There is no indication in the preamble or the rulemaking docket that EPA tried to retrieve these data from its files or contacted a single commenter to obtain new copies of the data.<sup>7</sup>

As with the Part 503 data, EPA also refused to consider stack test data submitted by commenters who provided test results demonstrating that the proposed emission limits were not supported by sound data. EPA did not use these data simply because commenters did not include a complete stack test report in their comment submission. Id. at 15387. Again, there is nothing in the record to suggest that EPA tried to obtain the backup report information so EPA could verify the data that was submitted. Moreover, some of the nine POTWs targeted by

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<sup>7</sup> NACWA's Petition (Ex. 1) requested that EPA revisit its failure to consider the Part 503 and other data. NACWA included with its Petition a summary and analysis of monthly Part 503 data from January 2005 to as late as December 2010 from 25 POTWs using SSIs, including 15 POTWs operating SSIs that EPA considers to be among the best performing units.

EPA's information collection request submitted their stack test results using EPA's electronic reporting system, and thus never submitted their stack test reports. Yet EPA relies upon these test data – and only these test data – without independently reviewing the test reports to verify the accuracy of the information submitted. It is clearly arbitrary for the Agency to use only the data it wants and to disregard contrasting information by selectively applying more stringent data validation requirements.

EPA's failure to use the Part 503 data and test data submitted by commenters is a violation not only of the database requirements established by § 129 for making MACT floor determinations, as acknowledged by EPA, but also of the fundamental requirement underlying § 129 for rational decisionmaking. See CAA § 307(d)(9), 42 U.S.C. § 7607(d)(9); Cement Kiln Recycling Coal. v. EPA, 255 F.3d 855, 861-62 (D.C. Cir. 2001). See generally NRDC v. EPA, 194 F.3d 130, 136 (D.C. Cir. 1999).

**IV. ABSENT A STAY, THE SSI RULE WILL CAUSE SUBSTANTIAL AND IRREPARABLE HARM TO THE MUNICIPALITIES WHO RELY UPON INCINERATION AS AN ESSENTIAL PUBLIC SERVICE.**

A stay is necessary to ensure a complete correction of the legal defects in the SSI rulemaking and to avoid the potential for irreversible impacts to the environment and on the municipalities that rely upon sewage sludge incineration.



*First*, there is a substantial risk that the SSI Rule will result in significant environmental harm. Because several of the emission limitations in the SSI Rule are so stringent, and EPA has so far failed to account for the inherent variability of sludge characteristics, some municipalities – even those that operate SSIs EPA deemed to be among the “best performers” – predict that no viable control technologies exist that will allow them to operate in compliance with the rule. See N. LeBlanc Decl. ¶¶ 5-6 (NO<sub>x</sub> control technologies never demonstrated for SSIs) (Ex. 3); P. Ball Decl. ¶ 7 (no reliable method for controlling mercury) (Ex. 5); R. Lyons Decl. ¶ 6 (activated carbon absorption not shown to work on SSIs) (Ex. 6). Municipalities also predict that they do not have the physical space and other necessary facilities to retrofit their SSIs to comply with the new standards. See N. LeBlanc Decl. ¶ 7 (Ex. 3); P. Ball Decl. ¶ 7 (Ex. 5).

Municipalities are already being forced to make immediate commitments either to go down the uncertain path of retrofitting their SSIs or abandon incineration and start the conversion to landfilling. For example, New York State regulators set *June 30, 2011* as the date by which POTWs were to certify whether they will retrofit their SSIs to comply with the SSI Rule or commit to permanently shut down their SSIs by *March 21, 2012*. See Supplement to Petition (Ex. 2); R. Lyons Decl. ¶ 9 (Ex. 6). The Commonwealth of Virginia is likewise moving quickly to implement the SSI Rule, which is forcing the Hampton Roads Sanitation

District to make a decision on shutting down four of its SSIs. See N. LeBlanc Decl. ¶ 8 (loss of these SSIs “will potentially result in greater landfilling burdens and increased costs” and also increase pollution from truck tailpipe emissions and from landfill emissions) (Ex. 3). Making such significant changes to sludge management at a POTW takes many months to implement, so the point of no return is now for these local governments. There is no prospect of a ruling on the merits in these cases before these and many other POTWs are forced to make that decision.

The SSI Rule is also having an immediate chilling effect on environmentally beneficial projects. For example, Albany predicts that the SSI Rule will cause it and other POTWs to avoid undertaking energy recovery and other beneficial projects because the projects may trigger expensive and possibly unachievable regulation. See R. Lyons Decl. ¶¶ 5-7 (Ex. 6). The City of Cedar Rapids is evaluating replacing its flood damaged older MHI with a new FBI, but the timing of the effective date of the SSI Rule may postpone or eliminate such an environmentally beneficial upgrade. See P. Ball Decl. ¶ 5.

The environmental impacts of switching away from incineration are practically irreversible and are magnified precisely because landfilling is not an environmentally or economically attractive option for those communities who rely on incineration. Communities that are forced to switch are extremely unlikely to

switch back if EPA later promulgates a defensible SSI rule because they will have eliminated their incineration systems and invested millions in new treatment equipment, sludge storage, and truck loading facilities. See N. LeBlanc Decl. ¶ 9 (capital costs of \$200 million and net present value of total costs equals \$546 million) (Ex. 3).

EPA never gave weight to the environmental impacts that would cascade from municipalities being forced to switch to landfilling. However, these impacts would be serious and many of them permanent. Increased diesel exhaust emissions from literally thousands of new truck trips travelling, in some cases, more than 260 miles round trip to the nearest landfill will greatly exceed emissions from incineration. See NEORSD Decl. ¶ 12 (Ex. 4); P. Ball Decl. ¶ 8 (170 miles round trip to nearest landfill) (Ex. 5). Emissions from trucks and landfills are far more difficult and costly to monitor and control. Landfilling sludge increases methane emissions (a powerful greenhouse gas) from the decomposition of organic materials, which does not occur during incineration. Landfilling also increases energy impacts due to increased consumption of fossil fuel for trucking, and other impacts to communities due to additional traffic congestion. Due to the combined effect of increased emissions from trucking and from landfill emissions, NEORSD estimates that the “carbon footprint” resulting from the SSI Rule forcing a switch to landfilling would be *more than 35,000 metric tons CO<sub>2</sub> equivalent greater than*

*their current energy recovery project.* See NEORSD Decl. ¶¶ 12-13 (Ex. 4).

Absent a stay, communities that are forced into landfilling would be irretrievably committed to less environmentally beneficial sewage sludge management options.

*Second*, absent a stay, EPA’s interpretation of its standard-setting authority under the CAA will operate to cause additional irreparable and unjustifiable harm to municipalities who have no practical alternative to incineration. Ironically, this harm will occur *even if* this Court ultimately agrees that the SSI Rule is legally flawed. When EPA published the SSI Rule, it also published another set of CAA § 129 standards for commercial and industrial solid waste incineration units (“CISWI”). See 76 Fed. Reg. 15704. In the preamble to the CISWI rule, EPA responded to comments on the so-called “MACT-on-MACT” issue – that is, whether EPA may lawfully include in newly promulgated MACT floor calculations the emission levels that incinerators were forced to achieve by virtue of unlawful predecessor MACT standards that this Court had remanded to EPA. In the CISWI preamble, EPA contended that it *must* use the MACT-on-MACT approach by virtue of the literal language of CAA § 129. Id. at 15721-22. Although Movants contend that EPA’s legal position is erroneous, that position nonetheless sets the stage for a potentially profound and irreversible impact on POTWs with SSIs. If the SSI Rule is not stayed, inevitably some POTWs will install new control technologies and equipment in an effort to comply with the SSI

Rule. The effect will be to lower emissions to some degree and, thereby, to lower emission rates of SSIs selected as the best performing units and used to set the future MACT floor. If ultimately the Court vacates and remands the SSI Rule back to EPA, then, according to EPA's interpretation of § 129, the performance of these SSIs that installed new controls during the litigation will be part of the MACT floor database when it comes time to re-establish the MACT standards. The fact that these controls were added solely due to the previous unlawful standards is apparently irrelevant in the Agency's view of § 129.

To illustrate the magnitude of this harm, it is possible that new and modified units that were forced to install controls immediately upon startup in order to meet illegal *new source* standards could become the factual predicate for setting the floors for *existing sources* in a future SSI rulemaking. There is an obvious irreversible impact arising from the ratcheting down of future MACT standards by virtue of a prior unlawful rulemaking. A stay avoids this harm by postponing the compliance date and thereby removing the immediate need to install new controls required by an illegal rule.

*Third*, and finally, a large number of municipalities will suffer significant economic harm unless a stay is granted, and there is no prospect of compensatory relief for the costs these communities and their rate payers are incurring. Retrofitting SSIs with the necessary add-on control equipment is a costly and time-

consuming process. Even by EPA's own estimation, dozens of municipalities will be forced to start spending public funds and committing other scarce public resources to planning, engineering and procurement of additional building space, add-on control devices and other equipment in order to try to meet the present emission standards.

New sources must comply with the SSI Rule upon startup. Existing sources may be subject to the rule as early as September 2013, depending upon when states adopt regulations implementing the rule. Depending upon how much an existing unit has spent in upgrading or improving its SSI prior to the effective date of the rule, the existing unit may be subject to the new source standards should it need to make additional improvements or changes in operation to the unit after the effective date. Municipalities, as governmental entities, face the added challenge of longer-term financial planning requirements and uncertain financing options as state and local budgets and jobs are cut in the current economic environment. See R. Lyons Decl. ¶ 9 (ramifications "can be devastating") (Ex. 6). Many municipalities have already been forced to incur irretrievable costs for planning and procurement activities in order to identify compliance gaps, to locate capital project funding sources, to acquire the necessary engineering services and equipment, and to complete the major infrastructure and control equipment installations required for many SSIs. These impacts have already started occurring

and will increase in magnitude without a stay. See NEORSD Decl. ¶ 15 (Ex. 4); R. Lyons Decl. ¶ 9 (Ex. 6).

**V. A STAY WILL NOT HARM ANY OTHER PARTY.**

There is no foreseeable prospect that others will be harmed by staying the SSI Rule. Emissions reducing regulations are already in place under the Part 503 program – and will continue to remain in place – that control emissions from SSIs in order to protect public health.

Since 1993, SSIs have been subject to a comprehensive regulatory program for reducing the potential environmental risks of sewage sludge pursuant to CWA § 405 and EPA's implementing regulations set forth in 40 C.F.R. Part 503. Section 405(d) of the CWA required EPA to establish numeric limits and management practices that protect public health and the environment from the adverse effects of toxic pollutants in sewage sludge. Section 405(e) prohibits any person from disposing of sewage sludge from a POTW or other treatment works treating domestic sewage through any use or disposal practice for which regulations have been established pursuant to § 405, except in compliance with the Part 503 regulations.

In the Part 503 regulations, EPA has identified the pollutants in sewage sludge that may adversely affect public health or the environment and has specified the management practices for the utilization and disposal of sewage sludge that are

protective of public health and the environment. For SSIs the Part 503 regulations require, among other things:

- (1) risk-based emission limits for emissions of arsenic, cadmium, chromium, lead and nickel;
- (2) compliance with the CAA NESHAP for mercury and beryllium;
- (3) operational technology-based emission limits for total hydrocarbons or an alternative emission limit for carbon monoxide; and
- (4) numerous management practices and monitoring, recordkeeping and reporting requirements.

See 40 C.F.R. Part 503, Subpart E. The Part 503 emission limits and management practices were promulgated by EPA based on studies of the potential risks to human health and the environment which could be posed by the incineration of sewage sludge. The regulation of SSIs under the Part 503 regulations is through risk-based standards that were developed by EPA to protect human health and the environment from any reasonably anticipated adverse effects from pollutants that may be present in sewage sludge. As a result, SSIs can clearly demonstrate that the emissions from their operations are not adversely impacting human health and the environment by demonstrating compliance with the Part 503 requirements.

Additionally, since 1975, EPA has imposed, pursuant to the CAA, NESHAPs for mercury and beryllium emissions that apply to certain SSIs. See 40 C.F.R. Part 61, Subparts E and C. The mercury NESHAP, which applies to any source that incinerates sludges from wastewater treatment plants, imposes emission



limits for mercury, as well as stack testing, sampling and monitoring requirements. The beryllium NESHAP, which applies to any incinerator that processes beryllium-containing waste, imposes emission limits for beryllium, as well as sampling requirements. These NESHAPs are expressly incorporated into the Part 503 requirements applicable to SSIs.

Thus, emissions from SSIs are already regulated by other congressionally-mandated, comprehensive regulations that, in EPA's view, are adequately protective of human health and the environment. These regulations would be unaffected by stay of the SSI Rule. Therefore, staying the SSI Rule during this litigation will not result in any harm to public health or the environment.

Although the emission standards in the SSI Rule are significantly more stringent than many of the Part 503 standards, the SSI Rule standards are technology-based standards that (are supposed to) reflect the emission performance achieved by the best performing units in each category or subcategory. EPA *does not* base the SSI Rule on any finding or demonstration that additional control of emissions from SSI is necessary to protect public health. Nor could it, given that the Part 503 regulations already ensure such protection.

Finally, EPA cannot seriously contend that it (or any other party) would be harmed by a stay of demonstrably unlawful regulations that impose costly and, in some cases, unachievable requirements on municipalities which the Agency has no

authority to regulate as it wishes under the CAA. To continue implementing the SSI Rule during this Court's review would amount to administrative fiat, upsetting the more flexible regulatory scheme that Congress mandated for SSIs under the CWA.

## **VI. A STAY WILL ADVANCE THE PUBLIC INTEREST.**

A stay will serve the public interest for at least two reasons. *First*, a stay will allow this appeal to proceed while maintaining the regulatory and economic *status quo ante* – *i.e.*, the conditions existing prior to EPA's adoption of unlawful requirements in the SSI Rule. See, e.g., Cobell v. Kempthorne, 455 F.3d 301, 314 (D.C. Cir. 2006). The public interest is best served by preserving the viability of the essential public services that these POTWs provide and preventing wasteful use of taxpayer resources for less environmentally beneficial sewage sludge management alternatives.

*Second*, granting relief from immediate implementation of the rule will help preserve meaningful judicial review and ensure the Court's power to fashion an appropriate remedy to unlawful agency action. A stay is “not simply ‘[a]n historic procedure for preserving rights during the pendency of an appeal,’ but also a means of ensuring that appellate courts can responsibly fulfill their role in the judicial process.” Nken v. Holder, 129 S. Ct. 1749, 1757 (2009).

**CONCLUSION**

For the foregoing reasons, Movants respectfully request that the Court stay the effectiveness and implementation of the SSI Rule until final resolution of their petitions for review before this Court.

Dated: September 9, 2011

Respectfully submitted,

/s/ Jeffrey A. Knight

Jeffrey A. Knight

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**CERTIFICATE OF SERVICE**

I hereby certify that on this 9th day of September 2011 copies of the foregoing Emergency Joint Motion for Stay of the Sewage Sludge Incineration Rule were served electronically through the Court's CM/ECF system on all registered counsel.

/s/ Jeffrey A. Knight .

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# Exhibit 3

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

## Respondents

Page 1

157 million gallons of wastewater per day. Through our operations, HRSD protects the public health of the greater Hampton Roads community and environment including the waters of the Chesapeake Bay.

2. This declaration is submitted in support of the Joint Motion for Stay of the SSI Rule by the National Association of Clean Water Agencies (“NACWA”) and Hatfield Township Municipal Authority (“Hatfield Township”) requesting stay of the “Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units,” 75 Fed. Reg. 15372 (Mar. 21, 2011) (the “SSI Rule”). NACWA’s petition asks the U.S. Environmental Protection Agency (“EPA”) to reconsider central elements of the final rule establishing emission limitations and other requirements under § 129 of the Clean Air Act (“CAA”) applicable to sewage sludge incinerators (“SSI”).
3. In my capacity as Director of Water Quality for HRSD and member of HRSD’s Senior Management Team, I am responsible for planning and budgeting for the utility’s facilities and capital improvement projects, including the acquisition of equipment and services that are necessary to comply with the requirements of EPA’s SSI Rule. Based on the significant impacts of the SSI Rule, HRSD has commenced a planning project with an

outside engineering consultant to determine, in part, how to best address SSI Rule. Moreover, the SSI Rule has drawn into question HRSD's long term biosolids strategy including the future of biosolids resource recovery options.

4. HRSD has five POTWs that incinerate biosolids:

- HRSD Army Base, Norfolk, VA
- HRSD Boat Harbor, Newport News, VA
- HRSD Chesapeake-Elizabeth, Virginia Beach, VA
- HRSD Virginia Initiative Plant ("VIP"), Norfolk, VA, and
- HRSD Williamsburg, Williamsburg, VA.

Each of these POTWs has two MHIs (for a total of 10 SSIs) that comply with all current state and federal regulations including air quality requirements codified in each facility's Title V federal operating permit.

HRSD's SSIs were originally constructed using Clean Water Act Title II grant funding in the 1970s and are now subject to the existing source standards under the SSI Rule. Several of HRSD's MHIs were used by EPA to set the emission limits for existing MHIs in the SSI Rule, including the



emission limits for nitrogen oxides (“NO<sub>x</sub>”), carbon monoxide (“CO”), cadmium, lead, and mercury.

5. However, based on the most recent stack testing, HRSD predicts that none of its 10 MHIs can reliably achieve the sulfur dioxide (“SO<sub>2</sub>”) and NO<sub>x</sub> emission limitations for existing sources, without add-on pollution control devices, which in the case of NO<sub>x</sub> controls have never been demonstrated as effective for MHIs. Achieving compliance with the SO<sub>2</sub> limit will likely require an additional wet acid gas scrubber for each MHI. Achieving the NO<sub>x</sub> limit will require either modification to the combustion process (e.g., combustion adjustments and low NO<sub>x</sub> burners) and, if those changes are not sufficient, addition of selective catalytic reduction (“SCR”) or selective non-catalytic reduction (“SNCR”) controls. It is questionable that combustion adjustments alone will be sufficient to reliably meet the NO<sub>x</sub> and CO standards.
6. The inverse relationship between the creation of NO<sub>x</sub> and CO further complicates the path to compliance, since lowering NO<sub>x</sub> increases CO emissions. The increase in CO emissions may require addition of an afterburner; however, this will increase NO<sub>x</sub> emissions from the greater use of auxiliary fuel. NO<sub>x</sub> controls like SCR/SNCR have never been applied to

an MHI before so it is unknown if SCR/SNCR would even work in this application. Testing also indicated that HRSD VIP cannot reliably achieve the SSI Rule particulate matter, lead, cadmium, and dioxin/furan limits. This would require air pollution controls (wet electrostatic precipitator and an afterburner) in addition to SO<sub>2</sub> and NO<sub>x</sub> controls.

7. Should HRSD continue to operate our MHIs, we estimate that it will cost as much as \$57 million to retrofit our five MHI plants to comply with the SSI Rule. *See* Enclosure A attached hereto. This cost estimate only represents the engineering and procurement costs for the capital improvements. The estimate does not include commensurate increases in annual operating and maintenance costs. The cost estimate also does not include the new regulatory costs such as stack testing, continuous emissions monitoring, monitoring, recordkeeping, and reporting. The total present worth cost of this option is estimated at \$420 million. *See* Enclosure B attached hereto. Once any pollution control equipment is installed to comply with the SSI Rule, removing the equipment after the fact is not practicable.
8. HRSD has recently been informed by the Virginia Department of Environmental Quality they are planning to “move quickly” to implement the SSI Rule. HRSD requested DEQ provide as much time as possible for


HRSD and the other Virginia MHIs to determine how best to comply with the SSI Rule. One current alternative is for HRSD to mothball four of its 10 MHIs because they potentially cannot comply with these new requirements and we do not have sufficient space to locate the controls necessary to comply with the rule, given competing space demands based on nutrient removal requirements established by EPA to meet the Chesapeake Bay Nutrient total maximum daily load ("TMDL"). This loss of incineration capacity will potentially result in greater landfilling burdens and increased costs. MHI emissions reductions will also be offset by air pollution from truck tailpipe emissions and from landfill emissions.

9. The current cost estimates that HRSD has prepared should it choose to abandon incineration entirely in response to the SSI Rule and implement alternatives to manage biosolids are identified in Enclosure B as system alternatives 9, 15, and DW. These estimates are based on professional engineering judgments and information provided by equipment manufacturers and product vendors. The current capital cost estimates of these options exceeds \$200 million and the total present worth costs are over \$546 million. Given HRSD's current capital improvement budget committed to meeting the Chesapeake Bay Nutrient TMDL and a sewer

system overflow consent order with EPA, HRSD is limited in its resources to afford this additional regulatory burden.

I declare under penalty of perjury that the foregoing is true and correct.

Executed September 7, 2011  
Virginia Beach, Virginia

  
Norman E. LeBlanc

# Enclosure A



## Biosolids Resource Recovery Master Plan (BRRMP) Improvements

**GN-141-2**

SYSTEM	<u>General</u>	CATEGORY	<u>Treatment Plant</u>
TYPE	<u>Solids Management</u>	PROJ STATUS	<u>Proposed</u>

**PROGRAM CASH FLOW PROJECTION (\$,000)**

Prog Cost	Exp to FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
\$57,465	\$0	\$269	\$1,414	\$2,538	\$18,242	\$19,242	\$15,759	\$0	\$0	\$0	\$0

**PROJECT DESCRIPTION**

This project is a place holder for the improvements recommended in the Biosolids Resource Recovery Master Plan (BRRMP). The cost estimate for this project is based on adding Air Pollution Control (APC) devices at each incinerator plant.

**PROJECT JUSTIFICATION**

With the changing biosolids reuse/disposal and incineration regulations, public perception issues, and energy and sustainability challenges, HRSD is seeking to develop a Biosolids Resource Recovery Master Plan (BRRMP) to serve as a long-term, sustainable biosolids management strategy for the organization.

The most recent biosolids management strategy was completed in 2006, but has become outdated with pending regulations. One key pending EPA regulation will classify biosolids as solid waste which will require significant improvements or possibly the elimination of our incinerators, which represents over 70% of HRSD's biosolids handling.

FUNDING TYPE	REQUIRED SERVICES	CONTACTS
Revenue Bonds	Outside Study	Requesting Dept: <u>General Manager</u>
	Outside Design	Dept Contact: <u>Jay Bernas</u>
	Outside Construction	Managing Dept: <u>Engineering</u>
Acct No _____		
VRLF No _____		

**PROPOSED SCHEDULE**

Pre-Planning	Oct-11
PER	Dec-11
Design	Dec-12
Construction	Jun-14
Project Completion	Dec-16

**COST ESTIMATE**

PER	\$461,770
Design	\$2,616,695
Pre Construction	\$30,785
Construction	\$54,355,370
<b>Est. Program Cost</b>	<b>\$57,464,620</b>
Contingency 20%	\$10,871,075
<b>Est. Project Cost</b>	<b>\$68,335,695</b>

**RELATED INFRASTRUCTURE****RELATED PROJECTS**

GN-141-1 Biosolids Resource Recovery Master Plan (BRRMP)

# Enclosure B

## Unit Processes

4/14/2011



# Exhibit 4

**ORAL ARGUMENT NOT YET SCHEDULED**

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

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**NATIONAL ASSOCIATION OF CLEAN  
WATER AGENCIES,**

**Petitioner**

**v.**

**ENVIRONMENTAL PROTECTION  
AGENCY and LISA PEREZ JACKSON,  
ADMINISTRATOR, ENVIRONMENTAL  
PROTECTION AGENCY**

**Respondents**

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**No. 11-1131**

**(consolidated with Nos.  
11-1167 and 11-1185)**

**DECLARATION OF NORTHEAST OHIO REGIONAL SEWER DISTRICT**

I, Julius Ciaccia, hereby declare as follows:

1. I am the Executive Director for the Northeast Ohio Regional Sewer District (“NEORSRD”), a position I have held since November of 2007. NEORSRD is a publicly-owned regional wastewater utility that provides wastewater collection and treatment services for 1.1 million residents and businesses within the City of Cleveland and 61 suburban communities. NEORSRD owns and operates three wastewater treatment plants (“WWTPs”) (Easterly, Southerly and Westerly), processes an average of approximately 230 million

gallons of wastewater per day and currently manages approximately 40,000 dry U.S. tons (100,000 wet tons) of sewage sludge (biosolids) on an annual basis in an environmentally sound and cost-effective manner.

2. This declaration is submitted in support of the Joint Motion for Stay of the SSI Rule by the National Association of Clean Water Agencies (“NACWA”) and Hatfield Township Municipal Authority (“Hatfield Township”) requesting stay of the “Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units,” 75 Fed. Reg. 15372 (Mar. 21, 2011) (the “SSI Rule”). NACWA’s petition asks the U.S. Environmental Protection Agency (“EPA”) to reconsider central elements of the final rule establishing emission limitations and other requirements under § 129 of the Clean Air Act (“CAA”) applicable to sewage sludge incinerators (“SSI”).
3. In my capacity as Executive Director of NEORSD I have overall responsibility for planning and budgeting for NEORSD’s facilities and capital improvement projects, including the acquisition of equipment and services that may be necessary to comply with certain regulatory requirements of the SSI Rule.

4. Approximately 93% of NEORSD's sewage sludge is incinerated and the balance is either disposed of in the PPG Lime Lakes Reclamation Project or a municipal solid waste landfill. NEORSD currently operates six (6) multiple hearth incinerators as well as a fluidized bed "skimmings only" incinerator. All of these were constructed using grants awarded by EPA under the Clean Water Act Title II grant authority.
5. In addition, NEORSD is actively constructing a new \$165 million Incineration Facility at the Southerly WWTP. This new facility includes a new sludge dewatering system, three (3) new fluidized bed incinerators, and an energy recovery/production system. All of the sewage sludge generated at the Southerly and Easterly WWTPs along with the skimmings from all three (3) WWTPs will be incinerated in the new facility. The new facility will replace the existing four (4) multiple hearth incinerators at the Southerly WWTP and the skimmings-only incinerator at the Easterly WWTP, leaving two (2) existing multiple hearth incinerators functioning at the Westerly WWTP.
6. The Incineration Facility, scheduled to be placed into service in 2013, is anticipated to result in an estimated 100 ton/year reduction in air emissions, a 44,000 metric ton carbon dioxide equivalence ("CO<sub>2</sub>e")/year reduction in

greenhouse gas emissions and a substantial reduction in the use of fossil fuels. All of NEORSD's current SSIs would be subject to existing source standards under the SSI Rule.

7. NEORSD's preliminary construction costs that could be justified by the SSI Rule, including engineering fees, related construction management costs and contingencies, are estimated to be in the range of \$38 million to \$51 million. Due to the inherent variability of influent to the WWTPs, the new SSI Rule will present challenges to NEORSD in terms of compliance with cadmium, lead, mercury, oxides of nitrogen ("NO<sub>x</sub>") and sulfur dioxide ("SO<sub>2</sub>") emission limits. Construction could include projects at two of NEORSD's WWTPs:

8. **Westerly WWTP:** At the NEORSD Westerly WWTP, wet electrostatic precipitators ("ESPs") could be installed to further reduce particulate matter and particulate-based metal emissions. In addition, better temperature controls and wet scrubbing process improvements could improve gaseous emissions. Finally, activated carbon absorbing systems are being evaluated as a means to reduce mercury emissions. Therefore, the range of improvements being investigated for the Westerly WWTP would be \$4.4 million to \$17.9 million. These evaluations are complicated by the fact that

space is very limited at the Westerly WWTP, especially around the incinerator building, and that the efficacy of such technology is an open question.

9. **Southerly WWTP:** As discussed above, the four (4) existing multiple hearth incinerators at the Southerly WWTP will be replaced by the three (3) new fluidized bed incinerators currently under construction. While emission testing data for these exact units do not exist, test data from operational fluidized bed incinerators at other utilities suggest that wet electrostatic precipitators (ESPs) to reduce particulate based metal emissions and activated carbon absorbing systems to reduce mercury emissions may be suitable for evaluation. Such improvements at the Southerly WWTP would be estimated at \$33 million.
10. Were the above-described capital improvements made, NEORSD's annual operation and maintenance ("O&M") costs are estimated to increase by approximately \$2.0 million. Such O&M costs estimates include the additional chemical costs, additional water and energy usage to operate the systems, and the additional manpower to run and maintain the systems.
11. In 2005, NEORSD prepared a Long-Term Residuals Management Plan which analyzed a variety of potential residual management options for

NEORSD's three (3) WWTPs. The plan resulted in recommendations to continue the incineration of biosolids with landfilling only as a backup method. In 2008, NEORSD conducted a validation workshop with biosolids management experts to determine the most energy efficient, environmentally friendly and cost-effective technology for biosolids management. The panel's recommendation was to move forward with the Incineration Project at the Southerly WWTP as the most viable, environmentally protective and cost-effective management option for NEORSD's biosolids.

12. During the residuals study and validation workshop, the option of landfilling biosolids was assessed. It was determined that landfilling of all of the biosolids produced by NEORSD operations is not a practically or economically available option for NEORSD. If NEORSD were to shut down its incinerators and utilize another method for biosolids management such as landfilling, NEORSD would be required to construct new facilities at the Southerly WWTP and Westerly WWTP to accommodate as many as 26 trucks per day. In 2008, an engineering estimate of \$37.4 million was prepared for converting biosolids operations at Southerly from incineration to landfill. Due to the space constraints at the Westerly WWTP, moreover, it is uncertain if it is even possible to convert the plant from incineration to trucking and landfilling. In addition to the significant costs associated with

landfilling, there are environmental and social impacts associated with landfilling biosolids. NEORSD currently produces approximately 100,000 wet tons of sludge annually. This number is expected to increase to 190,000 wet tons when sludge process changes and the new fluidized bed incinerators are on-line and as NEORSD receives increased flows at the plant due to area growth and combined sewer overflow CSO capture and treatment. Current rates in NEORSD contracts for sludge hauling and landfilling are \$35.80 per ton. Today, therefore, landfilling all of NEORSD's sludge would cost approximately \$5 million to \$7.5 million annually. If NEORSD were forced into landfilling this would result in an increase of approximately 9,500 truckloads per year (i.e., approximately 183 trucks per week, 52 weeks per year). Furthermore, the closest landfill able to accept sewage sludge from NEORSD is 130 miles away. This translates into 1.2 million vehicles miles per year and approximately 247,000 gallons of diesel fuel, and all their associated emissions.

13. It is uncertain whether landfills would be able to accept the volume of biosolids produced by NEORSD on a consistent and daily basis. The 2008 NEORSD validation workshop identified that landfill disposal of the biosolids from the Southerly WWTP would have the largest carbon footprint



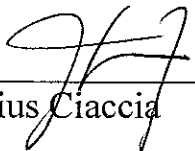
of the options considered and that fluidized bed incinerators with energy recovery has the smallest:

<b>Biosolids Management Alternative</b>	<b>Metric Tons CO<sub>2</sub> Equivalent</b>
Current Multiple Hearth Incinerators	19,280
Fluidized Bed Incinerators	5,700
Fluidized Bed Incinerators w/Energy Recovery	-10,500
Landfill Disposal	25,275

14. NEORSD is incorporating an energy recovery/production system in its fluidized incinerator project at the Southerly WWTP which will reduce greenhouse gas emissions and fossil fuel usage. The incinerators will be equipped with boilers to convert the energy in the incinerator exhaust gases to high pressure steam. The high pressure steam will be used to operate a steam turbine that will produce at least 2.6 megawatts of electricity, approximately 25% of the plant's electrical power demands. The electricity will be used to operate equipment within the Incineration Facility. The new turbine is expected to result in a 16,000 metric ton CO<sub>2</sub>e/year reduction in greenhouse gas emissions from the mainly coal-burning power plants that currently supply electricity to the Southerly WWTP.

15. Incineration is a viable, cost-effective and environmentally friendly biosolids management option at NEORSD. The SSI Rule could prompt increases in capital expenditures and could impact future operating and maintenance costs. If NEORSD is forced to abandon incineration, it will result in an enormous economic loss that cannot be recovered and will increase emissions of priority pollutants and greenhouse gases.

I declare under penalty of perjury that the foregoing is true and correct.

  
\_\_\_\_\_  
Julius Ciaccia

Executed September <sup>8</sup>\_\_\_\_, 2011

Cleveland, Ohio



# Exhibit 5

**ORAL ARGUMENT NOT YET SCHEDULED**

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

**NATIONAL ASSOCIATION OF CLEAN  
WATER AGENCIES,**

**Petitioner**

**V.**

**ENVIRONMENTAL PROTECTION  
AGENCY and LISA PEREZ JACKSON,  
ADMINISTRATOR, ENVIRONMENTAL  
PROTECTION AGENCY**

## Respondents

**No. 11-1131**  
**(consolidated with Nos.**  
**11-1167 and 11-1185)**

## DECLARATION OF PATRICK BALL

I, Patrick Ball, hereby declare as follows:

1. I am Director of the City of Cedar Rapids, IA Utilities Department, a position I have held since 2007. My current position includes direct supervision and responsibility for all aspects of Water Pollution Control, Water Treatment, Solid Waste, and Transit Divisions. The City of Cedar Rapids Water Pollution Control Facilities (“CRWPCF”) division provides advanced wastewater treatment to industries and residential customers in Cedar Rapids as well several adjoining communities.

2. This declaration is submitted in support of the Joint Motion for Stay of the SSI Rule by the National Association of Clean Water Agencies (“NACWA”) and Hatfield Township Municipal Authority (“Hatfield Township”) requesting stay of the “Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units,” 75 Fed. Reg. 15372 (Mar. 21, 2011) (the “SSI Rule”). NACWA’s petition asks the U.S. Environmental Protection Agency (“EPA”) to reconsider central elements of the final rule establishing emission limitations and other requirements under § 129 of the Clean Air Act (“CAA”) applicable to sewage sludge incinerators (“SSI”).

3. In my capacity at CRWPCF, I am responsible for management, planning, and budgeting for the operation and a construction of capital improvement projects, including the acquisition of services and equipment necessary to comply with the requirements of the SSI Rule and all other applicable environmental regulations.

4. CRWPCF owns and operates one (1) treatment facility and one (1) multiple hearth SSI in Cedar Rapids, IA. The SSI was constructed in the late 1970s using Clean Water Act Title II grant funding and became operational in late 1980. The total Title II grant provided by EPA was approximately \$80 million and all

residential and industrial customers at that time were required to contribute 10% of the project cost.

5. The current SSI unit is subject to the existing source standards under the SSI Rule. However, the City of Cedar Rapids, together with the Federal Emergency Management Agency (“FEMA”), have been evaluating repair or replacement of its SSI to address damage suffered by the SSI during an historic flood in 2008. The timing of the SSI requirements is particularly problematic since major repairs or replacement of the SSI would trigger new source standards under the SSI Rule. As a result, the City of Cedar Rapids may be forced to postpone or eliminate otherwise beneficial upgrades simply because the unnecessarily stringent SSI Rule standards cannot be achieved.

6. We currently estimate that it will cost \$15 million to \$20 million for the *additional* air pollution control equipment (not covered by FEMA funding) necessary to comply with the SSI Rule depending on unit capacity and whether the existing SSI is modified or a new fluidized bed SSI is constructed. These cost estimates were prepared by the engineering firm of Brown & Caldwell as part of CRWPCF Solids Master Plan update project that was completed in May 2011. In preparing these estimates, B&C utilized the best available information from

vendors and existing wastewater treatment facilities that would currently meet the rule.

7. Compliance with the standards for mercury emissions is a particular concern due to the lack of existing compliance data from mercury control installations at an existing multiple hearth SSI and the fact that there are no reliable technologies for controlling mercury emissions from SSIs. The uncertainty that any SSI could comply with the SSI Rule and the huge capital, operational and maintenance costs associated with any type of mercury control equipment for either an existing or new SSI are concerns for CRWPCF. There are also significant issues for future building space options for additional air pollution control equipment or a new SSI due to the projected location of future flood mitigation structures.

8. Biosolids landfilling is an impractical and extremely costly disposal option for CRWPCF. We are well acquainted with the costs and logistical challenges of a biosolids landfill program due the unavailability of our SSI for 10 months after the historic June 2008 flood. Our local landfill did not have the capacity to handle our biosolids and it will take 15-20 side dump truck loads per day to three separate landfills all located in Illinois with round trips of no less than 170 miles to accommodate our daily biosolids production. Landfills are only open five or five and one-half days per week depending on weekends and holidays. Depending on



plant loading, we produce variable amounts of bio-solids every day and this means onsite storage capacity, weather conditions, road construction, and other potential bio-solids transportation issues would be a tremendous daily logistical challenge.

I declare under penalty of perjury that the foregoing is true and correct.

September 7, 2011

Cedar Rapids, Iowa

A handwritten signature in cursive script, reading "Patrick Ball", written over a horizontal line.

Patrick Ball

# Exhibit 6



the “Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units,” 75 Fed. Reg. 15372 (Mar. 21, 2011) (the “SSI Rule”). NACWA’s petition asked the U.S. Environmental Protection Agency (“EPA”) to reconsider central elements of the final rule establishing emission limitations and other requirements under § 129 of the Clean Air Act (“CAA”) applicable to sewage sludge incinerators (“SSI”).

3. In my capacity as Executive Director of the District, I am responsible for planning and budgeting for the utility’s facilities and capital improvement projects, including the acquisition of equipment and services necessary to comply with the requirements of the SSI Rule.

4. The District owns and operates two activated sludge facilities with the following operating capacities:

- North plant with 35 million gallons per day (“MGD”) dry weather capacity, 88 MGD wet weather capacity which services eight municipalities with a population of roughly 110,000, and
- South plant with 19 MGD dry weather capacity, 45 MGD wet weather capacity which services approximately 90 percent of the City of Albany with a population of roughly 90,000.

3. Between the two treatment plants, the District processes 11,000 dry tons of bio-solids through incineration each year. Given there are only three management options available for the disposal of bio-solid waste (land application, landfilling and incineration) the District has found incineration to be the most cost-effective and environmentally friendly method for disposal.

4. The District maintains two multiple hearth incinerators at each of the District's two locations (designated as the North and South plants). The North plant has two BSP-design multiple hearth SSIs. The South plant has two Nichols-design multiple hearth SSIs. Presently, both facilities are subject to the existing sources standards in the SSI rule; however, the North plant could become subject to the new source standards as a result of ongoing upgrades which will include a heat recovery system.

5. The District has spent over \$7 million on solid waste handling improvements over the past five years and maintains an outstanding record of compliance with environmental requirements. All improvements are made in the most cost effective manner to minimize the impact on rate payers. The District has made the following improvements to the two wastewater treatment facilities' biosolids handling operations.

**North Plant:**

**Scrubber System Improvements** - The District has completed over \$5.5 million in engineering and improvements to the incinerator scrubber systems in 2005-2006. These improvements address particulate matter removal and opacity.

**Belt Press Improvements** – This project involved addition of a 2.0 meter belt filter press with cake conveying modifications, completed in 2008 at a cost of \$600,000.

**South Plant:**

**Scrubber System Improvements** – Like at the North plant, the District has completed engineering and improvements to the incinerator scrubber systems at the South plant in 2005-2006. These improvements address particulate matter removal and opacity.

**Belt Press Improvements** - This project involved addition of a 1.5 meter belt filter press with cake conveying modifications, completed in 2008 at a cost of \$550,000.

5. The District is in the middle of constructing a biosolids incineration heat recovery project. When complete, the project will generate over 35 percent of the District's electrical energy requirements at its North plant facility by recovering

heat and producing energy from renewable domestic sewage sludge thereby reducing reliance on imported and fossil fuel energy sources. The project has been recognized for its innovation, combined heat and power aspects by use of a renewable energy source.

6. However, as a result of performing beneficial projects like the North plant energy recovery project, the District's incinerators may now become subject to the new source performance standards in the SSI Rule, which are more stringent than any existing requirements and will cost far more in order to comply. Based upon available stack testing data, none of the District's SSIs meet the new source standards for multiple hearth incinerators. Vendor estimates for wet electrostatic precipitators (\$5 million per plant) and activated carbon absorption systems (\$10 million per plant) total \$30 million in capital costs for the pollution control equipment alone. These estimates do not include capital costs for other changes necessary for the addition of pollution control equipment, do not include engineering costs, and do not include stack testing and other operation and maintenance costs. There is no practical way to eliminate these additional controls once they are purchased and installed. Furthermore, there is reason to believe that the District's SSIs still could not meet the SSI Rule requirements because activated carbon absorption has not been shown to work on SSIs.

7. As a direct result of the SSI Rule, facilities such as ours will not seek to make improvements or undertake other beneficial projects since doing so will trigger an immediate change in regulatory requirements that are very costly. Otherwise beneficial projects, such as energy recovery projects, would add many millions in capital and engineering costs and additional improvements in order to comply with the SSI Rule.

8. The overly stringent SSI Rule also threatens the continued use of incineration as the most viable and environmentally sound method of biosolids management. The District chose biosolids incineration because it is the most cost effective and environmentally beneficial means of biosolids management for the communities we serve. Incineration provides 90 percent volume reduction of biosolids thereby reducing burdens on landfill capacities, allows for the conversion of biosolids into energy (rather than wasting this energy through landfill decomposition), and produces a valuable ash product that the District blends with compost material to make a topsoil which can be used for landfill cover, closure material, road repair soil, and golf course repair and reconstruction soil. Recent regulatory changes have led to diverting organic material like biosolids away from landfills and, with the numerous restrictions on land application of biosolids, incineration remains the only viable alternative.



9. The impacts of the SSI Rule on the District and rate payers are already being felt. The New York State Department of Environmental Conservation is asking the District and other facilities with SSIs to immediately declare that they will be in compliance with the SSI regulations, or will cease biosolids incineration by March 21, 2012. The ramifications to rate payers and the industry as a whole of such conditions in these economic times can be devastating. The SSI Rule is having an immediate impact on all District rate payers by having to increase debt service to the District eight member communities, for capital improvements, engineering and other compliance burdens directly caused by the SSI Rule.

10. The District feels strongly that EPA should be made to reexamine the SSI Rule in full compliance with the CAA.

I declare under penalty of perjury that the foregoing is true and correct.

Albany, New York  
September 6, 2011



Richard J. Lyons  
Executive Director  
Albany County Sewer District