

BROS
TSLA

PETITION

BEFORE THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

PETITION TO INITIATE A
PROCEEDING FOR A CLARIFYING AMENDMENT TO
40 C.F.R. § 761.60

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To the Administrator:

Pursuant to section 21 of the Toxic Substances Control Act ("TSCA" or "the Act"), 15 U.S.C. § 2620, the companies listed in Attachment 1 ("Petitioners") hereby petition the Administrator of the United States Environmental Protection Agency ("EPA") to initiate a proceeding for the amendment of the regulations governing the disposal of polychlorinated biphenyls ("PCBs"), 40 C.F.R. § 761.60. In addition, pursuant to sections 553 and 554(e) of the Administrative Procedure Act, 5 U.S.C. §§ 553, 554(e), the Petitioners hereby request that EPA issue an interpretative rule or declaratory order construing the existing PCB disposal regulations.

Regulatory action is necessary because, in certain cases, EPA personnel have wrongly asserted that sediments and other materials containing PCB concentrations greater than 500 ppm dredged from the bottom of lagoons, pits, and ponds (hereinafter "lagoons") cannot be considered either as "dredged materials" within the meaning of 40 C.F.R. § 761.60(a)(5) or as "non-liquid PCBs" under 40 C.F.R. § 761.60(a)(4). This

interpretation is contrary to the plain language and intent of the PCB regulations and has been rejected by EPA itself in other proceedings.

Moreover, the effect of this misguided interpretation is to require the incineration of soil, sediment, and dredged materials containing relatively low levels of PCBs. This approach is extremely costly and does not reduce the risk of exposure to PCBs. Requiring the incineration of contaminated soil and dredged materials may even increase the exposure to other toxic substances, particularly metals, by unnecessarily emitting such substances into the air or increasing their mobility. Incineration may also increase overall human and environmental exposure to PCBs by diverting scarce incineration capacity from liquid wastes with high concentrations of PCBs to sediments and soils containing low concentrations of PCBs.

TSCA is designed to reduce "unreasonable risks" created by PCBs, but was also intended to encourage the use of the most cost-effective and least burdensome disposal methods. See 15 U.S.C. §§ 2601(c), 2605. The statutory objectives may be attained only by preserving the ability to consider conditions at individual sites in determining which treatment method is most cost-effective for disposal of PCB-contaminated sediment removed from a lagoon. See 40 C.F.R. §§ 761.60(a)(4), (5), 761.60(e). To meet its statutory obligations, EPA must act to ensure that the options of using a chemical waste landfill, an incinerator,

or an appropriate alternative disposal method continue to be available.

I. INTRODUCTION

A. The Basic Statutory Framework

The Toxic Substances Control Act, 15 U.S.C. §§ 2601-2629, was first enacted in 1976. The overall purpose of the Act was to establish a comprehensive national system for "evaluating and regulating chemical substances to protect against unreasonable risks to human health and to the environment." Chemical Mfrs. Ass'n v. EPA, 859 F.2d 977, 979 (D.C. Cir. 1988); Ausimont U.S.A., Inc. v. EPA, 838 F.2d 93, 95 (3d Cir. 1988). Section 6 of the Act authorizes EPA to impose controls on the production, distribution, use, and disposal of toxic substances if the evidence shows that such activity "presents or will present an unreasonable risk of injury to health or the environment." 15 U.S.C. § 2605(a). Regulatory controls may include labeling guidelines, notice requirements, or restrictions on the production and distribution of toxic substances. Id. Section 4 of the Act authorizes EPA to require testing of chemicals or substances if it finds that such substances "may present an unreasonable risk of injury to health or the environment" and that "there are insufficient data and experience" upon which to predict the effects of such substances. Id. § 2603(a)(1)(A). Lastly, section 8 authorizes EPA to impose reporting and record-keeping requirements on the

manufacturers and processors of toxic substances. Id. § 2607; see also Environmental Defense Fund v. Thomas, 657 F. Supp. 302, 304 (D.D.C. 1987).

While seeking to eliminate "unreasonable risk," Congress directed EPA to exercise its authority "in such a manner as not to impede unduly or create unnecessary economic barriers to technical innovation." 15 U.S.C. § 2601(b)(3). EPA must carry out the provisions of the Act in a "reasonable and prudent manner" and must "consider the environmental, economic, and social impact of any action" taken. Id. § 2601(c); see also Ausimont U.S.A., Inc. v. EPA, 838 F.2d at 95.¹ If EPA issues rules governing the production or disposal of any toxic substance, it must consider the "reasonably ascertainable economic consequences" of potential regulatory restrictions. Id. § 2605(c)(1)(D). The agency must also select "the least burdensome requirements" that would be effective. Id. § 2605(a); see also 122 Cong. Rec. 32,828 (1976).²

1. Congress required EPA to carefully consider the costs and benefits of any regulatory restrictions imposed under the Act. See S. Rep. No. 698, 94th Cong. 2d Sess. 13 (1976) ("It is important to note that in the testing and key regulatory provisions of the legislation, it is specifically required that the Administrator evaluate the risks and benefits of his actions before taking regulatory action. Thus, costs are not to be incurred unless they are offset by benefits of at least the same magnitude."); 122 Cong. Rec. 32,852 (1976); see also 15 U.S.C. § 2605(c)(1).

2. As EPA has stated, a "basic principle embodied in TSCA is that the Agency must adopt regulatory requirements which impose the smallest social and economic burden possible" Guidance for Petitioning The Environmental Protection Agency (continued...)

In addition to authorizing EPA to regulate the use and disposal of all toxic substances, the Act imposes specific restrictions on the use and disposal of PCBs. PCBs are a family of man-made chemicals that contain 209 individual compounds.³ Each compound contains a different amount of chlorine and possesses a differing degree of toxicity.⁴ Prior to 1977, PCBs were widely used in the United States and other parts of the world as insulators, coolants, and lubricants in transformers, capacitors, and other electrical equipment.⁵

PCBs: (1) are highly insoluble; (2) tend to tightly bind to soil; (3) bioaccumulate in aquatic organisms, terrestrial life, and human adipose tissue; and (4) are normally persistent in the environment, i.e., they do not quickly degrade into less harmful substances.⁶ Public concern about the widespread presence of PCBs in the environment, their tendency to bioaccumulate, and the uncertainty concerning their adverse

2. (...continued)

Under Section 21 Of The Toxic Substances Control Act, 50 Fed. Reg. 46,825, 46,826 (1985) ("Petition Guidance").

3. Agency for Toxic Substance and Disease Registry, Toxicological Profile for Selected PCBs (Aroclor - 1260, -1254, -1248, -1242, -1232, -1221, and -1016 at 1 (ATSDR/TP-88/21 June 1989).

4. Id.

5. Id. at 81-82.

6. Id. at 37-42, 83-86.

health effects lead Congress to limit or ban the manufacture and distribution of PCBs in the United States.⁷

Specifically, Section 6(e) of the Act requires EPA to promulgate rules governing the disposal of PCBs and requiring that PCB containers be marked with appropriate warnings. 15 U.S.C. § 2605(e)(1). These regulations must also impose strict limitations on the production and distribution of PCBs. Id. § 2605(e)(2).⁸ EPA has implemented these PCB-specific provisions by issuing two sets of regulations.⁹

In regulating PCBs, EPA must, of course, consider the "economic" and "social impact" of its actions. 15 U.S.C. § 2601(c); Environmental Defense Fund v. EPA, 636 F.2d at 1276-1277 & n.24. Economic considerations must be weighed even in

7. Id. at 1.

8. One year after the effective date of the Act, PCBs may be manufactured, processed, distributed, and used only in a "totally enclosed manner." 15 U.S.C. § 2605(e)(2)(A). One year later, all manufacture of PCBs is prohibited (subject to certain limited exemptions). Id. §§ 2605(e)(3)(A)(i), 2605(e)(3)(B). EPA may by rule authorize the continued use of PCBs in a non-totally enclosed manner if the proposed activity "will not present an unreasonable risk of injury to health or the environment." Id. § 2605(e)(2)(B). EPA may also grant limited, case-by-case exemptions from the prohibitions on manufacture, processing, and distribution of PCBs. Id. § 2605(e)(3)(B). See Environmental Defense Fund, Inc. v. EPA, 636 F.2d 1267, 1272 (D.C. Cir. 1980).

9. The first set of regulations -- the Disposal Regulations -- impose specific requirements relating to the disposal and marking of PCBs and PCB-contaminated substances. See 40 C.F.R. §§ 761.40 - 761.79. The second set of regulations -- the so-called Ban Regulations -- impose restrictions (and prohibitions) on the use, distribution, and production of PCBs. 40 C.F.R. §§ 761.1 - 761.30; see also Environmental Defense Fund, Inc. v. EPA, 636 F.2d at 1273.

deciding whether a PCB-related practice poses an "unreasonable risk" to public health or to the environment. 15 U.S.C. § 2601(c).

B. The Procedures Established Under Section 21 Of TSCA

TSCA specifically provides that "[a]ny person may petition the Administrator to initiate a proceeding for the issuance, amendment, or repeal of a rule under Sections 2603, 2605, or 2607" 15 U.S.C. § 2620(a).¹⁰ Such a petition "shall set forth the facts" justifying the requested relief. EPA may "hold a public hearing or may conduct such investigation or proceeding" as may be necessary. Id. § 2620(b)(2). EPA must either grant or deny the petition within 90 days of its filing. Id. § 2620(b)(3).¹¹ Section 21 itself does not impose a legal standard for the issuance of relief.¹² The agency's decision, therefore, must be based upon the fundamental policies underlying the entire Act. EPA's regulatory approach must be

10. This Petition requests an amendment to the rules issued under section 6 (specifically, the rules governing the disposal of dredged materials, soil, or other debris containing PCBs).

11. The "remedies under this section shall be in addition to, and not in lieu of, other remedies provided by law." 15 U.S.C. § 2620(b)(5).

12. EPA has issued "guidance" on section 21 petitions, but this guidance is non-binding and is mainly procedural in nature. See Petition Guidance, supra, note 2. In its guidance, however, EPA has recognized that in determining whether an "unreasonable risk" is present, it must "balance the benefits derived from risk reduction against the social and economic costs" of regulation. Id. at 46,826.

designed to eliminate any "unreasonable risk" using the least burdensome and least costly means available. 15 U.S.C. §§ 2601(b), (c), 2605(a), (c), (e).

If EPA grants the petition, it must promptly initiate a proceeding under the appropriate section. 15 U.S.C. § 2620(b)(3). If EPA denies the petition, it must publish its reasons for the denial in the Federal Register. Id. Where the petition is denied, or where EPA fails to act on the petition with the prescribed 90-day period, the petitioner may seek judicial review in federal district court. Id. § 2620(b)(4); Environmental Defense Fund v. Thomas, 657 F. Supp. at 304-305.

C. The Requested Relief - Amendment Of The PCB Regulations To Clarify That Sediment Containing PCBs Dredged From The Bottom of a Lagoon Must Be Considered As "Dredged Material" Or As "Non-Liquid PCBs"

In this case, the Petitioners request that EPA "initiate a proceeding" to amend 40 C.F.R. § 761.60(a)(4) and 40 C.F.R. § 761.60(a)(5) to clarify that sediment containing PCBs dredged from the bottom of a lagoon must be considered as "dredged material" or as "non-liquid PCBs". 15 U.S.C. § 2620(a).¹³ In addition, the Petitioners urge EPA to issue a

13. Issuance of a clarifying regulation is particularly appropriate in light of the fact that the existing regulations have been applied inconsistently by EPA personnel throughout the nation (and even within a single region). See pp. 34-38, infra. Despite the inconsistencies in the implementation of these regulations, the only reasonable interpretation of the existing regulations is that sediment dredged from a lagoon is "dredged material" or "non-liquid PCBs." 40 C.F.R. §§ 761.60(a)(4), (5).
(continued...)

declaratory order or interpretive rule adopting this interpretation of the existing regulations.¹⁴

II. EPA SHOULD ISSUE AN INTERPRETIVE RULE OR A DECLARATORY ORDER CONFIRMING THAT SEDIMENT AND OTHER MATERIAL REMOVED FROM LAGOONS ARE "DREDGED MATERIAL" OR, AT THE VERY LEAST, ARE NON-LIQUID PCBs AND MAY THEREFORE BE DISPOSED OF BY LANDFILLING OR BY ANY APPROVED METHOD

A. Under EPA's Existing Regulations, A Material's Characteristics And Its PCB Concentration Determine Which Methods of Disposal Are Permissible

The PCB regulations establishes four general categories of PCB-contaminated materials -- liquids (among other things, dielectric fluids and oils), "non-liquid PCBs," "dredge materials and municipal sludge" and a general category of non-liquid materials not covered by the other provisions.¹⁵ The methods of

13. (...continued)

EPA should issue an "interpretive rule" to that effect without notice and comment under 5 U.S.C. § 553(b)(A). See generally British Caledonian Airways, Ltd. v. Civil Aeronautics Board, 584 F.2d 982, 990 (D.C. Cir. 1978); Chock Full O'Nuts Corp. v. United States, 453 F.2d 300, 303 n.8 (2d Cir. 1971).

14. 5 U.S.C. §§ 553, 554(e); Tennessee Gas Pipeline Co. v. Federal Power Comm'n, 606 F.2d 1373, 1380 (D.C. Cir. 1979); British Caledonian Airways, Ltd. v. Civil Aeronautics Board, 584 F.2d at 993-994 & n.23; see also Weinberger v. Bentex Pharmaceuticals, Inc., 412 U.S. 645 (1973).

15. 40 C.F.R. §§ 761.60(a)(1), (2), (3), (4), (5). Other provisions of the regulation address PCB items and other categories. These regulations do not cover materials disposed of prior to February 17, 1978. See the note included at the beginning of 40 C.F.R. § 761.60 and Part 761 - Polychlorinated Biphenyls (PCBs), 43 Fed. Reg. 7,150, 7,157 (1978) ("1978 PCB Reg.") ; EPA, Draft Guidance On Selecting Remedies For Superfund Sites with PCB Contamination at 7 (September 22, 1989). ("Draft Guidance On PCB Cleanup") Private companies have been requested by EPA to follow this guidance in assessing remedial alternatives (continued...)

disposal¹⁶ that are legally allowed depend upon the category; therefore, the category into which materials removed from a lagoon falls is no mere technicality.

Liquids containing PCB concentrations of between 50 ppm and 500 ppm may be landfilled, thermally treated in an incinerator or a high efficiency boiler, or disposed of by an alternative method that is the equivalent of thermal destruction in an incinerator or high efficiency boiler. 40 C.F.R.

§§ 761.60(a)(2), (3), 761.60(e). Liquids containing PCBs at concentrations greater than 500 ppm must be incinerated, thermally treated in a high efficiency boiler, or disposed of by a method that is the equivalent of incineration or thermal treatment in a high efficiency boiler. 40 C.F.R.

§§ 761.60(a)(2), (3), 761.60(e).

In contrast, "dredged materials" and "municipal sludges" may be incinerated, landfilled or disposed of by a method that is protective of human health and the environment. 40 C.F.R. § 761.60(a)(5).¹⁷ Also, "non-liquid PCBs at

15. (...continued)
at Superfund sites. See Affidavit of Robert H. Harris, Ph.D. ¶ 30 (November 30, 1989) ("Harris Affidavit") (Attachment 2 to this Petition)).

16. Spills, leaks, and other "uncontrolled discharges of PCBs . . . constitute the disposal of PCBs" for regulatory purposes. 40 C.F.R. § 761.60(d)(1).

17. For an alternative method to be used, EPA must also determine that incineration or landfilling is not "reasonable and appropriate" based on "technical, environmental, and economic considerations." 40 C.F.R. § 761.60(a)(5).

concentrations of 50 ppm or greater in the form of contaminated soil, rags, or other debris" may be incinerated, landfilled, or disposed of by a method that is the equivalent of incineration. 40 C.F.R. §§ 761.60(a)(4), 761.60(e). Material containing PCB concentrations of less than 50 ppm may be disposed of in a hazardous waste incinerator¹⁸ or a hazardous or solid waste landfill, depending upon its other constituents.¹⁹

In summary, material (in whatever form) containing PCB concentrations greater than 50 ppm may be incinerated or treated by a method that is the equivalent of incineration. The PCB regulations allow the broadest range of alternatives for "dredged materials and municipal sludge", i.e., landfilling or a method that is more cost-effective than incineration, as long as it is also health protective. Similarly, "non-liquid PCBs at concentrations of 50 ppm or greater in the form of contaminated soil, rags, or other debris" may be landfilled or disposed of by a method that is the equivalent of incineration.

Incineration is only required if the material is a liquid containing a PCB concentration greater than 500 ppm or a non-liquid containing a PCB concentration greater than 50 ppm

18. 40 C.F.R. § 761.3 (definition of "qualified incinerator"); Polychlorinated Biphenyls; Exclusions, Exemptions and Use Authorizations, 52 Fed. Reg. 25,838, 25,847 (1987) (proposed rule).

19. See Draft Guidance On PCB Cleanup, supra, note 15, at 7; also see Polychlorinated Biphenyls (PCBs); Exclusions, Exemptions and Use Authorizations, 48 Fed. Reg. 55,076, 55,078 (1983) (proposed rule).

that is otherwise not covered by the definition of "non-liquid PCBs at concentrations of 50 ppm or greater in the form of contaminated soil, rags, or other debris."

Industrial sludges or slurries are not specifically addressed in the PCB regulations. As a matter of policy, EPA considers industrial sludges and slurries to be liquids rather than "non-liquid PCBs." Therefore, industrial sludges and slurries containing PCB concentrations greater than 500 ppm cannot be landfilled.²⁰ However, this policy (at p. 2) explicitly distinguishes between industrial sludges from ongoing PCB processing and manufacturing and soil and other material involved "in removal or excavation of materials from old disposal sites." The latter materials are explicitly allowed by the PCB policy and regulations to be disposed of in a chemical waste landfill.²¹

20. EPA, Disposal Methods for PCBs in Sludge (TSCA Compliance Program Policy No. 6-PCB-4) (Aug. 13, 1985) ("PCB Sludge Policy"). Nothing herein should be construed as an admission or agreement with this or any other EPA policy. By definition, policy statements have no legal force or effect. See American Paper Inst. Inc. v. EPA, 882 F.2d 287 (7th Cir. 1989) (holding EPA Region V's dioxin effluent limitation policy unreviewable because the policy had no legal effect); Pacific Gas & Elec. Co. v. FPC, 506 F.2d 33, 38 (D.C. Cir. 1974); Attorney General's Manual on the Administrative Procedure Act at 30 n. 3 (1947). EPA must exercise its discretion in applying a policy on a case-by-case basis. Otherwise, the formal rulemaking procedures must be followed. See McLouth Steel Products Corp. v. Thomas, 838 F.2d 1317 (D.C. Cir. 1988) (rejecting EPA's policy of requiring the use of the "VHS" model in hazardous waste delisting petitions was impermissible and requiring either promulgation of the model as a rule or actually treating the model as a policy).

21. PCB Sludge Policy, *supra*, note 20, at 2.

Additionally, PCBs cannot "be processed into non-liquid form to circumvent the high temperature incineration requirements of § 761.60(a)." See the note following 40 C.F.R. § 761.60(a)(4)(ii). This provision is consistent with the overall PCB "anti-dilution" rule, i.e., "[n]o provision specifying a PCB concentration may be avoided as a result of any dilution, unless otherwise specifically provided." 40 C.F.R. § 761.1(b).²² Similarly, EPA requires approval of physical separation of PCBs from liquids and solids.²³ All of these provisions were developed to eliminate the incentive to dilute PCB concentrations to avoid regulation.²⁴ Activities that are not attempts to avoid regulation, e.g., physical separation that occurs as a result of a cleanup or due to natural separation, however, are not subject to prior EPA approval.²⁵

EPA policy states that the availability of disposal alternatives in a TSCA cleanup of PCBs disposed of after the effective date of the regulation (i.e., after February 17, 1978) depends upon the PCB concentration in the original material at

22. This regulation is interpreted stringently by EPA. EPA, Residual PCBs in Processed Liquids and Solids (TSCA Compliance Program Policy No. 6-PCB-3) (Aug. 16, 1983) ("PCB Residual Policy").

23. EPA, Distillation, Solvent Extraction, Filtration, and other Physical Separation Methods for PCBs (TSCA Compliance Program Policy No. 6-PCB-2) (Aug. 16, 1983) ("PCB Separation Policy").

24. Draft Guidance On PCB Cleanups, supra, note 15, at 7.

25. PCB Separation Policy, supra, note 23, at 2.

the time of disposal.²⁶ TSCA cleanups of PCBs disposed of prior to February 17, 1978 are based on the concentration of materials in the environment. EPA Superfund Policy specifically states that "PCBs should be addressed at the concentration and form in which they exist at the time of the Superfund action" for Superfund cleanups.²⁷

Therefore, the distinctions between liquids, "non-liquid PCBs," and "dredged materials;" the PCB concentration; and the date of disposal are crucial in determining which disposal methods are allowed. As explained below, the plain language of the regulations, their intent, the purpose of the statute, good science, and sound environmental policy support the interpretation that sediments containing PCB concentrations of greater than 500 ppm dredged from the bottom of lagoons are "dredged materials."²⁸ Accordingly, lagoon sediments may be

26. E.g., PCB Residual Policy, supra, note 22; PCB Separation Policy, supra, note 23, at 2.

27. Draft Guidance On PCB Cleanups, supra, note 15, at 7.

28. The term sediment in the text is intended to refer to sediments, soils, residual sludges, and residual liquids. As a practical matter, there is no clear distinction between liquids, sludge, sediment, and soil in a lagoon. By definition, soil and sediment become contaminated when PCB-contaminated liquids or PCB-contaminated sludge are discharged, spilled, or otherwise migrate onto soil or sediment, and the PCBs adsorb to the soil or sediment. After the mobile PCB liquid or sludge is removed, the soil or sediment inevitably contains a residual layer of sludge and/or residual liquids. PCB-contaminated sediment, soil, residual sludges, and residual liquids, therefore, are included in the definition of "dredged material." Virtually nothing would be considered "dredged materials" if the definition did not include residual liquids and residual sludges. Any other

(continued...)

landfilled or disposed of by a more cost-effective method than incineration (see Section E, infra).²⁹

B. The Plain Language Of EPA's Existing PCB Regulations Shows That Materials Removed From a Lagoon Are Either "Dredged Materials" or Non-Liquid PCBs

The term "dredged materials" is not defined in TSCA or in EPA's PCB regulations. This term, therefore, has its usual meaning. "Dredged materials" are anything consisting of matter, removed with a dredge.³⁰ This definition is virtually identical to the definition of the term "dredged materials" in the Clean Water Act and the Marine Protection Research and Sanctuaries Act

28. (...continued)
interpretation would be inconsistent with physical reality. EPA recently recognized this practical reality in a similar situation when it stated that "[s]oils/sludges contaminated with PCBs at concentrations greater than or equal to 50 ppm can be disposed of in an incinerator, treated by an equivalent method, or disposed of in a chemical waste landfill." Draft Guidance On PCB Cleanups, supra, note 15, at 8. This Petition assumes, without admitting, that the free liquids floating in or at the bottom of the lagoon are liquids for the purposes of the PCB regulations; therefore, they are distinguishable from residual liquids and residual sludges.

29. Lagoon sediments may still be landfilled or disposed of by a more cost-effective method than incineration if such materials are "non-liquid PCBs" within the meaning of 40 C.F.R. § 761.60(a)(4).

30. See the definition of "material" in Webster's Third New International Dictionary of the English Language Unabridged at 1392 (P. Gove ed. 1976) ("Webster's Third"). See the definition of "dredge." Id. at 688. This term is broader than the term "dredged spoils" that was originally used in the proposed regulation. See pp. 17-18, infra.

of 1972 ("MPRSA").³¹ Under these statutes, anything that is dredged comes within the meaning of "dredged materials."

The most common type of dredged materials is sediment removed from the bottom of natural bodies of water, such as rivers or harbors. However, nothing in EPA's regulations suggests that materials dredged from the bottom of man-made areas, such as lagoons, should be treated differently than such material dredged from the bottom of rivers or harbors.³² Since the composition of PCB-contaminated material "dredged" from rivers and harbors is essentially the same as the composition of material dredged from the bottom of a lagoon,³³ it would be irrational to provide very different disposal options for similar or identical materials.

31. See 33 C.F.R. § 323.2(c) (issued pursuant to Section 404 of the Clean Water Act, 33 U.S.C. § 1344) ("material that is excavated or dredged from waters of the United States"); 40 C.F.R. § 220.2(d) (issued pursuant to Section 101 of the MPRSA, 33 U.S.C. § 1411) (defining "material" for the purpose of the dredged material permit). TSCA's jurisdiction, unlike the jurisdiction of the Clean Water Act and the MPRSA, is not limited to navigable waters. By analogy, therefore, "dredged materials" means any material excavated or dredged from any water within the jurisdiction of TSCA.

32. Courts have rejected distinctions based on whether a water body is man-made or natural in interpreting other environmental statutes. Weiszmann v. District Eng'r, U.S. Army Corps of Engineers, 526 F.2d 1302, 1305 (5th Cir. 1976) (holding that a manmade canal was within the jurisdiction of Army Corps of Engineers' dredge and fill permit authority as long as the canal was connected to a navigable water). The issue raised in this Petition is whether the PCB-contaminated lagoon sediment is within the jurisdiction of the statute, not whether it is man-made or natural.

33. Harris Affidavit, supra, note 15, ¶ 19.

C. The History of The Regulations And EPA's Prior Decisions Demonstrate That Sediment And Other Material Removed From Lagoons Are "Dredged Materials" or Non-Liquid PCBs

The history of the PCB regulations demonstrates that "dredged materials" include lagoon sediments. EPA has consistently recognized that to require incineration of these sediments would not significantly reduce the risk to public health and the environment (and, indeed would increase risks in some circumstances), and would be inordinately expensive.³⁴

As originally proposed in 1977, the PCB regulations contained one provision covering "dredge spoil," "soil," "sludge," and other "debris." This section permitted any "non-liquid PCB mixture in the form of contaminated soil, sludge, dredge spoil, rags, or other debris" to be incinerated or, until July 1, 1979, disposed of in a chemical waste landfill.³⁵ In 1978, EPA issued the final rules which established three categories of PCB-contaminated materials for purposes of disposal. "Dredge spoil" and "municipal sludge" could be incinerated, landfilled, or disposed of using an alternative

34. See Polychlorinated Biphenyls (PCBs) Manufacturing, Processing Distribution in Commerce And Use Prohibitions, 44 Fed. Reg. 31,514, 31,520 (1979) ("1979 PCB Reg.") (citing consistency as EPA's rationale for allowing the landfilling of additional material as non-liquid PCBs). All of the arguments discussed in this section apply with equal or greater force to interpreting lagoon sediment as "non-liquid PCBs."

35. Polychlorinated Biphenyls (PCBs), Toxic Substance Control, 42 Fed. Reg. 26,564, 26,572 (1977) (proposed rule) (emphasis added).

method.³⁶ "Any non-liquid PCB mixture in the form of contaminated soil, rags, or other debris" could be incinerated or, until January 1, 1980, disposed of in a landfill.³⁷ Finally, "[s]oil and debris which have been contaminated with PCBs as a result of a spill or as a result of placement in a disposal site prior to the publication date of these regulations" could be disposed of in an incinerator or a chemical landfill regardless of the date. Id.

The 1978 PCB regulations clearly allowed the landfilling or use of alternative disposal methods for PCB-contaminated "dredge spoil." "Spoil" meant "material (as refuse earth or rock) excavated usually in mining, dredging, or excavating."³⁸ The term was used to refer to materials dredged from rivers and wetlands,³⁹ but its definition was not limited to those sources.

The preamble to the 1978 regulations did not offer a separate rationale for the Agency's treatment of "dredged spoil."

36. 1978 PCB Reg., supra, note 15, at 7,151-52, 7,158. Alternative disposal methods would have been allowed only if EPA determined that incineration or landfilling was not "reasonable and appropriate" based on "technical, environmental or economic considerations" and that the alternative technology "provide[s] adequate protection to health and the environment." Id. at 7,158. These standards are the same as in the present regulations.

37. Id. at 7,158.

38. Webster's Third, supra, note 30, at 2203; also see definition of spoil bank. Id.

39. E.g., United States v. M.C.C. of Florida, Inc., 772 F.2d 1501, 1506 (11th Cir. 1985), vacated on other grounds, 481 U.S. 1034 (1987).

The overall purpose of the 1978 regulations, however, was to permit the use of health protective, yet cost-effective, disposal methods for large volumes of PCB-contaminated material.⁴⁰ It was undoubtedly this objective that led EPA to adopt a flexible approach for disposal of "dredge spoil."

In 1979, EPA amended the PCB regulations to: (a) lower the regulatory trigger concentration from 500 ppm to 50 ppm (thereby adding a large volume of material to the regulatory scheme); (b) change the term "dredge spoil" to "dredged materials;" (c) expand the types and quantities of material (e.g., liquids with PCB concentrations between 50 ppm and 500 ppm and non-liquid PCBs with PCB concentrations between 50 ppm and 500 ppm) that could be landfilled at any concentration;⁴¹

40. 1978 PCB Reg., supra, note 15, at 7,151-52. "Non-liquid PCB mixtures," on the other hand, could only be landfilled for a limited period. The 1978 version of the regulations "permitted only persons with contaminated soils and other solids recovered from spills or removed from old disposal sites to" use landfills. 1979 PCB Reg., supra, note 34, at 31,520 (describing the prior year's regulation). See In the Matter of Lamar and Frances Thumm and Holtzman and Silverman Builders, TSCA Docket No. V-C-222 at 34 n.6 (April 26, 1985) (LEXIS, 1985 TSCA Lexis 29); In re Allen Transformer Company, TSCA Docket No. VI-7C at 22-23 & nn.9, 11 (May 27, 1981) (LEXIS, 1981 TSCA Lexis 11).

41. 1979 PCB Reg., supra, note 34, at 31,520. EPA dropped the explicit language relating to soil and debris from past disposal activities, but such materials are still covered by the explicit language of the "non-liquid PCBs" provision in the PCB regulations once they are removed from their existing location. Lagoon sediment should not be contaminated by PCBs handled as required by PCB regulations because storage of PCBs in lagoons is prohibited. Sediment may be contaminated as a result of a spill, or other unintentional discharges of PCBs during a present use (e.g., leaks from existing transformers), by a violation of the PCB regulations, or by past disposal. The sediment contaminated
(continued...)

(d) revise the definition of PCBs and eliminate the definitions of "PCB Mixtures" and "PCB Chemical Substances";⁴² and (e) implement the PCB ban. 1979 PCB Reg., supra, note 34, at 31,516, 31,546.

"Dredge material" is a broader term than "dredge spoil." The 1979 preamble does not describe the type of material considered "dredge spoil" or "dredge material." The plain meaning of the regulation should therefore govern, particularly when such an interpretation is consistent with the method for addressing other types of PCB wastes and the statutory mandate to reduce unreasonable risks in a cost-effective manner.⁴³

41. (...continued)
by new spills is covered by the PCB spill policy (see 40 C.F.R. Part 761, subpart G): The PCB regulations do not apply to material contaminated from past disposal activities while they are in place. See Environmental Defense Fund, Inc. v. EPA, 636 F.2d at 1273. However, EPA policy provides that once the PCB-contaminated material is removed from its existing location, the disposal of this material is governed by the regulations. See 1979 PCB Reg., supra, note 34, at 31,545; note prior to 40 C.F.R. § 761.60.

42. Essentially, EPA broadened the definition of PCBs mixture so that "PCB Mixture" and "PCB Substance" were not necessary. Compare 1978 PCB Reg., supra, note 15, at 7,157 with 1979 PCB Reg., supra, note 34, at 31,544; see also 1979 PCB Reg. at 31,521.

43. See 1978 PCB Reg., supra, note 15, at 7,151; 1979 PCB Reg., supra, note 34, at 31,520; Polychlorinated Biphenyls Spill Cleanup Policy, 52 Fed. Reg. 10,688, 10,690 (1987) (citing costs as a rationale for expanding the category of material that can be landfilled or the action level or method used to cleanup spills) ("PCB Spill Policy").

EPA guidance does not directly discuss whether materials dredged from the bottom of lagoons are "dredged materials." However, EPA guidance has consistently interpreted the PCB regulations as permitting the disposal of contaminated soils and other solids recovered from spills or removed from old disposal sites in chemical waste landfills or by a method that is the performance equivalent of incineration.⁴⁴ Even wastes generated at a TSCA approved landfill may be landfilled, particularly if the material's characteristics make it inappropriate for incineration.⁴⁵ Thus, it would be consistent with EPA guidance to permit landfilling or the use of a more cost-effective disposal method for lagoon sediments, particularly where the characteristics of the material may make it

44. 1978 PCB Reg., supra, note 15, at 7,151-52; Part 761 - Polychlorinated Biphenyls, Addendum to Preamble and Corrections to Final Rule, 43 Fed. Reg. 33,918, 33,919; 1979 PCB Reg., supra, note 34, at 31,520; In re Allen Transformer Company at 22-23 nn. & 9, 11; EPA, PCB Regulations Under TSCA: Over One Hundred Questions and Answers To Help You Meet These Requirements at 22 (revised ed. No. 3, August 1983); In re the Matter of Lamar and Francis Thumm and Holtzman and Silverman Builders at 34 n.6; EPA, Draft Guidelines For Permit Applications and Demonstration Test Plans For PCB Disposal By Non-Thermal Alternative Methods (August 21, 1986); Draft Guidance On PCB Cleanups, supra, note 15 at 8 (providing guidance for the cleanup of PCB-contaminated "dredged materials" and PCB-contaminated soil at Superfund sites).

45. Memorandum from J. Moore, Assistant Administrator for Pesticides and Toxic Substances, to Regional Administrators, Re: Policy for Managing Leachate at PCB Landfills at 2 (Jan. 16, 1987).

inappropriate for incineration (as discussed in Section D, infra).⁴⁶

~ D. Incineration Of Material Dredged From Lagoons May Present An Unreasonable Risk To Public Health And To The Environment Because Incineration Inevitably Releases Metals In The Air

An interpretation of a regulation that results in a frustration of the statutory purpose is disfavored.⁴⁷ Therefore, under the PCB regulations, any disposal method that results in an unreasonable risk to health or the environment should be avoided.

An unreasonable risk⁴⁸ can result when the PCB regulations are construed to require incineration of lagoon sediment containing PCB concentrations greater than 500 ppm in all circumstances.⁴⁹ Lagoon sediment generally contains metals,

46. At worst, sediments containing PCB concentrations greater than 50 ppm removed from a lagoon are "non-liquid PCBs". See notes 29, 34, 35, and 40. EPA policy is to treat sludge at Superfund sites the same as soils "for the purposes of evaluating disposal options." Draft Guidance On PCB Cleanup, supra, note 15, at 22-23. As a result, landfilling and other more cost-effective disposal methods are allowed regardless of the concentration.

47. Dedham Water Co. v. Cumberland Farms Dairy, Inc., 805 F.2d 1074, 1081 (1st Cir. 1986).

48. EPA found that PCBs can present an unreasonable risk in 1978. Polychlorinated Biphenyls (PCB's) Manufacturing, Processing, Distribution in Commerce, and Use Bans, 43 Fed. Reg. 24,802 (1978) (proposed rule). Neither this statement nor anything else herein should be construed as an admission or agreement that PCBs present a significant risk at any particular site.

49. See examples provided in Section III, infra.

such as lead and chromium, and the metals contained in lagoon sediments⁵⁰ will not be destroyed by incineration. Between 1% and 33% of these metals⁵¹ in the lagoon sediment may be emitted into the atmosphere.⁵² Emissions of a sufficient quantity of a metal may result in EPA's National Emissions Standards for Hazardous Air Pollutants ("NESHAP"),⁵³ EPA's National Primary and Secondary Ambient Air Quality Standards ("NAAQS"),⁵⁴ or some other EPA risk-based action level being exceeded.⁵⁵ In fact,

50. Contaminated lagoon sediments will always contain metals. The concentration of metals will vary depending upon the natural background level and the amount added from past disposal.

51. Between 67% and 99% of the metals can be removed from the air emissions by pollution control devices. Standards for The Disposal of Sewage Sludge, 54 Fed. Reg. 5,746, 5,839, 5,840, 5,890 (1989) (proposed rule) ("Proposed Sewage Sludge Regs."). Even if the removal efficiency is 99%, the NESHAP may be exceeded depending upon the concentration of the metals. Additionally, higher removal efficiency will increase costs and could result in the costs of this treatment alternative exceeding the benefits.

52. Harris Affidavit, supra, note 15, at ¶¶ 33-47. Nothing herein should be construed as agreement with this methodology or the extreme worst case exposure assumptions underlying this approach. This example is cited solely to illustrate that there may be a concern, using EPA's own precautionary methodology.

53. See 40 C.F.R. Part 61.

54. See 40 C.F.R. Part 50.

55. EPA's proposed sewage sludge incineration regulations sets limits on the concentration of metals in sludge in order to ensure that the air concentration does not exceed 25% of NAAQS level. Proposed Sewage Sludge Regs., supra, note 51, at 5,837, 5,849. A lead concentration of 275 ppm in sediment would result in an ambient air level of 0.375 micrograms per cubic meter (25% of the NAAQ), using the methodology to predict the ambient air concentration in the proposed sewage sludge regulations adjusted where necessary for a PCB incinerator. Harris Affidavit, supra, note 15, at ¶ 41. EPA has proposed limiting lead emission at
(continued...)

incineration of soils, dredged materials, and similar materials has been rejected in numerous Superfund cases because of the increased risk of air pollution to local residents⁵⁶ or the

55. (...continued)

hazardous waste incinerators to 10% of the NAAQS. Proposed Sewage Sludge Regs. at 5,849. Lead concentrations greater than 110 ppm in sediment could exceed 10% of the lead NAAQS. Harris Affidavit, supra, note 15, at ¶ 42.

56. See Response to Public Comments on Hyde Park Proposed Stipulation concerning Requisite Remedial Technology (except Section 12.0) at 3-3 (filed March 28, 1986) in United States v. Hooker Chem. & Plastics Corp., 641 F. Supp. 1303 (W.D.N.Y. 1986); Record of Decision, Pepper's Steel, FL (March 1986); Public Health Risk Assessment of The Tyson's Site Remediation Plan (June 8, 1987) included in Attachment D of the Partial Consent Decree in United States v. Tyson, et al., Civ. Act. No. 84-2663 (E.D. Pa., lodged with the Court on February 19, 1988 and approved by the Court June 21, 1988) (particularly Paragraph VIII(c)(2) at p. 32, limiting excavation); Record of Decision, Seymour Recycling Site, Seymour, Ind. (2d O.U.) at 26 (EPA R05-87/050, September 1986) (finding vapor extraction superior because of lower risks, less complexity and lower costs); Record of Decision, Diamond Alkal, N.J. Site (1987) (because of risks and costs); Record of Decision, U.S. Aviex Site, Niles, Michigan at 22-24 (August 1988) (choosing soil flushing over excavation and incineration because of the potential increased risk of exposure to low levels of volatile organic chemicals, costs and other factors); and Industri-plex, Woburn, MA, Summary of Alternatives at 94 (Sept. 30, 1986); United States v. Vertac Chem. Corp., 588 F. Supp. 1294, 1297 (E.D. Ark. 1984) (containment in place presented less risks and was more cost-effective than excavation and redispisal in a RCRA permitted landfill); United States v. Hooker Chem. & Plastics Corp., 607 F. Supp. 1052, 1067-70 (W.D.N.Y. 1985), (approving the "S" Area Landfill Consent Decree against a challenge from local citizen groups and the Province of Ontario which sought excavation and incineration of all wastes in the landfill), aff'd 776 F.2d 410 (2d Cir. 1985); Consortium Forced to Abandon Cleanup Plan Due to Unexpectedly High Toxic Vapor Levels, 19 Env't Rep. (BNA) 1180 (Oct. 14, 1988); and Letter to Robert Bolger, President, NPC Services, Inc. [the company implementing the excavation and incineration remedy at the Petro Processors Superfund site] from Brian Pinkowski, EPA Region VI (Jan. 11, 1988) (requiring the cessation of excavation because of high vapor levels).

increased cost.⁵⁷ Incineration also may cause the metals in the lagoon sediment to become more mobile.⁵⁸

In contrast, the use of landfilling, solidification/stabilization, dechlorination, and other methods of disposal⁵⁹ would not cause the emission of such significant quantities of metals into the atmosphere, and would thus pose a far lower risk.⁶⁰ Thus, an interpretation of the PCB disposal

57. Harris Affidavit, supra, note 15, at ¶ 27.

58. Id. at ¶ 46.

59. There are numerous technologies available to treat or dispose of PCB-contaminated sediment. E.g., see TRW, Inc., Interim Guidelines for the Disposal/Destruction of PCBs and PCB Items by Non-Thermal Methods, (EPA-600/2-82-069 April 1982) (an interim guidance to assist EPA personnel in implementing the PCB regulations); Research Triangle Inst., PCB (Polychlorinated Biphenyl) Sediment Decontamination - Technical/Economic Assessment of Selected Alternative Treatments (EPA/600/2-86/112, December 1986); EPA, The Superfund Innovative Technology Evaluation Program: Progress and Accomplishments Fiscal Year 1988, A Second Report to Congress (EPA/540/5-89/009 March 1989); Draft Guidance On PCB Cleanups, supra, note 15, at 22-26. Also see guidance on non-thermal treatment technologies cited in note 56, supra and technologies cited in notes 60, 68, infra. EPA is co-sponsoring the Second International Symposium on Stabilization/Solidification of Hazardous, Radioactive and Mixed Wastes on May 29 - June 1, 1990. Other co-sponsored activities are the Hazardous Substance Management Research Center of the New Jersey Institutes of Technology and Environment Canada.

60. Harris Affidavit, supra, note 15, at ¶ 45; e.g., Record of Decision, York Oil, York, N.Y. (solidification and containment on-site); Record of Decision: Burnt Fly Bog Site, NJ (EPA/ROD/R02-83/002) (offsite landfilling of sludge) ("Burnt Fly Bog ROD"), Enforcement Record of Decision, Hyde Park Landfill, Town of Niagara, N.Y. (Nov. 1985) (containment on-site); United States v. Pepper Steel and Alloys, Inc., Civ. Act. No. 83-1717, 85-0571-CIV-SPELLMAN (filed February 11, 1987) (solidification of PCB-contaminated soil and reburial on site over the Biscayne aquifer in Florida); Draft Guidance On PCB Cleanups, supra, note 15, at 23-26.

regulations permitting lagoon sediments to be landfilled or disposed of by using an appropriate alternative technology accords with the statutory purposes of TSCA and should be adopted.

E. To Uniformly Require The Incineration Of Materials Dredged From Lagoons Would Divert Resources From More Dangerous Sites, With No Real Reduction In Risk At The Lagoon Sites

In determining which regulatory option is the least costly and least burdensome means of reducing an unreasonable risk, EPA considers several factors: the likelihood of incremental exposure, the reduction in risk,⁶¹ the risks and benefits resulting from the implementation of the option, the potential that scarce incineration and agency resources will be

61. The PCB regulations were designed to protect the public against an "unreasonable risk" to health and environment rather than to reduce the risk level to zero. 15 U.S.C. § 2601(c); 40 C.F.R. §§ 761.60(e). Nonetheless, in the late 1970s, EPA's record supporting the PCB ban stated that there was no "safe" level of exposure to PCBs and any exposure to PCBs could cause adverse health effects. See Environmental Defense Fund, Inc. v. EPA, 636 F.2d at 1270-71, 1283-84. Since that time, EPA has used risk assessment to assist in setting regulatory limits and standards in virtually every regulatory program. See Underground Injection Control Program: Hazardous Waste Disposal Injection Restrictions; Amendments to Technical Requirements for Class 1 Hazardous Waste Injection Wells; and Additional Monitoring Requirements Applicable to all Class 1 Wells, 53 Fed. Reg. 28,118, 28,123 (1988) (reiterating EPA's "deeply established" emphasis on setting regulatory limits below which a substance is not considered "hazardous" as opposed to requiring no migration or no release into the environment) and text in this subsection. It is now well settled that "safe" is not the same as "risk-free" and mere exposure is not sufficient unless there is a significant risk. Industrial Union Dep't v. American Petroleum Inst., 448 U.S. 607, 642 (1980); Natural Resources Defense Council, Inc. v. EPA, 824 F.2d 1146, 1164-1165 (D.C. Cir. 1987). See 40 C.F.R. § 761.121.

misallocated, and the consistency of such an approach with the other provisions of the disposal regulations.⁶² As explained below, these factors strongly favor interpreting "dredged materials" as encompassing lagoon sediments containing PCB concentrations greater than 500 ppm.

1. Generally landfilling and other disposal methods do not pose a significant risk

The risk from PCB-contaminated lagoon sediments is likely to be significantly lower than the risk from PCB-contaminated river or lake sediments and much less than the risk from liquids. PCBs adhere strongly to sediment, and only minute quantities migrate into the groundwater.⁶³ PCBs in lagoon sediment are not exposed to surface erosion, volatilization, or direct ingestion because water and other liquids usually overlay them. There are few, if any, fish in man-made disposal lagoons. Therefore, the PCBs in lagoon sediments, unlike PCBs in river

62. See the summary of the statutory provisions and legislative history in Section I(A), supra; EPA's administrative application of the factors in Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce and Use Prohibitions; Use in Electrical Equipment, 47 Fed. Reg. 37,342, 37,344 (1982); Polychlorinated Biphenyls; Manufacturing, Processing and Distribution in Commerce Exemptions, 53 Fed. Reg. 32,326, 32,327 (1988) (proposed rule); 1979 PCB Reg., supra, note 34, at 31,516, 31,520.

63. Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce and Use Prohibitions; Use in Electrical Equipment, 47 Fed. Reg. 37,342, 37,348 (1982).

sediment, would not bioaccumulate in fish and thus result in human exposure.⁶⁴

Landfilling of PCB-contaminated lagoon sediments would result in little risk of additional human or environmental exposure.⁶⁵ There are at least twelve TSCA PCB chemical landfill permits nationwide.⁶⁶ The disposal of PCBs in a PCB permitted landfill, in compliance with the PCB regulations, protects public health and the environment; otherwise no permits would have been issued.

Disposal methods other than landfilling are also safe. TSCA permits have been issued for at least twelve chemical treatment methods for PCBs, four physical separation methods and one biological treatment method.⁶⁷ EPA has selected remedial actions other than incineration for PCB-contaminated dredged materials, soils, sludges, or other similar PCB-contaminated

64. See EPA, Environmental Risk and Hazard Assessment For Various Isomers of Polychlorinated Biphenyls (Monochlorobiphenyl through Hexachlorobiphenyl and Decachlorobiphenyl) (April 1984), for one description of the effects of bioaccumulation.

65. See 1979 PCB Reg., *supra*, note 34, at 31,520 (finding that land disposal of liquids and non-liquids containing PCB concentrations of between 50 ppm and 500 ppm would result in little environmental exposure); NUS, Draft Remedial Investigation Report, Bridgeport Rental and Oil Service Site, Logan Township, New Jersey at 5-11 (stating that there was no health hazard posed by the sediment and sludge at the bottom of a 12 acre lagoon).

66. EPA, List of PCB Disposal Companies Commercially Permitted (April 10, 1989).

67. Id.

materials at numerous Superfund sites.⁶⁸ In each case, EPA has determined that the disposal methods adequately protect human health and the environment.

In sum, if landfilling, solidification, dechlorination, or another more cost-effective disposal method were allowed for PCB-contaminated lagoon sediment, there would be no significant risk to human health or the environment.

68. Harris Affidavit, supra, note 15, at ¶ 25-30 (surveying Region II RODs). Region II has been inconsistent in choosing remedies for Superfund sites with PCB-contaminated sediments, soils, sludge, or dredged material. Harris Affidavit, supra, note 15, at ¶ 25. Incineration has been rejected at all but the BROS site that specifically address PCB contamination. Id. at ¶ 25; also see id. at ¶¶ 26, 28, 29. For example, Region II selected: (1) solidification at York Oil (Record of Decision for York Oil, N.Y. (1985)); (2) KPEG chemical treatment process at Wide Beach (Record of Decision for Wide Beach, New York (1985)); (3) off-site landfilling in a RCRA or TSCA landfill for lagoon sludge depending upon whether the PCB concentration is less than or greater than 50 ppm Burnt Fly Bog ROD, supra, note 60; and (4) in-place containment (Record of Decision, Kin-Buc Site NJ (1988)). EPA selected solidification/stabilization in 20 out of 30 Superfund Records of Decisions in 1988. See EPA Records of Decisions for 1988; also see Environmental Resources Management, Inc., Technical Review Report: Bridgeport Rental and Oil Services Site Remedy Selection and Implementation at 5-1 to 5-11 (April 12, 1989) ("ERM Report") (an attachment to Petition In Matter of Bridgeport Rental and Oil Services (filed April 13, 1989) ("BROS Petition"). The ERM Report and the BROS Petition are in Attachment 3 to this Petition. These statistics are consistent with EPA's interpretation that CERCLA does not require cleanup to zero risk. See National Oil and Hazardous Substances Pollution Contingency Plan, 53 Fed. Reg. 51,394, 51,441 (1988) (proposed rule); Letter from L. Thomas, EPA Administrator to Rep. J. Florio, at 4 (May 29, 1987).

2. Incineration is not cost-effective for lagoon sediments

The volume of contaminated lagoon sediment is much larger than the total amount of PCBs in such sediment. Incineration of such "dredged materials" is extremely expensive because of the high moisture content, low BTU value of such sediment, and small quantity of PCBs in the materials incinerated.⁶⁹ As EPA has noted:

it is not uncommon for Superfund sites to have large quantities of soils contaminated with heavy metals, as well as low concentrations of organic hazardous constituents. An environmentally protective and cost-effective remedial solution for such soils could be to excavate them, treat them with stabilizing agents in a treatment unit, and redeposit the treated material into the excavated area with liners and caps engineered as required for site specific conditions. These techniques could provide a protective and effective long-term environmental solution for the site.... The costs of applying more elaborate treatment technologies, such as incineration or other thermal technologies, can be exceedingly high when dealing with the large volumes of contaminated soils that are often found at Superfund sites.⁷⁰

69. Incineration of "low concentration PCB wastes is much more costly. To destroy a small percentage of PCBs, a significant volume of contaminated material must be destroyed. The cost of incineration per pound of PCB may be very high." 1979 PCB Reg., supra, note 34, at 31,520. For example, there is a small amount of PCBs in a large volume of dredged materials or contaminated soils. PCB Spill Policy, supra, note 43, 52 Fed. Reg. at 10,699.

70. National Oil and Hazardous Substance Pollution Contingency Plan: Applicability of RCRA Land Disposal Restrictions to CERCLA Response Actions, 54 Fed. Reg. 41,566, 41,568 (1989) (supplemental notice and request for comment) ("CERCLA Land Ban").

The cost of incinerating all lagoon sediment containing PCB concentrations greater than 500 ppm is far more costly than other health protective disposal options, i.e., it is not the least costly and least burdensome method of reducing the unreasonable risk that may be presented by PCBs. Disposal in a PCB landfill or by an alternative disposal method that is less costly than incineration and meets the requirements of 40 C.F.R. § 761.60(a)(5) is consistent with TSCA's requirement of reducing unreasonable risks presented by PCBs with the least costly and burdensome method.⁷¹

3. Incineration of lagoon sediments diverts incineration capacity from other more pressing needs

The societal risk from incinerating PCB-contaminated lagoon sediments also could increase if high-concentration liquids were improperly disposed of because incineration capacity became limited.⁷² In addition, agency resources, including

71. Similarly, interpreting 40 C.F.R. § 761.6(a)(4) ("non-liquid PCBs") as encompassing lagoon sediments also is less costly and less burdensome than categorizing lagoon sediments as liquids.

72. Incineration continues to be scarce. See 1979 PCB Reg., supra, note 34, at 31,516, 31,520; EPA, Assessment of Incineration As A Treatment Method for Liquid Organic Hazardous Wastes, Summary and Conclusions 2, 14, 57 (1985); Land Disposal Restrictions for First Third Scheduled Wastes, 53 Fed. Reg. 31,138, 31,197 (1988); Land Disposal Restrictions for Second Third Scheduled Wastes, 54 Fed. Reg. 1056, 1,108 (1989) (proposed rule); Harris Affidavit, supra, note 15 at ¶ 48. In particular, EPA has determined that "capacity is still inadequate for incineration of contaminated soil and debris." Land Disposal Restrictions for Second Third Scheduled Wastes, 54 Fed. Reg. at 1,108; Harris Affidavit, supra, note 15, at ¶ 48.

enforcement resources, would be diverted from ensuring the proper disposal of mobile liquids containing high concentrations of PCBs to ensuring that immobile solid wastes containing relatively low concentrations of PCBs were incinerated. This interpretation of the PCB regulations will permit more of the currently available incineration capacity to be used for high concentration liquid wastes.⁷³

F. Issuance Of A Declaratory Order Or An Interpretive Rule Would Not Limit EPA's Flexibility In Administering Its PCB Program

The clarifying interpretation requested would not prevent PCB-contaminated lagoon sediment from being incinerated in the appropriate situation. Rather, EPA would make a case-by-case determination concerning which disposal method is most appropriate.⁷⁴ Based on the risk in a particular circumstance, the feasibility and reliability of the alternatives and costs, EPA could determine that only incineration would adequately protect human health or the environment.⁷⁵ In other cases, however, it is clear that the preferred disposal method will not

73. 1979 PCB Reg., supra, note 34, at 31,520.

74. This Petition does not seek to narrow EPA's options in such circumstances. Rather it simply clarifies that the elimination of landfilling or some other more cost-effective disposal method must be based on EPA's providing adequate technical justification in each case and is not compelled by law.

75. Even if TSCA did not directly address the situation, EPA also could take action pursuant to Superfund or other regulatory authorities, if authorized by law and if necessary to protect public health or the environment.

be incineration -- particularly in cases where the sediment contains metals. Interpreting "dredged materials" as including dredged lagoon sediments allows the use of the most appropriate disposal method in each situation.

III. EPA SHOULD ALSO AMEND ITS PCB DISPOSAL REGULATIONS TO CLARIFY THEIR MEANING TO ALLOW FOR CONSISTENT APPLICATION

A. Although The Existing Regulations Are Clear, They Have Been Applied Inconsistently By EPA Regional Staff

The Petitioners (see Attachment 1) are potentially responsible parties ("PRPs") at many of CERCLA sites,⁷⁶ including the Bridgeport Rental and Oil Services ("BROS") site, and are subject to the PCB regulations at hundreds of other facilities. EPA has not interpreted its PCB regulations consistently in its decisions at these sites, and has thereby subjecting the Petitioners to inconsistent requirements and unnecessary costs.

For example, Region II of EPA issued the BROS Superfund Record of Decision ("Record of Decision") which requires the excavation and incineration of all lagoon sediment containing a PCB concentration greater than 50 ppm. EPA concluded that it was more cost-effective to incinerate 60,000 cubic yards of sediment because, as matter of law, it was

76. EPA applies "applicable or relevant and appropriate requirements" (or "ARARs") at Superfund sites to assure that CERCLA cleanups protect health and the environment. See 42 U.S.C. § 9621(d). Under certain circumstances, the TSCA regulations may be ARARs. Prior to SARA, as a matter of policy, EPA used ARARs to determine cleanup levels at Superfund sites.

required to incinerate that portion containing PCB concentrations greater than 500 ppm. EPA decided, therefore, that it could not consider other, more cost-effective techniques for all or a portion of the sediment.⁷⁷ The contract implementing the BROS ROD requires the incineration of over 80,000 cubic yards of material dredged from the lagoon despite recent sampling that proved that over 80% of the sediment contains PCB concentrations of less than 50 ppm.⁷⁸

The BROS ROD and EPA's implementation of the ROD is inconsistent with the PCB regulations because: (1) the PCB regulations, on their face, permit the use of landfilling and other more cost-effective, yet health protective, remedial alternatives for "dredged material;"⁷⁹ (2) the material to be incinerated is sediment,⁸⁰ not "industrial sludges or slurries;"⁸¹ (3) even if the material to be incinerated is not "dredged material," it is non-liquid PCBs in the form of soil, and, therefore, it can be landfilled or disposed of by a method that is the equivalent of incineration;⁸² (4) the ROD requires

77. ERM Report, supra, note 68, at 5-1.

78. BROS Petition, supra, note 68, at 47-49.

79. See 40 C.F.R. § 761.60(a)(5) ("[a]ll dredged materials") and Section (B), (C), supra, at pp. 15 to 22.

80. See supra, note 28.

81. BROS Petition, supra, note 68, at 37-38.

82. See 40 C.F.R. § 761.60(a)(4) ("[a]ny non-liquid PCBs at concentrations of 50 ppm or greater in the form of contaminated
(continued...)

incineration of a vast quantity of dredged material containing PCB concentrations below TSCA's regulatory limit of 50 ppm;⁸³ (5) even if some of the material to be incinerated was industrial sludge, incineration of all of the industrial sludge at this site would not be required;⁸⁴ and (6) the BROS remedy will use scarce incineration capacity on low level contamination

82. (...continued)
soil") and BROS Petition, supra, note 68, at p. 39-40 n.122. EPA's Draft Guidance On PCB Cleanups, supra, note 15, at 8, explicitly states that "[s]oils/sludges contaminated with PCBs at concentrations greater than or equal to 50 ppm can be disposed of in an incinerator, treated by an equivalent method, or disposed of in a chemical waste landfill."

83. BROS Petition, supra, note 68, at 47-49. The decision to incinerate material containing PCB concentrations containing less than 50 ppm was explained in the ROD as being based on cost-effectiveness, i.e., as long as an incinerator was required to be onsite to destroy the dredged material containing PCB concentrations of 500 ppm or greater, it was less costly to use this incinerator to treat the material containing PCB concentrations less than 500 ppm. EPA cannot now proffer a new rationale for its original decision. In fact, there is also no valid post hoc rationale for EPA's decision. For example, the concentration in the dredged material, not the original waste, governs the disposal alternative. The anti-dilution rule does not apply since the PCBs were disposed of prior to February 17, 1978. See prior discussion, supra, at pp. 12-13. Clearly, any separation and/or dilution of the PCBs in the oil sent to the site was due to the disposal and natural separation. There was no intent to avoid the PCB regulations in this situation. EPA's PCB Sludge Policy, supra, note 20, at 2, explicitly states that material excavated from a cleanup are not covered by this policy. Also see PCB Separation Policy, supra, note 23, at 2. Finally, this site is a Superfund site, not a TSCA regulated activity. Therefore, the concentration in the environment, not the original material governs. See prior discussion, supra, at pp. 14.

84. BROS Petition, supra, note 68, at 47-49.

that does not need such an expensive remedy.⁸⁵ Additionally, this decision is inconsistent with EPA's Superfund regulations and prior decisions because EPA has selected remedies which are more cost-effective, and yet health protective for most of the other PCB sites and for all sites with similar conditions.⁸⁶ Furthermore, this cleanup decision is inconsistent with EPA's decision at another Superfund site to allow offsite landfilling of soil containing PCB concentrations of greater than 100 ppm.⁸⁷

85. See Harris Affidavit, supra, note 15, at ¶ 48; Memorandum from Henry L. Longest, Director, Office of Emergency and Remedial Response, and Bruce Diamond, Director, Office of Waste Programs Enforcement, to Addresses, Re: Advancing the Use Of Treatment Technologies for Superfund Remedies at 2 (OSWER Directive No. 9355.0-26) ("[t]reatment is less likely to be appropriate for low-concentrations of immobile wastes which pose a relatively low long-term threat"); CERCLA Land Ban, supra, note 70, at 41,568; 1979 PCB Reg., supra, note 34, at 31,520.

86. Incineration was not selected in any other Region II Record of Decisions involving PCBs (out of 16 Record of Decisions), including the pre-SARA Records of Decision. Harris Affidavit, supra, note 15, at ¶ 26. In no other Record of Decision was the legal rationale used in BROS cited as the reason for selecting incineration. For example, EPA has selected: (1) onsite landfilling (Record of Decision, Picillo Farm, RI (EPA/Record of Decision/RO1-85/012 September 1985) and Enforcement Record of Decision, Hyde Park Landfill, Town of Niagara, N.Y. (Nov. 1985)); (2) solidification and redisposal on site (Record of Decision, York Oil, York, N.Y. (1984)) and United States v. Pepper Steel and Alloys, Inc., Civ. Act. No. 83-1717, 85-0571-CIV-SPELLMAN (filed February 11, 1987)); (3) offsite landfilling (Record of Decision, Geneva Industries (1986)); and (4) a chemical treatment process (called KPEG) for all soil and sediment containing PCB concentrations of greater than 50 ppm, including soil and sediment containing PCB concentrations greater than 500 ppm (Record of Decision, Wide Beach, NY (Sept. 1985)) (This process was developed through a grant from EPA (Record of Decision, Wide Beach, NY at 55)). Also see note 68, supra.

87. Record of Decision, Geneva Industries, TX (1986).

The reasons that an amendment to the rules is necessary are to: (1) prevent future inconsistency; (2) conserve EPA's limited resources by addressing this issue through a nationally applicable regulation rather than on a case-by-case basis, particularly given the large number of Superfund sites and TSCA facilities involved; (3) avoid the waste of judicial and private party resources that would result from a case-by-case, inconsistent legal interpretation of the regulations; (4) avoid diverting scarce incineration capacity from highly mobile liquid wastes containing low PCB concentrations to "dredged materials," soils and other materials with low concentrations of relatively immobile PCBs; (5) minimize the overall risk from disposing of PCBs from the emission of substances into the ambient air; and (6) fulfilling TSCA mandate to utilize the most cost-effective and least burdensome method of disposing of PCBs.

B. An Amendment Is Necessary In Order For EPA To Meet Its Statutory Obligation To Utilize The Least Costly and Least Burdensome Means Of Reducing Risk

The Petitioners request as narrow a clarification of the existing PCB regulations as possible. Accordingly, Section 761.60(a)(5) should be amended by adding the underlined language as indicated:

(5) All dredged materials, including sediments, sludges (either in liquid or non-liquid form), residual liquids and other similar non-liquid material from the bottom of lagoons, ponds, pits, and other areas used for the storage or disposal of liquids or solids containing PCBs at concentrations of 50 ppm or greater, and municipal sewage

treatment sludges that contain PCBs at concentrations of 50 ppm or greater shall be disposed of:

(i) In an incinerator which complies with § 761.70,

(ii) In a chemical waste landfill which complies with § 761.75; or

(iii) Upon application, using a disposal method to be approved by the Agency's Regional Administrator in the EPA Region in which the PCBs are located. Applications for disposal in a manner other than prescribed in paragraph (a)(5) (i) or (ii) of this section must be made in writing to the Regional Administrator. The application must contain information that, based on technical, environmental, and economic considerations, indicates that disposal in an incinerator or chemical waste landfill is not reasonable and appropriate, and that the alternative disposal method will provide adequate protection to health and the environment. The Regional Administrator may request other information that he or she believes to be necessary for evaluation of the alternate disposal method. Any approval by the Regional Administrator shall be in writing and may contain any appropriate limitations on the approved alternate method for disposal. In addition to these regulations, the Regional Administrator shall consider other applicable Agency guidelines, criteria, and regulations to ensure that the discharges of dredged material and sludges that contain PCBs and other contaminants are adequately controlled to protect the environment. The person to whom such approval is issued must comply with all limitations contained in the approval.

In addition, Section 761.60(a)(4) should be amended by adding the underlined language as indicated:

(4) Any non-liquids PCBs at concentrations of 50 ppm or greater of PCBs in the form contaminated of soil, rags, sediments, non-liquid sludges, and other non-liquid material

removed from lagoons and not covered by subsection (a)(5), and other debris shall be disposed of:

(i) In an incinerator which complies with § 761.70; or

(ii) In a chemical waste landfill which complies with § 761.75.

IV. CONCLUSION

For the foregoing reasons, the Petitioners request that the Administrator issue an interpretative rule or declaratory order clarifying that the PCB-contaminated lagoon sediment and other similar material as described herein may be either incinerated, landfilled, or treated with an alternative method technology that adequately protects human health and the environment at a more reasonable cost. The Petitioners also request that the Administrator initiate a proceeding to amend

40 C.F.R. § 761.60(a) to make such a clarification explicit in the regulations.

Respectfully submitted,

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December __, 1989