

9-1-1989

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Recommended Citation

Robins, Brad (1989) "Toxic Spill Legislation: Does It Work?," *Hofstra Property Law Journal*: Vol. 3: Iss. 1, Article 7.

Available at: <https://scholarlycommons.law.hofstra.edu/hplj/vol3/iss1/7>

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TOXIC SPILL LEGISLATION: DOES IT WORK?

INTRODUCTION

The problem of toxic spills has risen to crisis proportions. Storage tanks, often grouped together in locations referred to as tank farms, are present throughout the country. These tanks are located both aboveground and belowground, and contain various liquids ranging from benzene to petroleum. The tanks can be found at large refineries, gas stations, farms, and even in the basements or yards of many homes. The mere existence of these tanks, in and of themselves, poses no threat. However, the possibility of accidental tank spills are an ever-present danger.¹ Tank spills cause millions of dollars worth of property damage and are an undue burden on our natural resources.

The United States Congress has attempted to eliminate these spills and their resulting damage on the environment through several pieces of legislation. While some of this legislation has been successful in many respects, most has fallen short of the mark. This is attributable to the fact that Congress has never purported to regulate all tanks, nor has it attempted to regulate all types of spills. This lack of widespread regulation has eviscerated the frequency of spills by providing polluters with the ability to circumvent the law.

The judiciary also has ineffectively confronted the problem of toxic spills and their consequential damage. The courts have long recognized the need for some form of landowner liability when a landowner's actions adversely effect the use and enjoyment of an-

1. These tanks are constructed to hold various liquid substances. The problems associated with the spills are exacerbated when the tanks are used to store substances other than the ones they are designed for, and when tank farms are used as unlicensed hazardous waste sites. Both of these uses were employed in *New York v. Shore Realty Corp.*, 759 F.2d 1032 (2d Cir. 1985), notwithstanding the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 42 U.S.C. §§ 9601-9657 (1982 & Supp. 1987). In *Shore Realty*, the present land owner, who was not the polluter, was held liable for the costs of cleaning property that had hazardous wastes stored in forty year old aboveground storage tanks. The property was not a licensed hazardous waste storage facility, and the tanks were allowed to fall into disrepair which resulted in corrosion and consequential leaking. Liability was predominantly based on a theory of public nuisance. Only a small portion of the liability, approximating \$30,000, was based on CERCLA. *Id.*

other's property. It is well settled that an unnatural use of land results in liability to the owner if such use damages adjacent property.² Unfortunately, toxic spills threaten more than just surrounding land. As a result, the traditional common law approach to nuisance law has proven ineffective in preventing spills.

Despite the attempts made by both Congress and the judiciary to eliminate the incidence of spills, it is clear that more drastic measures must be taken, as the negative effects of pollution are far reaching. For example, in September of 1986 it was discovered that the inadequate maintenance of aboveground storage tanks, located in South Dakota and owned by the Williams Pipeline Company, ultimately resulted in the seepage of 20,000 gallons of petroleum into the ground.³ Consequently, the Skunk Creek underground aquifer was contaminated. An elementary school was forced to permanently close as well.⁴ A more recent example occurred January 2, 1988 in Floreffe, Pennsylvania where a storage tank owned by the Ashland Petroleum Company suddenly ruptured.⁵ As a consequence of the

2. Rylands v. Fletcher, House of Lords, 1868, L.R.3 H.L. 330. (Liability arose from the unnatural storage of water on defendant's land for use in defendant's brewery; the water escaped and flooded plaintiff's land).

3. "The discharges ultimately caused . . . the destruction of . . . precious groundwater supply for generations to come." *Oil Spill on the Monongahela and Ohio Rivers: Hearing Before the Subcomm. on Environmental Protection of the Senate Comm. on Environment and Public Works*, 100th Cong., 2d Sess. 9,10 (1988) (statement of Tom Daschle, U.S. Senator from South Dakota). On March 11, 1987 a second spill of 8,000 gallons was reported. "This spill immediately soaked into the ground and was floating on the aquifer within hours." 135 CONG. REC. 5671 (daily ed. Jan. 25, 1989) (statement of Sen. Daschle). Eleven leaks and spills occurred before these spills at the tank farm. At the present date, very little has been cleaned at the site. *Id.*

4. 135 CONG. REC. 5671 (daily ed. Jan. 25, 1989) (statement of Sen. Daschle).

5. Oil storage tank number 1338, owned by the Ashland Petroleum Company, was disassembled and moved to the Floreffe, Pennsylvania tank farm where it was reassembled with new bottom plates and a new foundation in 1986. The tank entered into service on August 24, 1987. The tank had been tested by filling it with water to a level of five feet one inch for a bottom leak check. In addition, radiographs, a procedure to check welds, were performed on the joints and welds to detect any flaws. No flaws were found.

On January 2, 1988 the tank was filled with number two diesel oil. Previously, it had not been filled past a height of thirty-eight feet. Ten minutes after the oil reached a height of forty-five feet ten and one quarter inches (the tank had a maximum capacity of forty-six feet) a flaw in the steel of the tank, which existed since the tank's 1940 manufacturing date, gave way and started a rupture that immediately propagated the entire vertical length of the tank. The flaw was not detected because it was close to, but not part of, a weld, and was therefore not radiographed. Failure Investigation of Ashland Oil Tank No. 1338 at Floreffe, Pennsylvania, Battelle Report June 17, 1988 at 1-3, 9, 149-51. *Oil Spill on the Monongahela and Ohio Rivers: Hearing Before the Subcomm. on Environmental Protection of the Senate Comm. on Environment and Public Works*, 100th Cong., 2d Sess. 49, 50 (1988) (statement of John R. Hall, Chairman and CEO of Ashland Oil, Inc.)

inundation of the containment structure by almost four million gallons of number two diesel fuel, approximately 750,000 gallons of the fuel spilled into the Monongahela River, polluting it for miles.⁶ Ashland only recovered approximately fifteen percent of the oil from the river.⁷ The remaining fuel, consisting of approximately 600,000 gallons, flowed down the Monongahela River, eventually reaching the Ohio and Mississippi Rivers.⁸ Over one million people were affected by this discharge, 1,200 of whom were immediately evacuated from their homes due to the possibility of fire. Communities that drew water from the Monongahela and Ohio Rivers were forced to shut their water intake systems in an effort to prevent contamination of treatment plants. Water had to then be transported into these areas from external sources. Such transportation lasted for over a week in some communities. As a result, many businesses closed until the water supply was restored.⁹ The long term environmental effects of this disaster are not known, but "may be with us for years."¹⁰

The traditional common law approach to nuisance law proves substantially ineffective as applied to the area of toxic pollution. Furthermore, it is doubtful that the judiciary can ever successfully confront the problem of spills, as courts can attempt to compensate the injured only after the fact. Legislation, however, accompanied by comprehensive regulations, could decrease the probability of such incidents of pollution from initially occurring, although this approach has thus far proven ineffective in preventing toxic spills.

This note will analyze the current regulations, focusing on their shortcomings with regard to tank spills. In addition, it will discuss the positive and negative aspects of the recently proposed Waste

6. *Id.*

7. "Although Ashland recovered only about 15 percent [approximately 150,000 gallons] of the oil that entered the Monongahela River, that amount is fairly typical for a river cleanup." *Id.* at 111 (statement of Richard S. Golob, Director of World Information Systems [WIS]).

A slow response rate, emulsification, and the lack of the proper equipment accounts for the fact that a fifteen percent recovery rate from a river spill is the norm. Most of the oil spill cleaning equipment that is in use today is designed to clean spills that occur on the open ocean. This equipment consists mostly of booms with attached skirts that extend below the surface of the water and force the oil to the surface where it can be skimmed and/or vacuumed. This equipment does not work in a river where there is a current that will push the oil below the skirts of the booms, forming small droplets that mix with the water (emulsification) and continue to flow further down the river. *Tools' Mismatch to Task Hampering Oil Cleanup*, N.Y. Times, Jan. 6, 1988, at A19, col. 1.

8. 134 CONG. REC. E1209 (daily ed. April 13, 1989) (statement of Rep. Walgren).

9. *Id.*

10. *Id.*

Materials Management Act of 1989.

I. COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT

In 1979, Congress enacted the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA")¹¹ in an attempt to reduce the environmental threat caused by abandoned hazardous waste dumps. Congress gave teeth to CERCLA by both expanding liability beyond traditional tort theories,¹² and by creating an exhaustive list of actors (and non-actors) who may be held liable. The list includes: (1) any owner or operator of a facility that produces the hazardous substances in question;¹³ (2) any owner or operator of the disposal site at the time the hazardous substances were disposed of;¹⁴ (3) any person who transported such wastes;¹⁵ and (4) any person who arranged, by contract or agreement, for the disposal of the wastes.¹⁶ Under CERCLA, these parties are liable and must reimburse the government for response costs,¹⁷ removal or remedial action costs,¹⁸ destruction of natural resources,¹⁹ and the costs of any

11. 42 U.S.C. §§ 9601-9657 (West 1983 & Supp. 1990).

12. Under the modern theory of tort law, causation is essential for the finding of liability. Traditional tort law even recognizes a defense of causation for strict liability. However, under CERCLA, a person can be held strictly liable merely for owning land containing hazardous waste. See *Shore Realty Corp.*, *supra* note 1, at 1042, 1044.

13. "Covered persons . . . [include] the owner and operator of a vessel or a facility . . . shall be liable . . ." 42 U.S.C. § 9607(a)(1). Thus, the person who presently owns the facility and/or the person who operates the business located on the facility can be held liable. However, "[s]uch term [owner and operator] does not include a person, who, without participating in the management of a vessel or facility, holds indicia of ownership primarily to protect his security interest in the vessel or facility." *Id.* at § 9601(20)(A)(iii). Therefore, the mortgagee is protected. (The question of foreclosure and consequent liability is beyond the scope of this Note).

14. "Covered persons . . . [include] any person who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of . . . shall be liable . . ." *Id.* at § 9607(a)(2).

15. "Covered persons . . . [include] any person who accepts or accepted any hazardous substances for transport to . . . sites . . . from which there is a release . . . of a hazardous substance, shall be liable . . ." *Id.* at § 9607(a)(4).

16. "Covered persons . . . [include] any person who by contract . . . arranged for disposal . . . or arranged with a transporter for transport for disposal . . . of hazardous substances . . . shall be liable . . ." *Id.* at § 9607(a)(3).

17. The liability which is imposed on the parties listed in notes 13-16 *supra* include "any other necessary costs of response incurred by any other person consistent with the national contingency plan." *Id.* at § 9607(a)(4)(B).

18. The parties listed in notes 13-16 *supra* are responsible for "all costs of removal or remedial action incurred by the United States Government . . . not inconsistent with the national contingency plan." *Id.* at § 9607(a)(4)(A).

resulting health studies.²⁰ The potential liability imposed by CERCLA is quite large in and of itself. Generally it costs the federal government more to clean up a site than it costs a private party.²¹ Accordingly, CERCLA creates an added incentive to clean waste sites after a spill has occurred.

Although positive attributes are found in CERCLA, the Act unfortunately fails in two major respects: first, CERCLA does not directly confront the need to prevent spills, since it is considered only *after* a discharge has occurred. Second, CERCLA does not include petroleum in its definition of a hazardous substance.²² Considering that abandoned hazardous waste dumps are an increasing threat to the environment, and that the fear of liability for the cost of cleanup acts as a deterrent to a potential dumper, Congress' decision to focus on abandoned waste dumps may arguably be justified. While CERCLA was never intended to be a regulatory statute, the inclusion of petroleum in its definition of hazardous substances would indirectly reduce the number of petroleum spills per year. If an owner could be held liable by CERCLA after a spill, there would be an incentive for the owner to take better care of his tanks to prevent a spill. However, by failing to include petroleum spills, Congress has prevented CERCLA from acting as an indirect form of regulation on above ground storage tanks.

Theoretically, if the tank farm owned by Williams Pipeline²³

19. The parties listed in notes 13-16 *supra* are liable for "damages for injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing such injury, destruction, or loss resulting from such a release." *Id.* at § 9607(a)(4)(C).

20. The parties listed in notes 13-16 *supra* are responsible for "the costs of any health assessment or health effects study carried out under section 9604(i) of this title." *Id.* at § 9607(a)(4)(D).

21. It is the general consensus among The Hazardous Waste Bar that it costs the federal government more to clean a hazardous waste site than it does a private party.

22. CERCLA does *not* define petroleum as a hazardous waste.

Definitions . . . For the purposes of this subchapter . . . The term "hazardous substance" means . . . any substance designated pursuant to section 1321(b)(2)(A) of title 33 . . . The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

42 U.S.C. § 9601 (A). While the substances covered under CERCLA are extremely dangerous and are of a much higher toxic concentration than petroleum, petroleum has a great potential for the physical destruction of property and long term environmental pollution. This is evidenced by the fact that oil is covered along with hazardous waste in sections 311(a) and (b) of the Federal Water Pollution Prevention and Control Act.

23. See *supra* note 3 and accompanying text.

had discharged substances other than petroleum, CERCLA may have been useful in assigning liability for the cost incurred to clean the site. The site may have also been put on the national priorities list.²⁴ In addition, CERCLA's ability to discourage hazardous waste dumping²⁵ by instilling fear of liability may have initially prevented the spill. Thus, by exempting petroleum, Congress has unfortunately failed to create a multifaceted tool which may have prevented damage in the aforementioned case, as well as in many other similar situations.

II. THE RESOURCE CONSERVATION AND RECOVERY ACT

The Resource Conservation and Recovery Act (RCRA)²⁶ is another Congressional attempt to address the waste disposal problem in the United States. Unlike CERCLA, RCRA does apply to petroleum. However, it only purports to regulate underground tanks.²⁷ Moreover, a number of such tanks are excluded from the regulation.²⁸ The requirements imposed by RCRA section 6991 include:

24. In fact, "[t]he EPA is currently reviewing a portion of the Williams site for possible inclusion on the Superfund [CERCLA] national priorities list." 135 CONG. REC. 5671 (daily ed. Jan. 25, 1989) (statement of Sen. Daschle). The national priorities list is a list of the worst sites that are slated for cleanup under the Superfund. 42 U.S.C. § 9605 (1982).

25. The term "dumping" is used loosely here because a spill is not technically dumping in the classic sense of the word.

26. 42 U.S.C. §§ 6901-6992k (Supp. V 1987) was enacted in 1984 to amend the Solid Waste Disposal Act, which was enacted in 1976.

27. "SUBCHAPTER IX - REGULATION OF UNDERGROUND STORAGE TANKS . . . The term 'underground storage tank' means any one or combination of tanks . . . which is used to contain an accumulation of regulated substances . . ." 42 U.S.C. § 6991(1). "The term 'regulated substance' [includes] . . . petroleum." *Id.* at § 6991(2)(B).

28. The term "underground storage tank" . . . does not include any - (A) farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes, (B) tank used for storing heating oil for consumptive use on the premises where stored . . . storage tank situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

Id. at § 6991(1)(A),(B),(I). Unfortunately, a gallon of petroleum has the same potential for harm whether it leaks from an exempt or non-exempt tank. Notwithstanding the fact that non-exempt tanks may have a larger capacity than exempt tanks, and therefore may be more harmful, damage can be caused by both exempted and non-exempted tanks. In addition, a large majority of tanks in the nation today fall into the exempted category, and Congress has allowed the existence of the significant threat to continue. Congress has created an incentive to build smaller tanks, but in larger numbers. Thus, a potential polluter who would like to utilize a 2,000 gallon tank can sidestep the RCRA regulations by using two one-thousand gallon tanks.

The exception also extends to underground tanks that store fuel for on premises consumption. A leak from these tanks can cause damage as well. A threat is also created by the mineworking/shaft/tunnel exemption. *Id.* at § 6991(1)(I). In the case of the mineshaft or

(1) the maintenance of a leak detection system; (2) an inventory system; (3) a system to test the underground tank; and (4) evidence of financial responsibility to take corrective action and to compensate third parties for damage caused by a discharge.²⁹ RCRA imposes regulation both before *and* after tank installation by regulating the periodic maintenance of a tank as well as the procedures for the responsibility of cleanup after there is a discharge.³⁰ RCRA provides for the United States Government or a State Government to issue a compliance order to the owner or operator of a tank to clean a spill privately. If the compliance order is disregarded, the federal or state government can clean up the spill and hold the disregarding party responsible for the cost.³¹ Such government cleanup efforts inevitably prove to be more costly than their privately undertaken counterparts. Thus, as with CERCLA, there is an incentive to prevent toxic leaks, plus there is the added incentive to promptly clean up the leaks. For the above reasons, RCRA is a step in the right direction. Unfortunately, since RCRA does not purport to regulate aboveground tanks,

tunnel, the tanks are already deep under the ground. Merely because they are not immediately surrounded by earth does not mean that a leak will not pollute the groundwater.

29. *Id.* at §§ 6991b(c)(1),(2),(6) (West Supp. 1984).

30. It should be noted that the discharge from an underground tank is a slow leak and not the sudden torrent of petroleum that would be caused by the complete failure of an aboveground tank, such as occurred with the Ashland tank (see *supra* note 5 and accompanying text). However, the slow leak from an underground tank percolates down to the groundwater which many surrounding communities use for drinking purposes. Unlike surfacewater, groundwater is extremely difficult and much more costly to clean. It is not difficult to abate the problem of an underground tank that has a slow leak. One simply has to empty it, and either plug the leak or decommission the leak by sealing it. See *supra* note 3, and accompanying text.

Conversely, other than regular maintenance and testing, it is difficult to stop an aboveground tank from cracking due to a shift in the foundation or an imperfection in the metal (as occurred in the Ashland collapse, see *supra* note 5 and accompanying text), causing a complete rupture of the tank and the consequent discharge of most of its contents. An underground tank will not rupture in this manner because the ground surrounding the tank will act as a counterbalance to the pressure of the contents stored inside the tank. Therefore, RCRA would have been more effective if it had included both aboveground and underground tanks as both are sources of threat to the environment.

31. Whenever costs have been incurred by the Administrator [EPA], or by a state . . . for undertaking corrective action or enforcement action with respect to the release of petroleum from an underground storage tank, the owner or operator of such tank shall be liable to the administrator or the state for such costs. The liability under this paragraph shall be construed to be the standard of liability which obtains under section 1321 of the Federal Water Pollution Control Act.

42 U.S.C. § 6991b(h)(6)(A) (Supp. V 1987). The money to be used by the government to clean the site shall be drawn from the Leaking Underground Storage Tank Trust Fund. *Id.* at § 6991b(h)(2)(C). The advantage of the government authority to clean the site directly is the ability to timely prevent leaking where there is either a noncomplying owner, an unknown owner, an owner who can not be located, or an owner who could not afford cleanup.

and since not all underground tanks are regulated, RCRA³ ultimately fails to prevent a substantial threat to the environment.³²

III. THE FEDERAL WATER POLLUTION PREVENTION AND CONTROL ACT

The Environmental Protection Agency ("EPA") contends that it has the power to sufficiently regulate aboveground storage tanks through the Federal Water Pollution Prevention and Control Act, commonly referred to as the Clean Water Act of 1972.³³ The National Contingency Plan ("NCP"),³⁴ promulgated under section 311 of the Act, provides instructions and procedures for cleaning waterways after a discharge of hazardous substances has occurred. The NCP suffers however from the same shortcomings as CERCLA since it is substantially an "after the fact" response mechanism. Moreover, the NCP only regulates offshore facilities, notwithstanding the fact that subsection (j) of section 311 could be construed, albeit a broad construction, to give the EPA authority to regulate onshore facilities,³⁵ including aboveground tanks.³⁶ The enactment of the Spill Prevention, Control and Countermeasures ("SPCC") regulation can be attributed to such a broad construction.³⁷

Unfortunately, the SPCC has not been enforced to its full extent.³⁸ Additionally, the SPCC regulations do not apply if the facil-

32. See *supra* note 1 and accompanying text.

33. 33 U.S.C.A. § 1251-1376 (West 1986).

34. *Id.* at § 1321(c)(2) (West 1986).

35. Subsection (j) reads as follows:

Regulations; penalty . . . Consistent with the National Contingency Plan required by subsection (c)(2) of this section, as soon as possible after October 18, 1972, and from time to time thereafter, the President shall issue regulations . . . establishing methods and procedures for removal of discharged oil and hazardous substances . . . establishing procedures, methods, and equipment and other requirements for equipment to prevent discharges of oil . . . from onshore facilities . . ., and to contain such discharges

33 U.S.C. § 1321(j)(1)(A)(C). One way to help prevent accidental discharges of oil from aboveground storage tanks is to formulate a set of regulations requiring scheduled maintenance and testing of a tank itself.

36. *Id.* at § 1321(j).

37. 40 C.F.R. § 112 (1988).

38. 134 CONG. REC. E1209 (daily ed. Apr. 13, 1989).

CURRENT REGULATION . . . of above-ground tanks is limited at best. First, there is virtually no regulation of the structural strength [of the tanks] required. There are only voluntary industry practices. Second, there are some regulations for spill containment, but their enforcement appears to be very irregular. EPA has never inspected the spill containment system for the Floreffe tank.

Current EPA spill containment regulations are broad and vague, essentially

ity's storage capacity is less than 1,320 gallons and no single container has a capacity exceeding 660 gallons.³⁹ Furthermore, like CERCLA and NPC, the SPCC regulates the containment aspect of a spill but does not provide the measures necessary to prevent a

leaving the industry in the role of setting its own standards, policing its own operations, and conducting its own inspection. For example, the EPA does not require the SPCC plan to be modified when a tank is relocated or rebuilt until 6 months after the tank is in operation. [The] EPA regulations allow a new or rebuilt tank to operate without an inspection. The Pittsburgh tank had been, in different phases, under construction for a year and a half, but Ashland did not amend the spill plan until 2 days after the spill.

Industry standards may be good guidelines, however, they are generally voluntary and give little assurance of safety. *Id.* (statement of Rep. Walgren).

In addition, it has been stated that inspections which have been undertaken were not conducted properly:

While opponents . . . claim that Section 311 of the Clean Water Act provides ample protection against potential above-ground tank problems, recent history clearly proves that contention wrong . . . I am advised that tank inspections are sometimes conducted from planes flying over facilities. I am further advised that insides of tanks, intake valves, and tank seams are never inspected by the EPA under the Section 311 program.

The fact is that the existing Clean Water Act authority has proven woefully inadequate in forcing tank owners to maintain their facilities in a reasonable manner.

Oil Spill on the Monongahela and Ohio Rivers: Hearing before the Subcomm. on Environmental Protection of the Senate Comm. on Environment and Public Works, 100th Cong., 2d Sess. (1988) (statement of Tom Daschle, U.S. Senator, South Dakota). In addition to this outside criticism, there is a question of EPA's power to regulate by personnel inside of the EPA.

Finally, Mr. Chairman, a few days ago I set up a task force . . . to take a quick and fresh look at the SPCC regulations. Certainly this incident brought to our attention certain portions of the regulations which we need to review . . . this program may be entirely too voluntary. We may need to tighten up these requirements and make it clear that integrity testing, contingency planning and other components of SPCC plans are requirements and not simply guidelines . . . In summary, Mr. Chairman, I'm very concerned about this situation . . . We plan to revisit the regulations.

Oil Spill on the Monongahela and Ohio Rivers: Hearing before the Subcomm. on Environmental Protection of the Senate Comm. on Environment and Public Works, 100th Cong., 2d Sess. (1988) (statement of Dr. J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response, EPA).

39. Any facility that is subject to regulation by the EPA but meets the following two requirements is not covered by this section: (1) if the underground tank storage capacity of the facility is less than or equal to 42,000 gallons of petroleum and (2) if the above-ground tank storage capacity is 1,320 gallons or less of petroleum with no single tank being of a capacity of more than 660 gallons. (*See* 40 CFR § 112.1(d)(2)). While this section excludes many small operators, the fact remains that even a small amount of petroleum can damage the environment. "[E]ven relatively small tanks of a few thousand gallons can cause extreme damage. The experience in Sioux Falls is a dramatic example." 135 CONG. REC. 5671, No. 6 Part III (Jan. 25, 1989) (Statement of Sen. Daschle, South Dakota).

spill.⁴⁰ The practical results are voluntary industry practices for the regulation of the structural integrity of the tank itself.

In addition, the SPCC does not permit the EPA to intervene when either the possibility of a discharge or an actual discharge poses no dangers of reaching the navigable waters of the United States.⁴¹ Such a situation occurred in the Williams Pipeline discharge,⁴² where the EPA could only provide minimal supervision, and only after the Administrator had invoked emergency discretionary measures. As toxic spills are very difficult and costly to clean, Congress should have concentrated on the prevention aspect rather than the containment and cleaning aspects. Congress' failure in this manner, as well as its creation of exceptions to its legislation has resulted in the constant threat of toxic discharge from aboveground storage tanks, notwithstanding the Clean Water Act of 1972.⁴³

IV. THE WASTE MATERIALS MANAGEMENT ACT OF 1989 (TITLE V § 501)⁴⁴

As past laws have not been completely successful in regulating

40. See 40 CFR § 112.7(b),(c). Most of the regulation is aimed at the ability to contain and clean up a discharge. Only one subsection is designated for the prevention of a discharge: Aboveground tanks should be subject to periodic integrity testing, taking into account tank design (floating roof, etc.) and using such techniques as hydrostatic testing, visual inspection or a system of non-destructive shell thickness testing. Comparison records should be kept where appropriate, and tank supports and foundations should be included in these inspections. In addition, the outside of the tank should frequently be observed by operating personnel for signs of deterioration, leaks which might cause a spill, or accumulation of oil inside diked areas.

Id. at § 112.7(e)(2)(vi). Note that this section does not indicate what amount of time constitutes "periodic." Also, comparison records (which will highlight the existence of a problem when they are properly examined) *should* be kept, not *shall* be kept, where appropriate. This results in industry standards that are for all intents and purposes only voluntary. For definitions of some of the technical terms used in the above quote (such as "integrity testing"). See Failure Investigation of Ashland Oil Tank No. 1338 at Floreffe, Pennsylvania, Battelle Report June 17, 1988 at 15-25.

41. Born out of § 311(j)(1)(C) and 311(j)(2) of the FWCPA (33 U.S.C.A. § 1321) is Part 112 - OIL POLLUTION PREVENTION 40 CFR § 112. However, this section does not apply if the threat posed by an onshore storage facility is not a *reasonable* threat to the navigable waters of the United States. (See 40 CFR § 112.1(d)(1)(i)). Note that this does not exclude the civil penalties imposed by § 112.6 of up to \$5,000 each day for a continuing violation. See 40 CFR § 112.6.

42. See *supra* note 3, and accompanying text.

43. Once petroleum is spilled, it is very difficult to clean up. This is evidenced by a fifteen to twenty percent recovery rate. See *supra* note 7 and accompanying text.

44. H.R. 3735, 101st Cong., 1st Sess., 135 CONG REC. H9042 (daily ed. Nov. 19, 1989) (introduced by Representative Luken of Pennsylvania). The title of the proposed legislation is: "To amend the SWDA (Solid Waste Disposal Act), to authorize appropriations for fiscal years

the use of aboveground storage tanks, the Waste Materials Management Act of 1989 is currently being proposed in the House of Representatives⁴⁵ in an attempt to confront the problem.⁴⁶ The bill contains additions to, amendments to, and reauthorizations of the currently existing environmental laws. If passed, the Act will apply to all tanks which commence operations six months subsequent to the passing of the Act.⁴⁷ In addition, the EPA will set a timetable for existing tanks to comply with the regulations.⁴⁸

The Waste Materials Management Act *is* an improvement over current legislation. In the Act, more severe measures are taken to decrease spills, and to quickly and more successfully clean them up. The bill gives the EPA extensive power to regulate aboveground storage tanks,⁴⁹ especially through sections 9102 and 9104, which call for the Release Prevention Plan ("RPP") to regulate each tank

1990 to 1993, and for other purposes." *Id.*

45. The Senate version of the Tank Bill, introduced on January 25, 1989 by Senator Daschle of South Dakota, is directly modeled on the current underground tank regulation in RCRA. Members of the staffs of both Senators (Daschle of South Dakota and Heinz of Pennsylvania) have informed the author that the current legislation is beginning in the House by Representatives Luken and Walgren of Pennsylvania. Therefore, this Note will not focus on the Senate version of the Tank Bill, but solely on the Waste Materials Management Act of 1989.

At this point, the Safe Drinking Water Act 42 U.S.C. §§ 300f to 300j-26 should be mentioned. This Act has no effect on the regulation of above ground storage tanks. It applies directly to the water systems and not to the source of supply for the water system. If the Safe Drinking Water Act applied to the source of supply for the water systems, it is conceivable that the Act would then encompass most of the environmental legislation that currently exists.

The Safe Drinking Water Act is a set of standards for the drinking water itself. The treatment process is regulated through standards set for the water that comes out of home faucets. The Act has some effect on the State permit process for underground injection of wells. (The underground injection of wells is beyond the scope of this article.)

46. The term "'above-ground storage tank'. . . does not include any - - (A) agricultural farm or residential tank of 4,200 gallons or less, (B) tank of 4,200 gallons or less capacity, . . ." The Waste Materials Management Act of 1989 § 9112(d)(4)(9)(A) and (B).

47. "Effective Date - - Regulations . . . shall be effective with respect to each above-ground storage tank which commences operation 6 months after the promulgation of the regulations." *Id.* at § 9101(c). Any tank that is under construction or in the process of relocation will have to conform to the new regulatory standards if it will not be in operation within six months after the regulation passes. If it does go into operation within the six month period, it will eventually have to conform due to the retroactive aspect of The Waste Materials Management Act of 1989.

48. "Effective Date . . . each . . . tank which commenced operations on or before the effective date of such regulation, the Administrator shall issue regulations to set a timetable for bringing tanks into compliance . . ." *Id.* at § 9101(c). The purpose is to eventually get all aboveground storage tanks that are preexisting and not exempt them from the regulation.

49. Depending on eventual judicial interpretation (assuming the bill becomes law), the bill will expressly or impliedly give the EPA power over the economic life of tank owners.

or group of tanks.⁵⁰ While similar to the SPCC, the RPP is more effective since it provides for systematic inspections and modifications.⁵¹ One RPP requirement is that adequate equipment and personnel must be on the site or reasonably available to act when there is a discharge.⁵² If this provision had been in existence in the past, much damage could have been avoided. For example, upon discovering the Ashland spill, fifteen hours had elapsed before equipment was finally placed in the river.⁵³ Consequently, the oil passed the first dam located twelve miles down the river and rapidly emulsified.⁵⁴ Had there been a requirement to use the proper equipment at the site or to have such equipment readily available, the site could have been cleaned sooner, resulting in a larger recovery.

It must be noted that the Coast Guard is required to maintain Spill Cleanup Inventory known as SKIM.⁵⁵ SKIM permits those in

50. The Waste Materials Management Act of 1989, § 9102(b).

51. The RPP is aimed at all erected (i.e., not fully assembled at the factory and transported to the field) aboveground storage tanks that are not under a regulatory exemption. However, it is more extensive than the SPCC, which is aimed only at tanks that pose a threat to the navigable waters of the United States. *Id.*

52. "The plan shall provide for adequate equipment and personnel to be on site or otherwise reasonably available to control and clean up any release of a regulated substance . . ." *Id.* at § 9102(b)(2).

53. "The first oil control boom of Ashlands primary contractor was not in the water until 15 hours after the spill." *Oil Spill on the Monongahela and Ohio Rivers, Hearing before the Subcomm. on Environmental Protection of the Senate Comm. on Environment and Public Works, 100th Cong., 2d Sess. 13 (1988)* (statement of Representative Walgren of Pennsylvania). In addition to this delay, the EPA and the Coast Guard did not determine which agency would take primary responsibility for directing the cleanup effort and the emergency response until eighteen hours after the spill had occurred. *Id.* at 13.

54. When oil spills into water, the oil and water eventually mix and the oil emulsifies into tiny droplets virtually impossible to recover. Most oil recovery equipment is designed to contain the oil until it can be vacuumed up. However, when the spill is in a river, the current makes it very difficult for the booms to contain the oil. The process of emulsification is greatly enhanced when the oil is swept down the river by the current. In the case of the Ashland spill, emulsification had begun before the cleanup equipment was even put into the water. "Riding on 2-knot currents . . . the oil had passed the first lock and dam 12 miles downstream by the time officials could get equipment on the river. Diesel fuel is much lighter than crude oil and it emulsified rapidly in the river." Nichols, *Oil Accident Ignites Response Debate*, 60 J. OF WATER POLLUTION CONTROL FED'N 467, 467-68 (Apr. 1988). "In addition, it appears that the cleanup equipment that was known is primarily designed for spills in open water, [it is] of very questionable use in rivers where there is a fast current . . . [t]he Gulf Strike Force, one of two in the Nation, has no equipment suitable for rivers." *Oil Spill on the Monongahela and Ohio Rivers, Hearing before the Subcomm. on Environmental Protection of the Senate Comm. on Environment and Public Works, 100th Cong., 2d Sess. 14 (1988)* (statement of Rep. Walgren of Pennsylvania).

55. [W]e have learned that the U.S. Coast Guard is required to maintain a current Spill Cleanup Inventory known as SKIM. This is an inventory so that those in the position of responding to an emergency can quickly find out what type of cleanup

the position of responding to an emergency to promptly determine what type of cleaning equipment is available and where it is located.⁵⁶ However, due to budgetary problems, the national equipment inventory has been defunct for the past few years.⁵⁷ Thus, the RPP requirement that each tank owner must keep the proper equipment on hand or readily available is absolutely necessary.

The RPP also provides that each tank and system shall be inspected before operations can begin. The inspection must be certified by a qualified professional engineer who is not permanently employed by the owner or operator of the system. This avoids any bias on the part of the engineer as well as undue influence from the owner or operator.⁵⁸ If the plan and system do not pass inspection, the independent engineer must notify the EPA or the State where the system is located.⁵⁹

When considering the RPP and the SPCC, it is apparent that the RPP is more effective in preventing toxic spills. The SPCC required only that tanks be reviewed and certified by a registered professional engineer, not an independent engineer.⁶⁰ The SPCC also

equipment is available and where it is. The Coast Guard indicated in this case that they had 12 vacuum trucks on hand; they needed 200.

In retrospect, we find out that the national equipment inventory has been defunct for the last several years for budgetary reasons. The Coast Guard decided that this inventory did not have the priority as a national function.

Oil Spill on the Monongahela and Ohio Rivers: Hearing before the Subcomm. on Environmental Protection of the Senate Comm. on Environment and Public Works, 100th Cong., 2d Sess. 13, 14 (1988) (statement of Rep. Walgren of Pennsylvania).

56. *Id.*

57. *Id.*

58. The bill provides, in relevant part, that:

[T]he plan and system shall be inspected by a qualified registered professional engineer not permanently employed by the owner or operator of the system If . . . the engineer determines that the system . . . or . . . the tanks . . . do not comply with the regulations . . . the engineer shall notify the Administrator [EPA] or the State. Thereafter, each system, including each tank, shall be inspected while in service by a qualified inspector not less than once every three years.

The Waste Materials Management Act of 1989, § 9102(d). (The fact that the engineer must be certified decreases the probability of fraudulent inspections. As the engineer must report any failures to the EPA or the state, possible repercussions for failing to do such would also serve as a disincentive to fraud).

59. *Id.*

60. The SPCC does not require that an independent engineer certify the plan. The only requirement is that it be reviewed "by a Registered Professional Engineer and certified by such Professional Engineer." 40 C.F.R. § 112.3(d)(1988). Under this regulation, the engineer can be employed by the owner or operator thus increasing the probability of undue influence. However, the owner and operator is still required to implement such a plan in accordance with 40 C.F.R. § 112.3(a)(b) and (c).

imposes no penalty if the plan does not pass. Thus, the RPP is the better approach.

The RPP must also provide for a Release Prevention System capable of catching and holding 110 percent of the full capacity of a tank.⁶¹ The term "catch" refers to the ability to contain the wave effect of a rupture. Such a provision would have prevented the damage which resulted from the Ashland spill.⁶² The containment dikes around the Ashland tank were capable of holding 110 percent of the capacity of the largest tank on the farm, but they were not able to *catch* or contain the oil in response to the complete rupture and consequent wave which ultimately occurred.

Under the Waste Materials Management Act, if a major modification to a facility could materially increase the probability of discharge, the tanks may not operate until an engineer certifies that the modification complies with good engineering practices.⁶³ This is a substantial improvement in the approach taken to prevent toxic spills. Notwithstanding the fact that under SPCC a plan to change a facility design must be completed within six months, and cannot effect its potential to discharge into navigational waters,⁶⁴ a tank could be operated in a potentially unsafe manner during the six month period prior to the plan's completion. The provision in the Waste

61. "RELEASE PREVENTION SYSTEM - - The release prevention plan developed under subsection (b) shall include a release prevention system that is capable of catching and holding 110 percent of the full capacity of the tank. The system shall prevent any release of regulated substances beyond the boundaries of the property of the tank owner or operator, as defined in the spill prevention plan." The Waste Materials Management Act of 1989, §9102(c).

62. See *supra* note 5 and accompanying text.

63. MODIFICATIONS. [exist] . . . whenever there is a major modification in the design, construction, operation or maintenance of the tank which materially affects the potential for the tank to release substances. The regulations shall prohibit the use or operation of the tank until the owner or operator has notified the Administrator . . . that the amended plan and system have been certified by a qualified registered professional engineer as reflecting good engineering practices.

The Waste Materials Management Act of 1989 § 9102(e). This provision, unlike the SPCC, requires an amendment whenever there is a modification that affects the possibility of any release, not just a release into navigable water. In addition, the tanks cannot operate until they pass this inspection.

64. Owners or operators of facilities . . . shall amend the SPCC Plan for such facility in accordance with § 112.7 whenever there is a change in facility design, construction, operation or maintenance which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States . . . Such amendments shall be fully implemented as soon as possible, but not later than six months after such change occurs.

40 CFR § 112.5(a). This provision does not apply to facilities that do not pose a threat to navigable waters of the United States. 40 C.F.R. § 112.

Materials Management Act will prevent such unsafe use of a tank.⁶⁵ The Waste Materials Management Act also gives the EPA, or a state with an approved state program, the power to prevent a tank that has discharged from operating until it is determined that no danger to human health or the environment exists.⁶⁶

Another major advantage of The Waste Materials Management Act is that it contains a provision whereby a state can assume primary enforcement authority,⁶⁷ provided state enforcement is at least as stringent as federal regulation, and the state sufficiently funds the program. The advantage of a state program is that the state may apply more stringent requirements than those promulgated under the Waste Materials Management Act. For example, the state can include aboveground storage tanks that are exempted by the Waste Materials Management Act.⁶⁸ The EPA, however, can monitor the state program to ensure that minimum federal requirements are met. Thus, the EPA reserves concurrent regulatory authority in this context.⁶⁹

While the Waste Materials Management Act is a more effective weapon against spills, it too has exemptions. Any aboveground tank which holds less than 4,200 gallons is exempt, resulting in more ex-

65. However, the provision only applies to a "major modification," which is not defined in the Act. As a result, the courts may eventually determine what constitutes a "major modification." The courts will most likely make determinations based on a modification's potential threat of discharge. Thus, if the threat of discharge is increased, the modification will most likely be deemed major, and hence fail under the regulation. Nevertheless, the fact that "major modification" is not defined gives a large amount of leeway to the EPA in determining whether or not to bring the modification under the regulation.

66. "ADDITIONAL REQUIREMENTS . . . Requirements prohibiting the use or operation of a tank after a release from that tank unless the Administrator (or the State in the case of an approved State program) determines that such prohibition is not necessary to protect human health and the environment." The Waste Materials Management Act of 1989, § 9102(f)(3).

This ability to shut down the operations of the discharging tank does not exist under the SPCC. In addition, the EPA does not have the explicit power to shut down an underground tank in the event of a discharge under the Regulation of Underground Storage Tanks in RCRA, although this power may be inferred under 42 U.S.C. § 6991(b)(h)(1)(B) (part of RCRA). The threat of having a tank shut down until the EPA deems that operation of the tank would be safe for human health and the environment gives economic incentive for an owner or operator to properly maintain his tanks.

67. The Waste Materials Management Act of 1989, § 9106. For a similar State Program in RCRA, see 42 U.S.C. § 6991(c) (West Supp. 1990).

68. Local enforcement is presumably cheaper and much more effective than federal enforcement, as a local authority knows the area and can thus regulate it efficiently. Examples of state plans include the 'mini Superfunds' (State versions of CERCLA) and the 'little NEPA's' (State versions of the National Environmental Policy Act, 42 U.S.C. §§ 4321-4370a).

69. The Waste Materials Management Act of 1989 § 9106(c).

emptions than even RCRA.⁷⁰ Consequently, there will be more potential loopholes in the regulatory scheme. Tank owners who would like to install an underground tank with a capacity of over 1,100 gallons (but under 4,200 gallons) can avoid subjecting themselves to the regulation if they are willing to compromise and install an aboveground tank.⁷¹

Another exemption from the Waste Materials Management Act are releases of small quantities of regulated substances, provided however that they "will not present a substantial danger to human

70. Under the current RCRA underground tank regulations, tanks of 1,100 gallons or less are exempted from the regulation 42 U.S.C. § 6991(1)(A).

71. Unfortunately, a national inventory of aboveground tanks does not exist. *Oil Spill on the Monongahela and Ohio Rivers: Hearing Before the Subcomm. on Environmental Protection of the Comm. on Environmental Public Works*, 100th Cong. 2d Sess. (Feb. 4, 1988). As such, it is impossible to determine with certainty which tank owners predominately fall outside the reach of the Waste Materials Management Act. It seems logical to assume however that most non-commercial aboveground tanks have less than a 4,200 gallon capacity and are located on farms and private residences. In all likelihood, regulations directed specifically towards these tanks would be impractical. Additionally, unlike those responsible for large commercial tank farms, personal property owners are likely to be diligent in protecting their own property. (As a result, they are likely to indirectly comply with regulations from which they are exempt). Disregarding possible CERCLA liability, human nature suggests that a farmer will be more diligent in the protection of his land from pollution. The farmer's land and skills are his economic assets, and if he pollutes his land, his skills will not be of any use. In addition, a landowner (especially a farmer) does not want to live on land that is polluted. If the land is polluted, the landowner may be personally liable for the costs of cleanup under RCRA, the new proposed legislation or possibly even CERCLA.

If a corporate officer does not live on corporate land (which is usually the case), and the company does not need the land to be in an unpolluted condition (unlike the farmer), there is less of an incentive to keep the land unpolluted and therefore more of a need to regulate corporate tanks. This point is further strengthened by the fact that an officer's personal assets generally cannot be attached for the cost of cleaning a site since the corporate veil is very hard to pierce.

The effect of piercing a corporate veil is to hold the owner [of the corporation] liable. This rationale for piercing the corporate veil is that the corporation is something less than a bona fide independent entity.

United States v. Northeastern Pharmaceutical Co., 810 F.2d at 744 (8th Cir. 1986) (quoting *Donsco, Inc. v. Casper Corp.*, 587 F.2d 602, 606 (3d Cir. 1978)).

Fortunately, the current legislation does provide an alternative to piercing the corporate veil. Under CERCLA, an employee can be held individually liable if he actually participated in the CERCLA violation, (for example, if he actually arranges the transportation and disposal of a hazardous substance in violation of CERCLA.) See 42 U.S.C. § 9607(a)(3)(1983 & Supp. 1990). Also, under RCRA, 42 U.S.C. § 6973(a) (West Supp. 1986), a corporate officer can be held individually liable for contributing to an imminent and substantial endangerment to health and the environment, even if the officer did not actually participate in the violative conduct. Thus, a corporate officer does have some personal incentive to act diligently. As such, it can be argued that the logic behind the exemptions of smaller tanks under the Waste Materials Management Act is somewhat negated.

health and the environment."⁷² Additionally, the EPA is given the power to exempt particular tanks or classes of tanks that need not be regulated by the Act.⁷³ However, these exemptions are clearly necessary from a practical standpoint, and will not have a negative impact upon the Act.

The Act contains an additional shortcoming by providing the EPA with a great amount of discretion in determining the appropriate course of action when the regulations are violated. If the EPA finds an owner or operator in violation of the Act, it can: 1) issue a compliance order; 2) start a civil action; or 3) issue an order prohibiting operation of all or part of the facility.⁷⁴ However, the EPA is not *required* to act. Moreover, if a state has elected to implement its own program, the EPA is only required to give a state notice of a violation occurring within its borders. Even then, the state is not re-

72. "The regulations may exempt releases of small quantities of regulated substances which the Administrator determines by rule will not present a substantial danger to human health and the environment." The Waste Materials Management Act of 1989, § 9101(a)(2).

Economically it is not feasible to clean every single spill without regard to the size. For example, the amount of petroleum spilled at each gas station from overfilling could never be adequately regulated by *any* agency, and would not be dangerous by itself. Yet, while the small amount probably would not cause any harm to the gas station, it would be a "substantial danger" if spilled into a previously unpolluted area such as a small mountain stream. There will be a minimal effect on humans if a small mountain stream is slightly polluted, but the effect on the fish that live in the stream and the animals that drink from it would be much more pronounced. Thus, the exception is necessary, and if used correctly, should not deter from the purpose and goals of the Waste Materials Management Act.

73. "The [EPA] also may exempt particular tanks or classes of tanks from any requirements of this part if the [EPA] determines that an alternative system or procedure adequately protects human health and the environment." The Waste Materials Management Act of 1989, § 9101(a)(2).

74. Under this Act, the EPA has the choice not to act when it finds a violator.

(a) COMPLIANCE. - - (1) EPA ORDERS AND CIVIL ACTIONS. - - Except as provided in paragraph (2), whenever, on the basis of any information the Administrator determines that any person is in violation of any requirement of this part, the Administrator *may* issue an order requiring compliance within a reasonable specified time period or the Administrator *may* commence a civil action in the United States district court in which the violation occurred for appropriate relief, including a temporary or permanent injunction. The Administrator *may* also issue an order prohibiting the use or operation of all or any portion of the facility where a tank is located after a release from the tank until the Administrator (or the State in the case of an approved State program) determines that such prohibition is not necessary to protect human health and the environment or that adequate corrective action has been taken. (2) NOTICE TO STATE. - - In the case of a violation of any requirement of this part where such violation occurs in a State with a program approved under this part, the Administrator *shall* give notice to the State in which such violation has occurred prior to issuing an order or commencing a civil action under this section (emphasis added).

Id. at § 9107(1),(2).

quired to take action. This inevitably leads to a lack of national uniformity. Unfortunately, the exemption is one that might severely weaken the Act. Businessmen would most likely look to operate in states where the Act is not strictly enforced. As a result, the environmentally conscious states would be harmed. This will likely lead to states ceasing strict enforcement of its regulation. Additionally, the EPA may cause adverse effects upon the business of one state by strictly enforcing the Act in that region and not in others. Thus, the Act would be more effective if some discretion in its enforcement were taken from the EPA and the states.

Despite the aforementioned shortcomings, The Waste Materials Management Act of 1989 is clearly an improvement over current regulation. Aboveground storage tanks are a danger not adequately covered by current legislation. Even though the Act is weakened by some of the exemptions as well as the amount of discretion given to the EPA and the states, in its entirety, it is a vast improvement over the other legislation.

CONCLUSION

Current regulations of aboveground toxic storage tanks are not sufficient. If compliance with the regulations were enforced, it is possible that new regulations would not be necessary.⁷⁵ Seven out of ten EPA regions have never issued a penalty, although violations have been found.⁷⁶ For example, in Region III headquartered in Philadelphia, 74% of the facilities inspected had violations.⁷⁷ Even if current regulations were fully complied with, it is possible that additional regulations would still be needed, as the current regulations do not cover all aboveground tanks.⁷⁸ The Waste Materials Management Act is an attempt to fill this legislative gap. Although the Act has some problems, it makes an admirable attempt to include all aboveground tanks. Conversely, while CERCLA, RCRA, and FWPCA adequately regulate what they purport to regulate, the problem with the Acts are what they *do not* purport to regulate. The Waste Materials Management Act of 1989 better regulates spills. Accordingly, it is the strongest of the four Acts despite the fact that

75. United States General Accounting Office, Report to the Honorable Arlen Specter, U.S. Senate, *Inland Oil Spills: Stronger Regulation and Enforcement Needed to Avoid Future Incidents* at 23-9.

76. *Id.* at 27.

77. *Id.* at 25.

78. *Id.* at 17-22.

it may provide too many exemptions from what it regulates. However, the CERCLA, RCRA, FWPCA and the Waste Material Management Act together may adequately regulate storage tanks.

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