

REGULATORY AND CIVIL LIABILITY ATTENDANT TO OFF-SITE WASTE DISPOSAL

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ABSTRACT

This paper discusses the contractor's business concerns in shipping or releasing wastes and materials from a cleanup site or operational facility known to have significant hazardous and/or nuclear wastes. Focus is on regulatory and civil liability attendant to off-site waste disposal, including releasing "allegedly clean" wastes or materials for landfills or recycling. Covered are procedures and protocols for controlling litigation and liability that may enable a contractor to manage risks within acceptable business parameters and contractual terms that fairly apportion risks and responsibilities under the new environmental laws.

INTRODUCTION

Operation, construction and cleanup of past operations will generate millions of tons of waste that will have to be stored, processed or recycled. Contractors, subcontractors, haulers and others will be engaged in this effort and will become legally responsible for these and other wastes of the owners/generators. How will this responsibility be shared? And what pitfalls lie in the future?

The traditional rules of responsibility and liability have been sacked by a reformed-minded society, impatient and vexed by haphazard and careless discarding of toxic hazardous waste. A new political/social order has been established, creating liability without fault for any person who deals with hazardous substances. Acceptable past practices have been retroactively condemned and liability imposed upon those associated with these past operations. Public intolerance has created a guilt by association approach to remedy past sloppy practices. This draconian remedy now threatens the future well-being of the unwary.

Slowly business is responding to the legislatively imposed shock remediation laws. Judges are hammering out decisions confirming that Congress' will is indeed real. Cleanup from years of neglect and indifference is grudgingly underway. Business is now adjusting by reducing waste materials and instituting better handling practices. Better treatment and storage facilities are being built for nuclear and chemical waste materials.

This new order is curing many ills, but how will business function under it in the future?

New approaches and contractual terms need to be devised to fit the legal responsibilities skewed by Congress' no-fault, everyone's responsible, approach to rectifying abandoned contaminated dumps. With the public's current attitude, there is no guarantee that tomorrow even greater responsibility may not be imposed upon those who are currently generating or dealing in waste. How can liability be determined under these changing circumstances?

To interpret laws and regulations past precedent has been the baseline for attorneys. For the new and unique

environmental laws, this does not, however, yield the predictable answers desired by businessmen. The professional risk evaluators, the insurance industry and the bond market, have simply moved on to less troublesome business lines. The contracting industry has been left to evaluate and shoulder the risk alone.

Risk appraisal begins with examination of the statutory law. Civil liability arises from the "Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). It provides that the waste generator, the operator and owner of a facility where hazardous wastes are found, any person who arranged for transport and any person who transported it are all responsible for cleanup or response costs.

Joint liability is applied when liability is not divisible or damages cannot be easily apportioned. The burden is on the defendant to establish separate and independent damages; however, the courts seem disinclined to find that damages are separable in CERCLA cases. Any co-mingling results in joint liability.

Simply put, CERCLA liability is a variation of an old Marine Corps Parade Ground Rule that "anyone caught littering cleans the entire parade ground." The defense that "I should only pick up mine" or "the rule was made after I threw mine away" does not work. Clean it up!

CERCLA refers to a "hazardous substance." This is a broader class than a hazardous waste as defined by the Resource Conservation and Recovery Act" (RCRA) and includes radioactive wastes. As of July 24, 1989, EPA's rules for "reportable quantities" for releases of hazardous substances under Section 103(a) of CERCLA contain 757 radionuclides. Permitted releases are excepted by Section 101(10)(k) of CERCLA and nuclear incidents are governed

by Price-Anderson. Otherwise, CERCLA liability applies to nuclear wastes (1).

While most reported CERCLA cases concern chemical wastes, the same legal liability principles apply to radionuclides and LLW storage sites.

Liability attaches easily. The government only has to show that shipments were made to a contaminated site from a place where similar materials existed.

The courts have stated:

"Reduced of surplus language, Sections 107(a)(3) and (4) impose liability on off-site waste generators who: 'arranged for disposal...of hazardous substances...at any facility...from which there is a release...of a hazardous substance.' 42 U.S.C.A. Subsection 9607(a)(3), (4) (West Supp. 1987) (emphasis supplied). In our view, the plain meaning of the adjective 'such' in the phrase 'containing such hazardous substances' is '(a)like, similar, of the like kind' Black's Law Dictionary 1284 (5th ed. 1979). As used in the statute, the phrase 'such hazardous substances' denotes hazardous substances alike, similar, or of a like kind to those that were present in a generator defendant's waste or that could have been produced by the mixture of the defendant's waste with other waste present at the site. It does not mean that the plaintiff must trace the ownership of each generic chemical compound found at a site. Absent proof that a generator defendant's specific waste remained at a facility at the time of release, a showing of chemical similarity between hazardous substances is sufficient" (2).

Parties also have successfully argued that CERCLA is unconstitutional because it imposes retroactive liability and is *ex post facto* punishment. But, judges have not been receptive to this line of defense. They have given strong support to society needs and have upheld Congress' right to make new rules to remedy old actions. In *U.S. v. Monsanto*, the U.S. Court of Appeals found that Congress' intention for CERCLA to apply retroactively to the pre-enactment disposal activities of off-site waste generators, is not a violation of due process. The court cited an earlier case dealing with the Black Lung Act of 1972 and said:

"Many courts have concluded that Congress intended CERCLA's liability provisions to apply retroactively to pre-enactment disposal activities of off-site waste generators. They have held uniformly that retroactive operation survives the Supreme Court's tests for due process validity. We agree with their analysis."

"In *Usery v. Turner Elkhorn Mining Co.*, 428 U.S. 1 (1976), the Superior Court, in a different context, rejected a due process challenge to the retroactive operation of the liability provisions in the Black Lung Benefits Act of 1972. The Court stated that 'a presumption of constitutionality' attaches to 'legislative Acts adjusting the burdens and benefits of economic life,' and that 'the burden is on one com-

plaining of a due process violation to establish that the legislature has acted in an arbitrary and irrational way.' Id. at 15. It reasoned that although the Act imposed new liability for disabilities developed prior to its enactment, its operation was 'justified as a rational measure to spread the costs of the employees' disabilities to those who have profited from the fruits of their labor' (2).

The court reasoned that; "while the generator defendants profited from inexpensive waste disposal methods that may have been technically 'legal' prior to CERCLA's enactment, it was certainly foreseeable at the time, that improper disposal could cause enormous damage to the environment." The court went on to uphold CERCLA's intent, stating that; "CERCLA does not exact punishment, rather it creates a reimbursement obligation on any person judicially determined responsible for the costs of remedying hazardous waste conditions at a disposal facility."

In assessing the risks of off-site waste disposal today, the case leaves no doubt that compliance with today's rules and laws is not assured protection against tomorrow's standards of responsibility and liability. This is disconcerting to businessmen who like the security of annualizing tasks, risks and profits and to the financial market that buys the securities and provides the capital for these businesses.

Another troubling aspect of CERCLA is the now judicially accepted concept of joint liability. This means that any party can be individually held responsible for the entire cleanup cost. When the operators are broke, EPA tags the deep pockets who generated or transported the wastes to the offending site. These "potentially responsible parties" (PRPs) must undertake the cleanup operations or pay EPA's costs to do it. The wastes may not be all theirs, it may have already existed when they added theirs, but the PRPs are responsible under CERCLA to clean it up anyway.

An illustrative example is the recent Picillo pig farm case (3). The Picillo's allowed drums of waste to be dumped at their farm until an explosion and towering flames ripped through the farm in 1977, exposing a chemical wasteland. Although American Cyanamid had an excellent waste management program, ten drums of American Cyanamid's waste were found, apparently having been surreptitiously diverted by a transporter. Since American Cyanamid could not prove that other drums had not been diverted (the fire destroyed most of the drums beyond identification) they were found jointly responsible for cleanup costs. The judge noted that American Cyanamid may seek contribution from others who are more directly responsible for particular units of waste in a later legal action.

This decision contains a graphic recitation of the facts, a device often employed by judges when they want to illustrate the social climate that is driving their legal interpretation and to give support to a decision within a non-legal

context. The decision reflects the pro-environmental attitudes of the courts.

The current state of the law is that the cleanup is the responsibility of the PRPs who may then seek contribution from others, resorting to legal action when it is not voluntarily given.

CERCLA now seems to be beginning to accomplish the task mandated by Congress to clean up the abandoned sites. Somewhat independently, Congress has written new laws, tightening operating standards for disposal of hazardous and low level radioactive waste (LLW). The Resource Conservation Recovery Act (RCRA) is the most visible and yields the greatest experience and insights. The principle concepts underlying this law are a chain of custody manifesting systems to maintain control of the waste and permitting standards to regulate storage and disposal facilities. The same principles underlie the Low-Level Radioactive Waste Policy Act of 1980 as amended although LLW permitting standards are more strenuous and financial requirements are higher.

A troublesome aspect of the Congressional system of creating legislation is that Congress tends to shift its focus back and forth from RCRA which governs the future wastes to CERCLA which intended to cure the past problems. Both laws deal with highly complex legal and technical factors beyond the everyday experience of the legislators. The provisions of these laws are heavily lobbied and last minute compromises seem to be the rule. In some instances, Congress has attempted to deal with highly technical subjects in terms of specifics rather than concepts. This has not created coherent law and indeed CERCLA is generally recognized as an exceptionally poorly drafted statute as the judge in the pig farm case pointed out. On top of all this, Congress never seems able to concentrate on RCRA, LLW and CERCLA in the same session. So while these laws regulate some of the same hazardous wastes, they are not necessarily unified. Gaps and overlaps abound.

The most striking dichotomy arises from a simple premise. RCRA is intended to regulate the now and future handling of waste, while CERCLA remedies past contamination. But in our universe the future perversely insists on becoming the past. What is regulated under RCRA today will be regulated by CERCLA tomorrow. CERCLA tomorrow may be different from today.

When we look at sites permitted under RCRA or LLW Compacts that are acceptable by today's laws, we can but only wonder if some future court will decide that we are currently profiting from inexpensive waste disposal methods that are only "technically legal" and we should have been

prepared to do more. What new CERCLA liabilities may lie ahead?

The answer is intertwined in social, political and economical interests. The U.S. population has been long aware that indifference and neglect has intolerably polluted the land, rivers and air. An ecological revolution led by vocal environmentalists has been quietly supported by mainstream establishment businessmen. Like all revolutions, the initial zeal has created some excesses and resulted in the communal punishment tied to association rather than fault. This may be expected to swing back into equilibrium. The U.S. throw-away society may even now be coming into balance with nature. Where this balance is projected to ultimately rest strongly influences the risk assessment of those dealing with hazardous and radioactive wastes. Businesses must judge this risk on the economics and technology available today and in the future as applied to the expected quality of life by the population. I believe Congress' current retroactive solution may already stretch society's tolerance for placing the sins of the past onto the operators of the future.

Assuming society becomes satisfied with the current waste management liability, what risks remain and how can they be judged? Conventionally, lawyers advise clients on the basis of hypothetical scenarios or the outcome of past litigation, a formula that breaks down when dealing with rapidly changing legal concepts. Litigation normally occurs long after problems have arisen and decisions are even further delayed. The best solution is to find and evaluate bellwether events. Two interesting harbingers are the Spectrum Waste Facility at Elkton, Maryland and Maxey Flats, a low level waste site in Kentucky.

Spectrum

In 1975, Spectrum took over operation of a troubled waste processing company. The AP reported in June 1980 that the EPA sued Spectrum alleging that it polluted groundwater at a nearby creek with cancer-causing chemicals. Spectrum's president responded saying he was confused and concerned by the suit saying Spectrum had been attempting to comply with Maryland's environmental laws in order to get a waste facility permit.

The plant continued operations as a recycling company. UPI reported on October 27, 1986 that the recycling company's permit to store waste had been tentatively denied by the state for improperly handling waste. Drums were too close, uncovered and rusting. The president reportedly said he was surprised and called the decision unexpected and certainly unjustified." He said, "We are talking fine detail here." For example, he said, "He does not think a leaking

drum is necessarily a violation if the chemical is contained in a concrete barrier."

Spectrum continued operation and apparently sought to resolve its permit problems. UPI reported on March 13, 1987 that Spectrum had agreed to relocate by 1989 or face closure. The company was required to post a \$500,000 toxic waste cleanup bond to insure financing would be available for cleanup of the eight acre site after Spectrum moved away.

Apparently unable to obtain the necessary financing, Spectrum closed. The EPA is expected to order an emergency removal action and have the generators of the waste at Spectrum ship existing drums to another facility. An investigation will then be made to determine if further remediation of the site will be required. The current RCRA manifesting procedures have ensured that there are plenty of PRPs to undertake and pay for this activity.

Maxey Flats

Maxey Flats served as one of six national sites for the disposal of low level nuclear waste. It was licensed on October 22, 1962 by the Commonwealth of Kentucky to operate as a radioactive waste site and received waste from May 1963 to December 1977 when it ceased accepting wastes. Ninety percent of the volume and ninety-seven percent of the radioactive waste came from power plants and industrial sources. It was made up of tools, radiated equipment, gloves, rags and other materials. The facility was owned by the state of Kentucky (as prescribed by federal law and agreement with the AEC) and was operated by Nuclear Engineering (now U.S. Ecology), a subsidiary of Teledyne Corp.

On June 7, 1978 McGraw-Hill Chemical Magazine reported that Kentucky had agreed to pay nearly 1.3 million to Nuclear Engineering Co. to get the company to give up its lease on the controversial burial ground. The agreement included a release and an assumption of the liabilities of Nuclear Engineering by the Commonwealth of Kentucky. (Kentucky now alleges that the "provisions of the Agreement purporting to require the Commonwealth to assume any liabilities of Respondent [U.S. Ecology] are unconstitutional and void.")

At first the state seemed confused as to the extent of the problem and there was even talk of reopening in 1980. In 1984, Kentucky sought help from the Federal EPA and Maxey Flats was listed on the national priorities list in 1986. The EPA has identified PRPs and characterization of the site is nearly complete. There are now four major groups of PRPs; the University Group, the Commercial Group, the U.S. Government (principally DOD and DOE although the EPA has even been named as a PRP) and the owner/operator-Kentucky and U.S. Ecology who are currently litigating

their relationship in three lawsuits. Many important issues are involved in this litigation including U.S. Ecology's rights under the release agreement, CERCLA claims against Kentucky as owner/operator and arranger of disposal, and federal LLW laws requiring perpetual care by the state (4).

The problem is contaminated ground water containing tritium and other radionuclides. The site has been covered and the contaminated ground water is being pumped into storage tanks. The solution in part appears to be to use the ground water to make large concrete blocks to be used in part to construct a more secure storage facility. So far it has been reported that Kentucky has spent about \$10 million and the total cost of the undertaking is estimated to be upwards of \$60,000,000. Approximately five million cubic feet of water had been received and stored according to the January 13, 1990 Waste-In List prepared for the Maxey Flats Steering Committee.

On December 12, 1989, The Charlotte Observer reported that "Under 'superfund' law, the EPA can require the 832 generators and shippers of the Maxey Flats waste to pay for the cleanup. Among those generators were Carolina Power & Light Co., Clemson University, Duke University, N.C. State University and the University of South Carolina, according to the EPA."

The "Radioactive Shipment Reports" (RSRs) identify the shipper and in most cases the broker, trucker and generator. Interestingly, over ninety-nine percent of the PRPs have been identified. The remainder were not identified due to typos or illegibility of records. A few generators could not be identified by transporters who made "milk runs" picking up occasional medical waste, etc., although these amounts appear to be insignificant.

The companies are now being traced. There are some that will never be found, having moved, liquidated or gone out of business. The percentage of orphan shares belonging to parties no longer in existence or readily traceable, will not be known until early 1990. Hopefully, this information can be provided during the oral presentation of this paper.

Maxey Flats Steering Committee has developed the following recommended formula for apportioning costs on a cubic foot of waste in basis:

Generator (first party to make waste)	70%
Broker (all others arranging for disposal, contractors, freight brokers, etc.)	20%
Transporter (hauler or trucker)	10%
Where only two parties are involved:	
Generator	72%
Broker	28%
or:	

Generator	90%
Transporter	10%

Orphan shares are pro-rated. Where two parties are in the same class such as two haulers, their share is split between them.

The "waste in" records (RSRs) at Maxey Flats are similar to the manifesting system currently being used for waste storage facilities. It portends a new era in locating and identifying PRPs far different than past experience with midnight dumping sites where only a few PRPs were found by inference and compelled by EPA to incur major cleanup costs. The wider sharing of liability among parties greatly decreases the individual parties' magnitude of exposure for cleanup of other's wastes.

These case studies portray a future with risks of lesser magnitude because there will be more PRPs to share the cost. Easy identification of responsible parties may also lead to a shift in public policy and laws towards apportionment of fault in the first instance. The Harvard Law Review (5) in a lengthy note recommended tying liability more to fault for economic reasons within our society. An excellent article, it appears as another signpost pointing towards more fair apportionment of cleanup responsibility in the first instance.

Disposal and Treatment Facilities (TSDs)

TSDs are technically better and financially stronger than past facilities. Spectrum had a history of difficulties that could have alarmed attentive shippers and generators. Choosing a well-operated TSD facility is paramount to risk reduction. Several good articles have been written outlining auditing procedures for TSDs and their recommendations should be heeded.

TSDs are better regulated and monitored and financial guarantees for proper closure are now required. New LLW facilities will even meet higher standards. The system, compared to the past, engenders a high level of confidence. However, lest overconfidence lull us into false security, it should be noted that savings and loan institutions were similarly well-regulated. However, unlike savings and loans, where the depositors were given a federal guarantee, the depositors at a TSD facility guarantee the facility's solvency to the government...a sobering thought.

Waste treatment or destruction is preferable to waste storage, particularly if all or part of the remaining material can be "delisted." (Treatment residues from hazardous wastes are hazardous wastes by definition, unless specifically delisted by the regulatory authorities.) Delisting ends future liability.

Stored hazardous wastes are a perpetual liability, although Congress recognizes that this may have to change.

The last Superfund amendment (SARA) required facility operators to finance thirty years of site monitoring after closure of their facility. In the law, Congress directed the EPA to report back with a recommendation for responsibility and liability after the thirty years, given that businesses need to be encouraged to operate waste facilities and business risks should be estimable. Some end to liability may be expected in the future from Congress but this is still an open issue for RCRA permitted sites. LLW sites will become the state's responsibility after closure.

Privatization and deregulation are currently hot political trends. This is a risk. The most lethal wastes, high level nuclear, are regulated, stored and owned by the government. Risk to the generator is nil. The lesser regulated wastes, hazardous, or low level, create a larger risk to the generator. Privatization allows competition among TSD operators and may be the most cost-effective solution. However, privatization can only succeed if regulation continues to be strict enough to control the pathologically greedy. Tough regulations and enforcement are in the generators self-interest and need to be supported.

Apportionment of Responsibility Between the Generator, Arrangers of Transport, Construction Managers, Contractors, Brokers and Haulers CERCLA holds all parties fully responsible for cleanup of contamination, although the final determination will be based upon relevant and applicable contractual terms agreed upon between the parties. If none exist, then the court will devise some reasonable and equitable apportionment of costs. Absent contractual indemnifications, generators seem to get stuck with the yeoman's share of the burden.

TSDs normally assume responsibility for waste received so long as the wastes are as represented by the generator.

Although in a recent "man bites dog" case, the operator of a TSD sued its customers as generators for its response costs. The customers argued that they had already paid once for the waste to be properly treated and disposed and that the suit against them should be dismissed.

Unfortunately, the customers had not obtained, or if they did, retained any express purchase orders or agreements, and so the court held "that absent an implied or express contractual provision to the contrary an owner/operator in the business of operating a hazardous waste facility may recover from generators of hazardous waste deposited at the facility any necessary costs of responses incurred or to the incurred by the owner/operator in connection with a release or threatened release of hazardous substances at the site" (6).

Since this was only a motion for summary judgement, the judge decided only that the suit could be sustained and in a footnote cautioned that actual recovery will depend on

fault and such equitable factors as the court determines appropriate.

This case demonstrates the need to have an agreement with the disposal facility. The following is a typical provision found in TSD contracts to accept waste:

"WARRANTIES OF GENERATORS. Generator expressly warrants that notwithstanding the sampling and analysis performed by Disposer, the industrial Waste Material delivered to and accepted by Disposer shall conform to the description thereof contained in the respective WASTE SPEC SHEET."

"INDEMNIFICATION BY GENERATOR. Generator shall indemnify and hold harmless Disposer and its employees, officers and agents from and against all liability, claims, suits, loss, damages or costs, including legal expenses and attorney's fees connected therewith, on account of personal injury or resulting from the negligence of Generator or its subcontractors or their respective employees, officers and agents in the performance of any of Generator's obligations hereunder or the breach of any warranty of Generator set forth in this Disposal Order."

Generators must assure themselves that in the agreement the TSD otherwise takes full responsibility for proper treatment and storage of the waste.

Haulers

By law, waste haulers must have insurance for environmental damage. A certificate of coverage should reflect a "MSC-90" endorsement to the vehicle liability policy and should be obtained prior to shipment. This should be adequate to cover most accidental spills during transit. Upon arrival at the TSD, a copy of the Hazardous Waste Manifest is signed by the TSD confirming receipt of the shipment and specifically the amount received. If the generator follows RCRA regulation (or the corresponding state law) governing manifest exception reporting, any problem should be immediately detected while coverage under the hauler's insurance is still available.

The generator and arranger of transport are liable for diverted wastes as noted in the pig farm case although the manifest system now reduces this risk. Dealing with honest haulers and facility operators and verifying manifest returns from the designated facility virtually eliminates this risk.

RECOMMENDATIONS

If the TSD fails, then the owner/generator, its contractors and haulers should have an agreement as to the sharing of the risk. The most cost-effective solution is for the owner/generator to keep the liability for several reasons.

Contractors and haulers often lack the permanence of the fixed base owners and operators, so that the owners may pay to transfer this risk to a company that may not be around

to respond when the occasion arises. The owner will still face the CERCLA responsibility as this is never abrogated by contract or indemnification from others. Further, having the contractor, subcontractors, and transporter each assume the same full responsibility under CERCLA pyramids contingencies and probably does not result in the lowest overall cost for the owner/generator.

Owner/generators are also in the best position to control the long term risks. They can monitor local storage facilities and keep pressure on regulatory agencies to inspect and demand compliance from local TSD's.

Owner/generators might also consider forming associations to monitor local TSD facilities. A small effort to audit local TSDs would be far cheaper than remediation.

As previously mentioned, the courts have ruled that the EPA only has to show that contamination results from similar materials found on a generator's site. The onus of proving that all shipments to a contaminated site were free of contamination lies with the generator and shipper. Consequently, a waste management program is essential and should be under the total control of the generator.

If a generator has LLW waste on site but ships other "clean" or hazardous (non-radioactive) waste to a solid waste or TSD facility, and some time later, LLW waste is found there, the courts may under CERCLA infer that it came from the generator unless it can prove otherwise.

Every shipment off-site must be inspected, tested, sequentially-numbered and the content of the shipment carefully documented. This particularly applies to "clean" shipments to landfills or other uses without restriction. The contractors working on the site and the owner are always vulnerable to a challenge. The owner/generator will have the burden of proving no contaminated wastes were shipped by any of its contractors. Inability for account for shipments can result in liability for the owner.

A site-wide program is recommended for owners with significant construction and plant modification programs. The waste management program and records are the best shield against CERCLA liability.

The use of computer databases, bar codes, electronic photos, laser disk storage and other devices provides an economical and practical system for a very effective waste management program. Massive documentation can be compactly stored and quickly retrieved.

In addition to maintaining the records, the generator/owner should deal with quality contractors who execute their work with care and precision. This greatly diminishes the overall risk to the generator. Experience with some small contractors is that they are not fully informed of the legal requirements or are slipshod due to indifference. It is recommended that owner/generators select serious profes-

sional firms, monitor their work and insure that all of the contractors comply with the owner/s record-keeping requirements and regulatory provisions.

The following is a suggested clause for the owner/generator to include in construction agreements:

"INDEMNIFICATION"

"It is recognized that state and federal statutes related to toxic or hazardous substances, pollutants or contaminants can in certain cases provide that individuals and firms be held responsible for claims and damages under a doctrine of strict liability. The parties do not intend that Contractor be exposed to such liability, and should any such claims arise in connection with work under the Agreement Owner shall reimburse Contractor or otherwise indemnify, defend and save Contractor harmless from any and all claims, demands, suits, judgements, expenses, attorney's fees, and losses arising out of or in connection with bodily injury (including death) to persons, damages to property, corrective actions, fines, or penalties due to or resulting from the presence or origination of toxic or hazardous substances, pollutants or contaminants on Owner's property, irrespective of whether such materials were generated or introduced before or after execution of this contract and irrespective of whether Owner was aware of or directly involved in the generation or introduction of such materials. Contractor's insurance excludes coverage for toxic, hazardous and pollution liability, and this indemnity is intended to allow the performance by Contractor of the work described herein with the same protection as if such insurance were in effect and thus includes indemnification of Contractor's negligence to the extent allowed by law."

"SUBSURFACE LIABILITY"

"During the course of the investigative or remedial work hereunder, it may be necessary for Contractor or its subcontractors to perform drilling, trenching or other excavation on or in the vicinity of the Site. Owner recognizes that these operations involve certain inherent risks with regard to the potential migration of contaminants present on or beneath the surface of the property. It is recognized that any such seal may be imperfect despite normal precautions, and that the work or construction may inadvertently serve as a connection passageway for cross-contamination of previously uncontaminated aquifers or bodies of water. Owner assumes this risk and Contractor shall be indemnified pursu-

ant to the provisions of the INDEMNIFICATION set forth above."

Currently, 39 states have anti-indemnity statutes that effect contractual indemnities. Most preclude indemnification for one's own negligence but permit indemnity for strict liability. A few expressly do not apply to response action contractors. State law should be consulted when drafting an agreement. An excellent reference source is the Hazardous Waste Coalition of the American Consulting Engineer's Counsel's State Laws Related to Response Action Contractors, dated November 1987.

How much risk does this entail for an owner/generator? Probably not much if it has a comprehensive waste management program and contracts with quality-oriented experienced contractors.

The GAO recently reported that as of June 1989, 1062 EPA superfund agreements contained indemnification clauses in favor of the contractor and that these were passed on to over 800 subcontractors, but that no claims have been received (7). Although there is concern, there is no evidence of real liability.

How secure is this for the contractor? Assuming a quality TSD is used and the owner remains solvent and viable, the risks should be manageable and acceptable.

REFERENCES

1. HALL, R. A., "Managing Liabilities Which Arise Out of Radioactive Waste," Waste Management '86, Tucson, Arizona, March 2-6, 1986, Vol. 1, p. 137, Arizona Board of Regents (1986).
2. United States v. Monsanto Co., 858 F.2d. 160 (1988).
3. Rhode Island v. Picillo; 682 F. Supp. 706 (1988); Appeal, 883 F.2d 176 (1989).
4. United States District Court, Frankfort Kentucky Division, Cases Civil Nos. 8855, 8856 and 8872.
5. Developments-Toxic Waste Litigation; Harvard Law Review, Vol. 99, p. 1458 (1986).
6. Chemical Waste Management v. Armstrong World Industries, 669 F. Supp. 1285 (1987).
7. Hazardous Materials Intelligence Report, Vol. X, p. 1, World Information Systems, Cambridge, Mass. (1989).