

Transportation Agency Liability for Hazardous Materials and Waste: A Practical Approach to Minimizing Legal, Financial, and Environmental Risks

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Superfund and similar state statutes on hazardous waste liability affect many transportation agency operations: land acquisition; project design and construction; facility operation and maintenance; leases, sales, and other dispositions of property; and relations with other government agencies, employees, and the public. Concepts of strict liability can make the agency liable even if it acquired land innocently, not realizing it was contaminated with hazardous waste; even if the agency contaminated property by its own activities which were legal at the time; and even if the agency long ago sold contaminated land "as is." This paper describes practical ways to deal with these emerging liabilities. The hazardous waste site assessment is an essential tool to discover and assess contamination prior to acquisition. Clauses in purchase agreements and leases can protect the agency if waste is discovered later. The agency can negotiate rights of indemnification and other means of reimbursement. Cleanup costs can be paid from Superfund or reimbursed by responsible parties using provisions in Superfund itself, rights to seek contribution, or warranties and consumer remedies. There are some limited defenses against agency liability, such as the "third party" and "innocent landowner" defenses. Use of eminent domain helps reduce liability. Following the suggestions in this paper, the agency will find that most waste contamination is manageable using proper techniques to report releases, plan for emergencies, comply with the National Contingency Plan, stay off the Superfund list, comply with state requirements, clean up sites expeditiously, know "how clean is clean," hire qualified consultants and contractors, protect employees, and build defenses or pursue claims.

New concepts of hazardous waste liability, introduced in Superfund, affect many transportation agency operations: land acquisition; project design and construction; facility operation and maintenance; leases, sales and other dispositions of property; and relations with other government agencies, employees, and the public. The transportation agency can be liable even if it bought land innocently, not realizing it was contaminated with hazardous waste; even if the agency long ago contaminated property by its own activities that were legal at the time; and even if the agency

sold contaminated land "as is" with full indemnification by the buyer.

Fortunately, there are practical ways to deal with these emerging liabilities. The hazardous waste site assessment is an essential tool to discover and assess contamination prior to acquisition. Clauses in purchase agreements and leases can protect the agency if waste is discovered later. Cleanup costs can be paid from Superfund or be reimbursed by responsible parties. There are some limited defenses against agency liability. Use of eminent domain can reduce liability. Qualified consultants and contractors can assist cleanup to Superfund standards of "how clean is clean." Most waste contamination is manageable using proper techniques.

TRANSPORTATION AGENCY LIABILITY

Federal and state statutes on hazardous waste drastically affect how transportation agencies conduct their activities. The issue of legal liability for releases of hazardous material to the environment has made compliance with these laws very important. Failure to do so may be fatal to a project, carefully prepared budgets, agency credibility, and individual careers. These new legal requirements expand the liability and responsibility of both the public and private sectors. The laws affect anyone who has anything to do with use of hazardous materials or with generation, storage, transportation, use, treatment, disposal, or cleanup of hazardous waste.

The focus of this paper is the contamination of real estate, but it is important at the outset to realize that hazardous waste is regulated in the context of hazardous material generally. Hazardous waste management and cleanup is just one aspect of dealing with material having hazardous characteristics.

The thrust of existing federal legislation is to allow and encourage state hazardous material programs that are more strict and more comprehensive than the federal. As a result, most states have enacted their own statutes and created their own hazardous waste agencies. Local govern-

ments are beginning to adopt their own hazardous material and hazardous waste ordinances and bylaws dealing with storage or with transportation through the community.

Superfund Liability

State transportation agencies, because they own and lease property and operate facilities, may find themselves subject to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund. Superfund was enacted in December 1980 and was reauthorized in 1986 with major revisions. It establishes a fund to clean up uncontrolled hazardous waste dumps and to respond to spills. Superfund created a process for identifying liable parties and ordering them to take responsibility for cleanup operations. A transportation agency may face this liability once it becomes either the owner or operator of a site or facility from which there has been a release, or threat of release, of a hazardous substance. Regardless of whether the contamination is the result of the agency's own actions or those of others, the agency may be held responsible for cleaning up any resulting contamination either to its own or to other property. If the agency is not responsible for the contamination, however, it may seek to recover reimbursement for its cleanup costs from either the responsible parties or from the Superfund. The primary liability provision of Superfund is Section 107, which states:

Notwithstanding any other provision or rule of law, and subject only to the defenses set forth in subsection (b) of this section—

- (1) the owner and operator of a vessel or a facility,
- (2) 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,
- (3) any person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, if any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances

* * *

shall be liable for—

- (A) all costs of removal or remedial action incurred by the United States Government or a State or an Indian tribe not inconsistent with the national contingency plan;
- (B) any other necessary costs of response incurred by any other person consistent with the national contingency plan;
- (C) damages for injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing such injury, destructions, or loss resulting from such a release;
- (D) the costs of any health assessment or health effects study carried out under section 104(i).

In the event of a release, EPA is given authority to begin to contain the release by removing the contaminated material in a temporary cleanup effort and to take remedial action to eliminate further threats. EPA determines the priority for sites that require cleanup. EPA initially will

attempt to have the responsible parties clean up the site voluntarily. Sometimes EPA will approach these "Potentially Responsible Parties" (PRPs) to see if they will cooperate. For a given site, this may include hundreds of industrial and governmental generators of waste, previous landowners, and transporters. The PRPs must decide quickly whether and on what terms to fund the cleanup. If this is not done, EPA will begin work through its own contractors. EPA can charge the responsible parties for those costs. If a court determines liability after the responsible parties' refusal to pay, they could be required to pay triple damages. In the alternative, the PRPs can conduct the cleanup themselves and then seek recovery of their own response costs directly against any responsible parties.

Liability under Superfund is considered strict, joint and several, and retroactive. Liability is strict in the sense that it does not matter whether a person acted knowingly or reasonably. Liability is created by the requisite connection with a site as an owner, operator, generator, or transporter. Liability is joint and several in that each responsible party may be held liable for the entire amount of response costs. Thus EPA may seek recovery from any or all responsible parties. Liability is retroactive in that it attaches not only to present, but also to prior owners and operators of a site. This feature, coupled with strict liability, changes drastically the old practice of selling property "as is." Although an owner or operator contractually can arrange for indemnification from another party (such as a seller or buyer or lessee), the owner or operator still will be primarily liable for cleanup costs even while being able to get reimbursed. This right to seek reimbursement does not negate the basic liability, which cannot be passed off.

As an owner or operator of a site, or as a generator or transporter of waste taken to a site, a transportation agency may be liable for punitive damages up to treble the costs incurred by EPA if the agency fails to properly provide response action in accordance with a formal EPA administrative order. Such treble damages will be imposed on top of the actual cleanup costs.

Due to the complex nature of remedial actions, which often are coupled with long-term monitoring programs, hazardous waste cleanups usually are extremely expensive. Consequently, cleanup costs easily can exceed the value of the property itself. Under Superfund, however, liability for a single incident is generally limited to all costs of response (such as assessment, containment, and cleanup) plus additional amounts up to \$50 million (depending on the type of site) for any damages imposed. There are no limits to liability, though, when there is willful misconduct or willful negligence; where the primary cause of the incident was a violation of safety, construction, or operating standards or regulations; or where the responsible party fails or refuses to provide cooperation and assistance requested by a public official under the National Contingency Plan (NCP).

In 1986 the United States Congress reauthorized Superfund. The amended statute contains stronger cleanup standards for contaminated sites; disclosure requirements for those who use, store, or produce hazardous substances on site; and five times the funding of the original Super-

fund, which expired in September 1985. The new Superfund gives EPA several deadlines and goals, specific settlement procedures, and stronger enforcement powers.

Some states have added features of their own to create state Superfunds. These state statutes, which Congress has invited to go beyond federal Superfund, may regulate more types of waste, impose stricter liability, afford fewer defenses, create private rights of action to sue for damage to real estate or personal property, allow the state to record a lien to secure reimbursement of cleanup costs (known as a Superlien if it takes priority over other recorded interests), and mandate "how clean is clean."

Hazardous Waste Management

The Resource Conservation and Recovery Act (RCRA) protects the environment by managing hazardous waste. It establishes what is called a "cradle-to-grave" approach to regulation of waste. The RCRA regulations promulgated by EPA set up licensing or notification requirements for those who generate or transport this waste or who treat, store, or dispose of it (known as TSD facilities).

The goal of this comprehensive new regulatory program is improved solid waste management and resource recovery programs throughout the nation. EPA has established criteria for identifying hazardous waste, requirements for containers and labels, specifications for recordkeeping, and procedures for the "manifest" system for documents accompanying waste, identifying its nature, origin, routing, and destination. As a generator of hazardous waste, a transportation agency must know what chemicals it uses, what wastes it produces in what quantities, where they go, and whether the wastes are handled correctly. Under Superfund, the hazardous waste generator remains liable for its waste if any release occurs during its transportation, storage off-site, or treatment or disposal. Because a transportation agency regularly uses a variety of chemicals in large quantities, it also may be classified as a storer of hazardous waste.

In 1984, RCRA was amended to cover Small Quantity Generators (SQGs). Thereby, 100,000 to 200,000 generators were added to the previously regulated community of about 15,000. RCRA now reaches much smaller operations, although the paperwork and licensing requirements are somewhat less strict.

Underground Storage Tanks

Underground chemical or petroleum storage tanks are covered by 1984 amendments to RCRA, which created the program for Leaking Underground Storage Tanks (LUST). The amendments govern, for the first time on a nationwide scale, the design, installation, maintenance, monitoring, and failures of underground storage tanks. The focus of this new regulatory thrust is to protect groundwater in the United States by release prevention, detection, and correction.

Basically, owners of underground storage tanks and pipes must register present tanks (and past removals); meet New Tank Performance Standards for new installations; make tanks leak-proof for their entire lives; install leak-detection systems; keep required records; and install no bare steel tanks except in those rare soils that will not cause rust. Otherwise tanks must be corrosion proof or have cathode protection. Owners also must take corrective actions on leaks and save funds available to cover potential damages from leaks. There are some exemptions for farm or residential tanks with less than 1,100 gallons of motor fuel for noncommercial purposes, tanks storing heating oil at the premises where it is consumed, and storage tanks in an underground area such as a basement but above the surface of the floor.

Transportation agencies own and operate thousands of these tanks, which were to be registered or removed by the May 7, 1986, deadline. New tank notifications are due within 90 days of installation. They must meet the New Tank Performance Standards for construction, monitoring, and cleanups. Since the federal program authorizes and encourages states to run their own LUST programs and to seek this delegation from EPA, it is fair to assume that this will happen throughout the nation.

Worker Safety Obligations

Equally important to transportation agencies are the national uniform standards for disclosure of chemical hazards to workers. This disclosure is done by labeling chemicals, distributing Material Safety Data Sheets (MSDSs), and training employees in handling hazardous materials and responding to emergencies. The MSDS is a written document with extensive information on chemical identification, hazards, and protective measures. There must be an MSDS for each hazardous chemical in the workplace.

The employer is required to establish and implement a hazard communication program, which is a written plan listing hazardous chemicals as an index to MSDSs; to provide methods to inform employees of hazards of non-routine tasks and in unlabeled pipes; and to inform on-site contractors about hazards to which their employees will be exposed. As of May 1986, the most important segment of hazard communication, that of training, took effect. The idea is for employees to understand the information being provided. The training must be given to all employees exposed to hazardous chemicals before their initial assignment to such work and whenever the hazards change.

Accompanying the Superfund reauthorization in 1986 were amendments requiring OSHA to promulgate regulations to protect the health and safety of workers involved in hazardous waste operations. These regulations will cover the many persons involved in site investigations, feasibility studies, remedial action planning, and cleanup at contaminated sites. At a minimum these regulations are expected to cover site analysis, worker training, medical

surveillance, protective equipment, engineering controls, maximum exposure limits, handling methods, decontamination procedures, and emergency response. The transportation agency that uses its own personnel or outside contractors for these activities on contaminated property should be aware of these special regulations to protect workers engaged in hazardous waste operations.

Common Law Liability

The common law consists of legal principles enunciated by the courts. If Superfunds are legislature-made laws, then common law is court-made. These traditional rights provide access to court for private citizens, businesses, and agencies to seek injunctions and money damages for environmental harm. By and large, RCRA and Superfund statutes do not preempt these remedies. They are important avenues to seek redress in the courts. This court-made law thus is a catchall behind regulatory law regarding clean air, clean water, hazardous substances, and many other subjects. Examples include principles of public and private nuisance, trespass, negligence, strict liability for abnormally dangerous activities, groundwater rights, surface water rights, and riparian rights of owners of property abutting bodies of water.

Presently the common law offers an important remedy for money damages for personal injuries and for property damages not covered by Superfund. Using these doctrines, victims of hazardous substances released into the environment may file suit if they suffer damages. Legal wrongs from releases of chemicals to the environment are called "toxic torts." Liability for these toxic torts will be a cutting edge of law reform during the 1980s.

TECHNIQUES TO MINIMIZE LIABILITY

Amid all the environmental laws and regulations and court decisions dealing with hazardous waste, what is a transportation agency to do? How can hazardous waste considerations be integrated into operations? How can the public interest be protected? How can liabilities be minimized? How can hazardous waste be managed?

Unless ways are found to answer these questions, the alternative is business as usual: unwitting acquisition of contaminated land, selection of project sites where wastes are located, construction delays when wastes are encountered, cost overruns to deal with them, leaking underground tanks at agency facilities, improper storage and releases of chemicals, uncontrolled spills for which the agency is not prepared, unacceptable risks to agency personnel, difficulties in disposing of property even by transfer to other agencies, diversion of resources to deal with EPA and state enforcement orders, and involvement in expensive, time-consuming litigation.

Fortunately, there are several practical techniques for transportation agencies wishing to manage hazardous waste problems in ways that minimize legal, financial, and

environmental risks. Using the following suggested techniques, the agency can understand its new legal duties, anticipate potential contamination, understand the level of compliance, and act responsibly when contamination is discovered.

Site Assessments

The risks of Superfund liability can be significantly reduced by an important preventive step taken prior to acquisition of property. The hazardous waste site assessment, when done properly, will present the agency with the information it needs to decide whether to purchase a piece of property and, if so, at what price and with what contingencies regarding discovery of waste.

A transportation agency should conduct site assessments routinely before property is purchased so that project delays and cleanup expenses will be avoided when waste problems are discovered later in project implementation. Without this protection, agencies may face liability far more costly to remedy than the relatively small investment of time and money needed to conduct a thorough survey. Ideally, the site assessment is done before executing a purchase agreement. If not, the purchase agreement itself should provide for this site assessment, much as it may provide for structural and property line surveys (and even termite and asbestos inspections for buildings). The site assessment should be something more than the typical field investigation and brief report for a few dollars. It is a more useful tool if it is accurate and complete. A proper site assessment must include the following:

- An exhaustive physical survey of topography; geologic setting; surface and groundwater flow; building and utility layouts; the condition of all structures above and below the ground, including underground tanks; and suspicious site characteristics such as liquid breakouts, soil discolorations, odors, abnormalities in vegetation, extensive filling and regrading of the land, and buried objects (such as pipes, drums, and tanks) in the ground. It must include drilling test wells to obtain groundwater samples to be tested in a laboratory for a range of contaminants.
- A history of the plant and site, documenting industrial, commercial, and waste disposal activities; past and present owners, using appropriate property maps; subdivision plans and deeds; the products manufactured or materials dumped in the past; and the nature of production or treatment processes.
- A review of the permit and enforcement history of the property to check what past and present activities on the property were properly licensed by federal, state, and local agencies and boards. The review should include a visit to hazardous waste agencies to examine lists of licensed or known contaminated sites. Otherwise the transportation agency, as new owner, may be taking over a facility already in violation of the law. Also, court orders or ongoing litigation could affect future uses of the property or could impose monetary damages and penalties against the agency as new owner.

- An assessment of hazardous substances on the property, including air pollution, water pollution, and other means of land contamination. If hazardous materials are discovered or suspected, the assessment should calculate the impacts on downstream, down-gradient, and down-wind receptors of those materials. This information is essential to assess financial exposure in a businesslike manner.

- A review of all applicable federal, state, and local legal requirements, including zoning and other land use controls. Otherwise, the buyer may have an unrealistic set of expectations on developability of the land. The same review is useful to anticipate who needs permits from whom to do what for any new activity.

- A method that meets the criteria imposed by state environmental agencies for the preliminary screening or initial assessments, which usually are done after contamination is discovered. Although data collection by methods required by state agencies may be more expensive initially, it may save time and effort later if waste is discovered. Otherwise, the work of the site assessment may have to be duplicated under government orders.

- An evaluation of potential threats to the environment and to public health, safety and welfare by proximity to population, water supplies, recreation areas, and other sensitive receptors.

- Information about the consultant's prior personal knowledge of the site, the sources and reliability of information gathered, and any constraints on the site assessment.

- The supervision of a professional with the qualifications to render the factual and scientific judgments in the assessment report.

- Estimates by qualified engineers and environmental scientists to give a range of expected impacts on project plans, EPA cleanup requirements, and costs if a site assessment identifies hazardous waste.

Contract Clauses

A transportation agency, as a buyer of property, is vulnerable to liability under Superfund primarily as the purchaser of land on which contamination exists, as the landowner who contaminates the land or environment, or as the landlord who leases property to a person who contaminates it. In all three situations the agency will want to look beyond Superfund cost recovery actions to seek reimbursement. Even if the cleanup funding comes from Superfund itself, the agency will want to seek redress from the seller or lessee.

Clauses are available to insert in purchase contracts and leases to distribute liability properly, recover costs, and manage cleanups. These measures do not enable the agency to escape liability for site cleanup and damages, but rather to secure reimbursement from, or cleanup by, the party in fact responsible for waste. All legally responsible parties under Superfund remain liable regardless of

any private indemnifications or other agreements, until the EPA issues a final settlement and release of liability.

The purchase agreement should expressly state that acquisition is contingent upon favorable results of a site assessment. That way the agency has the option of not becoming an owner and thus incurring no liability under Superfund. If the agency opts to acquire the property anyway, an indemnification clause should be included in the original contract for sale. The clause should state that the seller remains liable for all (or specified) hazardous waste cleanup costs. The clause should give the agency the option to require the seller to conduct the cleanup. This type of clause allows the agency to go after the seller directly, using this private contractual agreement. A well-drafted clause can help avoid lengthy settlement negotiations through the Superfund cost-recovery procedures. Indemnification can allocate costs to the seller up front, throughout cleanup operations and until final settlement with EPA.

As an alternative to complete indemnification, the agency may be able to negotiate a cost-sharing agreement where the parties agree to share cleanup costs. This alternative may result in a lower purchase price. Another approach is a buy-back agreement, where the seller agrees to take back the property and reimburse the agency if hazardous waste is discovered.

It is particularly important that a lease of public property indemnify the agency for contamination by the lessee. It should give the agency access to the property to conduct site investigations during the lease. This is important because when a transportation agency leases lands for various purposes, including user services like gasoline stations, it will be liable under Superfund for contamination caused by its lessee. The lease also should require the tenants to obtain private insurance or self-insurance sufficient to cover the potential cost, with documentation provided to the agency to demonstrate this insurance. This provision will help ensure that the agency does not end up bearing the burden of cleanup because the actual costs exceed the resources of the lessee as a responsible party.

Warranties and Consumer Remedies

Once a transportation agency becomes the owner of property discovered to be contaminated, it may seek remedies under real estate law and consumer law. In some states, for example, the theory of warranty of merchantability provides a right to money damages from the seller based on the fact (if it can be proved) that the property is no longer suitable or of the same nature contracted for. In other states, a theory known as "waste" may allow the new owner to bring an action for damage by seller's activities destroying the value of the property. Most states also have consumer protection statutes providing remedies to purchasers of real property where the seller has misrepresented facts or failed to disclose material facts that might have changed the buyer's mind about the purchase.

Still other remedies may lie in actions for fraud and misrepresentation. Although the rule of *caveat emptor* (buyer beware) applies to contracts for the sale of land, this doctrine would not bar a purchaser from relying on the statements and representations of a seller as to material facts that are available to the seller and not available or discoverable by a buyer exercising reasonable diligence. Using this doctrine, a buyer might be able to rescind a contract for sale of property whenever such misrepresentations of the seller relate to the land, its physical condition, and its quality.

Legal Defenses

There are some limited defenses against Superfund liability. First, even though a transportation agency may be a PRP under Superfund, liability will not exist if it can be established that a release or threat of release, and the resulting damages, are solely the result of an act of God, an act of war, or actions of a third party. To invoke this "third party" defense, an agency would have to show that the release was caused exclusively by an act or omission of another party and that the agency exercised due care with respect to the hazardous substance concerned and took precautions against foreseeable acts or omissions of any such third party and the foreseeable consequences. An employee, agent, or contractor (except common carrier by rail) does not qualify as a third party.

Second, Superfund can release a party from liability where an "innocent landowner" defense is established. By virtue of key definitions in Section 101(35)(A), an owner of contaminated property may be shielded if the owner acquired it after the waste disposal and if the owner can establish one of the following: acquisition without any knowledge or reason to know of the disposal; acquisition by inheritance or bequest; or acquisition as a government entity by any involuntary transfer or acquisition or by eminent domain authority using purchase or condemnation.

To use this defense, the owner also must show the exercise of due care with respect to the hazardous substance concerned and precautions against foreseeable acts or omissions of any third party and the consequences. This defense cannot be used by any previous owner otherwise liable under Superfund or by any owner who obtained actual knowledge of the release or threatened release while owning the property, subsequently transferring it to another without disclosing this knowledge. The defense also cannot be used by one who caused or contributed to the release or threatened release.

This defense will be important for transportation agencies that use eminent domain. Note that the exercise of eminent domain authority can cut off liability whether done by purchase or by actual condemnation. Some agencies acquire property by inheritance or bequest, so this defense will help there, too.

If the agency wishes to invoke this defense because it did not know and had no reason to know of the waste disposal, Section 101 makes clear that it "must have undertaken, at the time of acquisition, all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial customary practice in an effort to minimize liability." This means the agency should perform a thorough hazardous waste site assessment.

This site assessment tool also will be useful to the agency invoking the shield of eminent domain or inheritance or bequest, because it can help document that the disposal on the property took place before acquisition, as this innocent landowner defense requires.

Third, by virtue of Section 107, no state or local government is liable under Superfund for costs or damages "as a result of actions taken in response to an emergency created by the release or threatened release of a hazardous substance generated by or from a facility owned by another person," except if there is negligence or intentional misconduct.

Fourth, Section 107 states that no person is liable "as a result of actions taken or omitted in the course of rendering care, assistance, or advice in accordance with the National Contingency Plan ("NCP") or at the direction of an on-scene coordinator appointed under such plan, with respect to an incident creating a danger to public health or welfare" as the result of a release or a threat of release. This does not preclude liability, however, for negligence. Compliance with the NCP is very important.

COPING WITH CONTAMINATED PROPERTY

If a transportation agency has not avoided liability for hazardous materials released to the environment, it can manage the problem in a businesslike manner. Most such problems are manageable. This is not to say they are cheap.

Reporting Releases

Superfund provides that any person in charge of a vessel or facility generating, storing, disposing, or transporting hazardous substances immediately must notify the National Response Center upon receiving knowledge of a hazardous release if the release is above the threshold for "reportable quantities" as defined by EPA regulations. Therefore, discovery of hazardous substances on a property, any sudden or nonsudden accidental release at a facility, or an accidental release by a transporter must be reported if it is of a reportable quantity. A transportation agency itself may be the source of the reportable release or it may detect contamination from a user of its facility or from an abutting property.

Note that state laws impose additional reporting obligations.

Staying Off the Superfund List

A transportation agency should obtain EPA and state lists of priority and potential cleanup sites. It should examine whether its wastes went to these sites or if its properties are on the lists. The agency should be familiar with hazard-scoring methods for potential sites, interview past and present employees, document historical disposal on-site and off-site, check disposal vendor histories to identify potential Superfund liabilities, and review EPA records to see what the agency knows or thinks was done with wastes. These steps can help the agency prioritize its own site cleanups in order to try to avoid being on the Superfund list, or, if it is advisable, to encourage Superfund listing the site to increase the chances of outside funding of the cleanup.

Complying with the National Contingency Plan

The NCP establishes procedures and standards for responding to releases of hazardous substances, pollutants, and contaminants. It outlines criteria, which must be applied in the investigation and evaluation of hazardous waste sites and determination of proper cleanup response. The NCP also designates the roles of federal, state, local, and private parties in effecting a cleanup plan. Transportation agencies involved in cleanup activities on land they own or lease must comply with these procedures and standards. Furthermore, in evaluating cleanup plans for abutting properties, the agency should check compliance with the NCP to help ensure that a safe and effective cleanup is undertaken.

Complying with State Requirements

State requirements for hazardous waste management generally follow a format similar to the federal requirements previously described. Notification may be required; notification will activate state and local contingency plans; response must be coordinated with local authorities including fire, police, and health boards; waste must be characterized using official lists; reportable quantities may be different; and state and local boards and agencies may impose their own administrative orders (or file their own lawsuits) seeking cleanup according to their own procedures and standards.

This is especially important in a home rule state where municipalities are authorized to promulgate their own ordinances and bylaws, which may be more stringent than those of the state. The transportation agency must find out about these local requirements for emergency response planning, release notifications, and cleanups. These likely will differ from one community to another.

Communicating Effectively

The transportation agency should open lines of communication to the environmental agencies (federal, state, and

local), disclose contamination, and remedy it. It is important to demonstrate a positive commitment so as to lessen environmental agency concerns: fashion a proposed remedial action plan and implement it after getting agency approvals; set up an internal management structure to coordinate these activities, drawing on health, safety, legal, and financial personnel; and use in-house staff or specialized consultants who are experienced in remedial action. The voluntarily cleanup is a necessary adjunct to EPA programs and is a useful tool for business and government to meet legal obligations while keeping costs under a semblance of control.

Knowing How Clean Is Clean

The recent Superfund amendments establish permanent remediation as the goal of hazardous waste cleanups. These require that preference be given to the choice of a remedial action that will permanently reduce the toxicity, mobility, or volume of hazardous substances and to remedies using alternative treatment technologies. EPA is directed to select remedial actions that will satisfy applicable, relevant, and appropriate requirements (ARARs) set forth under federal or more stringent state standards. Permits usually required under other environmental laws are waived for on-site actions, but these actions must comply with the standards set by regulations pursuant to those laws.

Specifically, remedial actions at least must attain Recommended Maximum Contaminant Levels (RMCLs) as established under the Safe Drinking Water Act and water quality criteria under the federal Water Pollution Control Act. Regulations pursuant to RCRA, TOSCA, the Clean Air Act, and the Marine Protection Resource and Sanctuaries Act apply to disposal and incineration of hazardous waste on land and at sea.

State law varies on how clean is clean because there is little statutory or regulatory language on the matter. It should be expected that states will address remediation standards either by guidelines or regulations over the next few years, probably based on research on health effects and levels of risk, to determine what levels of contaminants are acceptable in site mitigation. Ultimately, the degree to which a site is cleaned will depend on the severity and extent of the contamination, the substances involved, the remedial technologies available, whether a threat exists to public health or the environment, and cost.

Being a Businesslike Responsible Party

When the EPA or state agency names a transportation agency as responsible for a contaminants site, the agency should name a point person immediately; gather information quickly; assemble a team of experts; forge links to the agencies and community involved; and begin to make administrative, technical, and legal decisions in a businesslike way. The goal is to implement a cost-effective solution to environmental problems at the site with a fair

allocation of costs. In practical terms, agency liability will depend on the relative volumes and percentages of materials disposed on the site (or shipped to a site by the agency as a generator), their nature and toxicity, the degree of involvement in site operations, the number of other PRPs, the imminence and degree of hazard, the extent of groundwater or surface contamination, the migration of contamination off-site, present or potential impacts on public health, and whether there were knowing or intentional violations of law. It also makes a difference whether the agency is a "deep pocket," among many small generators, into which EPA may reach for cleanup costs.

Based on these factors, the agency should decide carefully whether to be part of the solution or part of the problem, taking a leadership role on the PRP committee or a "let them sue us" approach. The middle ground is a "willing participant," acknowledging PRP status but being a "follower" willing to pay a fair share of a PRP settlement. If the agency is the deep pocket generator, it should try to convince the EPA to enlarge the PRP universe by bringing in other PRPs to share liability.

The agency should be aware of the Superfund defenses that may be invoked and should be careful to conduct itself so as to invoke them; prepare claims it can pursue using Superfund provisions, indemnification clauses in real estate contracts, and theories of contribution; and keep track of costs so as to seek reimbursement using these means.

Hiring Qualified Contractors

To ensure that the transportation agency selects a hazardous waste consultant and contractor capable of properly undertaking site assessments or remedial actions, it is important to develop and apply criteria for those under consideration.

The agency should retain only those professionals who have a good general understanding of the legal and regulatory issues involved, including their own and their clients' responsibilities regarding notification and liability. The contractor should have adequate and appropriate staff already available to develop the information needed for site assessments and remedial action plans. It should have a track record in preparing reports of this sort in a manner understandable to nontechnical people as well as to other experts. The reputation for quality work and integrity should be good. The contractor should be willing to consider approaches other than those in which it specializes and to retain the necessary subcontractors for work it cannot perform itself, such as complex hydrogeologic studies.

There should be a contract in writing with the consultant. It should include several provisions to protect the interests of the agency. It must delineate the scope of work and carefully identify specific work tasks, personnel responsible for accomplishing them, timetables, and budgets. It is important to know specifically what services the agency is purchasing and to ensure that cost and time

overruns do not occur. Of course the contract should include contingencies, such as unexpected discoveries of additional waste. Incentives should be added to achieve the final work product in a timely manner, with disincentives for delays.

The contract should indicate that the consultant is hired to assist the legal department of the transportation agency in rendering legal advice to the agency. In this way, much information generated by the consultant can be transmitted directly to the agency attorney for evaluation and decision, and may be less available in lawsuits by way of discovery. The contract also should provide indemnification and hold-harmless clauses between the state agency and the contractor covering negligence, gross negligence, and willful misconduct in the contractor's performance. The agency also should be aware that the consulting firm might need to hire subcontractors for certain aspects of the work. The agency should retain control over the hiring of additional subcontractors, which should be after a demonstration of need and due notice from the prime contractor. The same criteria should be applied to these proposed subcontractors.

Protecting Employees

Transportation agencies that contract out for cleanups should be aware of the new worker safety obligations, discussed above, enacted at the same time as the reauthorized Superfund. OSHA has begun to issue regulations specifically designed to protect workers engaged in hazardous waste operations. These training and safety mandates cover employees performing response operations under Superfund; corrective actions at RCRA sites; emergency response actions; actions at sites designated by a state or local government; and operations at facilities regulated pursuant to RCRA.

Note that these provisions will apply to agencies conducting their own work. Note also that these provisions encompass initial investigations at sites before the presence or absence of hazardous substances has been confirmed. They also supply to employees engaged in duties at agency facilities storing, treating, or disposing of hazardous substances. The agency should be prepared to meet (and make sure that contractors meet) these requirements for periodic medical surveillance of employees, air monitoring, handling of hazardous substances, decontamination procedures, and development of emergency plans along with training programs.

CONCLUSION

Proper hazardous waste management is firmly established as a fundamental legal requirement governing transportation agencies along with other sectors of government and business. It is part of a comprehensive regulatory program controlling hazardous materials generally, in many aspects of manufacturing and government activities. The present

emphasis on response to releases of hazardous substances is shifting to prevention by emergency planning.

States will continue to supplement federal programs with stricter state Superfunds, management laws, and right-to-know laws. Communities will use home rule authority, where available, to go beyond the federal and state basic programs.

The concept of strict liability for releases to the environment is here to stay, and the courts are willing to enforce these new forms of legal obligations. EPA and state agen-

cies are gaining new enforcement tools such as administrative penalties and new cleanup authorities to deal with contaminated sites. It makes sense for transportation agencies to anticipate and appreciate their new responsibilities and manage their affairs so as to minimize the legal, financial, and environmental risks.

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