

LIABILITY COVERAGE FOR  
LOW-LEVEL RADIOACTIVE WASTE DISPOSAL FACILITIES

Omer F. Brown, II  
Washington, D.C.

A principal concern that has emerged in establishing regional low-level radioactive waste disposal compacts and in developing regimes for operation and extended institutional control over new disposal facilities is the extent of liability exposure and the insurance, indemnity, bonding or other coverage needed for that exposure. This paper will explore liability issues and the availability and scope of financial protection coverage for low-level waste facilities during their operational, post-closure maintenance, and institutional control periods. The means are readily available to provide liability protection during the operational and post-closure maintenance periods. More consideration needs to be given to the alternatives for developing adequate coverage for the institutional control period.

INTRODUCTION AND BACKGROUND

The Low-Level Radioactive Waste Policy Act of 1980, Pub.L. 96-573, 42 U.S.C. 5520216 et seq., made each State responsible for providing the availability of disposal capacity for commercial low-level radioactive wastes generated within its borders. The Act also stated that low-level waste can be managed most safely and efficiently on a regional basis, and encouraged the formation of interstate compacts. After January 1, 1986, any such compact approved by Congress may restrict the use of regional disposal facilities to waste generated within the region. One principal concern that has emerged in establishing compacts and in developing regimes for operation and extended institutional control over new disposal facilities is the extent of liability exposure for the entities involved and the scope of insurance, indemnity, bonding or other coverage needed for that exposure.

While high-level nuclear waste repositories and even low-level waste shipments in the course of transportation from facilities such as power plants now can be covered by the Price-Anderson insurance-indemnity system and, under that statute, have a limitation on their liability, owners, operators, and regulators of low-level waste facilities do not have any statutory limitation on their liability and must seek other forms of financial protection. This paper will explore liability issues and the availability and scope of coverage for low-level waste facilities during their operational, post-closure maintenance, and institutional control periods.

Before discussing specific liability and coverage issues, it is important to put in perspective the risk to the off-site public posed by commercial low-level radioactive waste facilities. Low-level waste

as its very name implies, is contaminated by relatively low levels of radioactivity, generally requires little shielding and no cooling, and represents a potential hazard for a relatively short time -- measured in hundred of years at the very most as contrasted to thousands of years for some high-level nuclear and nonnuclear hazardous wastes. Commercial low-level radioactive wastes are produced at medical facilities, research and industrial installations, and nuclear power plants. Low-level wastes are disposed of in the United States primarily by shallow land burial, a relatively simple procedure. Commercial low-level waste disposal facilities are licensed by either the U.S. Nuclear Regulatory Commission (NRC) under 10 C.F.R. Part 61 or by individual States that have entered into agreements with the NRC under Section 274 of the Atomic Energy Act of 1954, as amended; 42 U.S.C. 552021.

NRC regulations require that commercial low-level waste disposal facilities be located only on land owned in fee by the Federal or a State Government. 10 C.F.R. 561.59 (a). See also Nuclear Waste Policy Act of 1982 (NWSA), §151(b), 42 U.S.C. §10171(b) (providing the Federal Government "may" assume ownership of a closed low-level waste disposal facility). New facilities most likely will be owned by a State and operated by a commercial entity licensed to do so, although a site might be owned and operated by a State. Title to the waste will pass to the facility operator which it arrives at the site, if not before.

Following closure and a period of post-closure observation and maintenance by the original licensee, control of the disposal site is expected to be returned to its owner (in all likelihood, the State Government) for an "institutional control" period of about 100 years. During this period, the land owner will be required, among other things, to physically control access to the site and carry out an environmental monitoring and periodic surveillance program. See 10 C.F.R. 5561.30 and 61.59 (b). The transfer of control would be subject to a license amendment, but the NRC considers financial responsibility for activities during the institutional control period "a matter to be worked out between the site owner (i.e., the State or Federal Government and the licensee in their lease or other legally binding arrangement." See 47 Fed.Reg.

<sup>1</sup> For a discussion of the Price-Anderson system in general and its specific application to nuclear transportation activities, see O.F. Brown, "Recent Developments in the Area of Insurance and Indemnity Coverage for Transportation of Radioactive Materials in the United States", 7th Int'l Symposium on Packing and Transportation of Radioactive Materials (PATRAM '83), New Orleans, Louisiana (May 19, 1983).

57446 (1982). It is these arrangements that States have been attempting to define so as to provide adequate coverage for public liability and on-site remedial actions.

#### SCOPE OF LIABILITY

Commercial low-level waste disposal facilities will be subject to stringent NRC or Agreement State regulations that presumably should make any off-site injuries to person or property very remote. Nevertheless, this risk cannot be totally eliminated. Highly publicized examples of problems with hazardous chemical disposal facilities (which in the past unfortunately were not subject to controls as stringent as nuclear facilities) have heightened public concern.

Any liability in terms of money damages to make a person injured off-site "whole" or recover clean-up costs ordinarily would be based on the tort laws of the State where the disposal facility is located. These laws can vary considerably from State to State. Tort laws, except in States that have enacted superceding statutes, remain within the purview of the "common law", i.e., their principles are derived from judicial decisions and precedents, rather than enacted through the legislative process. Yet, because courts tend to pattern statutes on those enacted elsewhere, it is possible to describe some general principals and trends in the law on a national basis.

The two principal standards for determining liability in tort are negligence and strict liability irrespective of fault. If the negligence standard is applied, an entity can be found liable if it fails to act with the care expected of a "reasonable and prudent" person under the circumstances. Under the standard of strict liability, which States are applying increasingly to activities that are "abnormally dangerous" or ultrahazardous, an entity may be liable without regard to the degree of care it has exercised. Recovery for injuries caused by a disposal facility or clean-up costs also might be pursued on a theory of either "trespass", which at common law is defined as an "unauthorized entry" onto another's land, or of "nuisance", which requires only a showing of a substantial or unreasonable interference with the use and enjoyment of land or life.

During the period of operation and probably even during the period of post-closure maintenance, the most likely defendant in any lawsuit would be the corporation licensed to operate the facility. In the absence of insurance or some indemnity or surety agreement, its liability would be limited to its assets. It is likely that the State owning the land also would be sued, except where protected by the doctrine of sovereign immunity, which still is in effect in a number of States, protects a State from suits by private individuals unless the State expressly has waived its immunity. Some States have adopted only limited waivers. If the Federal Government owned the site, its liability, if any, would be governed by the Federal Tort Claims Act. That Act creates a number of obstacles to recovery. The original generator of the waste, if it still exists, also might be sued. However, once waste arrives at the site and is commingled with other waste, it may be virtually impossible to trace its original source.

Plaintiffs bringing suits during the period of institutional control might find even more barriers to recovery. For example, the original corporate licensee (or original waste generator, if it is even possible to trace the waste to a particular source)

might have insufficient assets to cover damages, simply have gone out of existence, or been absolved of liability at some time by the terms of its license. Statutes of limitations considerations also will vary from time to time and from jurisdiction to jurisdiction, although there is a trend toward lengthening the time periods for commencing radiation and other toxic tort suits.

In the case of a disposal facility operated under regional compact, there is concern about the potential joint or several liabilities of both any new governmental entity or commission created by the interstate compact, and the individual member States. Some have suggested there should be shared liability or hold-harmless provisions. The proposed Northeast regional compact, for example, would exempt the compact commission from liability and attempt to direct claims at whatever entity is selected to provide liability protection. Whether there indeed would be any shared responsibilities now is unclear, but the issue has prompted concern in various regions about the insurance, indemnity or other arrangement that would be available to cover it.

Compensatory damage awards and environmental clean-up costs have been increasing dramatically over the last several years -- facts that reinforce the need to gauge and protect against potential liabilities. In the specific area of radiation injuries, the January 1984 U.S. Supreme Court ruling in *Silkwood v. Kerr-McGee Corp.*, No. 81-2159, portends an exposure to even greater punitive damages. That 5-4 decision allows juries of laymen to impose punitive damages -- in effect, fines -- even where a nuclear licensee has been operating in full compliance with applicable federal regulations. In many States, it is "contrary to public policy" to insure against punitive damages. In States where it is not, punitive damages could exceed policy limits. Either situation could force a facility operator into bankruptcy with all the additional problems that would create.

#### LIABILITY COVERAGE

With the potential for significant liability being in the unclear posture outlined above, would-be regional compact members and facility operators ought to obtain very broad liability coverage. Heretofore, licensed low-level waste disposal site operators (unlike power plant and plutonium fuel fabrication facility operators) have not been required by NRC to provide financial protection for a public liability. Prudence suggests they should do so anyway. Coverage can take the form of indemnity, bonding, surety or other financial agreements or other financial agreements or insurance policies. It should apply to both sudden and accidental occurrences, and nonsudden and gradual occurrences (i.e., environmental impairment).

In the past, all commercial low-level waste facility operators in fact have purchased insurance under a "Facility Form" policy issued by the two private nuclear insurance "pools". A pool is a group of companies that pledges assets that together provide resources to insure risks of a size that would be beyond the financial capability of a single company. The pool of about 140 stock insurance companies is called American Nuclear Insurers, while the pool of about 120 mutual insurance companies is called the Mutual Atomic Energy Liability Underwriters. The pools have been operating

<sup>2</sup>For a more complete discussion of the pools' liability coverage, see "Interview - American Nuclear Insurers ... on Liability Insurance & LLW Management", *The Radioactive Exchange* (Dec. 20, 1983) at 6-13).

since 1957, and together will provide up to \$160 million of aggregate liability insurance per site. The pools now cover, among others, every operating nuclear power plant, commercial fuel fabrication facility, and commercial low-level waste disposal facility in the United States. The latter include the three operating and the three closed commercial low-level waste disposal sites. Although the pools have received claims involving injuries at other nuclear facilities, they apparently never have received a claim involving a low-level waste site.

The pools do not issue policies to facilities, such as hospitals and other generators to nuclear "by-product material" alone. This is essentially because by-product material has never been perceived as involving a level of risk requiring a pooling arrangement. As a general rule, the pools cover fuel cycle activities, while non-fuel cycle activities are covered by the conventional insurance market. Thus, if a waste disposal site accepted only by-product material (for example, from medical facilities), that site would not be eligible to purchase one of the pools' Facility Form policies. By-product material and radioisotope liability coverage is available under conventional insurance policies issued by individual private insurance companies. Further, it would be advisable for a site operator to maintain conventional insurance coverage for non-nuclear risks.

There are a number of significant advantages to having liability coverage under one of the pools' Facility Forms policies, because of its unique "ombus" features. A Facility Form affords very broad liability protection to "anyone liable" under applicable law (not just the named insured) for third-party bodily injury or property damage to off-site property arising from the nuclear energy hazard. The only exception to this coverage is for the U.S. Government or any of its agencies. (This is a potential problem area if the Federal Government owns the land a facility is located on.) States, including the host State and any other regional compact parties, if liable, would not be excluded from coverage. Although the policy covers nuclear liability from the first dollar of loss (for anyone but the U.S. Government or any of its agencies), no one but the nuclear facility operator pays a premium for protection. The pools are obligated to defend anyone who is sued for the bodily injury or property damage as a result of a nuclear incident occurring at the facility. Certain transportation activities are covered as well, but that coverage is beyond the scope of this paper. The pools on a regular basis also inspect the facilities they insure to determine that they are in continuing compliance with their terms of insurability and policy ratings. While this principally is to protect the interests of the pools themselves, it does serve as an additional check on the facility.

Maintaining insurance coverage during the operational and even the post-closure maintenance period (when regulation will be the greatest) should not be a problem, if current underwriting trends continue. The pools can cancel or terminate their present Facility Forms policy, but this has never happened in the past; and, if it does in the future, there should be a notice period sufficient to allow for alternative protection to be secured. Furthermore, coverage under a Facility Form that has been cancelled continues for an additional "discovery period" of ten years within which claims that arose during period may be brought. Nevertheless, it is theoretically possible that, if extraordinarily adverse claims experience were to emerge, the pools could exercise

their right to cancel any or all of their policies.

A more significant consideration involves coverage during the institutional control period. See 10 C.F.R. §61.63 (providing that NRC will review financial assurance for institutional controls prior to issuing an initial site license). Subsection 151(a) of the NWSA, 42 U.S.C. §10171(a), now requires the NRC to promulgate rules setting standards to ensure that each low-level waste disposal license will provide an adequate bond, surety or other financial arrangement to permit completion of all Commission requirements for the decontamination, decommissioning, site closure, and reclamation of sites, structures, and equipment. That subsection also provides, that if the NRC determines that any long-term maintenance or monitoring will be necessary at a site, it must ensure before termination of the license involved that the licensee has made available such bonding, surety or other financial arrangements as may be necessary to ensure that any necessary long-term maintenance or monitoring will be carried out by the site owner following license termination. NRC has not yet promulgated the regulations required by this subsection.

During The Radioactive Exchange interview noted above, the pools representative said:

...at this point in time -- we're not in a position to guarantee that we would provide liability protection in 200 years, but let me say that we are available to provide insurance during the post-closure and institutional care period subject to our underwriting requirements and the maintenance of adequate engineering safeguards at that facility. And I might mention that there are facilities around the country that have been decommissioned and for which we continue to provide insurance. Id. at 9.

If coverage by the nuclear insurance pools is not available during the institutional control period, there are alternative means of protection. Additionally, since the pools' Facility Form does not provide coverage for any necessary remedial action or on-site clean-up, protection for such activities also would have to come from other sources. Funding for all or part of the disposal charges during the operational period and administered either as a trust or under a bonding, surety or insurance mechanism. It would be possible to create a separate insurance company for one or more of these purposes. Such an insurance company could maintain a reserve for any State liability during the institutional control period, and might even provide excess protection over and above the pools during the operational period. States may wish to consider the tax benefits and administration costs of such a mechanism, and especially compare the flexibility it would offer compared to a trust agreement.

Any financial protection mechanism should be designed to enable prompt payments for taking mitigating and remedial actions in the event of an unanticipated occurrence whenever it occurs. There unfortunately are too many examples of States depositing "trust" fund monies in their general treasuries and then not having them available when needed for their original purposes.

#### CONCLUSIONS

There are a number of critical liability issues that need to be considered and resolved in establishing interstate compacts and developing new sites for

disposal of low-level radioactive wastes. Management of all hazardous materials, including low-level radioactive wastes, is an area of growing public concern and expanding legal liabilities. The means are readily available to provide adequate financial protection during the operational and post-closure maintenance period. More consideration needs to be given to the alternations for developing adequate coverage for the institutional control period. Disposal of low-level radioactive waste certainly does not present a significant technology problem, but financial arrangements must be in place to assure that adequate funds will be available if needed in the future.