In 1980, under threats from the governors of three states with operating low-level radioactive waste disposal facilities to close these facilities, Congress passed the Low-Level Radioactive Waste Policy Act, and President Jimmy Carter signed it into law. The act was intended to encourage development of new disposal facilities so that the states of Washington, South Carolina, and Nevada would not continue to seem to be carrying the entire LLW disposal burden for the nation.

Passage of the act was not motivated by concerns about lack of disposal capacity or by economics. Rather, it was motivated by a political consideration: creation of regional equity in the disposal of LLW. The plan was for states to form regional interstate compacts, each to be served by one disposal facility. The carrot in the law was the right to restrict use of such a regional disposal facility to the member states of the compact. The stick—failure to join a compact with a regional facility could leave a state with no place to send its waste unless it was willing to build its own facility without the protection of compact membership.

Today, 23 years later, the Low-Level Radioactive Waste Policy Act has yielded 10 interstate compact commissions, three on-going lawsuits (one now at the U.S. Supreme Court), and no new disposal facilities. Worse yet, in less than five years, on the nation’s present course, in 36 states organizations that use radioactive materials will be unable to safely dispose of their Classes B and C LLW. These two waste classes contain about 99 percent of the radioactivity generated in the LLW in these 36 states. This looming disposal infrastructure crisis is the direct result of failure by the states to muster the political will to implement the federal Low-Level Radioactive Waste Policy Act and to build new disposal facilities. Therefore, it’s time for Congress to revisit the issue and fashion a national solution for a national problem.

Assuring adequate access to low-level radioactive waste disposal facilities will require the political will of the federal government.

For 12 months, from July 1, 1994, to June 30, 1995, 31 states were denied access to any LLW disposal facility under provisions of the policy act. Since then, however, all states have had access to disposal facilities for Classes A, B, and C LLW. Some compact officials say that there is no need to change the federal law, because “access equals success.” We say access today isn’t enough; only assured access is success, and 36 states lack assured access. The lucky 14 are the eight member states of the Northwest Compact and the three of the Rocky Moun-
tain Compact, which have assured access to the North-
west Compact’s regional disposal facility at Richland,
Wash., as well as the three member states of the Atlantic
Compact, which have assured access to the Barnwell,
S.C., disposal facility. The 36 states, if they so choose,
can dispose of their Class A waste at the Envirocare fa-
cility in Clive, Utah. (However, Envirocare is not li-
censed for Classes B and C waste or for sealed sources
and biological tissue wastes.)

It is only by the 1995 dispensation of then governor
of South Carolina, James Beasley, that users of radioac-
tive materials in 36 states have been able to dispose of all
three classes of LLW at Barnwell. (Governor Beasley was
voted out of office at the next election. His 1995 deci-
sion to open Barnwell to the whole
country was an issue used against
him by his opponent in the guberna-
torial campaign.) However, pur-
suant to South Carolina law and
provisions of the federal act, on July
1, 2008, access to Barnwell will be
restricted to the member states of
the Atlantic Compact, just as access
to the Richland disposal facility has
been restricted since 1993. Unless
something happens quickly, univer-
sities, utilities with nuclear power
plants, industries including biotech
and pharmaceutical companies,
medical centers, and many activities
of both state and federal govern-
ment will have no place to dispose
of their Classes B and C LLW. Fur-
thermore, there may be only one fa-
cility, Envirocare, where they can
send their Class A waste.

A LACK OF POLITICAL WILL

How did the nation arrive at an
infrastructure crisis affecting so
many states? In 23 years, not a sin-
gle new disposal facility—fully li-
censed to accept the three waste
classes A, B, and C for which the
states are responsible—has been de-
veloped. With the possible excep-
tion of Texas, no state today has a
program to develop a new facility.
In the 1980s and early 1990s, sever-
al states had development pro-
grams, including North Carolina,
Illinois, Michigan, Nebraska, Con-
necticut, Pennsylvania, and Cali-
ifornia. But these programs have all
ceased. Only one proposed project
ever received a license: the Ward
Valley disposal facility in Califor-
nia’s arid Mojave Desert. The state
of California licensed Ward Valley
to serve as the regional disposal fa-
cility for the Southwestern Com-
 pact. The project, however, was op-
posed by the Clinton administration, which refused—
for purely political reasons, according to a 1995 White
House e-mail—to transfer the site on federal land to
California’s Republican governor, Pete Wilson. In 1999,
California’s new (Democratic) governor, Gray Davis,
allowed the state’s land purchase application to lapse
and, along with the legislature, defunded the state’s reg-
ulatory program. Last year, the legislature enacted, and
Gov. Davis signed, a law that says Ward Valley will not
be the site of the Southwestern Compact’s regional dis-
posal facility.

The California Radioactive Materials Management
Forum (Cal Rad Forum), representing many organiza-
tions that use radioactive materials in the Southwestern
Compact region, has long supported the federal act and tried to make it work. We sponsored California’s siting law in 1983, supported state ratification of the Southwestern Compact and congressional consent, and helped defend the Ward Valley license against legal challenge. But with the passage of last year’s legislation, forbidding development of the licensed Ward Valley disposal project, our board recognized that a national solution is needed. California, the host state for the Southwestern Compact, is doing nothing to develop a disposal facility. And, again, with the possible exception of Texas, neither is any other state.

The act has left a legacy of litigation, none of which is likely to result in the development of a new disposal facility. The Southeast Compact and four member states have sued host state North Carolina for failure to develop a disposal facility. The Central States Compact has won a $151 million judgment against Nebraska for political manipulation of its licensing process. Nebraska has appealed. California’s facility licensee, US Ecology, a company that did the development work with its own funds as encouraged by state law, has sued the state to recover its expenses.

### A National Solution

Development of a new disposal facility can take 10 years or more. This includes time for scientific site selection and characterization and regulatory license application and environmental review processes. In California, the time from enactment of enabling legislation to issuance of a license was 10 years. Litigation took another three years.

In addition, new disposal facilities can expect opposition from organizations opposed to all uses of radioactive materials. The states have not shown the political will to resist these groups.

Therefore, it’s time for Congress to revisit the LLW disposal issue. The nation doesn’t need 10 new disposal facilities, but it does need at least one more. Here are three possible solutions:

- In the near term, Congress could authorize the U.S. Department of Energy to open its own underutilized disposal facilities to non-DOE LLW from universities, medical centers, utilities, industries, and other state and federal government agencies.
- For a long-term solution, Congress could authorize and fund the DOE to open a new facility somewhere on federal land for the disposal of non-DOE LLW under direct regulation by the U.S. Nuclear Regulatory Commission.

- Alternatively, Congress could open federal lands to commercial development of a disposal facility by the private sector under direct regulation by the NRC. Washington State and South Carolina, having operated their disposal facilities in good faith under the provisions of the 1980 act, should be allowed to continue to do so with access restricted to their compact regions or any other states with which they wish to contract.

On the nation’s current course, in less than six years in 36 states organizations engaged in beneficial uses of radioactive materials will have no place to dispose of most of the radioactivity in their LLW. These wastes will have to be stored indefinitely at industrial sites, universities, medical centers, etc., or the beneficial activities that produce the wastes will have to cease. The potential consequences for the economy, scientific research, and medical progress are serious. It is time for the federal government to fashion a national solution for what has become a national problem.

Alan Pasternak is technical director of the Cal Rad Forum, an association of corporations and institutions engaged in the beneficial uses of radioactive materials in the four states of the Southwestern Compact region (Arizona, California, North Dakota, and South Dakota). Member organizations include universities; utilities with nuclear power plants; medical centers; industries including biotech and pharmaceutical companies; and professional societies in medicine, radiation safety, and engineering. Website address: www.calradforum.org.

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**In less than five years, on the nation’s present course, in 36 states organizations that use radioactive materials will be unable to safely dispose of their Classes B and C LLW.**