

## ILLINOIS PERSPECTIVE ON LOW LEVEL RADIOACTIVE WASTE DISPOSAL

Don Etchison, Director  
Illinois Department of Nuclear Safety  
1035 Outer Park Drive  
Springfield, Illinois 62704

### ABSTRACT

Illinois is a big generator of low level radioactive waste. It has had extensive experience with controversial waste disposal and storage facilities. This experience makes it difficult for the public and political leaders in Illinois to support the establishment of new disposal facilities in the state. Yet, with extensive debates and discussions concerning the Low Level Waste Policy Act of 1980 and the proposed Midwest Compact, political leaders and the public are facing up to the fact that they must be responsible for the disposal of the low level radioactive waste generated in the state.

The Governor and many political leaders from Illinois support the regional approach and believe it can be an innovative and progressive way for the state to deal with the range of low level waste management and disposal problems. A version of the Midwest Interstate Low Level Waste Compact has become Illinois law, but it has significant differences from the one adopted by five other states.

Like other states in the midwest and northeast, Illinois is opposed to Congressional consent of the four pending compacts before the remaining two compacts, the northeast and midwest are sent to Washington and interregional agreements are negotiated between the sited and non-sited regions. A new national system must be established before access to existing commercial disposal becomes restricted.

### HISTORICAL PERSPECTIVE

To appreciate fully the Illinois perspective on the issue of low level radioactive waste disposal, it is useful to know something about the circumstances and history of the state in dealing with radioactive waste.

At the present time, Illinois has more operating nuclear power plants than any other state in the nation. It also has more reactors under construction than anywhere in the country. Being a large industrial state means that Illinois has numerous institutions which produce radioactive waste. In the Chicago area there are some of the largest hospitals and industrial facilities in the country. Those institutions and power plants produce significant amounts of low level radioactive waste. Combining this waste with that produced in universities, research laboratories, and clinics makes Illinois one of the top generators of low level radioactive waste (LLW).

Illinois has had many years of experience with the storage and disposal of radioactive waste, both high level and low level. Also, it has had significant experience with the disposal of chemical hazardous waste. To the general public, there is little difference between the two since they are both "hazardous." The state's experience has had a profound effect on the media, the collective consciousness of the public, and hence its political leaders. Thus, any discussion of waste disposal issues with Illinois opinion makers should take into account the relationship of past experience and knowledge of hazardous waste disposal with the radioactive waste problem.

From 1967 to 1977 Illinois had an operating low level radioactive waste disposal facility at Sheffield, Illinois in the north central part of the

state. Adjacent to that site was a hazardous chemical waste disposal facility which closed in January 1983. The Sheffield LLW site is 20 acres owned by the State and leased to a disposal firm. Not being an agreement state with the Nuclear Regulatory Commission (NRC), the license to the site is approved by the NRC and at the present time efforts are being made to decommission the facility. However, the whole matter of decommissioning Sheffield is complex, including a lawsuit, an administrative proceeding, and local and state concerns about the facility. It is widely known in Illinois that the Sheffield site is leaking tritium off the site into a buffer zone. The significance of this leak has been the subject of debate for several years by all parties involved. In the mind of the general public and many politicians, Sheffield is a "bad site" because it is leaking--the amount of the leakage does not matter. The common expression when discussing the siting of any land burial facility in Illinois is to "remember the lessons of Sheffield".

In addition to the widespread publicity associated with the Sheffield disposal facility, Illinois has a closed chemical disposal facility in central Illinois at Wilsonville. This facility received notoriety throughout Illinois for many years. The local residents of Wilsonville, with the help of the Illinois Attorney General, waged a legal battle for several years to have all waste in the site exhumed, claiming the site was located on top of a shallow aquifer. The site operator lost the battle and last year began removing the waste from Wilsonville and will spend an estimated \$20 million to complete the job. Getting the company to do this was seen to be a major victory for the local citizens and the state.

A third facility operating in Illinois which has received a great deal of attention in the media and by political leaders is the General Electric spent nuclear fuel storage facility at Morris, located some

sixty miles south of Chicago. Although its safety record is good, this facility has been an ongoing source of controversy to the public and the Illinois legislature for many years. There are annual attempts by members of the legislature to promulgate new state laws to "stop the shipments" to Morris and to prevent Illinois from being the "dumping ground of the nation for radioactive waste." Indeed in 1980 the legislature succeeded in passing a bill, over the veto of Governor Thompson who said it was unconstitutional, which prohibited the importation of spent fuel into Morris. That law was latter struck down as unconstitutional by the federal courts.

Thus, it is with this background and history that Illinois is attempting to address the LLW disposal issue. Awareness of the need for new disposal facilities for LLW was made evident to certain parties in the state in 1979 when the three operating sites in the country temporarily closed. At that time Illinois executive branch officials began discussions with neighboring states regarding the need to establish regional disposal facilities. However, those efforts had not achieved significant results by late 1980 when the Congress passed the Low Level Radioactive Waste Policy Act mandating that states be responsible for the disposal of the waste they produce and recommending that regional facilities be established. The Governor and the Illinois Congressional delegation supported that law, realizing the need to create new disposal facilities and wishing to have the states in charge of the siting and operation of them, rather than being preempted by the federal government.

Negotiating sessions to form the Midwest Compact were conducted during an eighteen month period from early 1981 to the fall of 1982. The proposed Compact was introduced in the Illinois General Assembly by the Governor in the Spring of 1983 where it passed the House in its original form but was side tracked in the Senate which decided to hold statewide hearings on the bill. After three months of hearings, in late 1983 the Illinois Senate placed several amendments on the Midwest Compact and sent the bill back to the Illinois House where it was approved with the Senate changes. The amendments were concerned with site rotation, shared liability, public access to records, technological alternatives to shallow land burial, reduction in waste generation, and prohibitions against the burial of any liquid radioactive waste. The changes were made over the objections of administrative officials, who argued that they were unnecessary and would not be accepted by other midwestern compact states.

#### THE PRESENT SITUATION

On December 12, 1983, Governor Thompson signed the Illinois version of the Midwest Compact knowing that it would be very unlikely that any other state would accept the changes made by the legislature. The Governor had little choice but to sign the bill, for if he vetoed it or made amendatory changes, the bill would have died. Thus, he decided to sign the bill since it at least showed support for the regional approach.

In his signing message Governor Thompson made the following statement:

During the session, I opposed these amendments in the belief that the Compact states would not find these changes acceptable...I do not believe these amendments are critical for Illinois. The members of the

General Assembly, however, believe they are critical and because the Senate President has pledged to persuade the other states to accept our changes, I am signing the bill. If, however, the other states reject the amendments...I will introduce amendments in the Spring to remove these changes. Since I am willing to cooperate with the General Assembly now by signing the bill, I hope I can count on your support in the Spring Session, should it be necessary to remove the amendments."

The news of Illinois' action on the compact soon reached all the midwest states, but none has expressed interest in the Illinois changes so far. In fact, four of them had already gone on record opposing the changes and in neighboring Missouri in mid-December after a long and hard debate on amending the Midwest Compact, the Missouri legislature approved an unamended version. Thus, Missouri became the fifth state to become a member of the Midwest Compact when Governor Bond signed the bill in January 1984.

In Illinois, with Governor Thompson placing the burden on the legislative leaders to get other states to accept the Illinois changes, on January 25, 1984, Illinois Senate President Philip Rock sent out a letter to legislative leaders in the midwest states. In the letter, Rock explained that the "executive officials who negotiated the Compact were not sufficiently aware of the pressures on legislators who represent areas where there is an existing waste site, a major university, a hospital or a nuclear power plant." He further stated that there was precedence for making changes to a compact and that he believed the changes made by Illinois were in the best interest of all the citizens of each state eligible to join the compact. Finally, in order to provide an incentive to those states to accept the Illinois changes, Rock dangled the possibility that Illinois might be the first state to host a facility in the midwest. Specifically, he said, "The amendments reflect our particular concern that Illinois would more than likely become the first host state. We are not quarreling with that assumption."

In addition to the action taken by the Illinois Senate President, in January of this year executive officers from Illinois participated in meetings held among various state officials regarding the LLW compacts, possible interregional agreements, policy positions of the National Governors' Association, and how the states viewed Congressional ratification of the four compacts that have been sent to Washington for approval. In those meetings Illinois' officials, and officials from the midwest and the northeast took the position that the Congress should not give its consent to compacts until a complete national system is in place, including interregional agreements negotiated between the compacts which have sites and those that do not. This position is seen to be necessary to allow for the uninterrupted disposal of wastes until new sites are developed.

Addressing the low level radioactive waste disposal problem is especially difficult in Illinois. This is due to the long history of the state's involvement in disposal questions and the intense interest and concern of the media and political leaders. While at this time Illinois' status as a member of the Midwest Compact is in question, it appears unlikely that other states will adopt the

Illinois changes and that the Illinois General Assembly will be making the final decision on whether Illinois will "go it alone" or remove the amendments and join the Midwest Compact. The Administration is still supportive of joining the Compact since it believes the advantages of being in a regional group outweigh the advantages of going it alone. However, at this stage the decision on the compact in Illinois is very much a political decision, and whether Illinois will join with its neighbors is an open question.

#### CONCLUSION

From an Illinois perspective it appears that the states are making significant progress in creating a viable national system for the disposal of low level radioactive waste. Extensive discussions and debates have taken place in most states, state officials have recognized that they must meet their mandated responsibility in addressing the disposal issue, and intensive negotiations have taken place among states to establish the structures needed for a new national disposal system. Throughout all of this, the states wish to address the disposal problem in the safest, most efficient and environmentally acceptable manner, with strong input from the public and interested parties.

As the states continue to move forward in addressing this issue, it is obvious that some members of the public and legislative leaders still have serious questions about legal, political, and technical areas relating to LLW. Such questions as, can a single state exclude waste? Are above ground disposal systems better than a traditional shallow land burial facility in wet climates? Can the Congress change Compacts? And can interregional agreements be negotiated to allow for interim storage at existing facilities?

The states have invested a great deal of time and effort over the past four years regarding LLW and it would be very unfortunate if the whole process collapsed this year or next and federal intervention were required. There are, of course, some critics of the compact system who would like to see this happen, thinking the federal government could better address the problems than the states. Yet, given the federal record on high level waste and that LLW is primarily an issue involving the siting of controversial disposal facilities, it seems that the states have too much at stake in implementing the Low Level Waste Policy Act to let the nascent regional compact system collapse.

The concept of regional waste disposal facilities for LLW was an innovative approach which if it proves to be successful, could perhaps be applied to other disposal issues, such as hazardous chemical waste facilities and common landfills. The regional approach offers the benefits of reducing the number of facilities required, economies of scale, the combining of financial and technical resources of the states in siting and constructing good facilities, a lessening of negative impacts on the environment, and it fosters communication and cooperation among the states. Collectively these benefits allow for states to address a disposal and pollution control problem which does not stop at state boundary lines. The regional approach is a pragmatic attempt to deal with a national problem in a decentralized manner. This effort has the qualities embodied in good government--that is being responsible, economical and cooperative.

The challenge for the states in addressing the LLW issue is to transcend the "not in my backyard" syndrome which has in recent years paralyzed the ability to site any controversial facility and to establish the guiding principle of doing one's "fair share" either by acting alone or in cooperating with other states. Meeting this challenge and responsibility through cooperative efforts is a progressive approach for the federal government and the states to be taking in the 1980s and 1990s and might very well be the beginning of a new era of state and federal cooperating in waste disposal.