

Performance Audit

Central Interstate Low-Level Radioactive Waste Commission



ARKANSAS DIVISION OF LEGISLATIVE AUDIT

October 12, 2001

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Charles L. Robinson, CPA, CFE
Legislative Auditor

LEGISLATIVE JOINT AUDITING COMMITTEE DIVISION OF LEGISLATIVE AUDIT

October 12, 2001

Members of the Legislative Joint Auditing Committee:

We have conducted a performance audit of the Central Interstate Low-Level Radioactive Waste Commission (Commission). The Commission was established in 1983 in the form of an interstate compact among the states of Arkansas, Kansas, Louisiana, Nebraska and Oklahoma.

This audit was performed in accordance with the applicable standards contained in Government Auditing Standards issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to provide sufficient, competent, and relevant evidence to achieve the objectives of the audit.

The accompanying report includes a brief summary of the background and history of the Central Interstate Low-Level Radioactive Waste Commission from its inception through June 30, 2000. The report also includes information concerning the State of Arkansas' representation on and contributions to the Commission. We trust the information in this report is useful and will meet your needs.

DIVISION OF LEGISLATIVE AUDIT

A handwritten signature in blue ink, appearing to read "Charles L. Robinson".

Charles L. Robinson, CPA, CFE
Legislative Auditor

October 12, 2001
PSPE00401

Executive Summary

Central Interstate Low-Level Radioactive Waste Commission Performance Audit

OBJECTIVES

Our objectives in conducting this performance audit of the Central Interstate Low-Level Radioactive Commission (Commission) were as follows:

- *Determine the purpose of the Commission and the reasons why Arkansas joined;*
- *Document how Arkansas is represented on the Commission and the responsibilities, if any, of the various State Agencies;*
- *Verify the total amount of contributions by Arkansas since the inception of the Commission;*
- *Determine the benefits, if any, that have been received by the State;*
- *Compare the amount of contributions required from the member states in the Commission to the contributions required from other low-level radioactive waste compacts; and*
- *Determine the waste disposal options available to Arkansas if the proposed site in Nebraska is not developed.*

The Central Interstate Low-Level Radioactive Waste Commission was established in 1983 in the form of an interstate compact among the states of Arkansas, Kansas, Louisiana, Nebraska and Oklahoma.

SCOPE AND METHODOLOGY

The audit was conducted for the time period beginning with the Central Interstate Low-Level Radioactive Waste Commission's inception in May of 1983 through June 30, 2000. We communicated with and obtained information from Commission members and staff; representatives from other compacts, Arkansas' major generator (Entergy Arkansas), Utah's Department of Environmental Quality; and representatives with the disposal facilities located in Barnwell, South Carolina, and Richland, Washington.

We reviewed the Commission's annual reports, Arkansas Code Subchapter 2 – Central Interstate Low-Level Radioactive

Waste Compact, Public Law 99-240, other compact acts, contracts between the Commission and the major generators, annual volume and activity summaries for each party state in the Commission, copies of vouchers and warrants, and various documents provided by Arkansas' Alternate Commissioner and the Commission's Office Administrator.

We used the information obtained to determine the total amount of contributions by Arkansas to the Commission; to determine the equity of contributions among party states; to make comparisons to other compacts; and to determine what, if any, alternatives are available for future Low-Level Radioactive Waste (LLRW) disposal.

CONCLUSIONS

Our conclusions for this report based on meeting our objectives stated above are as follows:

Commission's Purpose and Objectives

The two (2) primary objectives for establishing the Commission were:

- *To provide for and encourage the safe and economical management of low-level radioactive waste within the five-state compact region; and*
- *To develop regional facilities to accept compatible wastes generated from member states and to have the wastes properly managed at the regional facilities.*

Arkansas' Representation

The Commission has equal representation from its member states and **the contributions required from the states are equitable**. Application fees assessed to generators of the waste that is exported out of the region are set by the Commission and appear to be determined in both an equitable and reasonable way. To date, no disposal facility has been constructed in any of the member states, and we were not made aware of any plans for a facility other than the original proposed site in Butte, Nebraska.

To date, no disposal facility has been constructed in any of the member states of the Commission.

Arkansas' Contributions

Member states of the Commission are required to contribute \$25,000 to the Commission's budget on an annual basis to cover the administrative expenses of the Commission. The Commission also agreed that each non-host member state would contribute \$75,000 annually to a Host Community Improvement Fund.

Arkansas has contributed fees totaling \$400,000 (\$25,000 annually) to the Commission since its inception to fund administrative expenses and \$750,000 to the Nebraska Community Improvement Cash Fund (See **Exhibit I**, page 6).

Benefits Received

The Commission's developer, US Ecology, Inc. (USE) submitted a license application in July 1990 to construct a low-level radioactive waste facility in Butte, Nebraska. In December 1998, the Nebraska Department of Environmental Quality (NDEQ) and the Nebraska Department of Health and Human Services (NDHHS) regulators denied USE's license application. Additionally, in May 1999, Nebraska's legislature passed LB530, withdrawing Nebraska from the Compact. Nebraska's Governor Mike Johanns signed the bill into law, effective August 27, 1999.

At this time, **approximately \$100 million dollars** has been expended on this project, as shown in **Schedule 1**, on page 13 of this report. These funds, primarily financed by the major generators, were expended for pre-licensing costs only. **There has been no actual development of the site. The Commission has joined in a lawsuit with five (5) of the six (6) major generators** (Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Omaha Public Power District, and Wolf Creek Nuclear Operation Corporation of Delaware) **and the developer** (US Ecology, Inc.) **against the State of Nebraska**, alleging that Nebraska did not act in good faith during the licensing process and allowed political interference with the licensing review, thereby illegally tainting it. The case is currently in general discovery, which is expected to be complete by March 2002, and trial is scheduled for three (3) weeks during June 2002. **The financial impact of these events is uncertain at this time** (See **Appendix A** of this report for a timeline of events).

It is the opinion of the Commission's legal counsel that the lawsuit will result in a favorable decision for the Commission. Even if the outcome of the lawsuit is favorable, the case would still have to go through the appeal process and other legal procedures, which would take several years. As a result, if the current license application were approved, the disposal facility would still not be operational until approximately 2008 or 2009.

Other Waste Compacts

Other low-level radioactive waste compacts we contacted assess other types of fees to cover their administrative expense. The types of fees assessed include:

The State of Arkansas has contributed funds totaling \$1,150,000 to the Commission since its inception.

At this time, approximately \$100 million dollars has been expended on this project.

- One (1) time fees ranging from \$50,000 to \$70,000;
- One (1) time fees assessed based on an amount charged per cubic meter shipped in a prior year;
- Fees charged as a condition for approving export petitions to ship waste out of a particular waste compact area; and
- Surcharge rebates remitted to the appropriate compact from a portion of the fees paid by the generators of waste to the disposal facilities.

Arkansas' Alternatives for Waste Disposal

If the proposed low-level radioactive waste disposal facility in Nebraska is not developed, **Arkansas' alternatives for the future disposal of low-level radioactive waste are limited.** Presently most waste generated in Arkansas is being shipped to a site in Barnwell, South Carolina or is being stored on-site by generators of the waste. Effective July 1, 2000, South Carolina joined the Northeast Low-Level Radioactive Waste Compact and as a result, the Barnwell facility will close to non-Atlantic Compact generators at the end of 2008.

Two (2) other facilities may be available in the future to receive and dispose of low-level radioactive waste. These facilities are:

- *U.S. Ecology's disposal site in Richland, Washington; and*
- *Envirocare of Utah, Inc., which as of July 9, 2001 had determined it would not seek legislative or gubernatorial approval for a license for Class B or C radioactive waste disposal at this time due to political opposition.*

If out-of-state disposal options are not available or viable, Arkansas' waste will have to be either temporarily stored on-site by generators of the waste or disposed of within the State of Arkansas. Eventually, Arkansas Nuclear One (ANO) and other large Arkansas radioactive material licensees would run out of storage space. At that time, **additional storage facilities would have to be constructed at significant expense or Arkansas would have to establish a LLRW disposal facility somewhere within its borders.** The establishment of such a site would be very expensive and could be expected to take up to ten (10) years.

If out-of state disposal options are not available or viable, Arkansas' waste will have to be either temporarily stored on-site by the generators of the waste or disposed of within the State of Arkansas

I. **BACKGROUND**

In 1980, Congress enacted the Low-Level Radioactive Waste Policy Act (Public Law 99-240). This Act required each state to be responsible for the low-level radioactive waste generated in their respective state, but encouraged the formation of multi-state compacts to:

- ◆ *Reduce the number of facilities developed nationally;*
- ◆ *Encourage the reduction of low-level radioactive waste; and*
- ◆ *Distribute the costs, benefits and obligations among the party states.*

The Central Interstate Low-Level Radioactive Waste Commission was established in 1983 in the form of an interstate compact among the states of Arkansas, Kansas, Louisiana, Nebraska and Oklahoma. In 1987, Nebraska was selected as the host state for the first facility, and a site was selected near the community of Butte, Nebraska in Boyd County, which is located in north central Nebraska.

Low-level radioactive waste is generated at commercial facilities such as nuclear power plants, hospitals, and research institutions. It includes radioactive materials used in various processes as well as supplies and equipment that have been contaminated with radioactive materials. Low-level waste can include:

- *Resins and filter materials used to clean water at nuclear power plants;*
- *Contaminated hand tools, components, piping, and other equipment from nuclear power plants and other industries;*

- *Research equipment from laboratories where radioactive materials are used;*
- *Shoe covers, lab coats, cleaning cloths, paper towels, etc., used in an area where radioactive material is present;*
- *Containers, cloth, paper, fluids, and equipment which came in contact with radioactive materials used in hospitals to diagnose or treat diseases; and*
- *Filters from sampling devices used to test for airborne radioactive contamination.*

Commercially generated low-level radioactive wastes can be divided into the following four (4) categories:

- *Class A waste contains the lowest concentration of radioactive materials, and most of these materials have half-lives of less than five (5) years;*
- *Class B waste contains the next lowest concentration of radioactive materials, and contains a higher proportion of materials with longer half-lives;*
- *Class C waste has the highest concentration of radioactive material allowed to be buried in a low-level waste disposal facility; and*
- *Greater than Class C waste has a concentration of radioactive materials which exceeds the limits for Class C and is the responsibility of the federal government and must be disposed of in a geologic repository.*

Large quantities of low-level radioactive waste are generated in the production of electricity at Arkansas Nuclear One (ANO). Smaller amounts of radioactive

waste are generated through research and medical activities using radioactive materials. The primary small generators of waste in Arkansas are Arkansas Children's Hospital, the University of Arkansas at Fayetteville, and the University of Arkansas Medical Sciences Campus.

During the past several years the Commission has been involved in litigation several times, and has been successful in defending its legal position. Over \$1,500,000 has been spent on legal fees (according to information provided by the Commission) from fiscal year 1991 through 2000. The most recent and current litigation is summarized below:

- State of Nebraska vs. Central Interstate Low-Level Radioactive Waste Commission (Commission) (United States District Court for the District of Nebraska, Case No. 4:CV963438)

The Commission at a meeting on September 30, 1996, passed resolutions calling for the State of Nebraska to issue its initial draft decision and documents on the license application no later than January 14, 1997, and also calling for a consolidation of the hearing process after the draft decision. The state of Nebraska sued the Commission, claiming that it was entitled to a federal declaratory judgment that the Commission lacks authority to set any schedule for the remainder of the license application review currently underway in the Departments, and that even if it had such authority, the dates set were unreasonable.

On October 15, 1998, Judge Urbom entered judgment in favor of the Commission. Nebraska appealed this decision to the Eighth Circuit Court of Appeals. On Au-

gust 16, 1999, the Eighth Circuit filed an opinion affirming the judgment entered by Judge Urbom.

- State of Nebraska vs. Central Interstate Low-Level Radioactive Waste Commission (Commission) (United States District Court for the District of Nebraska, Case No. 4:CV973267)

In June and July 1997, the Commission approved waste export applications made by a number of major generators of waste. Nebraska's Commissioner voted no on each application, contending that the Compact gives the host state veto authority over all export of waste from the region. On advice of counsel, the Commission determined that Nebraska's claimed veto authority did not apply to the export applications before it, and approved the applications on a 4-1 vote. In mid August 1997, Nebraska sued the Commission, seeking a declaration that the export permits issued by the Commission in June are invalid and that the affirmative vote of the Nebraska Commissioner is required before the Commission can authorize any export of waste from the region.

On November 23, 1998, Judge Kopf issued a memorandum and judgment in favor of the Commission. On December 8, 1998, Nebraska filed a motion for a new trial, which was overruled and then appealed to the Eighth Circuit Court of Appeals. On April 4, 2000, the appellate court affirmed the previous ruling.

- U.S. Ecology, Inc. and Central Interstate Low-Level Radioactive Waste Commission, Contested Case Proceeding over License

Denial (Departments of Environmental Quality and Health and Human Services of Nebraska)

After the Departments of Environmental Quality and Health and Human Services of Nebraska announced their denial of a license on December 18, 1998, U.S. Ecology (USE) filed a contested case proceeding before the two (2) departments, and the Commission intervened as an interested party, with both USE and the Commission seeking a reversal of the license denial. The attorneys for the two (2) departments, however, then filed an answer in which they said the issues of political influence over the license decision could not be decided in this proceeding for lack of subject matter jurisdiction. A preliminary hearing was held before the hearing examiner, former Nebraska Chief Justice C. Thomas White, at which point the Commission announced that the major generators and the Commission would be seeking to enjoin any further proceedings in the contested case hearing because of the limitations being placed on it by the departments. Subsequently, in the lawsuit filed by the major generators and the Commission against the State of Nebraska and others, **see lawsuit below**, U.S. District Judge Richard Kopf entered a temporary restraining order and then a preliminary injunction against the contested case proceedings going any further. That preliminary injunction, entered on April 16, 1999, both halted the contested case hearing and also prevented the State of Nebraska from billing the Commission, USE, or the major generators in any way for the legal costs involved in the contested case proceeding or in the costs of the fed-

eral lawsuit itself. Therefore, at least until trial of the federal case, now expected in 2002, there will be no further action in the contested case proceeding.

The State of Nebraska appealed the preliminary injunction, but the Eighth Circuit Court of Appeals sustained it on April 12, 2000.

- Entergy Arkansas, Inc. [and all other major generators except Nebraska Public Power District] and Central Interstate Low-Level Radioactive Waste Commission and U.S. Ecology vs. State of Nebraska [and several individual defendants] (United States District Court for the District of Nebraska, Case No. 4:98CV3411)

In this case, which was filed by the major generators in late December 1998, the claim was made by those original plaintiffs against the State of Nebraska, the directors of the Departments of Health and Human Services and Environmental Quality, and against the program director for the low-level radioactive waste program, and others, that the licensing proceeding was politically influenced and the denial was invalid. The plaintiffs also named the Commission as a defendant, subject to realignment by the court since the Commission's position was much more likely to be aligned with the plaintiffs than the defendants. The claims by the generators were that the State of Nebraska had denied the civil rights of the plaintiff generators in various respects, and also that the plaintiff generators were essentially intended beneficiaries of the compact between the states, and that bad faith on the part of the State of Nebraska had caused them tremendous dam-

ages. Shortly thereafter, the Commission authorized its counsel to ask the Court to realign it as a plaintiff and essentially join in the claims originally made by the major generators. That has been done. The plaintiffs, including the Commission, moved for a temporary restraining order and then a preliminary injunction against the State of Nebraska and the other defendants, prohibiting them from continuing with the contested case proceeding, and also prohibiting them from trying to charge the costs of any aspect of the low-level radioactive waste activities against the plaintiffs. The allegation was that more than \$75 million had been spent on the project by the original plaintiffs in this action (not including the additional \$20 million spent by the Nebraska Public Power District (NPPD) which has not joined in the case), and that allowing the State to continue charging everything to the plaintiffs was simply a continuation of the bad faith and illegality of Nebraska's approach to its role as the host state.

On April 16, 1999, U.S. District Judge Richard Kopf granted the preliminary injunction, making extensive findings of probable bad faith by Nebraska in a 38 page opinion. The State of Nebraska has appealed the preliminary injunction; the Commission and the State have filed their opening briefs, oral arguments have been held, and on April 12, 2000, the U.S. Court of Appeals affirmed Judge Kopf's decision. This lawsuit is currently in the Discovery phase.

The defendants had also filed a motion with Judge Kopf on similar arguments to dismiss the lawsuit,

largely on the basis of Nebraska's claim of sovereign immunity. Judge Kopf overruled the motion, and this decision was appealed to the Eighth Circuit, where it was upheld. The State of Nebraska asked the U.S. Supreme Court to review the Eighth Circuit's decision, overruling their motion to dismiss on grounds of sovereign immunity. According to the Commission's legal counsel, on October 1, 2001, the U.S. Supreme Court "denied certiorari" on the State of Nebraska's appeal on the sovereign immunity issue and the case will go to trial next year.

II. COMMISSION'S PURPOSE AND OBJECTIVES

The purpose and objectives of the Commission are:

- ◆ *To carry out the mandate of the Central Interstate Low-Level Radioactive Waste Commission Compact by providing for and encouraging the safe and economical management of low-level radioactive waste within the five-state Compact region;*
- ◆ *To provide a framework for a cooperative effort to promote the health, safety, and welfare of the citizens and the environment of the Compact region;*
- ◆ *To select the necessary regional facilities to accept compatible wastes generated in and from party states, and meeting the requirements of the Compact, giving each party state the right to have the wastes generated within its borders properly managed at such regional facilities;*
- ◆ *To take whatever action is necessary to encourage the reduction of*

waste generated within the Compact region; and

- ◆ *To faithfully and diligently perform its duties and powers granted by the Compact.*

III. ARKANSAS' REPRESENTATION

The compact's activities are overseen by the Commission, which consists of:

- *One (1) voting member from each party state (Arkansas, Louisiana, Oklahoma, Kansas);*
- *Two (2) voting members from the host state of Nebraska; and*
- *One (1) non-voting member from the county in which the facility is located.*

There may also be one (1) alternate member from each party state that may act on behalf of the member if said member is absent. Ms. Laura Mack Gilson has been appointed by Governor Huckabee to serve as Arkansas' Commissioner and Bernard Bevill, with the Arkansas Department of Health's Division of Radiation Control and Emergency Management, was appointed as Arkansas' Alternate Commissioner.

In May 1999, Nebraska's legislature passed LB530 withdrawing Nebraska from the Commission. Nebraska's Governor Mike Johanns signed the bill into law, effective August 27, 1999. According to the Public Law 99-240 which established the Commission, unless the withdrawal of a state is unanimously approved by the Commission, "...such withdrawal shall take effect **five-years** after the Governor of the withdrawing

state has given notice in writing of such withdrawal to each Governor of the party states."

IV. ARKANSAS' CONTRIBUTIONS

Each state is to contribute equally to the commission budget on an annual basis, an amount not to exceed \$25,000 until surcharges are available (once a disposal facility is operational). These funds are intended to cover the administrative expenses of the Commission.

The Commission also agreed that each non-host member state would contribute \$75,000 annually to a Host Community Improvement Fund. These funds are to be used for improvements to the area and community surrounding the proposed facility in Butte, Nebraska.

Arkansas' annual \$25,000 payment to the Commission is paid directly by the **Department of Finance and Administration**. The annual \$75,000 payment to the Host Community Improvement Fund is paid out of a **Department of Health** appropriation specifically for this purpose. The State of Nebraska withdrew from the Commission in May 1999, and as a result the Host Community Improvement Fund payment has not been required the past two (2) fiscal years. The Department of Health will continue to receive the appropriation until the lawsuit is settled because potential lawsuits in the future could require the back payment of the Host Community Improvement Fund. As illustrated in **Exhibit I** on the following page, Arkansas has contributed a total of \$1,150,000 to the Commission from the fiscal year ended June 30, 1985 through the fiscal year ended June 30, 2000.

Exhibit I
Central Interstate Low-Level Radioactive Waste Commission
Contributions by the State of Arkansas
July 1, 1984 to June 30, 2000

<i>Fiscal Year</i>	<i>Annual Commission Budget</i>	<i>Nebraska Community Improvements Cash Fund</i>	<i>Total</i>
1984-1985	\$ 25,000	\$ 0	\$ 25,000
1985-1986	25,000	0	25,000
1986-1987	25,000	0	25,000
1987-1988	25,000	0	25,000
1988-1989	25,000	75,000	100,000
1989-1990	25,000	75,000	100,000
1990-1991	25,000	75,000	100,000
1991-1992	25,000	75,000	100,000
1992-1993	25,000	75,000	100,000
1993-1994	25,000	75,000	100,000
1994-1995	25,000	75,000	100,000
1995-1996	25,000	75,000	100,000
1996-1997	25,000	75,000	100,000
1997-1998	25,000	75,000	100,000
1998-1999	25,000	0	25,000
1999-2000	25,000	0	25,000
Total Contributions	\$ 400,000	\$ 750,000	\$ 1,150,000

Source: Copies of warrants & vouchers from the Arkansas Department of Finance and Administration and the Arkansas Department of Health

The Commission also receives funding through the receipt of export application fees. Any entity/generator seeking authorization of the Commission to export waste, which was generated within the region to a location outside the region, is

required to submit an application to export waste along with an application fee adopted by the Commission. The fee schedules for fiscal year 2000 through 2002 are listed in **Exhibit II** on the following page:

Exhibit II Central Interstate Low-Level Radioactive Waste Commission Annual Fee Schedule for Generators of Waste July 1, 1999 to June 30, 2002			
	FY2000	FY2001	FY2002
<u>MAJOR GENERATOR</u>			
Utility Company or 1001 ft ³ (Cubic Feet) or greater	\$ 50,000	\$ 56,000	\$ 170,000
<u>LARGE GENERATOR</u>			
501 - 1000 ft ³	7,000	7,000	21,000
<u>SMALL GENERATOR</u>			
500 ft ³	500	500	1,500
<u>VERY SMALL GENERATOR / Occasional Shipper</u>			
50 ft ³ or less, and only once every three years	125	125	375
Note:	Each generators' classifications is determined based on a projected amount of waste included on their annual export application.		
Source:	Rules of the Central Interstate Low-Level Radioactive Waste Commission - Rule 1 and Amendments		

Six (6) major generators of waste have provided the majority of the funding for the low-level radioactive waste disposal project under an agreement with the Commission. The agreement specifies the project funds provided by the major generators are to be used only to reimburse US Ecology, Inc., the developer of the disposal facility, for those costs in-

curred during the pre-licensing phases of the disposal facility project. The major generators were liable severally, not jointly for their respective allocable shares of the payments. The respective allocable shares established as part of the original contract were:

- *Arkansas Power & Light (Currently Entergy Arkansas)* 20.48%
- *Louisiana Power & Light (Currently Entergy Louisiana)* 16.01%
- *Gulf States Utilities (Currently Entergy Gulf States)* 17.22%
- *Nebraska Public Power District* 16.51%
- *Omaha Public Power District* 13.55%
- *Wolf Creek Nuclear Operation Corporation* 16.23%

Entergy Arkansas' share of the pre-licensing costs incurred from 1988 through 2000 was approximately \$18,680,706.

V. OTHER WASTE COMPACTS

We contacted other compacts to determine the amount of fees assessed to their participating states and other funding received to fund administrative ex-

penses. Their responses are summarized below by compact:

Northeast Interstate Low-Level Radioactive Waste Commission

- *Member states are assessed a one (1) time \$70,000 fee; and*

- *Surcharge rebates are remitted to the commission from a portion of the fees paid by the generators of waste to the disposal facilities.*

Central Midwest Interstate Low-Level Radioactive Waste Commission

- *Member states are assessed a one (1) time \$50,000 fee; and*
- *Surcharge rebates are remitted to the commission from a portion of the fees paid by the generators of waste to the disposal facilities.*

Southwestern Low-Level Radioactive Waste Commission

- *Funding is provided by a fee assessed against the generators of the waste as a condition for approving their exportation petitions. The fee was originally set at \$50 or \$1.25 per cubic foot of the estimated final disposal volume, whichever is greater. In 2001 the fee was increased to the greater of \$55 or \$1.35 per cubic foot.*

Midwest Interstate Low-Level Radioactive Waste Commission

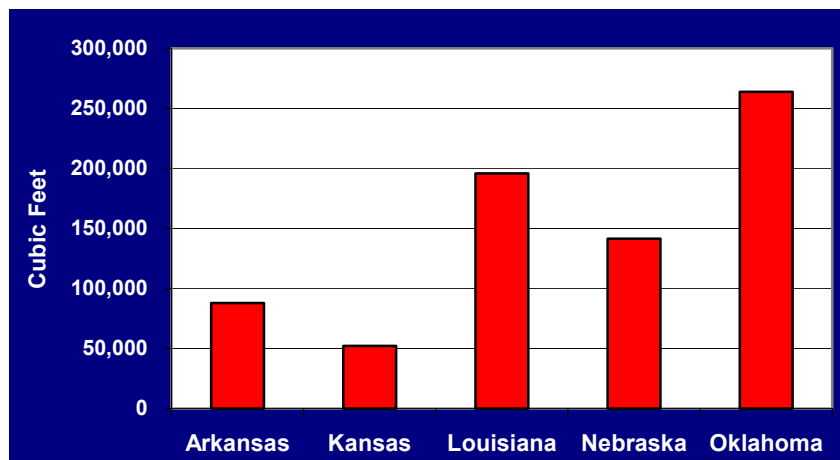
- *Member states are assessed a one (1) time fee of \$50,000 or a \$1,000 per cubic meter shipped from that state in 1980, whichever is lower; and*
- *Interest earned on surcharge rebates.*

VI. EQUITY OF CONTRIBUTIONS

As noted before, each member state of the Commission is to contribute an equal amount to the Commission budget on an annual basis according to the Compact. The Commission also agreed that each non-host member would contribute equally to a Host Community Improvement Fund.

Although state governments contribute equally to the Commission, waste production varies from state to state. The volume of low-level waste sent to disposal facilities by generators of the waste from each member state for the period January 1, 1986 through June 30, 2001 is illustrated in **Exhibit III** below:

**Exhibit III
Central Interstate Low-Level Radioactive Waste Commission
Volume (Cubic Feet) of Low-Level Waste Sent to Disposal Facilities
January 1, 1986 through June 30, 2001**

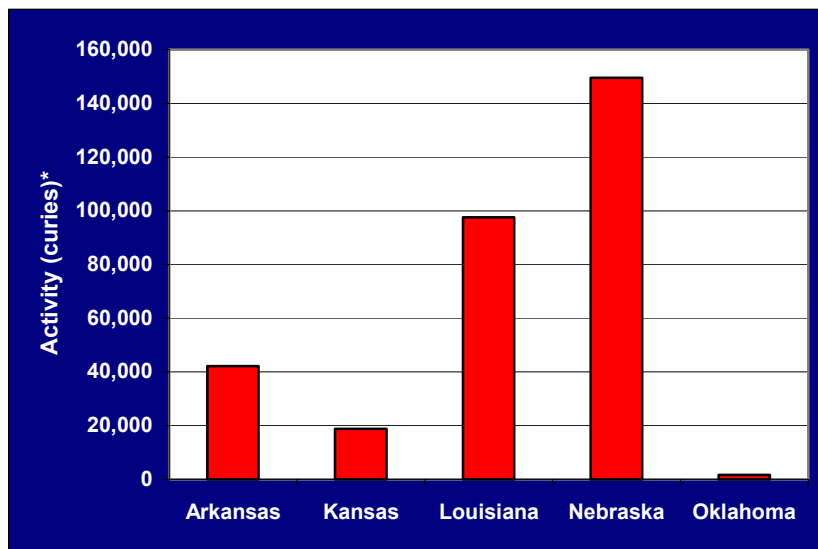


Source: The Idaho National Engineering & Environmental Laboratory's Environmental Technology Planning and Integration web site (<http://mims.inel.gov/web/owa/mimsrpts>).

Based on the cubic feet of low-level waste exported for the period January 1, 1986 through June 30, 2001, the State of Oklahoma has exported the most low-level waste of the member states, in excess of 263,000 cubic feet. Kansas exported the least amount for this same period, approximately 52,000 cubic feet.

The amount of waste processed can also be measured by the amount of activity (curies) or radiation present in the waste. The amount of waste processed based on the amount of activity is illustrated in **Exhibit IV** below:

Exhibit IV
Central Interstate Low-Level Radioactive Waste Commission
Activity (Curies) of Low-Level Radioactive Waste Sent to Disposal Facilities
January 1, 1986 through June 30, 2001



Note *: Activity (Curies) refers to the quantity of radiation that is present in the waste.

Source: The Idaho National Engineering & Environmental Laboratory's Environmental Technology Planning and Integration web site (<http://mims.inel.gov/web/owa/mimsrpts>).

Based on the amount of activity or radioactivity of the processed waste exported for the period January 1, 1986 through June 30, 2001, the State of Nebraska exported the highest amount of low-level waste for this period, approximately 149,000 curies. For this same period, the State of Oklahoma, with approximately 1,657 curies, exported the least amount of waste.

Although the member states benefit from having the option to export low-level waste to out-of-state disposal sites, the generators of the waste, such as

utility companies and hospitals, within each state actually pay the application fees to the Commission for the disposal of waste outside of the compact region. As noted earlier, any generator of waste seeking authorization from the Commission to export waste outside of the compact region must submit an application fee as adopted by the Commission (See **Exhibit II**, page 7).

Due to several factors it would be difficult to determine if any individual state or states are receiving more or less

benefits over a period of time. These factors include:

- *Fluctuations in the amount of waste produced each year;*
- *Uncertainty surrounding the number of generators each year; and*
- *Uncertainty concerning the status of generators (i.e. major, large, small, or very small) from year to year.*

Based on the fee schedule established by the Commission, the generators producing the most waste will pay more fees. Generally, states in which more waste is produced will have more generators. As a result, the generators of waste in these states will pay more export application fees to have waste disposed of outside of the compact region. Considering the many factors involved, this appears to be an equitable way to

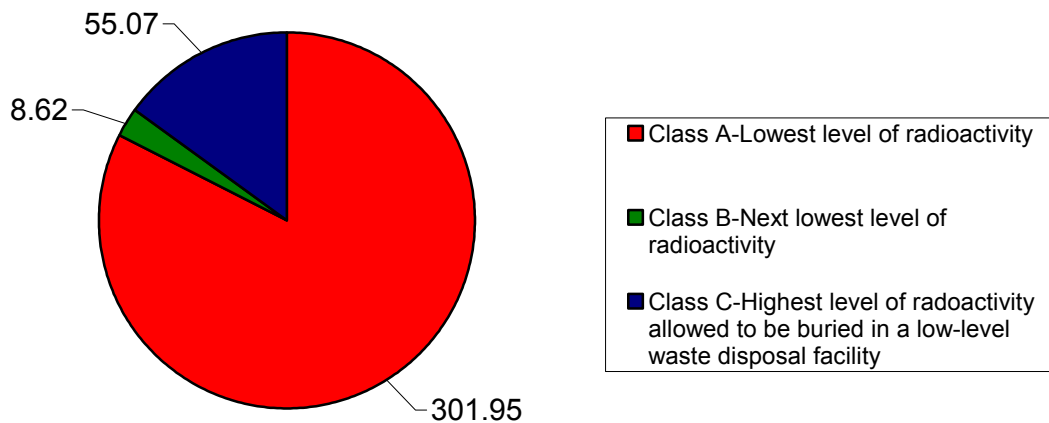
determine contributions for the generators of the waste.

VII. ARKANSAS' ALTERNATIVES FOR WASTE DISPOSAL

Arkansas' alternatives for future Low-Level Radioactive Waste (LLRW) disposal are limited. Currently, **most waste generated in Arkansas is being shipped to a site in Barnwell, South Carolina**, or the generators of the waste are storing it on-site. Future disposal at the Barnwell site is not guaranteed. Effective July 1, 2000, South Carolina joined the Northeast LLRW Compact and as a result, the **Barnwell facility will close to non-Atlantic Compact generators at the end of 2008.**

In 1998, the disposal facility at Barnwell received 365.64 cubic feet of low-level radioactive waste from generators in Arkansas. **Exhibit V** below illustrates a breakdown of this waste by categories (waste class):

Exhibit V
Low-Level Radioactive Wastes (Cubic Feet) Sent By Arkansas Waste Generators to Disposal Facility at Barnwell, South Carolina For the Year 1998



Source: Idaho National Engineering & Environmental Laboratory's Environmental Technology Planning and Integration web site (<http://mims.inel.gov/web/owa/mimsrpts>).

Currently, the only other site that can receive and dispose of Class B and C low-level radioactive waste is U.S. Ecology's site located in Richland, Washington. Envirocare of Utah, Inc., currently operates a site in Utah that receives Class A waste and was pursuing approval for a license to receive and dispose of Class B and C containerized low-level radioactive waste. As of July 9, 2001, Envirocare determined it would not seek legislative or gubernatorial approval for Class B and C radioactive waste disposal at this time due to political opposition.

If out-of-state disposal options are not available or viable, Arkansas' waste will have to be either temporarily stored on-site by generators of the waste or disposed of within the State of Arkansas. Eventually, Arkansas Nuclear One (ANO) and other large Arkansas radioactive material licensees will run out of storage space. At that time, **additional storage facilities will have to be constructed at significant expense or Arkansas will have to establish a LLRW disposal facility somewhere within its borders.** The establishment of such a site would be very expensive.

According to the Public Information Director for Chem-Nuclear Systems, LLC (the operator of the disposal facility in Barnwell, South Carolina), the costs for developing the Barnwell site (licensed in 1971) are irrelevant today because so much has changed in the last 30 years.

A better way to estimate the cost of a disposal site would be to use information from the compacts that have more recently been working on site development. The example given was that of the Southeast Compact, which spent approximately four (4) years going through the process of selecting and qualifying a site for the facility and preparing the license submittal to be sub-

mitted to the State of North Carolina. It was expected that the license review would take about six (6) years. The Southeast Compact spent approximately \$112 million through January 1999, and expected to spend a total of \$139 million excluding construction costs. The estimated total cost including construction is \$216 million. Development of the proposed waste disposal facility in North Carolina has been delayed since December of 1997 when the North Carolina Low-Level Radioactive Waste Authority began a shutdown of the project after a funding dispute with the Southeast Compact Commission.

If out-of-state disposal options are not available in the future, Arkansas could expect to spend over \$200 million on the development and construction of a facility that could take ten (10) or more years to get licensed. **If the estimate of ten (10) years to get a disposal facility licensed held true, Arkansas would not have enough time to get a facility operational before the Barnwell facility closes to non-Atlantic Compact generators at the end of 2008.**

The United States General Accounting Office (GAO) issued a report in September 1999, GAO/RCED-99-238 States' Disposal of Low-Level Wastes, which addressed the issue of states not developing low-level radioactive waste disposal facilities. As of the date of their report, the GAO found that states, acting alone or within compacts, had collectively spent approximately \$600 million over the last eighteen (18) years attempting to locate and develop about ten (10) sites for disposing of commercially generated low-level radioactive wastes. **None had been successful.**

The GAO report also discussed **alternative approaches** to managing low-level radioactive wastes. Among the disposal

alternatives available to the Congress are:

- *Retaining the compact approach;*
- *Repealing the compact act to remove the compact's authority to impose restrictions on the import and export of low-level radioactive wastes; or*
- *Make the U.S. Department of Energy responsible for disposing of both its own and commercially*

generated low-level radioactive wastes.

To be successful, GAO states, “...**any of these approaches would have to address the willingness of any state or states to serve as host for a disposal facility.**” The GAO report states the key factor in the states lack of success in developing facilities appears to be the unwillingness of states to vigorously pursue their development programs.

Central Interstate Low-Level Radioactive Waste Commission
Project Costs
For the Seventeen (17) Year Period Ended June 30, 1999

Summary of Project Costs	Prior Years ¹	FY 94-95	FY 95-96	FY 96-97	FY 97-98	FY 98-99 ²	Total
<i>Paid to US Ecology:</i>							
<i>Direct & Indirect Costs</i>	\$ 10,950,598	\$ 2,122,286	\$ 1,162,611	\$ 1,085,363	\$ 1,238,615	\$ 729,356	\$ 17,288,829
<i>Subcontracts</i>	38,779,180	3,279,009	1,034,527	1,092,732	1,963,372	1,337,591	47,486,411
<i>Local Monitoring Committees</i>	700,000	100,000	100,000	100,000	100,000	0	1,100,000
<i>Host State License Review</i>	11,406,311	4,335,358	3,548,921	4,121,888	4,480,442	1,877,083	29,770,003
<i>Subtotal</i>	\$ 61,836,089	\$ 9,836,653	\$ 5,846,059	\$ 6,399,983	\$ 7,782,429	\$ 3,944,030	\$ 95,645,243
<i>CIF³ Distribution through NDEQ⁴</i>	1,500,000	300,000	300,000	600,000 ⁵	0 ⁵	300,000	3,000,000
<i>Federal Rebate Funds⁶ Expenditures</i>	952,818	67,631	54,357	115,543	125,431	0	1,315,780
Total Costs	\$ 64,288,907	\$ 10,204,284	\$ 6,200,416	\$ 7,115,526	\$ 7,907,860	\$ 4,244,030	\$ 99,961,023

Note ¹ : Only summary data was available prior to fiscal year 94-95.

Note ² : This was the latest information that was available.

Note ³ : CIF = Community Improvement Fund

Note ⁴ : NDEQ = Nebraska Department of Environmental Quality

Note ⁵ : \$600,000 was paid in FY 96-97, \$300,000 of it covers FY 97-98

Note ⁶ : Generators of waste were assessed a surcharge for using other disposal sites by the Department of Energy, of which 25% was sent back to the Commission

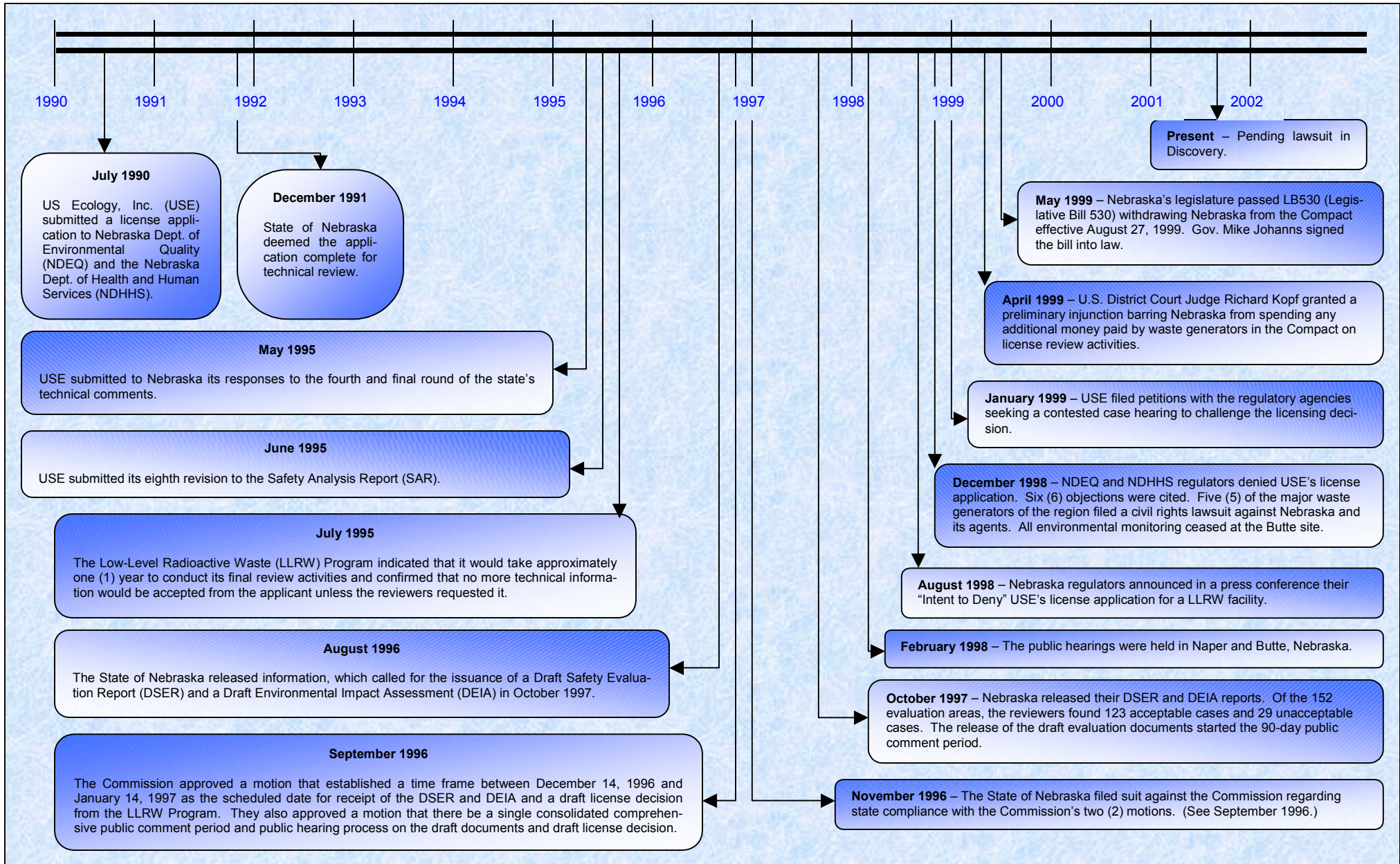
Rebate funds can only be spent to:

1. Establish low-level radioactive waste (LLRW) disposal facilities;
2. Mitigate the impact of LLRW disposal facilities on the host state;
3. Regulate LLRW disposal facilities; or
4. Ensure the decommissioning, closure, and care during the period of institutional control of LLRW disposal facilities.

Source: Annual Reports of the Central Interstate Low-Level Radioactive Waste Commission

Appendix A

Timeline of Events



Source: 1999-2000 Annual Report of the Central Interstate Low-Level Radioactive Waste Commission