

**REVIEW OF TRANSPORTATION REGULATIONS AND
FEES ASSOCIATED WITH THE TRANSPORT OF
HIGH-LEVEL NUCLEAR WASTE: POTENTIAL
FOR FEE ASSESSMENT IN NEVADA**

Prepared For:

**Board of Lincoln County Commissioners
P.O. Box 90
Pioche, Nevada 89043**

and

**Board of White Pine County Commissioners
801 Clark Street #4
Ely, Nevada 89301**

Prepared By:

**Intertech Services Corporation
P.O. Box 2008
Carson City, Nevada 89702**

December 2003

Introduction

The Nuclear Waste Policy Amendments Act of 1987 directed the U.S. Department of Energy (DOE) to characterize the Yucca Mountain site in Nevada to determine its suitability as the location of a permanent repository for disposing of SNF/HLRW (SNF/HLRW). The Act also authorized the Secretary of Energy to designate Nye County and any county contiguous thereto as “affected” by the Yucca Mountain repository program. Lincoln and White Pine counties were subsequently designated by the Secretary of Energy as affected units of local government.

The DOE’s Final Environmental Impact Statement for the Yucca Mountain Repository System (DOE 2002) indicated that Interstate 15 to U.S. 95 to the Yucca Mountain site is the only highway route currently allowed under requirements of the Hazardous Material Transportation Uniform Safety Act of 1990 (HMTUSA). In addition, the FEIS evaluated alternative rail corridors through Lincoln County, including a rail-to-truck intermodal facility at Caliente. Alternative routes may be designated by a state’s governor. The State of Nevada’s Department of Transportation has identified two highway routes (U.S. 93 to U.S. 6 and U.S. 93 to U.S. 6 to S.R. 318 to) through Lincoln and White Pine counties as candidates for designation by Nevada’s Governor (Adrilla-Coulsen 1989). Said routes would enable SNF/HLRW shipments through Nevada to avoid the Las Vegas metropolitan area. At the urging of Nevada’s Governor, DOE has encouraged its carriers of low-level radioactive waste (LLRW) destined for the Nevada Test Site to use the U.S. 93 to U.S. 6 route through White Pine County. In addition, DOE carriers have been using S.R. 319 to U.S. 93 to S.R. 375 in Lincoln County to transport shipments of LLRW. In recent years, several hundred shipments of LLRW have utilized highways in Lincoln and White Pine counties.

Within Nevada, first response activities to protect citizens, property, and the environment are primarily the responsibility of local governments and to a more limited degree, state agencies. This is also true for accidents involving shipments of SNF/HLRW. Therefore, local emergency response personnel in Lincoln and White Pine counties have primary responsibility for responding to radioactive waste shipment accidents.

In recognition of the important role that local and state emergency first responders would have in regard to an accident involving spent nuclear fuel or high-level radioactive waste, Congress enacted Section 180 (c) of the Nuclear Waste Policy Act providing technical assistance and funding to states to provide adequate local and state emergency first response to accidents involving shipments of SNF/HLRW. DOE has indicated that it will begin providing Section 180(c) funding three years prior to the first shipment to the Yucca Mountain site.

Section 180 (c) funds must be appropriated annually by the Congress. In addition, such funds will not be provided by DOE directly to local governments but to the State of Nevada through a competitive process with other states. The State of Nevada would presumably then grant funding to several counties including Lincoln and White Pine. The counties are concerned that Section 180 (c) funding may not be an adequate, stable and reliable source of funding necessary to develop and sustain emergency first response capabilities needed to respond to accidents involving shipments of SNF/HLRW.

This report considers the potential for annual and per-shipment fees to be levied by the State of Nevada on all carriers and shipments of SNF/HLRW to serve as an effective supplement to federal Section 180(c) funding for training and equipping of local emergency first responders. This document is based on a review of the document, “The Role of Local and State Governments in Radioactive Waste Transportation Safety”, submitted by Urban Environmental Research (UER) to Clark County in February 2003. This report provides an analysis of fees charged across the United States by states for the SNF/HLRW and estimates the range of fees possible in Nevada. Fees collected in Nevada may be a source of funding for local emergency first response training and equipment and may therefore aide Lincoln and White Pine counties in mitigating risks of SNF/HLRW shipments through their respective counties.

Spent Nuclear Fuel/High-Level Radioactive Waste Transportation Responsibilities

SNF/HLRW transport is managed jointly by the Department of Transportation (DOT), the Nuclear Regulatory Commission (NRC) and the DOE. DOE is responsible for ensuring compliance with DOT and NRC regulations. DOE is required to comply with all applicable state laws that are not preempted by federal law and will provide financial and technical assistance for emergency response training to states and Indian tribes. Technical and financial assistance are also provided by the Federal Emergency Management Agency (FEMA) and the Environmental Protection Agency (EPA). The Department of Labor’s Occupational Health and Safety Administration (OSHA) is also involved with governing the transport of SNF/HLRW. It is important to understand the extensive role of the federal government in determining appropriate compensation as each level of government requires there be a collaborative and interactive management program. It is Lincoln and White Pine’s

challenge to affectively self-advocate and establish their role in this process for the safety of their constituents. Effective program management requires appropriate compensation.

Existing Fee Structures

The ability to set fees is supported by the UER report as it indicates states and local jurisdictions “can seek to minimize adverse impacts from SNF/HLRW transport within the constraints that any additional requirements do not interfere with the flow of interstate commerce”. The UER document notes there are presently over 500 state laws and regulations that affect SNF/HLRW shipments and twenty-five states have existing permit or user fees. The fees are noted to assist in defraying some of the costs for emergency preparedness, emergency response, enforcement and carrier education. The basis of these fees, assessment of risk and fee usage is not clearly defined in the UER report and would require further research for such determination.

The UER document also indicates, “fees must meet the fairness test under the dormant commerce clause found in *Evansville*.” The fairness test has three components: fees must be based on a fair approximation of use; they cannot be excessive when compared to the benefit derived and they cannot discriminate against interstate commerce. It is of special interest to Lincoln and White Pine counties that the document also states, “Current fee levels fall short of defraying all the costs to the state and local governments associated with the unfunded mandate that results from radioactive material”. Hence, the important role that Section 180 (c) funding may play, in augmenting funds generated by a State of Nevada regulatory fee system. A summary of permit fees currently in existence across the United States is provided in Table 1.

Table 1
Permit Fees Per Truck/Rail Shipments

<u>Truck Shipments</u>		<u>Rail Shipments</u>	
CO	\$200	CO	\$200
CT	\$25	CT	\$25
GA	\$25	GA	\$25
ID	\$5	ID	\$5
IN	\$1000	IN	\$1000 (\$2000 is being proposed)
IL	\$2500 + \$25/mi >250mi	IL	\$4500/\$3000 +\$25/mi >250mi
(KS	\$1000	KS	\$2000 - pending)
MN	\$1000	MN	\$1000
NV	\$150	NV	\$150 + actual costs of investigation
NH	\$5	NH	\$5
NM	\$75	NM	\$75
NY	\$25/\$5 - \$300 max	NY	\$25/\$5 - \$300 max
OR	\$70 (or \$500 permit fee)	OR	\$70 (or \$500 permit fee)
PA	\$1000	PA	\$1000
TN	\$1000 (\$2000 pending)	TN	\$2000
VT	\$1000	VT	\$1000
WY	\$200	WY	\$200

Permit/Registration Fees Other Than Per Truck/Rail Shipment

CA	\$100; \$75 per renewal
CO	\$500
FL	\$100 (for LLNW)
GA	\$100
KY	\$25
MN	\$50
MS	\$2500
NV	\$500
NM	\$250
OH	\$600 +\$50 registration
OR	\$500 (or \$70 per shipment)
PA	\$10 per truck turnpike fee
SC	\$75/\$750 (based on level of radioactivity)
TN	(\$500 pending)
WV	\$50

Source: Urban Environmental Research, The Role of Local and State Governments in Radioactive Waste Transportation Safety, prepared for Clark County, Nevada, February 2002

In addition, Maine, Maryland, New Jersey and Rhode Island also require permits (the cost of the permits are not included in the UER report) and Georgia, Nebraska, New Hampshire and Wisconsin are working to have state legislation passed which allow for permit and fees for the transport SNF/HLRW.

An overview on existing fees (see Table 1) indicates that Illinois maintains the highest fee per shipment (truck cask - \$2500 and rail cask - \$4500 for the first cask and \$3000 for each additional cask plus a surcharge of \$25 per mile for all shipments over 250 miles) and Mississippi has the highest permit fee (\$2500). Table 2 lists fees in descending order. As shown in Table 2, fees in Nevada are 9th out of the 16 states with established fees per truck.

Table 2
Fees Per Truck Shipment Listed in Descending Order

IL	\$2,500
VT	\$1,000
TN	\$1,000
PA	\$1,000
MN	\$1,000
IN	\$1,000
WY	\$200
CO	\$200
NV	\$150
NM	\$75
OR	\$70
NY	\$25
GA	\$25
CT	\$25
NH	\$5
ID	\$5

Table 3 is a descending table of fees per rail shipments and ranks Nevada 9th out of the 16 states with established fees per rail shipment.

Table 3
Fees Per Rail Shipment Listed in Descending Order

IL	\$4,500
TN	\$2,000
IN	\$1,000

MN	\$1,000
PA	\$1,000
VT	\$1,000
CO	\$200
WY	\$200
NV	\$150
NM	\$75
OR	\$70
CT	\$25
GA	\$25
NY	\$25
ID	\$5
NH	\$5

Table 4 shows permit fees in descending order and ranks Nevada 5th out of the 14 states with established permit fees.

Table 4
Permit Fees Listed In Descending Order

MS	\$2,500
SC	\$750
OH	\$600
CO	\$500
NV	\$500
OR	\$500
NM	\$250
CA	\$100
FL	\$100
GA	\$100
MN	\$50
WV	\$50
KY	\$25
PA	\$10

Potential SNF/HLRW Transportation Fees In Nevada

The DOE's FEIS predicts a total of 53,000 legal-weight truck shipments and 300 rail shipments for the mostly legal-weight truck scenario and about 9,600 rail and 1,100 legal-weight truck shipments for the mostly rail scenario. It is estimated transportation activities will occur over 24 years. During this period, annual truck shipments of about

2,200 and 13 rail in the mostly legal-weight truck scenario and about 400 rail, 45 truck in the mostly rail scenario have been estimated by DOE.

Utilizing Nevada's current fee for both truck and rail of \$150 per shipment, total revenue of \$7,995,000 for the mostly truck scenario (53,000 truck and 300 rail) and \$1,605,000 for the mostly rail scenario (9,600 rail and 1,100 truck) would be expected during the 24-year shipping campaign. On an annual basis, application of Nevada's current fees would generate an estimated \$333,125 per year for the mostly truck scenario (2,200 truck and 13 rail shipments) and \$66,875 per year under the mostly rail scenario (400 rail and 45 truck shipments).

Applying the maximum fee level identified in the UER study of \$2,500 per truck shipment and \$4,500 per rail shipment yields an estimated \$132,500,000 for truck shipments and \$1,350,000 for rail shipments for a total of \$133,850,000 under the DOE's mostly truck scenario during the 24-year transportation initiative. For DOE's mostly rail scenario, assessing the highest fees identified in the UER report would generate \$4,320,000 in rail fees and \$2,750,000 in truck fees, for a total of \$7,070,000 over the life of the shipping campaign. Use of the maximum fees identified in the UER report would, therefore, generate an estimated \$5,577,083 per year in the mostly truck scenario (2,200 truck and 13 rail) and \$294,583 per year in the mostly rail scenario (400 and 45 truck).

Given the likely need to fund emergency first response capabilities at both the state and local levels, it is unlikely that the revenues generated under Nevada's current fee structure would be adequate on an annual basis. An increase in fees commensurate with the highest fees identified in the UER report would provide Nevada and her affected counties with significantly greater levels of funding.

References

Adrilla-Coulsen, Maria, et. al., The Statewide Radioactive Materials Transportation Plan: Phase II, prepared for Nevada Department of Transportation, University of Nevada, College of Engineering, Reno. 1989

Urban Environmental Research, The Role of Local and State Governments in Radioactive Waste Transportation Safety, prepared for Clark County, Nevada, February 2002.

U.S. Department of Energy, Final Environmental Impact Statement for a Geologic Repository at Yucca Mountain, Nye County, Nevada, Office of Civilian Radioactive Waste, Washington, D.C., 2002.