

THE LOW-LEVEL RADIOACTIVE WASTE POLICY AMENDMENTS ACT OF 1985  
AN OVERVIEW

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ABSTRACT

The recently enacted Low-Level Radioactive Waste Policy Amendments Act of 1985, which provides consent to the Regional Compacts, establishes a new regional system for the disposal of LLRW which, for all practical purposes, puts the Governors of South Carolina, Washington and Nevada in control of access to the currently operating disposal facilities. The primary intent of the Act and the Regional Compacts is to stimulate the development of new disposal capacity. In addition it directs the Nuclear Regulatory Commission (NRC) to provide guidance and specific regulations for alternative disposal technologies and "below regulatory concern" waste streams; and establishes a definition for LLRW which will be accepted at commercial disposal sites.

INTRODUCTION

The recently enacted Low-Level Radioactive Waste Policy Act Amendments of 1985 (PL 99-240), which provides the conditions of consent to the Regional Low-Level Radioactive Waste Compacts and includes the Regional Compacts, establishes a completely new "regionalized" system for the disposal of radioactive waste. The Consent provisions of this law establish: a definition for what is low-level radioactive waste (LLRW); what LLRW will be accepted at the currently operating facilities; an allocation priority for the acceptance of LLRW at the currently operating facilities; surcharges and penalty fees to be paid by generators who reside in regions or states without disposal facilities; a set of milestones regarding the development of new disposal sites within those states or regions without such facilities; requirements for the development of standards for LLRW which is "below regulatory concern"; and, the development of regulatory guidance for the licensing of alternative disposal technologies.

Two critical aspects of this legislation are that access to the currently operating disposal facilities is completely in the hands of the Governors of the sited-states and that post-January 1, 1993, the disposal of radioactive waste will be conducted on a regional basis.

DEFINITIONS OF LOW LEVEL RADIOACTIVE WASTE

Low Level Radioactive Waste (LLRW)

LLRW for the purposes of this Act is defined as waste "not classified as HLW or spent nuclear fuel (as defined in Section 2 of the Nuclear Waste Policy Act) or by-product material (as defined in Section 11(e)(2) of the Atomic Energy Act as in effect on January 1, 1982) and waste that NRC "consistent with existing law, classifies as [LLRW]."

State Responsible LLRW

LLRW for which the states, either alone or within compacts, must provide disposal capacity for is limited to:

- o class A, B or C radioactive waste as defined by Section 61.55 of Title 10, Code of Federal Regulations, as in effect on January 25, 1983;

- o LLRW generated by the federal government that is not generated or owned by the DOE, or is the result of the decommissioning of US Navy submarines or the result of any research and development testing or production of any atomic weapon.

A regional disposal facility is also not required to accept for disposal any material "identified under the Formerly Utilized Sites Remedial Action Program."

Federal Responsible LLRW

The Federal Government is given the responsibility for all waste not the responsibility of the states. Any such waste designated as a federal responsibility and resulting from "activities licensed by NRC" must be disposed of in an NRC licensed facility. This eliminates the possibility of having orphan waste. By January 15, 1987 the DOE is required to submit a report on the management of all federal waste.

To avoid the possibility that a state with an operating facility may try to transfer LLRW that has been accepted at a disposal facility, but with the enactment of this law becomes a federal responsibility, language is included that prohibits the transfer of this waste to a federal facility. The Act would also prohibit, until Congress reviews DOE's report, the disposal of waste in a federal facility that has not been formerly placed in such a facility.

LIMITATIONS ON COMPACT AUTHORITY

The limitations on compact authority specify that no new authority is conferred upon any compact commission or state:

- o to regulate the packaging or transportation of low-level radioactive waste in a manner inconsistent with the regulations of the NRC or DOT;
- o to regulate health, safety, or environmental hazards from source material, byproduct material, or special nuclear material;
- o to inspect the facilities of a licensee of the NRC;
- o to inspect security areas or operations at the site of the generation of any low-level radioactive waste by the Federal Government; or

- o to require indemnification beyond the provisions of the Price-Anderson Act.

## INTERREGIONAL ACCESS

### Overview

The Act provides for interregional access to currently operating disposal facilities over a seven-year transition period. Unsited states or regions are required to meet specific milestones leading toward new site development in order to maintain site access. Grace periods are provided if a state or unsited region fails to meet an intermediate milestone. The fourth milestone set for January 1, 1992, requires an unsited region or state to file an application for NRC license for a disposal facility or possibly agree to pay a penalty surcharge of up to three times the maximum surcharge, or \$140 per cubic foot, or be denied access to a currently operating facility. The final 1996 drop-dead date requires that a state or region have a disposal facility, or take possession of a generator's LLRW and assume liability for not having a disposal facility.

NRC is given the authority to set access conditions for a specific generator in the case of a public health emergency. A state or compact that provides emergency access to a regional facility is entitled to reciprocal access to a facility in the region or state that is granted such access.

A set aside volume allocation program for unusual volumes of utility waste, is established under the auspices of the Secretary of Energy.

A transitional period surcharge rebate program is established that provides for a 25% rebate to states or regions meeting the milestones. A post-transitional 25% rebate, to be paid directly to the generators who reside in states that do not have a disposal facility or have not taken possession and title of LLRW generated in their region, is set up.

### The Transition Period

The period during which generators in unsited states/regions will be granted limited access to disposal capacity at currently operating LLRW burial facilities is specified as seven years (1/1/86 - 12/31/1992) and broken into two parts -- a four year transition period (1/1/86 - 12/31/89) and a three year licensing period (1/1/90 - 12/31/92). A three year penalty period (1993-1996), under which the generators in states or regions that fail to develop a disposal facility or fail to take title and possession of waste are to receive rebates, is established.

In order for generators from unsited states/regions to maintain access during the period without being penalized, the region/state must meet specific milestones with regard to the development of new disposal facilities.

### Availability of Existing Disposal Capacity

General Concepts Each operating disposal facility is required to make available disposal capacity to LLRW generators from unsited states/regions up to a maximum volume cap that is specified for the seven year transition period, and for each calendar year. Any one of the three sites can deny access in any given year once the annual allocation cap has been met. In the event that all three sites reach their annual caps in any given year, the cap is to be raised in ten percent increments for all three sites for that calendar year.

Disposal capacity that would be available at the three currently operating sites to utility generators in unsited regions is specified. The allocation is based on whether the power reactor is a PWR or BWR, whether it is in a sited or unsited region, and its start-up date. Non-utility generators are allowed access without a specified allocation limit, but their wastes are included in the volume caps set for all three sites.

Individual Facility Volume Caps The caps that set the maximum volume of LLRW that is required to be accepted by the currently operating disposal facilities over the entire seven year transition period (1/1/86 - 12/31/92) are:

Barnwell, SC	- 8,400,000 cu.ft.
	1,200,000 cu.ft. per calendar year
Richland, WA	- 9,800,000 cu.ft.
	1,400,000 cu.ft. per calendar year
Beatty, NV	- 1,400,000 cu.ft.
	200,000 cu.ft. per calendar year

There is no provision directing the three states in which the sites are located to establish the manner in which each will accept out-of-region waste. This is left open to the marketplace.

Available Utility Disposal Capacity The allocation of total available disposal capacity to utility nuclear power reactors is specified separately for the four year transition (1/1/86 - 12/31/89), and the three year construction and licensing period (1/1/90 - 12/31/92). The allocation is for the entire period and not on an annual basis. It is calculated for each period by multiplying a monthly allocation (see Table I below) by the number of months the reactor is in operation.

TABLE I

Reactor Type	4 Year Transition		3 Year Licensing	
	Sited	Unsited	Sited	Unsited
PWR	1027	871	934	685
BWR	2300	1951	2091	1533

The total number of months of operation is to be computed beginning with the "first month of the applicable period or the sixteenth month after receipt of a full power operating license, whichever occurs later."

The allocations to individual reactors during each period can be used at the discretion of the owner. An unused allocation from the four year transition can be used during the final three year period. Reactor operators may also "assign" disposal capacity to a person for "valuable consideration." This means that a utility can assign an allocation to a utility or a non-utility generator or a third party.

According to all the legislative history (Committee hearings, reports), the transfer of allocation capacity was intended to be between generators who were located in regions or states that were in compliance with the site development milestones stipulated in the Act. However, due to a technical error in drafting, the Act signed by the President allows the transfer of allocations between different regions but does not prohibit the transfer of an allocation from a region or state in compliance with the milestones to one not in compliance. This oversight is expected to be corrected by adopting technical amendments to the Act during this session of Congress.

Disposal credits assigned or exchanged between generators must be honored by site operators (host states) on a volume basis without regard to waste type or class. Host states are given the option of reassigning disposal credits among the operating facilities.

Additional Utility Allocations

Recognizing that unusual circumstances may occur at a reactor that would warrant a LLRW volume allocation beyond that provided, a process is established whereby a specified waste volume capacity -- 800,000 cubic feet -- is set aside for use by the utilities for unusual situations for the entire period (1/1/87 - 1/31/92). This allocation process is in the hands of the Secretary of Energy. According to the Act the Secretary may, upon petition by the owner or operator of any commercial nuclear power reactor, allocate the additional reactor disposal capacity in excess of the amount allowed, if the Secretary finds and states in writing his reasons for so finding that making additional capacity available for such reactor through this paragraph is required to permit unusual or unexpected operating, maintenance, repair or safety procedures.

Access Conditions

Generators in unsited regions will maintain access to currently operating disposal facilities during the entire transition if the unsited regional compact/state meets certain site-development milestones relative to developing new disposal capacity. If the milestones are not met access may be denied. If milestones are met a 25% rebate of the surcharges is provided. These milestones are:

- 7/1/86 A non-compact state must ratify a compact, or enact legislation or have the governor certify that it is the state's intent to develop a LLRW site;
- 1/8/88 The unsited region must select a state to host a disposal facility and or have selected a developer of a site and the site to be developed, and the selected host state (or compact region) or non-member state is to have a siting plan that provides details on the siting schedule and the preparation of a license application.
- 1/1/90 A complete license application for a disposal facility must be filed by either the unsited compact, or a non-compact, unsited state, or the Governor of an unsited state in an unsited region must provide written certification to the NRC that the state will provide storage or disposal capacity for waste generated in the state when access to currently operating facilities terminates on Dec. 31, 1992, and provides a contingency plan on how this commitment will be fulfilled.
- 1/1/92 A complete license application for a disposal facility must be filed by either an unsited compact, or a non-compact unsited state, or the Governor of the state with a currently operating facility may require generators from unsited regions or states to pay a surcharge of up to three times the \$40 surcharge, for a total surcharge of \$120 per cubic foot, for continued access.
- 1/1/93 If an unsited state or compact is unable to provide disposal capacity, the unsited

state must, upon request of a generator, take title, possession and assume all liability for the generator's waste; or

If the state elects not to take title, 25% of the surcharges paid by the generator from 1/1/90 - 12/31/92 are to be rebated to the generators in that state. This, of course, is the end of the transition period and the sited compacts have the right to prohibit the import or export of waste in to or out of their respective regions.

Grace periods are allowed for each of the intermediate milestones. For the 1986 milestone a six-month grace period is set during which time generators are to be assessed a penalty of twice the ordinary surcharge. A year grace period, broken into two six months phases, is set for the 1988 milestone. The penalty surcharge for the first six months is twice the applicable surcharge, for the second six months it goes up another factor of two. No grace period is allowed for the 1990 milestone, access may be denied immediately.

Emergency allocation of disposal capacity

The Act gives the NRC the authority to approve acceptance of LLRW during an emergency. The procedure for granting this access is as follows:

- o A request is to be filed with the NRC by either a generator or the Governor of a state;
- o Within 45 days the NRC is to determine whether access is necessary due to either a public health or national security emergency, and that the situation cannot be ameliorated by on-site storage, purchasing disposal credits, or a voluntary disposal agreement;
- o If the determination is made to provide access, the Governor of the state whose facility is to be used is to be contacted and access granted for up to a maximum of 180 days. An extension can be granted of up to another 180 days.

A state/region that provides emergency access is entitled to reciprocal access to any facility in the region or state that was granted emergency access. LLRW that is accepted under the emergency access provisions "must be volume reduced to the maximum extent practicable."

SURCHARGES AND REBATES

Surcharges

A maximum cap on surcharges that may be levied by the three host state on out-of-region operators is set for specific years during the seven year transition. These surcharges are:

1986-87	\$10.00 per cubic ft.
1988-89	\$20.00 per cubic ft.
1990-92	\$40.00 per cubic ft.

Penalty surcharges are also set.

Rebates

During the transition period, up to January 1, 1993, the bill provides that either compact commissions or non-compact states are to receive rebates from the non-penalty surcharge revenues, levied on the generators residing in non-sited regions or states, if the

milestones are met. Following the transition period from 1993 to 1996, rebates are to be provided to either the state that has opted to take possession, title, and assume liability for the waste generated in the state, or rebated directly to the generators in those states that have decided not to take this action and do not have a disposal site in operation. The rebate revenues are limited to 25 percent of the surcharges collected during the seven year transition.

The rebate program is to be established in the following manner:

- o 25 percent of all surcharge fees collected from either a non-compact state or a region during the seven-year interim access period is to be collected by the states with currently operating facilities, and transferred on a monthly basis to an escrow account held by the Secretary of Energy.
- o Any non-compact state or region is eligible to receive rebate payments from the escrow account for any period of compliance starting January 1, 1988 and ending December 31, 1992. The rebate is limited to 25% of the surcharges paid by the generators within the respective region or non-compact state. A 25% rebate of all surcharges collected between 1990 - 1993 is to be provided to a non-compact state or regional commission if a disposal facility is in operation by 1/1/93.

The post-transitional period 25% rebate is to be provided to:

- o states or regions that either develop a disposal facility or take title, possession, and assume liability for LLRW in proportion to the months prior to 1/1/96 that the state has either taken title or provided disposal capacity;

- o generators who reside in states or regions without disposal facilities or in states that have not opted to take title, possession, or assume liability for LLRW upon receiving a generator's request to do so.

The rebate revenues must be used in support of site development or other related LLRW activities.

#### DEMINIMUM WASTE REGS

NRC is directed to promulgate regulations by July 15, 1986 that would set standards for currently designated LLRW that is "below regulatory concern" and need not be disposed of in a regulated LLRW facility.

#### NON COMPACT STATES

The Act provides that any state may enter into an appropriate agreement with a sited-state or compact commission for the disposal of their waste and be deemed to be in compliance with site development milestones.

#### ALTERNATE DISPOSAL GUIDELINES

The Act provides that NRC publish by January 15, 1986 "technical guidance" on alternative disposal methods in lieu of proceeding with a formal rulemaking. Within two years of enactment, a document is to be published including all relevant technical information.

#### FACILITY LICENSING APPROVAL

NRC and Agreement states are required to have in place the necessary procedures to license a disposal facility by January 15, 1986.

"To the extent practicable" NRC or an Agreement state is to complete "all activities associated with the review and processing of any application for such a license (except for public hearings) no later than 15 months after the date of receipt of application."