UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

CHAIRMAN

June 4, 1985

The Honorable Strom Thurmond
Chairman, Committee on the Judiciary
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

In testimony before your committee on Low-Level Radioactive Waste Management Compacts, Mr. G. Wayne Kerr of our staff indicated that the Commission was evaluating H.R. 1083. This bill, introduced by Congressman Morris K. Udall, would amend the Low-Level Radioactive Waste Policy Act of 1980. I am pleased to provide the Committee with our written comments on the bill. We believe the bill represents a strong beginning to resolving current uncertainties regarding full implementation of the Policy Act, but that certain refinements are needed.

We hope these comments are useful, and pledge our continuing support for your committee's efforts addressing these uncertainties.

Sincerely,

Nunzio J. Palladino

Enclosures:
1. NRC General Comments on H.R. 1083
2. NRC Comments on Specific Sections of H.R. 1083
3. Proposed Conforming Language for Incorporating Non-Atomic Energy Act Radioactive Waste Disposal into H.R. 1083

THE NUCLEAR REGULATORY COMMISSION'S GENERAL COMMENTS ON H.R. 1083 THE LOW-LEVEL RADIOACTIVE WASTE POLICY AMENDMENTS ACT

The Low-Level Radioactive Waste Policy Act of 1980 (Policy Act) assigns states the responsibility to provide for disposal of commercial and certain Federal low-level waste (LLW), and envisioned that states would be able to dispose of LLW generated within their borders individually or through regional compacts by 1986. Compacts consented to by Congress may restrict use of regional disposal sites after January 1, 1986, to disposal of LLW generated within the compact region. Due to lack of progress to date, no new LLW disposal facilities will be available by 1986. There is a distinct possibility that access to the operating disposal sites may be curtailed or subject to stringent volume restrictions if Congress does not consent to compacts containing those operating disposal sites. Such restrictions would compel licensees to pursue alternative waste management practices. Curtailment of the services that generate wastes may be unavoidable if individual licensees are unable to provide for adequate alternatives to disposal.

Congressman Morris Udall introduced the Low-Level Radioactive Waste Policy Amendments Act (H.R. 1083) in February 1985 to address concerns relating to implementation of the Policy Act.

In his floor statement of February 7, 1985, on H.R. 1083, Congressman Udall identified four important features of the legislative package:

> "1. All interstate compacts submitted for Congressional ratification would be subject to the same Congressional agreements and legislative ratification language. Specific amendment or qualification of individual compacts are not contemplated in this approach, and would be discouraged."
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> "2. No substantive changes would be made to the content of the compact statutes ratified by the states and submitted for Congressional approval. The consent of Congress to the compacts would be based on our stated understanding, pursuant to our analysis of the compacts, that nothing in them confers new authority on the states or infringes on Federal authority."
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> "3. The LLRWPA [Low-Level Radioactive Waste Policy Act of 1980] made states responsible for disposal of low-level radioactive waste, and this legislative package defines specifically that material for which states are responsible. Other definitions of low-level waste for

state or federal purposes may co-exist with this definition. Other radioactive wastes, with the exception of uranium mill tailings (responsibility for which is determined by the Uranium Mill Tailings Control Act), would be the responsibility of the Federal government."

"4. Before Congressional ratification of compacts became effective, one year from enactment of this package, states with operating disposal capacity would have to offer to enter into agreements, under their own existing compact authority, to accept out-of-region wastes for disposal, only in limited quantities and only until January 1, 1993. No requirement to accept out-of-region waste would be imposed by Congress upon a ratified compact group."

The four features identified by Congressman Udall are addressed below. Comments on specific sections of H.R. 1083 are contained in Enclosure 2.

1. All Interstate Compacts To Be Subject To Same Congressional Agreements and Legislative Consent Language

The Commission strongly supports this principle, and believes H.R. 1083 (and its companion bill for consent to individual compacts) would help implement it. To prevent inconsistency between the two bills, however, it may be useful to add a conforming change.

Section 4 of the compact consent bill provides that any authority under a compact to restrict access to regional disposal facilities would not become effective until all affected compact regions have complied with the requirements of Section 5 of the Policy Act (as added by H.R. 1083). Section 5 of that bill requires compact regions with operating disposal facilities to offer to enter into agreements to allocate available disposal capacity through January 1, 1993.

In conjunction with the compact consent language, H.R. 1083 effectively provides strong incentives to states with operating facilities to offer agreements, and provides incentives for states without access to such facilities to accept it. However, it may be more helpful to establish a specific requirement for continued access, subject to volume limitations, to currently operating facilities until 1993. If the present host states would agree to this approach, this could assure that continued access would not depend on the outcome of negotiations among the states after Congress has consented to the compacts with operating facilities.

Establishing January 1, 1993, as the applicable effective date for all compacts to begin restricting the use of currently operating disposal facilities may be more likely to provide for an orderly and uniform implementation of access restrictions. Such a revision would establish that Congressional action, not a series of subsequent interstate agreements, determines when the restrictions are to become effective.

2. Nothing in Compacts to Confer New State Authority or Infringe on Federal Authority (Udall Feature 2)

H.R. 1083 contains provisions clarifying that the bill does not confer new authority on compact commissions or states in specified areas, and further clarifies that the bill may not be construed to diminish or otherwise impair federal agency jurisdiction. Broadly construed, the language contained in Sections 4(b)(3) and (4) addresses concerns expressed by the Commission in the past on these matters.

3. A Home for All Radioactive Wastes. (Udall Feature 3)

The Commission believes it is important for any legislation in this area to assure that all wastes have a state or federal "home" for disposal; that is, that governmental responsibilities for all categories of radioactive waste are clearly assigned. For any given waste stream, there should be no question as to whether disposal is the responsibility of the states (individually or through regional compacts) or the federal government. There should also be no question that both the federal government and states are to accept these wastes by a specified date.

The Nuclear Waste Policy Act of 1982 (NWPA) clearly specifies responsibilities among the several agencies within the Federal establishment for high-level wastes. The Commission believes this same clarity of expression would be desirable in H.R. 1083 for state and federal responsibilities.

State Responsibilities. The delineation of state responsibilities in the bill does not cover all wastes currently disposable under 10 CFR Part 61. It appears to exclude certain materials that would be Class A wastes, and all materials in concentrations exceeding the limits for Class C.[1] Section 3(a) of

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[1] Under Section 61.7(b)(2) of Part 61, Class A includes "relatively innocuous" wastes that do not need to meet stability requirements. Under Section 61.7(b)(5), waste in concentrations above Class C limits "is generally unacceptable for near-surface disposal" [i.e., at 30-meter depths or less], although exceptions are provided for on a case-specific basis if it is demonstrated that Part 61 performance objectives would be met.

the Udall bill keys state responsibilities to Tables 1 and 2 of Section 61.55 of our rules. Section 61.55(a)(4) provides that if the waste does not contain any of the nuclides listed in either Table 1 or 2, it is Class A. To apply the waste classification system properly, it is not possible to rely solely upon the tables. As the bill is presently worded, it could be construed to relieve states of responsibility for the relatively low activity Class A wastes that do not contain nuclides listed in the tables.

Section 3(a)(1) of H.R. 1083 limits state disposal responsibilities to wastes in concentrations that do not exceed the limits in the tables for Class C under Part 61. It is not clear, however, that the federal government is to be responsible for disposal of greater-than-Class C wastes.

In addition, NRC regulated transuranic waste, which is excluded from the definition of "low-level radioactive waste" under the Policy Act, also would be excluded from state responsibility under H.R. 1083. There is currently no disposal "home" for such waste, although H.R. 1083 would assign disposal responsibility to the federal government.

Federal Responsibilities. Section 3(b) of H.R. 1083 appears to contain inconsistent provisions concerning the extent of federal disposal responsibilities for wastes in concentrations exceeding Class C.

Read in isolation from qualifying language in Section 3(b)(2), Section 3(b)(1) of H.R. 1083 would assign the federal government responsibility for wastes exceeding Class C limits. It provides that the federal government shall be responsible for "ensuring the safe disposal of "... (D) all other radioactive waste material that is not a responsibility of the States under subsection (a) ...", [other than mill tailings]. Section 3(b)(2), however, indicates that the federal government would be responsible for only a subset of commercial LLW exceeding Class C limits.

Subparagraph 3(b)(2)(A) provides that the Secretary of Energy shall ensure the safe disposal of any radioactive waste described in the immediately preceding Section 3(b)(1) for which --

> "(i) disposal is not provided under other Federal law in effect on the date of the enactment of the Low-Level Radioactive Waste Policy Amendments Act of 1985; and
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> (ii) the Secretary determines that no viable non-Federal disposal capability exists." [emphasis added]

This last provision may be inconsistent with the preceding paragraph. It would permit the Secretary to take responsibility, not for all wastes that are not a state responsibility, but only those for which he determines that no "viable"

non-federal disposal capability exists. Criteria are not provided in the bill for a finding of "no viable capability." The Secretary could find that a non-federal disposal capability is technically "viable" even without any state commitment to accept the wastes for disposal.

The Commission recommends that the bill clearly identify the federal agency responsible for disposal and the date by which waste is to be accepted. If DOE is assigned responsibility, Congress should carefully address the relationship between the requirements for implementation of the Nuclear Waste Policy Act of 1982 (NWPA) and the requirements for implementing any new waste management responsibilities assigned to DOE under the bill. This would include consideration of National Environmental Policy Act (NEPA) requirements. The Commission is concerned that the high-level waste program not be unintentionally impacted.

Naturally-occurring or Accelerator-produced Radioactive Material (NARM) Wastes. Neither Section 3(a) on state responsibilities nor 3(b) on federal responsibilities specifies responsibility for the disposal of wastes that are not subject to the Atomic Energy Act. This includes naturally-occurring and accelerator-produced radioactive materials (NARM) that may be and have been disposed of at state-licensed facilities. Without clear statutory direction identifying the responsibility for disposing of these wastes, neither NRC, the Agreement States, nor waste generators will be able to assure that all NARM wastes will eventually be accepted for disposal. Enclosure 3 presents proposed conforming language for NARM disposal authority in H.R. 1083.

NRC Role Over Federal Government's Disposal Activities. If the federal government is to be assigned additional disposal responsibility, the question of regulatory responsibility for federal disposal of wastes from NRC-regulated activities should be resolved by this legislation. The bill does not resolve the question.

4. Provision of Limited Access to Existing Disposal Sites Until 1993. (Udall Feature 4)

Section 5 of H.R. 1083 sets forth a framework under which compacts with operating disposal facilities would offer to enter into agreements to provide limited access to their facilities for compact regions and states without disposal capacity. Access would be provided through January 1, 1993. The Commission recommends a mechanism providing for states and regions to accept these wastes beginning in 1993.

Means for Allocating Limited Disposal Capacity. In his floor statement introducing the bill, Congressman Udall indicated that the appropriate means of distributing the burden of reducing the waste stream would be a major issue to be resolved in the legislative process. The bill does not specify means for allocating the limited disposal capacity that would be available.

Section 5(a) provides that disposal facility access agreements would allocate capacity to compact regions and states, rather than to waste generators. While the bill is silent on allocation mechanics, the language in Section 5(a) may be interpreted to authorize compact regions and states to control waste generation. Establishment of disposal site access agreements by the states and compacts may, on a case-specific basis, be inconsistent with Section 4(b)(4)of the bill, which provides that nothing in the bill or any compact may be construed to "limit the applicability of any Federal law or otherwise impair the jurisdiction of any Federal agency, including the regulatory responsibilities of the [NRC]." For example, waste generators may be directed to store wastes or cease waste generation without adequate provision for protection of public health and safety. Also, if agreements under Section 5(a) of the bill resulted in generator restrictions, a considerable regulatory burden could be placed on the NRC in responding to individual licensee problems.

The Commission recommends that Congress specifically address whether or not it intends as national policy that states have authority to impose restrictions on waste generators that would involve national-level public health and welfare and economic considerations, and may disrupt essential services.

Requirements for Good Faith Negotiations by States. Under Section 5(a), compacts with operating facilities are required only to offer to enter into access agreements. The bill does not require a compact region with disposal capacity to enter into an agreement -- or even to continue negotiating -- with non-sited compact regions or states after the nine-month period during which the offer is to remain available. It is uncertain that compact regions with disposal capacity would have sufficient incentive to conclude agreements. Interregional discussions regarding post-1986 disposal site access have been underway among the states for over a year without resolution to date. If mutually acceptable agreements cannot be reached, licensees in certain states and compact regions without disposal sites could, under Section 5(a), lose access to disposal facilities as early as late 1986. (This assumes passage of the bill in 1985.)

Milestones and Financial Assurances. To assure that existing disposal sites (and storage practices) would not be relied upon indefinitely for lack of progress in states and regions without sites, and to ensure that responsible state and federal entities will begin accepting wastes by a specified deadline, legislatively mandated milestones appear warranted. There should also be a clear means of providing the requisite degree of financial assurance that funds will be available to carry out these responsibilities.

The NWPA provided for a contractual relationship under which DOE is to accept high-level waste by an agreed-upon date, and the generators or owners of the wastes are to pay a fee to cover waste management costs. A similar approach may be worth considering for other radioactive wastes.

Whatever date is agreed upon as a final deadline for acceptance of out-of-region waste at operating sites, the Commission believes identification of intermediate milestones could help assure that the final date is met. These milestones might include identification of the states that will host new facilities, identification of candidate disposal sites, and filing of disposal facility license applications in sufficient advance of the deadline.

To assure that deadline pressures do not prevent a full and fair consideration of licensing issues at a chosen site, it may also be useful to consider requirements for alternatives in the form of state or compact storage facilities or back-up candidate disposal sites if the initially-selected site is found unsuitable.

There is a basis in radiological health and safety for a firm deadline for the execution of both state and federal disposal responsibilities. For many generators of LLW, the only feasible alternative to disposal short of curtailing waste generation is storage. Long-term storage would likely result in additional occupational radiation exposures, particularly if waste repackaging is needed to meet transportation or disposal requirements. Although some long-term storage is probably unavoidable under current circumstances, this practice should not continue indefinitely. A firm deadline for the acceptance of the wastes for disposal by both the states and the federal government is essential to provide assurance that long-term storage does not become de facto disposal for lack of an alternative.

5. Regulatory Uncertainties Not Addressed by the Bill

The bill does not address the uncertainties posed to NRC-regulated activities by federal environmental laws and regulations, such as the Resource Conservation and Recovery Act (RCRA) and the Environmental Protection Agency (EPA) standards and regulations. In addition to the NEPA-related issues discussed above, regulatory uncertainties exist with respect to hazardous non-radiological waste constituents, naturally-occurring and accelerator-produced radioactive material (NARM) wastes, and radiation release standards. These uncertainties may contribute to delays in establishing new waste disposal facilities. NRC is monitoring EPA efforts to develop radiation release standards applicable to LLW disposal. The Commission is also evaluating management of NRC-regulated non-radiological waste constituents, and is keeping EPA staff informed of our progress. However, it cannot be assured that NRC/EPA staff efforts will satisfactorily resolve the uncertainties. This legislation could provide an opportunity to clarify these issues.

THE NUCLEAR REGULATORY COMMISSION'S
COMMENTS ON SPECIFIC SECTIONS OF H.R. 1083

Sec. 2(1) The definition of Agreement State should be identical to the definition in 10 CFR Part 150.3(b) to ensure consistency. Section 2(1) should be replaced as follows:

"(1) Agreement State means any state with which the Commission or the Atomic Energy Commission has entered into an effective agreement under subsection 274 b of the Act."

Sec. 2(2) The definition of "atomic energy defense activity" varies from the Low-level Radioactive Waste Policy Act with the following changes and implications.

(A) Waste from naval propulsion operations is omitted, and would thus be eligible for disposal in licensed facilities.

(B) Waste from inertial confinement fusion activities is now limited to that associated with weapons.

(E) "defense waste" becomes," defense nuclear waste." It is not clear what the implication is for non-nuclear defense waste. It may mean that states with Resource Recovery and Conservation Act (RCRA) permitting authority may be able to regulate defense non-nuclear waste intermixed with nuclear waste. The inclusion of the phrase "materials byproducts management" may be a reference to DOE's recent proposal to interpret the term "by-product material" to include nonradioactive material in a primary byproduct waste stream from processing or producing special nuclear materials. The legislative record should clarify the intent of this paragraph as it may impact the applicability of the RCRA to NRC-regulated activities.

Sec. 2(4) "commercial nuclear power reactor" should also reference reactors licensed under §104b of the Atomic Energy Act.

Sec. 2(8) The definition of "disposal" is incomplete and vague. It should be clarified to denote that with disposal there is no intent to remove the wastes following emplacement.

ENCLOSURE 2

Sec. 2(12)	The definition of low-level radioactive waste in the Policy Act has caused confusion and contributed to the state's reluctance to accept radioactive wastes classified as "Above Class C" under 10 CFR Part 61.[1] Furthermore, in paragraph 12 use of the word "byproduct" should be followed with "as defined in Section 11(e)(2) of the Atomic Energy Act of 1954," to limit the scope to only uranium and thorium tailings and waste.
Sec. 2(16)	The definition of transuranic waste is incomplete. It should read " . . . greater that the limits established by rule by the Nuclear Regulatory Commission for disposal of transuranic waste at a disposal facility. . . "
Sec. 3(a)(1)	Reference to Tables 1 and 2 alone is inadequate. It should also reference other provisions of 10 CFR 61.55 to assure that states remain responsible for all licensed Class A and B wastes.
Sec. 3(b)(2)(A)	This section is a general authorization for DOE to dispose of all radioactive waste not the responsibility of the States, and not already a Federal responsibility under some other law. This provision would overcome the legal objections that have been expressed by DOE to accepting certain existing wastes, particularly NRC-regulated transuranic waste. Paragraph (ii) requires a finding of fact that no "viable" non-federal disposal capability exists to accept such wastes. Deletion of Paragraph (A)(ii) is necessary if the Commission is to be assured that all wastes will have a home.
Sec. 4	Subsection 4(b)(3)(A) through (C) and (E) should not be

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1 As discussed in Enclosure 1, the Commission believes it would be useful to provide conforming language for NARM waste disposal in H.R. 1083.

included in subsection (b) which is aimed at Federal activities, these paragraphs (A, B, C and E) affect not only Federal, but private activities. To clarify their general applicability. Subsections 4(b)(3) and 4(b)(4) should be combined and redesignated as 4(e).

Subsection 4(b)(3)(E) should be clarified by inserting the phrase, "of the Federal Government," after the word indemnification.

Subsection 4(c) must be read together with Section 5 and Congressman Udall's proposed compact consent language since the latter would establish "the applicable effective date established in [such] law."

Sec. 4(b)(4) — Add Agreement States authority under Section 274 b of the Atomic Energy Act of 1954, as amended, to ". . . the Nuclear Regulatory Commission and the Department of Transportation."

Sec. 5 — This provision presents a difficult negotiating situation. By its terms the offering and negotiating parties are compact Commissions and States. But the payers of the surcharges will be waste generators, including the Federal Government (see Section 4(b)(1)(B)). Nor does the legislation indicate who the beneficiary of the surcharge will be--a compact Commission, state, or disposal site operator. The net effect may very well be to penalize waste generators, and not the political institutions that need to be pressed to act.

Sec.6 — This provision, "Assurance of Financial Responsibility," is in part redundant with Section 151 of the Nuclear Waste Policy Act of 1982, though it adds several new requirements: (1) that there be financial assurance or bonding for "safe and environmentally sound" operation of the disposal facility; and (2) that there be financial assurance for "corrective action prior to the expected time of license termination due to economic or health and safety reasons." Both of these requirements parallel, to an extent, NRC staff initiatives regarding financial assurance for clean up of offsite releases. However, the vague language for both could imply that NRC and Agreement States are to become involved in reviewing the financing and cash

flow requirements of an operating disposal facility to ensure that adequate operational financial assurance is provided. NRC staff has not fully evaluated potential impacts or the desirability of legislatively mandated financial assurance requirements for unanticipated "corrective action." However, such requirements would carry significant policy and resource implications.

ENCLOSURE 2

PROPOSED CONFORMING LANGUAGE FOR INCORPORATING
NON-ATOMIC ENERGY ACT RADIOACTIVE WASTE
DISPOSAL RESPONSIBILTIES INTO H.R. 1083

Definitions

Sec. 2(12) "The term 'low-level radioactive waste' means radioactive material, whether or not subject to the provisions of the Atomic Energy Act of 1954, as amended, that--"

State Responsibilities for Disposal

Sec. 3(a)(1) "(C) contains concentrations of radionuclides which are not source, byproduct or special nuclear material as defined in Title II of the Atomic Energy Act of 1954, as amended, that the Commission by rule determines has radioactivity levels no greater than low-level radioactive waste classified as 'Class C' under 10 CFR Part 61.55."

Federal Responsibilities for Disposal

Sec. 3(b)(1) "(D) all other radioactive waste material, whether or not subject to the provisions of the Atomic Energy Act of 1954, as amended, not a responsibility of the States under subsection (a), . . ."

ENCLOSURE 3