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**NRC TASK FORCE REPORT ON
REVIEW OF THE FEDERAL/STATE PROGRAM
FOR REGULATION OF
COMMERCIAL LOW-LEVEL RADIOACTIVE
WASTE BURIAL GROUNDS**

Analysis of Public Comments

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Analysis of Public Comments
ON NUREG-0217

In March 1977, NUREG-0217, "NRC Task Force Report on Review of the Federal/State Program for Regulation of Commercial Low-Level Radioactive Waste Burial Grounds," was published in the Federal Register for public comment. In response, the correspondence listed below was received.

<u>Commenter</u>	<u>Abbreviation</u>	<u>Docket No.</u>
South Carolina-Department of Health and Environmental Control	SC	1
New Mexico-Health and Social Services Department	NMHSS	2
West Virginia-Department of Natural Resources	WV	3
Florida-Department of Health and Rehabilitative Services	FHRS	3
Washington-Department of Social and Health Services	WA	3
Florida-Department of Environmental Regulation	FER	3
Nevada-Executive Chamber	NV	3
Louisiana-Department of Conservation	LA	3
Aerojet Energy Conversion Company	AECC	4
Colorado-Department of Health	CO	5
Natural Resources Defense Council, Inc.	NRDC	6,7
Tennessee-Department of Public Health	TN	8

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Chem-Nuclear Systems Inc.	CNSI	10
Utility Waste Management Group	UWMG	11
California-Department of Health	CA	12
Yankee Atomic Electric Company	YAEC	13
U. S. Energy Research and Development Administration	ERDA	14
Arizona-Office of the Governor	AZ	15
New Mexico-Office of the Governor	NMOG	16
North Carolina-Office of the Governor	NC	17
Kentucky-Environmental Quality Commission	KEQC	18
Nuclear Engineering Company, Inc.	NECO	19
Western Interstate Nuclear Board	WINB	20
Tennessee Valley Authority	TVA	22
Atomic Industrial Forum	AIF	9,23
Florida Power & Light Company	FPL	24
Pennsylvania-Bureau of Radiological Health	PA	25
Environmentalists, Inc.	EI	26
Advisory Committee on Reactor Safeguards	ACRS	27
New York-Executive Chamber	NY	28
Maryland-Executive Department	MD	29
Hawaii-Executive Chambers	HA	30
Kentucky-Department of Human Resources	KHR	31
State of New York Department of Law	NYDOL	32
Southwest Research and Information Center	SRIC	33

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Summary of Comments

Strong support for accelerating development of a regulatory program, including regulations, standards and criteria (Recommendation II) was expressed in the comments.

A clear consensus on the other two of the Task Force recommendations did not appear in the responses. Further, a number of comments stated that the Task Force report conclusions are not adequately supported by the findings and additional information should have been included in the report (NYDOL). One commenter (YAEC) felt that the report failed to address the immediate problem while focusing on remote and theoretical problems.

Recommendation I was clearly the most controversial and elicited greatest number of comments. Disagreement with Recommendation I was expressed by about one third of the commenters. States' vested interests, the need for active involvement of States in low-level waste management, and doubts over the ability of the Federal government to perform better than the States were the basis for most disagreement. Several respondents felt that the balance of Federal/State control should be addressed only after standards and criteria for shallow-land burial are developed, alternatives are studied (ACRS), and State and Regional viewpoints are given further consideration (WINB AIF). Federal/State roles in regulating uranium mill tailings and accelerator-produced radioisotopes should also be considered in reviewing authority over low-level waste

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disposal sites (LA WINB). Finally, several comments pointed out that increasing Federal control over low-level waste management runs counter to current Congressional and Administrative policy to reduce and simplify Federal regulatory agencies. (The comments did not note that the House Government Operations Committee in their June 30, 1976 Report, "Low-Level Nuclear Waste Disposal" had recommended increasing Federal control over low-level waste management.)

Agreement with the need for a study of alternative disposal methods was indicated by all those respondents who stated an opinion on this conclusion. However, responses to the remainder of Recommendation III questioned Task Force waste projections and the conclusion that adequate burial capacity exists for the next few years.

A summary of the responses to the Task Force conclusions and recommendations is presented in Table B-1. Detailed analyses of these appear in the sections that follow. The commenter abbreviations in parentheses throughout the analyses refer to responses which best represent the particular opinion.

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Conclusion I - Federal/State Roles

Since Conclusion I of the Task Force report addresses several issues, the following analysis considers the major issues in a sequential fashion.

1. Task Force Conclusion: The present system for low-level waste management lacks national organization and direction.

Analysis of Comments: Only one-third of the respondents commented on this issue. All these simply stated agreement with the conclusion.

2. Task Force Conclusion: The States, in discharging their regulatory duties, have operated under difficult circumstances but have adequately protected the public health and safety. The Task Force can find no compelling health or safety reason for reassertion of Federal control at this time.

Analysis of Comments: Forty per cent of the commenters supported this conclusion; sixty per cent offered no comment. Disagreement with this conclusion was expressed by one commenter (NRDC), who felt that lax State practices have created a significant threat of harm to the public. The ACRS did not believe that it had received

convincing evidence that the existing situation will not lead to health and safety problems in the future. The lack of consensus seems to indicate a need for further supporting evidence, but no need to alter the conclusion.

3. Task Force Conclusion: The States do not have the resources to provide the needed overall leadership or organization, nor do they have the obligation to find solutions to this national problem.

Analysis of Comments: Two comments stated that the States do have the resources and capabilities to continue their good work (CNSI) and are in a better position to handle contingencies (CO). Support of the conclusion by 40 per cent of the respondents was based largely on the opinion that the citizens of the few States in which burial grounds are located should not bear costs for activities which serve national needs (FHRS) or which may involve major contingency actions (WA). ACRS expressed the feeling that the generation of electricity by nuclear power has both State and Federal implications. WINB suggested that NRC should provide States with technical and financial assistance in proportion to the burden the State has assumed from NRC. Thus, while the conclusion need not be altered due to the comments, some caution must be exercised in applying it to individual cases or all activities.

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4. Task Force Conclusion: The States will continue to have a vested interest in the protection of the health and safety of their citizens and in land-use decisions. This vested interest can be satisfied by their participation in the site selection process and their monitoring of day-to-day operations. (The Task Force recommendation that the NRC should require joint Federal/State approval of new disposal sites derives, in part, from this conclusion and is therefore also addressed in this analysis.)

Analysis of Comments: A majority of the comments indicated the need for State involvement in site selection and monitoring. However, the degree of satisfaction which would be obtained through joint Federal/State siting approval was questioned. Some felt that State responsibilities prohibit abdication of control over such activities (CNSI). Others expressed concern that States should have the opportunity to refuse siting (NV). Further, several comments stated that surveillance and monitoring should be a shared Federal/State responsibility (TN). The comments indicate the need to develop a broader base of technical support before adopting the recommendation.

5. Task Force Conclusion: The development and implementation of a national waste management plan, which includes adequate capacity without site proliferation, can be more readily achieved if the NRC assumes regulatory control (with State participation). (This conclusion leads to 289)

the Task Force recommendation that the NRC should require NRC licensing, with State participation, of current and new disposal sites.)

Analysis of Comments: Approximately one third of the commenters disagreed with the conclusion and/or recommendation. The primary basis for the opposition was the lack of evidence to support the conclusion. Several respondents felt that since no compelling health and safety reasons for reassertion of Federal control were found by the Task Force, it is not clear under what authority the NRC would exercise exclusive licensing and regulation over low-level waste management (LA). Some commenters believed that NRC licensing could infringe upon the State's rights and responsibilities to protect its people and environment (NC). Several held the opinion that the Task Force report provided no factual basis for the position that Federal control will solve existing problems better than State control nor did it demonstrate how Federal intervention might prevent problems which currently exist. It was stated that implementation of more clearly defined criteria and controls, more rigorous compliance enforcement procedures, etc., are just as applicable to State as to Federal regulation (WINB). Several commenters also pointed out that Federal control of high-level waste management has not yet provided satisfactory solutions. Indeed, some comments expressed the opinion that the States are in a far better position to perform the licensing and regulation for reasons such as the following (CO):

- a. A vested interest in what takes place in our own "backyard" and conditions with which the citizens of the State literally have to live.
- b. More efficient communication between licensing and compliance personnel in the State regulatory agency (they are usually in the same office).
- c. Direct, localized coordination between State radiological health specialists, hydrologists, geologists and engineers who must perform technical reviews of waste burial site applications.
- d. Accessibility of the State agencies to the people which enables swifter and more efficient action than a Federal agency could provide should complaints and/or problems arise.

Statements in support of NRC licensing and regulation noted the need for Federal participation since low-level wastes are often buried in one State, but are produced in other nearby States (WV). One commenter (UWMG) stated that uniformity of regulation and management practices could be achieved more readily at the national level. The SRIC stated that only through the reassertion of Federal licensing authority will it be possible to make responsible decisions in this area.

While no conclusive reasons to alter the recommendation were given, the comments indicate the need to develop a broader base of technical support before adopting the recommendation.

6. Task Force Conclusion: The Federal government should assume responsibility for perpetual care of the sites which can be readily accomplished through Federal landownership. This conclusion leads to two major Task Force recommendations which are analyzed separately below.

a. Recommendation (1): The NRC should require Federal ownership of land for all disposal sites.

Analysis of Comments: Acceptance of the recommendation was indicated by half of the commenters. Reasons for disagreement by one-fourth of the commenters included (1) failure of the report to demonstrate that Federal landownership will automatically assure effective care (AIF), (2) concern that preemption of the

potential for constructive use of this land by the Federal government may not be in the States' best interest (WINB), (3) State landownership would assure the States of adequate control over operation and perpetual care of the site (PA), and (4) alternative methods for relieving the States' financial burden of perpetual care should be investigated (ERDA). Some additional analysis of these issues will be useful, but no compelling reason to change the recommendation was raised.

- b. Recommendation (2): The NRC should establish a Federally administered perpetual care program.

Analysis of Comments: Comments on the recommendation reflected the need for clarification of what a Federal perpetual care program would involve. Support for Federal long-term care and financing of the low-level waste program was based on the necessity of assuring uniformity and eliminating financial disparity between States (WV). However, State involvement in perpetual care to maintain some control over the sites for the benefit of their citizens was considered desirable (KEQC, FER).

NYDOL noted the complexity of decommissioning and long-term care particularly with respect to funding and contractual arrangements. Finally, the opinion that site operators and users should not be relieved of the liability for perpetual care was expressed (SC, CNSI). Again, additional analysis of the issues will be useful.

Conclusion II Comprehensive Regulatory Program

Task Force Conclusion II: There is an urgent need to establish a comprehensive set of standards, criteria, and regulations governing low-level waste management. An integration and acceleration of ongoing efforts to establish such a program is required. Emphasis should be placed on:

- a. Developing operating, monitoring, decommissioning, post-operational maintenance and funding requirements for both existing and future burial sites.
- b. Developing criteria for the acceptability of future proposed shallow-land burial sites or alternative disposal methods.
- c. Developing criteria for determining which wastes can be disposed of by shallow-land burial.

Recommendation II that the NRC, in cooperation with appropriate Federal and State agencies, should accelerate development of the regulatory program for the disposal of low-level waste which includes regulation, standards, and criteria addresses the same issue as the conclusion and therefore the two are analyzed together.

Analysis of Comments: Most of the respondents (about 85 percent) agreed with Conclusion II and thus supported Recommendation II. However,

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several States such as WV felt the regulatory program should consist of minimum guidelines, giving the States the opportunity to establish more stringent standards. The need for careful coordination with other Federal agencies, States, and industry representatives was expressed by many commenters (UWMG, NECO, FPL, WINB). Finally, the need to develop a waste classification system was emphasized by AIF, WINB and SRIC. In balance, the comments strengthened the case for Recommendation II.

Conclusion III Need To Study Alternatives,

Provide Adequate Capacity, and Avoid Proliferation

Conclusion III addresses two major issues which are analyzed separately below.

1. Task Force Conclusion: While there have been other disposal methods used, the only currently practiced method is shallow-land burial. Since the enactment of the National Environmental Policy Act (NEPA) a comprehensive Federal examination of alternative disposal methods has not been made. Such an examination is needed. This conclusion leads to that portion of Recommendation III which states that the NRC should initiate immediately the necessary studies to identify and evaluate the relative safety and impacts of alternative low-level waste disposal methods.

Analysis of comments: Of the respondents who commented on this recommendation (60 percent of the total) unanimous support was expressed. WINB and AIF did remark that ERDA might be in a better position to perform such an alternatives study. The need to include a complete cost-benefit analysis in the evaluation of all alternatives was noted by TVA. Again the case is strengthened by the comments.

2. Task Force Conclusion: National planning must assure adequate disposal capacity beyond 1990 while preventing an undisciplined proliferation of sites. There is now sufficient burial capacity for the disposal of commercial low-level waste to the year 1990. Until extensive investigation of alternatives to shallow land burial is completed, the additional licensing of new shallow land burial sites should be avoided. That investigation may disclose better methods and practices. The undisciplined proliferation of low-level burial sites must be avoided. The remainder of Recommendation III derives from this conclusion. It states that no new disposal sites should be licensed until a full examination of alternative disposal methods has been completed or unless an urgent new need is identified. The NRC should assure effective use of existing commercial burial grounds.

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Analysis of Comments: Although agreement with the recommendation was expressed by nearly half the commenters, such support was based on the conditions that sufficient burial capacity is truly available (NMHSS) and the NRC assures the effective use of existing sites (NECO). SRIC stated that no new disposal sites should be licensed until alternatives are evaluated, criteria and regulatory requirements are established and site releases are realistically modeled. AIF stated that if an urgent need arises, an adequate basis for licensing exists.

The issue of adequate disposal capacity received nearly equal numbers of supporting and disagreeing comments. A number of respondents (e.g., PA, FPL, TVA, ERDA, YAEC, UWMG, LA) noted that an urgent need for more capacity may exist in the East since Barnwell, the only active Eastern site, could be completely filled sooner than projected. The Task Force report used projections of disposal needs that are significantly lower than those presented in the AIF National Environment Studies Project Report NESP-008ES, which is based on actual operating plant data (FPL, ERDA). FPL also stated that existing burial sites comprise a usable area of 358 acres versus the 660 acres estimated by the Task Force. In addition, ERDA and NECO pointed out that actual burial densities are likely much lower than the 9700 m³/acre assumed in Task Force projections of site capacity. Finally,

CNSI and YAEC raised questions on the political implications, logistical problems and increased risk of transportation accidents involved in shipping wastes from the East to Western burial sites.

Considering the possible technical, administrative and legal impediments which may lengthen the time to implement a solution, a number of commenters (ERDA, LA, UWMG) felt that the availability of new capacity in sufficient time could well be in jeopardy. To avoid a situation developing later that could precipitate hasty and less than optimum decisions, CNSI suggested NRC should encourage development of new sites. The need for a ban on licensing of new sites was questioned by 15 percent of the respondents.

(Note: The Task Force did not recommend a ban) WINB felt that Federal control could lead to "undisciplined non-proliferation." Finally, UWMG pointed out that new sites might even have environmental advantages over existing sites and a suspension of licensing would violate the requirements and policies of NEPA.

On balance case-by-case licensing review should continue to assure adequate capacity, but the need for additional capacity should be a dominant criterion.

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Table B-1
Summary of Public Comments

	Agree				Disagree				Position Unclear				No Comment			
	States	Industry	Others	Total	States	Industry	Others	Total	States	Industry	Others	Total	States	Industry	Others	Total
Task Force Conclusion I																
1. Present system lacks National organization	6	4	1	11				0				0	15	4	3	22
2. States have adequately protected the public	8	5	1	14			1	1				0	13	3	2	18
3. States do not have the resources or obligation	11	2	1	14	1	1		2				0	9	5	3	17
4. States vested interest satisfied in site selection and monitoring	17	3	2	22	3	4		7	1			1		1	2	3
5. Plan more readily achieved with NRC regulatory control	13	3	2	18	7	4	1	12	1		1	1	1	1		2
6. Federal responsibility for long-term care	14	4	3	21	4	3		7	1			1	2		1	4
7. accomplished through Federal landownership	12	3	2	17	4	3	1	8	1			1	4	2	1	7
Task Force Recommendation I																
1. Joint site approval	16	3	1	20	4	4	1	9	1			1		1	2	3
2. NRC licensing	13	3	1	17	7	4	1	12			2	2	1	1		2
3. Federal landownership	12	3	1	16	4	3	2	9	1			1	4	2	1	7
4. Federally administered perpetual care	14	4	2	20	5	3	1	9	1			1	1	1	1	3
Task Force Conclusion II																
Need to establish regulatory program and integrate on-going efforts	18	7	3	28				0			1	1	3	1		4
Task Force Recommendation II																
Accelerate development of the regulatory program	18	7	3	28				0			1	1	3	1		4
Task Force Conclusion III																
1. Need examination of alternatives	10	6	3	19				0				0	11	2	1	14
2. Sufficient burial capacity so avoid additional licensing	5	2	3	10	3	5	1	9				0	13	1		14
Task Force Recommendation III																
1. Evaluate alternative disposal methods	10	6	3	19				0				0	11	2	1	14
2. No licensing until study completed or urgent need identified	10	3	2	15		4	1	5	2		1	3	9	1		10

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