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To promote the exchange of views and information on radioactive waste management

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WA, NV, TX SELECTED FOR 1ST HLW REPOSITORY; DROPPING OF 2ND ROUND HLW SITES ENDANGERS ENTIRE PROGRAM

DOE dropped two shoes simultaneously when Secretary Herrington announced on May 28, that (1) the Department had recommended, and the President had approved, characterization of three sites in Nevada (Yucca Mountain), Texas (Deaf Smith), and Washington (Hanford); and (2) the Department has decided "to postpone indefinitely plans for any site-specific work related to a second repository." According to the press release, "DOE will concentrate its efforts on continued successful progress on the development of the disposal system including the first geologic repository, the associated transportation system and implementation of an MRS program." In his announcement of the decisions, Secretary Herrington said that the Department had "reached an important milestone and taken a significant step forward." The decision on the crystalline second round repository selection was a "shocker" that even DOE supporters are viewing with dismay.

First Round Decision Ratifies 1984 Preliminary Ranking

The final selection of sites for characterization represents no change from the initial ranking published in the December 1984 draft Environmental Assessments, despite the fact that an entirely new ranking methodology had been employed to reexamine the preliminary results. While OCRWM Director Ben Rusche declined to rank the three sites at the press conference, the ormal decision document (Recommendation By The Secretary of Energy of Candidate Sites For

(See **First Round** in **the HLW Focus**)

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ROCKY MTN BOARD CONSIDERS FEE ON LLRW IMPORTED FOR PROCESSING

A revision of the Rocky Mountain Compact Board rules that would require that anyone wishing to import waste into the region for storage or processing must pay a fee to obtain a permit to do so and also pay an import fee on the amount of the waste imported, remains on the agenda for the next scheduled Board meeting in Jackson Hole, Wyoming on June 20. The proposed revisions were to be considered at the Board's May 6 meeting.

This proposed action is being viewed by waste brokers and processors as going beyond the authority conferred upon the regional compacts by the Consent Act (LLRWPAA). However, the initial compact rules adopted in March of 1986, do require that any person importing waste into the region for "management at a facility other than the Beatty site" obtain a permit to do so. The revision only adds a "fee" to be paid with the application and a "fee" for the volume of the waste imported.

The Proposed Fees

The fees that the Rocky Mountain Board is proposing to levy on the import of waste into the region are as follows.

- o An application fee of $200 or $.01 per cubic foot of waste for which approval is sought, whichever is more.

- o A license fee for $200 or $.035 per cubic foot of waste for which approval is sought whichever is more.

Waste broker and processors view the "Fees" as a "business tax", and not within the realm of jurisdiction of the compacts.

At Issue: Regional Management vs. Disposal

The Rocky Mountain Compact, as adopted by the party states and by Congress, did include language stating that: each [party] state is responsible for providing for the management of [LLRW] generated within its borders" This intent is further emphasized in the following statement of purpose: It is the purpose of the party states, by entering into an interstate compact to establish the means for cooperative effort in managing low-level waste....."

On the other hand the law recognizing the compacts, embodied in the Low-level Radioactive Waste Policy Amendments Act of 1985, which also confers upon these interstate entities the power to regulate "the interstate commerce of waste", states that:

> "It is the policy of the federal government that the responsibilities of the states for disposal of low-level waste can be most safely and effectively managed on a regional basis" .....and therefore to carry out this policy the "states may enter into such compacts as may be necessary for the establishment and operation of disposal facilities for low-level radioactive waste.

No mention or inference is made in the consent law with regard to recognizing the compacts for the management of LLRW. All references are to disposal.
Despite this discrepancy, between the consent law and the language of the compact, Rocky Mountain Compact officials still argue that:

-- Congress did approve the compacts as written, therefore the compact is law "as well the LLRWPAA".

-- The language of the LLRWPAA does not explicitly prohibit the regions and/or states from addressing regional management.

-- The LLRWPAA provisions limiting state or regional authority only provide that a compact or state is not being given any new authority to regulate the "packaging, generation, treatment, storage, disposal or transportation of low-level radioactive waste, in a manner incompatible with the regulations of the NRC or inconsistent with the regulations of DOE." Compact officials argue that the import permit and fee requirement

are not inconsistent with either NRC or DOE regulations since those regulations address health and safety issues. **

BNL IDENTIFIES OPTIONS FOR DEALING WITH WASTE OIL AS A HAZARDOUS WASTE

A Brookhaven National Laboratory study on LLRW oil, conducted at the request of NRC, following issuance of EPA's proposal to designate waste or used oil as a hazardous waste, has found that "oil containing wastes constitutes about 4.2 volume percent of the as-shipped LLRW identified in the 1985 BNL survey (See EXCHANGE Vol. 4, No. 15). According to this data the average oil use for 16 of 17 nuclear plants responding to the survey was 13,800 gallons, with the remaining generator reporting 200,000 gallons. If EPA ends up designating used or waste oil as a hazardous waste then this volume of material would be required to be treated or disposed of under RCRA requirements unless the hazardous components are removed.

Possible Management Options

The mixed-waste management options that were identified in the earlier Brookhaven report (NUREG-CR 4450) are generally applicable to LLRW waste oil. Other alternative management schemes identified in this report are filtration, aqueous extraction, and ozonation. These methods, which have been used for oil in general, may have some applicability to LLRW oil.

With respect to each of these options BNL finds filtration is probably the most economically advantageous of the three, but the success or failure of a processing technique varies greatly with the properties of the waste oil. Ozonation is the most esoteric of the three processes and will need the most developement to be tailored to a specific LLRW oil.

The report concludes that "because the results of a particular processing method depend on the properties of the particular LLRW oil, any proposed management scheme will have to be generic in nature, but will likely include one or more of the following processes: filteration, immobilization, sorption, and aqueous extraction. A possible one-step management option (considered in NUREG-CR-4450) and applicable to LLRW oil is the glass furnace process." **

CALIFORNIA ASSEMBLYMAN REQUESTS ELIGIBILITY IN ROCKY MTN COMPACT

California Assemblyman Steve Peace, Chair of the Assembly Select Committee on LLRW and Majority Whip, has formally requested that the State of California be considered eligible to join the Rocky Mountain Compact. The request was made in a May 28, 1986 letter to Leonard Slosky, the Executive Director of the Rocky Mountain Compact Board. According to David Takashima, a key aide to Assemblyman Peace, the request will be considered at the next Rocky Mountain Compact Board meeting to be held in Jackson Hole, Wyoming on June 20. A positive response is expected.

Under the conditions of the Rocky Mountain Compact, California would be required to accept host state status. However, since the state would then be a member of a sited-state compact rather than an unsited compact, it would avoid having its generators pay out-of-sited-region surcharges. **

US ECOLOGY SUES N. CAROLINA ON LLRW INCINERATOR PERMIT DENIAL

On May 21, US Ecology filed suit in the North Carolina State Court challenging the basis upon which that state's Department of Human Resources, Radiation Protection Section, denied the Louisville, Ky. firm a permit to construct and operate an LLRW incinerator in the state. At the same time the firm also requested an administrative rehearing on the denial before the Radiation Protection Section.

The Radiation Section's denial of US Ecology's application for the permit to construct and operate an LLRW incinerator was issued on April 21, 1986, following a decision by the State Air Quality Board denying the firm's application for an air quality permit for the incinerator. US Ecology has reapplied for an air quality

permit but the Board has not taken action on the refiling.

Challenge Basis of Decision

US Ecology's court suit regarding the Radiation Protection Section permit denial decision seeks to have the requested administrative hearing on the denial delayed until after the court rules on the firm's substantive challenge on the manner in which the denial decision was made. According to the notice of denial the primary grounds given for the denial was US Ecology's past performance record. North Carolina's administrative procedures do allow an agency to base a permit or application action on a company's past performance record. However, US Ecology argues that, although past performance is a valid basis for a decision, the administrative procedures do not provide guidelines or criteria upon which to judge a company's past performance. Therefore, lacking guidelines or criteria, the Radioactive Protection Section's citing of past performance as the principal grounds for permit denial was completely arbitrary. According to company officials, the public record compiled and filed by the Radioactive Protection Section does not contain any information or reveal any evidence to support the Section's claim of a "poor past performance record." The only "incidents" cited in the record related to transportation and packaging violations that were either the responsibility of the shipper or the waste generator. **

BEATTY LICENSE TO BE RENEWED, 3rd PARTY INSPECTION WAIVERABLE

Effective May 14, 1986, the third party site inspection requirement for generators desiring to dispose of waste at the Beatty facility was made "waiverable" instead of mandatory. This action was taken by the State Board of Health at their May 14 meeting. The Board also decided to move to renew US Ecology's license to operate the Beatty disposal site. US Ecology has operated the site since 1980 under a timely renewal status.

Relief On 3rd Party Inspection

The Board of Health set two primary conditions which, if met, will grant a LLRW generator full waiver of the 3rd party inspection requirement. The conditions are that the generator:

(1) Submit a "Quality Assurance" Plan to the Nevada Radiology Services Section for review; and
(2) Have an "acceptable" track record at all other sites.

Jerry Griepentrog, Director of Nevada's Department of Human Resources, reported that there are also several other "options" available to generators, short of obtaining a full waiver. He explained that one possibility is for generators to have their facilities inspected by their respective state's radiation protection officials. He emphasized that the intent of this action is to relieve generators who are generally in compliance with disposal site regulations from the mandatory routine 3rd party inspection requirement.

Fees Reduced, Waste Form Changes

The Board also decided to reduce the disposal permit fee from the standard $3100 fee charged all site users to a fee schedule that would charge a generator of less than 1000 cubic feet per year only $100 per year.

A change to the allowable liquid content within waste packages was also approved. The prohibition against acceptance of any waste packages with any free standing liquid was modified to be in line the the NRC requirement of no more than one percent (1%) liquid. **

DISPOSAL SITE STATES ISSUE UTILITY LLRW ALLOCATION SCHEDULE

The states of Nevada, Washington and Nevada have agreed to, and released for comment "Draft Commercial Nuclear Power Reactor Allocations" which were developed according to the allocation scheme specified in the Low-Level Radioactive Waste Policy Amendments Act of 1985 (LLRWPAA). **(See Disposal Site Use Notification.)** An important aspect of the allocation scheme is that a utility, as allowed under the

LLRWPAA, can "carry forward" an allocation from the first four year transition period to the following three year licensing period, but will not be allowed to borrow from "future" allocations.

As explained by Terry Husseman, Director of the State of Washington's Nuclear Waste Programs, at the recent Radioactive Exchange's Second Decisionmakers' Forum, the sited states unanimously agree that a utility that uses up its allocation in the first four years -- the transition period -- would be prohibited from "borrowing" from its allocation for the following three year licensing period. However, as specified in the Act, a utility could carry forward its unused allocation from the first period to the second.

At the Forum, Mr. Husseman emphasized that the sited-states intend to enforce the allocation schedule and will prohibit disposal beyond the specified volumes. Comments on the allocation scheme are requested by June 30, 1986. They can be forwarded to Ms. Elaine Carlin, Executive Director, NW Compact Committee, Dept. of Ecology, LLRW Management Program, Mail Stop PV-11, Olympia, WA 98504, or to any one of the other sited state officials in South Carolina or Nevada. **

CALIFORNIA LWV INVOLVED IN LLRW SITE SELECTION

US Ecology is providing a block grant to the League of Women Voters' Southern California Regional Task Force to provide organizational support to a Citizens Advisory Committee being created to advise the firm on locations for a low-level radioactive waste disposal site in California. "The advisory committee will play a major role in helping identify several preferred siting areas for detailed field testing," reported company Vice President Ron Gaynor.

The proposed membership for the Site-Selection Citizens Advisory Committee is as follows:

> Two citizen representatives from each of the study counties, to be appointed by the board of supervisors; one at-large representative from each county, to be appointed by the League of Women Voters; one environmental group representative; one representative appointed to reflect Native American interests; and one representative from waste producers.

The block grant to the LWV Regional Task Force is intended to provide support and operations costs of the citizens committee. Gloria Anderson of Crestline CA has been appointed by the League to be the project manager. She is past president of the League of Women voters of San Bernardino and a member of the Southern California Regional Task Force.

An independent non-voting facilitator for the committee has been named to preside over committee meetings. She is Erna Schuiling, a resident of San Bernardino and a past president of the California League of Women Voters. She also served as vice chairperson of the Citizens Advisory Committee for the California Desert Conservation Area Plan, which provided recommendations to the U.S. Bureau of Land Management.

Role of the Committee

According to US Ecology Vice President Gaynor, the committee's responsibilties will include:

- Helping ensure that local, regional and statewide values are identified and evaluated in each of the steps leading to selection of preferred siting areas;
- Helping ensure that an effective program is carried out by US Ecology to inform and involve local communities and the public in site selection activities;
- Participating in the development of site selection criteria, assigning relative weights to the criteria, evaluating the attributes of specific siting areas with respect to the criteria, and recommending specific siting areas for detailed study; and

- Providing findings and recommendations to US Ecology in a timeframe consistent with the necessity to designate preferred siting areas by the company before the end of 1986.

The committee will meet independently from the planned information meetings to which all members of the public will be invited.

The first round of public meetings is planned for the last week of June. Meeting are tentatively scheduled to take place in Blythe, Twenty-Nine Palms, Barstow, Lone Pine and Riverside. The first meeting of the Site Selection Citizens Advisory Committee will be scheduled as soon as all members have been appointed. **

Wrap Up (LLRW)

IN THE CENTRAL MIDWEST

The **Central Midwest Compact Commission** is requesting comments on a Scope of Work for studies to be incorporated in the Central Midwest Compact Commission's Regional Management Plan. Written comments are to be submitted to the Commission by July 1, 1986. The Commission's next scheduled meeting will be in Springfield on July 17, 1986. At that meeting, the Commission will discuss comments received on the draft Scope of Work and will consider comments from anyone at the meeting. The Commission plans to reach final agreement on the Scope of work at that time. **Firms interested in working on this project as a contractor should contact the Commission's office by July 1, 1986.**

Work on the Regional Management Plan will be funded in part by monies rebated to the Commission from the escrow account managed by the U.S. DOE as called for under the Federal Low-Level Radioactive Waste Policy Amendments Act of 1985. The exact amount of funds available for the project is not known at this time but is estimated to be between $100,000 and $200,000.

The basic purpose of the Regional Management Plan is to plan "for the establishment of needed regional facilities" (Article III.j.3.). Further, the compact requires the commission, in adopting the plan, to:

1. **Adopt procedures** for determining the type and number of regional facilities which are presently necessary and which are projected to be necessary to manage waste generated within the region;
2. **Develop and adopt policies** promoting source and volume reduction of waste generated within the region;
3. **Develop alternative means** for the treatment, storage, and disposal of LLRW; and
4. **Prepare a draft regional management plan** that shall be made available to the public for comment.

The Plan will also serve as the overall framework for developing the Commission's plans, programs, and actions related to the task of identifying the number, type, and general distribution of regional low-level radioactive waste treatment, storage, and disposal facilities. It also serves as the basis for policies dealing with source and volume reduction and controlling imports and exports of waste to and from the region.

For copies of the tasks to be performed and included in the Scope of Work, contact the Illinois Department of Nuclear Safety (INDS) at 217-546-8100.

IN THE DOE (UMTRAP)

The Department of Energy has selected UNC Nuclear Industries (UNC) to design and carry out a seven-year remedial action program to remove uranium mill tailings from about 4,000 residences and business properties, mostly in Colorado, at an estimated cost of $245 million. DOE will now begin negotiating a contract with UNC to manage the remedial action program and to manage and maintain DOE facilities at Grand Junction, Colo.

Bendix Field Engineering Corporation is the current operating contractor at Grand Junction. Most of the current employees at the site are expected to transfer to the new contractor.

UNC, along with its committed subcontractor, ARIX Corporation, will begin a 45-day transition period on August 15, 1986, before starting the five-year contract with five one-year renewal options.

DOE says residences and business properties in the vicinity of Grand Junction have mill tailings levels that exceed government health standards. The objectives of the remedial action program is to remove the mill tailings from the properties and reduce radiation to near background levels. DOE issued a competitive Request for Proposals to manage the Grand Junction and other related programs on December 10, 1985.

IN THE INDUSTRY

Public Service of New Hampshire Company has awarded **NUS Process Services Corporation** the prime contract for radwaste solidification, transportation and ion exchange at the Seabrook Station. In early April, Union Electric Company also contracted with NUSPSC to perform solidification and transportation services at the Callaway Station. A solidification unit was delivered to the station on April 15th.

NUSPSC also reports that NRC has issued five certificates of compliance for the fabrication of additional NUSPSC radwaste shipping casks. These casks include:

NUS 6-80L&6-80H	C of C USA/9179/A
NUS 7-100	C of C USA/9178/A
NUS 10-135A	C of C USA/9177/A
NUS 14-195L and 14-195H	C of C USA/9176/A
NUS 14-170, 14-170M & 14-170H	C of C USA/9159/A

CALL FOR PAPERS

Waste Management '87, March 1-5, 1987, Tucson, Arizona. The '87 conference is sponsored by the University of Arizona, the American Nuclear Society, the Electric Power Research Institue, the Radwaste Systems Committee of the American Society of Mechanical Engineers and numerous interested commercial institutions. Topics selected for WM '87 are as follows: Productive Cooperation of International Nuclear Waste Disposal Programs; Status of US Nuclear Waste Disposal; Spent Fuel Storage; Waste Management Aspects of Environmental Surveillance; Geotechnical Characterization of HLW Repositories; Economics of the fuel Cycle and Waste Management-Systems Analysis; LLW Compact Progress; Transportation of Nuclear Waste: Technical Aspects; LLW Management by Utilities; Public Education on Nuclear Waste Management; Nuclear Waste Disposal Modeling; Nuclear Waste Disposal Quality Assurance; Technical Experts and Government Interface with Public/Institutional Interests; Transportation of Nuclear Waste: Institutional and Public Safety Aspects; Disposal of Decommissioned/Decontaminated/Special Case Wastes; Nuclear Waste Research By-Products and Other Technology Transfer Aspects; Legal and Liability Issues in Nuclear Waste Storage and Disposal; Mixed Chemical/Radioactive Waste Disposal

Interested contributers to the meeting are invited to submit extended summaries (in triplicate) of their contributions to the Technical Program Chairman, M. E. Wacks (602-621-6160), Department of Nuclear and Energy Engineering, University of Arizona, Tucson, Arizona, 85721, by September 10, 1986.

Authors will be notified of paper acceptance by November 14, 1986. Completed papers are required by February 11, 1987. The approved papers will be assigned to either oral or poster sessions depending on the subject matters applicability to the selected session objectives and author's preference. In either case the processing and publications of the papers will be identical.

DRAFT COMMERCIAL NUCLEAR POWER REACTOR ALLOCATIONS
(As Proposed By The States of Washington, Nevada, and South Carolina)

State	Company	Reactor	Type	Region	Method	Allocation: Transition Period (1/1/86-12/31/89)	Allocation: Licensing Period (1/1/90-12/31/92)
Alabama	Alabama Power	Farley 1	PWR	SE	AP	49,296	33,624
		Farley 2	PWR	SE	AP	49,296	33,624
	Tennessee Valley Authority	Bellefonte 1	PWR	SE		Operating License Anticipated: 1993	
		Bellefonte 2	PWR	SE		Operating License Anticipated: 1995	
		Browns Ferry 1	BWR	SE	AP	110,400	75,276
		Browns Ferry 2	BWR	SE	AP	110,400	75,276
		Browns Ferry 3	BWR	SE	AP	110,400	75,276
Arizona	Arizona Public Service Co.	Palo Verde 1**	PWR	W	OL: 6/85	34,840	24,660
		Palo Verde 2	PWR	W		Operating License Anticipated: 1986	
		Palo Verde 3	PWR	W		Operating License Anticipated: 1987	
Arkansas	Arkansas Power and Light Co.	Arkansas 1	PWR	C	AP	41,808	24,660
		Arkansas 2	PWR	C	AP	41,808	24,660
California	Pacific Gas & Electric Co.	Diablo Canyon 1	PWR	NA	OL: 11/84	40,937	24,660
		Diablo Canyon 2*	PWR	NA	OL: 8/85	33,098	24,660
		Humboldt Bay 3 (7/84)**	BWR	NA	AP	93,648	55,188
	Sacramento Municipal Utility District	Rancho Seco	PWR	NA	AP	41,808	24,660
	Southern California Edison and San Diego Gas & Electric Co.	San Onofre 1	PWR	NA	AP	41,808	24,660
		San Onofre 2	PWR	NA	AP	41,808	24,660
		San Onofre 3	PWR	NA	AP	41,808	24,660
Colorado	Public Service Co. of Colorado	Fort St. Vrain***	HTGR	RM			
Connecticut	Connecticut Yankee Atomic Power Co.	Haddam Neck	PWR	NE	AP	41,808	24,660
	Northeast Utilities	Millstone 1	BWR	NE	AP	93,648	55,188
		Millstone 2	PWR	NE	AP	41,808	24,660
		Millstone 3[4]	PWR	NE	OL: 1/86	30,485	24,660
Florida	Florida Power & Light Co.	St. Lucie 1	PWR	SE	AP	49,296	33,624
		St. Lucie 2	PWR	SE	AP	49,296	33,624
		Turkey Point 3	PWR	SE	AP	49,296	33,624
		Turkey Point 4	PWR	SE	AP	49,296	33,624
	Florida Power Corp.	Crystal River 3	PWR	SE	AP	49,296	33,624
Georgia	Georgia Power	Hatch 1	BWR	SE	AP	49,296	33,624
		Hatch 2	BWR	SE	AP	110,400	75,276
		Vogtle 1	PWR	SE		Operating License Anticipated: 1987	
		Vogtle 2	PWR	SE		Operating License Anticipated: 1988	
Illinois	Commonwealth Edison Co.	Braidwood 1	PWR	CMW		Operating License Anticipated: 1986	
		Braidwood 2	PWR	CMW		Operating License Anticipated: 1988	
		Byron 1	PWR	CMW	OL: 2/85	38,324	24,660
		Byron 2	PWR	CMW		Operating License Anticipated: 1986	
		Dresden 1 (8/84)**	BWR	CMW	AP	93,648	55,188
		Dresden 2	BWR	CMW	AP	93,648	55,188
		Dresden 3	BWR	CMW	AP	93,648	55,188
		LaSalle	BWR	CMW	AP	93,648	55,188
		LaSalle	BWR	CMW	AP	93,648	55,188
		Zion 1	PWR	CMW	AP	41,808	24,660
		Zion 2	PWR	CMW	AP	41,808	24,660
	Commonwealth and Iowa-Illinois Gas and Electric Co.	Quad-Cities 1	BWR	CMW	AP	93,648	55,188
		Quad-Cities 2	BWR	CMW	AP	93,648	55,188
	Illinois Power Co.	Clinton	BWR	CMW		Operating License Anticipated: 1986	
Indiana	Public Service Indiana	Marble Hill 1	PWR	MW		Operating License Unscheduled	
Iowa	Iowa Electric Light & Power Co.	Duane Arnold	BWR	MW	AP	93,648	55,188

State	Company	Reactor	Type	Region	Method	Allocation: Transition Period (1/1/86-12/31/89)	Allocation: Licensing Period (1/1/90-12/31/92)
Kansas	Kansas Gas & Electric Co., Kansas City Power & Light Co., and Kansas Electric Power Co-operative, Inc.	Wolf Creek 2	PWR	C	OL: 6/85	34,840	24,660
Louisiana	Gulf States Utilities Co.	River Bend 1*	BWR	C	OL: 11/85	68,285	55,188
	Louisiana Power & Light Co.	Waterford 3	PWR	C	OL: 3/85	37,453	24,660
Maine	Maine Atomic Electric Co.	Maine Yankee	PWR	NA	AP	41,808	24,660
Maryland	Baltimore Gas & Electric	Calvert Cliffs 1	PWR	A	AP	41,808	24,660
		Calvert Cliffs 2	PWR	A	AP	41,808	24,660
Massachusetts	Boston Edison Co.	Pilgrim 1	BWR	NA	AP	93,648	55,188
	Yankee Atomic Electric Co.	Yankee-Rowe 1	PWR	NA	AP	41,808	24,660
Michigan	Consumer's Power Co.	Big Rock Point 1	BWR	MW	AP	93,648	551,88
		Midland 1	PWR	MW		Operating License Unscheduled	
		Midland 2	BPWR	MW		Operating License Unscheduled	
		Palisades	PWR	MW	AP	41,808	24,660
	Detroit Edison Co.	Fermi 2*	BWR	MW	OL: 7/85	76,089	55,188
	Indiana and Michigan Electric Co.	Cook 1	PWR	MW	AP	41,808	24,660
		Cook 2	PWR	MW	AP	41,808	24,660
Minnesota	Northern States Power Co.	Monticello	BWR	MW	AP	93,648	55,188
		Prairie Island 1	PWR	MW	AP	41,808	24,660
		Prairie Island 2	PWR	MW	AP	41,808	24,660
Mississippi	Mississippi Power & Light Co.	Grand Gulf 1	BWR	SE	AP	110,400	75,276
		Grand Gulf 2	BWR	SE		Operating License Unscheduled	
Missouri	Union Electric Co.	Callaway 1	PWR	MW	OL: 10/84	41,808	24,660
Nebraska	Nebraska Public Power District	Cooper Station	BWR	C	AP	41,808	24,660
	Omaha Public Power District	Fort Calhoun 1	PWR	C	AP	41,808	24,660
New Hampshire	Public Service Co. of New Hampshire	Seabrook 1	PWR	NA		Operating License Anticipated: 1986	
		Seabrook 2	PWR	NA		Operating License Unscheduled	
New Jersey	GPU Nuclear Corp.	Oyster Creek 1	BWR	NE	AP	93,648	55,188
		Hope Creek 1	BWR	NE		Operating License Anticipated: 1986	
	Public Service Electric and Gas Co.	Salem 1	PWR	NE	AP	41,808	24,660
		Salem 2	PWR	NE	AP	41,808	24,660
New York	Consolidated Edison Co.	Indian Point 1 (12/80)**	PWR	NA	AP	41,808	24,660
		Indian Point 2	PWR	NA	AP	41,808	24,660
	Long Island Lighting Co.	Shoreham	BWR	NA		Operating License Unscheduled	
	New York Power Authority	Indian Point 3	PWR	NA	AP	41,808	24,660
		FitzPatrick	BWR	NA	AP	93,648	55,188
	Niagra Mohawk Power Corp.	Nine Mile Point 1	BWR	NA	AP	93,648	55,188
		Nine Mile Point 2	BWR	NA		Operating License Anticipated: 1986	
	Rochester Gas & Electric Corp.	Ginna	PWR	NA	AP	41,808	24,660
North Carolina	Carolina Power & Light Co.	Brunswick 1	BWR	SE	AP	110,400	75,276
		Brunswick 2	BWR	SE	AP	110,400	75,276
		Harris 1	PWR	SE		Operating License Anticipated: 1986	

Notes

* Operating license issued, but reactor not yet in commercial operation.
** No longer in commercial operation and scheduled for decommissioning (Date of Retirement).
*** No specific allocations given for high-temperature, gas-cooled reactors.

DRAFT COMMERCIAL NUCLEAR POWER REACTOR ALLOCATIONS

State	Company	Reactor	Type	Region	Method	Allocation: Transition Period (1/1/86-12/31/89)	Allocation: Licensing Period (1/1/90-12/31/92)
North Carolina (Cont'd)	Duke Power Co.	McGuire 1	PWR	SE	AP	49,296	33,624
		McGuire 2	PWR	SE	AP	49,296	33,624
Ohio	The Cleveland Electric Illuminating Co.	Perry 1	BWR	MW		Operating License Anticipated: 1986	
		Perry 2	BWR	MW		Operating License Unscheduled	
	Toledo Edison Co.	Davis-Besse 1	PWR	MW	AP	41,808	24,660
Oregon	Portland General Electric Co.	Trojan	PWR	NW	AP	49,296	33,624
Pennsylvania	Duquesne Light Co.	Beaver Valley 1	PWR	A	AP	41,808	24,660
		Beaver Valley 2	PWR	A	AP	Operating License Anticipated: 1987	
	GPU Nuclear Corp.	Three Mile Isl. 1	PWR	A	AP	41,808	24,660
		Three Mile Isl. 2 (3/79)**	PWR	A	AP	41,808	24,660
	Pennsylvania Power & Light Co.	Susquehanna 1	BWR	A	AP	93,648	55,188
		Susquehanna 2	BWR	A	AP	93,648	55,188
	Philadelphia Electric Co.	Limerick 1*	BWR	A	OL: 8/85	74,138	55,188
		Limerick 2	BWR	A		Operating License Unscheduled	
		Peach Bottom 2	BWR	A	AP	93,648	55,188
		Peach Bottom 3	BWR	A	AP	93,648	55,188
South Carolina	Carolina Power & Light Co.	Robinson 2	PWR	SE	AP	49,296	33,624
	Duke Power Co.	Catawba 1	PWR	SE	OL: 1/85	46,215	33,624
		Catawba 2	PWR	SE		Operating License Anticipated: 1986	
		Oconee 1	PWR	SE	AP	49,296	33,624
		Oconee 2	PWR	SE	AP	49,296	33,624
		Oconee 3	PWR	SE	AP	49,296	33,624
	South Carolina Electric & Gas Co.	Summer	PWR	SE	AP	49,296	33,624
Tennessee	Tennessee Valley Authority	Sequoyah 1	PWR	SE	AP	49,296	33,624
		Sequoyah 2	PWR	SE	AP	49,296	33,624
		Watts Bar 1	PWR	SE		Operating License Anticipated: 1986	
		Watts Bar 2	PWR	SE		Operating License Anticipated: 1987	
Texas	Houston Lighting & Power Co.	South Texas 1	PWR	TX		Operating License Anticipated: 1987	
		South Texas 2	PWR	TX		Operating License Anticipated: 1989	
	Texas Utilities Generating Co.	Comanche Peak 1	PWR	TX		Operating License Anticipated: 1987	
		Comanche Peak 2	PWR	TX		Operating License Anticipated: 1987	
Vermont	Vermont Yankee Nuclear Power Corp.	Vermont Yankee 1	BWR	NA	AP	93,648	55,188
Virginia	Virginia Electric & Power Co.	North Anna 1	PWR	SE	AP	49,296	33,624
		North Anna 2	PWR	SE	AP	49,296	33,624
		Surry 1	PWR	SE	AP	49,296	33,624
		Surry 2	PWR	SE	AP	49,296	33,624
Washington	Washington Public Power Supply System	WNP-1	PWR	NW		Operating License Unscheduled	
		WNP-2	BWR	NW	AP	110,400	75,276
		WNP-3	PWR	NW		Operating License Unscheduled	
Wisconsin	Dairyland Power Cooperative	LaCrosse	BWR	MW	AP	93,648	55,188
	Wisconsin Electric Power Co.	Point Beach 1	PWR	MW	AP	41,808	24,660
		Point Beach 2	PWR	MW	AP	41,808	24,660
	Wisconsin Public Service Corp.	Kewaunee	PWR	MW	AP	41,808	24,660

KEY

Regions

A	Appalachian Compact (tentative)
SE	Southeast Compact
C	Central Compact
RM	Rocky Mountain Compact
NE	Northeast Compact
CMW	Central Midwest Compact
NW	Northwest Compact
MW	Midwest Compact
TX	Texas (go-it-alone)
W	Western
NA	No Affiliation

Methods

AP	Applicable Period
OL	Operating License: Date Issued

(First Round from pg. 1)
Site Characterization For The First Radioactive-Waste Repository, DOE/S-0048) stated that the final order of preference is Yucca Mountain, Deaf Smith, and Hanford. The only difference between this ranking and that produced by the "utility estimation" technique used in the draft EA's is that in the latter Deaf Smith and Hanford were tied for second place.

The differences between the results of the different methodologies is clearer if one looks at the initial order of preference among the sites produced by the multiattribute utility analysis. (Editor's Note: The siting guidelines specify a two-stage ranking process. First, the sites are ranked in an initial order of preference based on the available geophysical, geologic, geochemical, and hydrologic data; other information; and the evaluations and findings in the Environmental Assessments. Next, a final order of preference is determined by taking into account the guidelines dealing with diversity of geohydrologic settings and diversity of rock types. The multiattribute utility technique was used only to determine the initial order of preference.) The initial order of preference (described in Chapter 5 of A Multiattribute Utility Analysis of Sites Nominated For Characterization For The First Radiaoctive-Waste Repository - A Decision-Aiding Methodology, DOE/RW-0074) was Yucca Mountain, Richton Dome, Deaf Smith, Davis Canyon, and Hanford. In comparison, the initial ranking produced by the earlier "utility estimation" technique was Yucca Mountain, Deaf Smith and Hanford, Richton Dome, and Davis Canyon. The principal difference is that Hanford fell to the bottom of the list in the new ranking, while Richton moved up.

Insights From Multiattribute Analysis

According to the Department, the major insights gained from use of the multiattribute utility analysis were:

Post Closure Analysis

- All five sites appear capable of providing exceptionally good radiological protection for future populations for at least 100,000 years after closure.
- The Davis Canyon, Deaf Smith, Richton Dome, and Yucca Mountain sites appear to be virtually indistinguishable in terms of the expected post-closure performance. The Hanford site is just discernibly (sic) less favorable than the other four sites, but its performance is still far above the threshold of acceptability established by the EPA.
- The confidence in the performance of the three salt sites (Davis Canyon, Deaf Smith, and Richton Dome) is exceptionally high, and it is higher than that for the nonsalt sites (Hanford and Yucca Mountain).
- The overall postclosure ranking of Davis Canyon, Richton Dome, Deaf Smith, Yucca Mountain, and Hanford is stable over a wide range of sensitivity analyses.

Preclosure Analysis

- With regard to preclosure health and safety, the site rankings are Richton Dome, Deaf Smith, Davis Canyon, Yucca Mountain, and Hanford. The differences among the sites are largely attributable to waste transportation and to non-radiological repository-worker fatalities due to accidents.

- With regard to environmental and socioeconomic impacts, the site rankings are Hanford, Yucca Mountain, Deaf Smith, Richton Dome, and Davis Canyon. The difference between sites is greater than the difference on health-and-safety impacts. However, this difference is relatively small in comparison with differences in total costs.

- With regard to total costs, the site rankings are Yucca Mountain, Richton Dome, Deaf Smith, Davis Canyon, and Hanford. The difference between the most favorable site and least favorable site is equal to $4.38 billion.

- Considering all preclosure impacts, the overall ranking of sites is Yucca Mountain, Richton Dome, Deaf Smith, Davis Canyon, and Hanford. This ranking is stable over a wide range of sensitivity analyses.

- The overall preclosure ranking is mainly attributable to the large differences among sites in total costs. Because the criteria used in screening sites for nomination were concerned with health and safety and the environment, but not with costs, sites expected to perform poorly on objectives other than costs have already been screened out.

Composite Analysis

- Because the differences among sites in postclosure performance are very small and the differences in preclosure performance are relatively large, the overall composite results are largely a reflection of the preclosure impacts and thus of costs.

- The composite overall ranking of sites is basically insensitive to the relative values of the scaling factors used to combine the preclosure and postclosure utility scores into a composite score.

- **The composite overall ranking under a wide range of assumptions is Yucca Mountain, Richton Dome, Deaf Smith, Davis Canyon, and Hanford.** This ranking is stable except for the most extreme assumptions about postclosure performance combined with the most extreme weightings of postclosure performance versus preclosure performance.

Hanford Ranked 5th, But Is 3rd Site

Both Secretary Herrington and Ben Rusche were asked how they could justify including Hanford when it ranked at the bottom of the initial order of preference. The Department's response, derived from Rusche's comments and the formal documents released at the time the decision was announced, has three elements:

1. Even though Hanford was lowest on the postclosure ranking, it still is expected to perform more than 100 times better than the EPA release standards. In the Department's view (presented in the decision document), "there is little practical advantage of one site over another with respect to postclosure performance" because all are expected to have such low releases.

2. Even though Hanford was lowest on the preclosure ranking, that ranking was dominated by estimated repository and transportation costs -- which are highest for Hanford. As the Department notes, while the guidelines are clear that cost is a

factor to be considered, they are equally clear that all the other preclosure factors should take precedence over costs. The decision document points out that if repository and transportation costs are not considered, and the sites are ranked by aggregating performance on all of the other preclosure performance measures, Hanford would come out on top, followed by Yucca Mountain, Deaf Smith, Richton Dome, and Davis Canyon. The decision document also points out, however, that "the selection of a site with higher costs for development as the first geologic repository would be entertained only if the postclosure performance of the sites and other technical factors evaluated during site characterization show the higher costs to be warranted."

3. Hanford provides greater diversity of rock types (the major additional factor to be considered in going from the initial ranking to the final ranking) than would inc.usion of another salt site.

Big Surprise -- No Second Round!

Contrary to many expectations, the really big surprise of the press conference concerned the second siting round rather than the first. While the Secretary described his decision to halt site-specific work on the second repository as a postponement, it sounded very much like a cancellation. No further work is planned on the draft Area Recommendation Report, other than cataloging the comments received by the Department. Furthermore, the areas identified in the report "are no longer under active consideration," and "no other sites are under consideration." The Secretary did state, however, that "the Department intends to continue studies of a second repository program as required by NWPA. These studies will, however, be technical in nature and not site specific." According to the Secretary, the Department would "start from square one on siting" if a decision were made in the 1990's that a second repository is needed. Rusche indicated later that the entire country would be open for consideration if the second round process were restarted because of such a decision.

Why Was Congress Preempted?

The first question to Secretary Herrington was why the Department had decided to get into the middle of the dispute about the second repository instead of letting Congress decide. The Secretary stated strongly that politics had nothing to do with the decision, and listed four factors that had convinced him that it was prudent for him to take action to defer the second repository:

- Satisfactory progress in the studies for the siting of the first repository.
- Optimism about Congressional authorization of a Monitored Retrievable Storage Facility. (The Secretary was particulary forceful on this point, stating that he "doesn't even consider the possibility that it wouldn't be approved," and that the Department will give the MRS top priority.)
- Uncertain and declining projections of the amount of spent fuel to be generated.
- The conclusion that in light of these projections, the first repository, which the law permits to hold up to 70,000 metric tons of waste, will be adequate in the foreseeable future.

"Based on the review of this information," the Secretary stated, "it is the Department's opinion that the Nation need not consider a second repository until at least the mid-1990's -- or much later. It is clear that to go ahead and spend hundreds of millions of dollars on site identification now would be both premature and unsound fiscal management."

Decision Conflicts with NWPA

The Secretary disagreed with a suggestion that Congressional ratification of the decision might be required, saying that "we are within the law."

There were indications that the decision to stop the second round was made at the last minute. In a hearing before the subcommmitee on Energy Conservation and Power last month, Mr. Rusche had indicated that the DOE thought that the second repository was needed. (See EXCHANGE, Vol. 5, No. 7). When asked at the press conference why he had told one reporter the previous day that the second round was still on, he responded that that had been correct at the time, and that things change quickly in the nuclear waste arena. Congressional sources also observed that normally the Department provides Congressional briefings before the press conference announcing any major decision, whereas in this case the press conference came first.

Commenting on the Department's change of position on the second repository, Ben Rusche pointed out that he had stated in recent hearings that once a decision was made on sites for characterization for the first round, it would be appropriate to reexamine the schedule and program for the second repository. "That's exactly what we've done," he said.

Both Secretary Herrington and Rusche put great emphasis on the declining projections of the volume of spent fuel as a reason for deferring efforts to site the second repository. Rusche noted that at the time the Nuclear Waste Policy Act was passed, it was expected that about 140,000 metric tons of spent fuel would be produced by 2020. He said that current projections show that the amount might be below 100,000 metric tons, although the mid-case projection used by the Department for planning shows 115-120,1000 tons. This does not include the defense high level waste, which could amount to the equivalent of 12,000 to 15,000 metric tons. When questioned about whether this reduction was enough to justify termination of the second round siting program, Rusche said that going ahead with the second round would mean spending some $680 million between now and the mid-1990's on a repository we may not need and on a time frame we cannot predict.

Missing from the discussion was any mention of the possible implications of having only one repository available for accepting spent fuel. Current DOE studies and plans assume that the maximum rate at which spent fuel or high-level waste could be emplaced in a repository is 3000 metric tons per year. If only one repository is available and it is limited to that annual loading rate, it would barely have the capacity to handle the annual discharge from reactors expected at the time the repository is loading at full scale, with little capacity left over for removal of the backlog of spent fuel that will be in storage by that time. If the defense high-level waste packages are brought into the picture, the potential bottleneck becomes more significant. Unlike the decision concerning the first round sites, the postponement of the second round was not accompanied by the release of any analysis to back up the Department's position. **

NEVADA, TEXAS, WASHINGTON CHALLENGE DOE IN COURT

On the very same day of the DOE site characterization announcement, Nevada's State Attorney General filed five separate suits in the U.S. District Court for the Ninth Circuit in San Francisco on behalf of Nevada Governor Bryan and the state's entire Congressional delegation including Senators Laxalt and Hecht, challenging the recommendation and selection of the Yucca Mountain site for the 1st round repository. Texas followed by filing suit on Thursday, May 29; Washington is expected to file either on Friday May 30th or Monday, June 2.

Nevada's Five Suits

Bob Loux, Nevada's HLW Program Director, reported that the Nevada suits challenge:

-- DOE's ability to issue the site nomination and recommendation in one action;
-- DOE's decision on prohibiting the use of Nuclear Waste Trust Funds to support a state seeking judicial review;
-- the statutory accuracy of the Yucca Mountain site EA;
-- the timing of the preliminary

determination of suitability; and,
-- BLM land status of the Yucca Mountain site.

Texas' Challenge

Texas' Attorney General filed suit in the U.S. District Court of the District of Columbia. According to Steve Frishman, the Texas HLW Program Director, the suit challenges DOE on the Environmental Assessments, nominations, the Secretary's recommendation, and requests reopening the earlier filed challenge regarding the overall national site identification process for selecting the first round sites. This suit was dismissed earlier by the Court because the issue was judged not to be ripe for a decision.

Washington Reaction

The State of Washington will be the last to file suit. Terry Husseman, Director of Washington State's Nuclear Waste Programs, reported that Washington's suit will include issues raised by Nevada and Texas and also challenge the selection of the Hanford site on the basis that the decision was arbitrary and not based on the ranking methodology. He remarked as how DOE developed a siting methodology, brought in outside experts to review it, and then just ignored it. He emphasized that Hanford came out ranked fifth among the nine nominated sites in both preclosure and postclosure analysis, but ended up being picked as one of the top three. The Washington Nuclear Waste Program Director remarked that if DOE had compared Hanford with all nine sites, not just five, Hanford would have come out ninth. **

DOE "2ND ROUND" DECISION "SHOCKS" EAST, WEST, FRIENDS AND FOES

DOE's decision to "postpone" the second round repository site selection process without any appearance of technical justification all but overshadowed the announcement of Secretary Herrington's recommendation and the President's decision to characterize sites in Washington, Nevada and Texas for the possible location of a HLW repository. In a round robin series of telephone interviews with directors of the HLW programs in Washington, Nevada and Texas, plus discussions with Congressional staff who could be described as both supporters and opponents of DOE's HLW efforts, the EXCHANGE found no support for the decision to postpone the second round repository program. There was almost unanimous agreement, contrary to DOE's view, that this action was in violation of the provisions of the NWPA. Even Congressman Markey, an avid opponent of the second round selection program, questioned DOE motives and vowed to investigate the basis of the decision.

Reaction of the 1st Round States

Officials from the "selected" first round states were shocked and caught completely unaware of the second round repository decision. This included Nevada's Senator Laxalt. Steve Frishman, Director of the Texas HLW Program made the following observation: "...what DOE has done on the second round repository program confirms to us that the whole siting process from day one has been politically driven.... It has nothing to do with the premium that Congress and everyone else is putting on doing an excellent job because safety is the top consideration."

Mr. Frishman made a very compelling argument that the dropping of the second round program leaves DOE without any "insurance factor" to cover the possibility that all the three first round sites could be flawed, again demonstrating that "DOE has confidence that no matter what is found during site characterization, they will get a repository.... That doesn't do anything for my confidence in whether it's going to be a safe repository or not," he concluded.

Congressional Reaction

Congressional reaction to the second round repository program was not supportive. Massachusetts Congressman Markey's press statements distributed at DOE's announcement included the following caution: "I intend to investigate whether election year politics rather than technical considerations were responsible for the decision to

postpone the second repository program. Will this postponement suddenly end after election day?" In light of comments made at his own hearings, he remarked that "the decision reflects a curious turnaround by an Administration that adamantly opposed such a halt," just a few weeks earlier.

Reaction from DOE supporters in the Senate, though from a different perspective, is also expected to be negative. The EXCHANGE has learned that a bipartisan group of key Senate leaders will pen a letter to the Secretary and OCRWM Director Rusche questioning whether a single repository will have sufficient capacity to handle the defense and commercial HLW, and request technical justification for the decision. The DOE action is being viewed as a violation of the provisions of the Nuclear Waste Policy Act which could set the program back to square one, and result in immediately "polarizing" Congress, stalling future program progress. **

UPDATE

STATUS OF UPCOMING REPORTS AND MILESTONES OF THE OCRWM
(5/30/86)

Proposal for Defense Contribution to the HLW Fund -- June 1? Still delayed by OMB.

Environmental Assessments for First Repository
Nominate at least five site as suitable for site characterization
Recommend three sites for detailed characterization and make preliminary determination of site suitability)

See story this Issue

MRS Proposal -- Submission to Congress prohibited by Court Order. Oral arguments in Sixth Circuit Court of Appeals scheduled for July 24.

Report To Determine P-A Liability Limits For HLW Repository -- (?) (See Wrap-Up, EXCHANGE Vol. 5, No. 4

Issue Transportation Institutional Plan -- 6/86.

Issue Program-Level Financial Assistance Guidelines -- ??

Issue Request for Proposal (RFP) for Transportation Cast Development -- 6/86.

Issue RFP for Phase II Program Research and Development Announcement Follow-On Projects -- 6/86.

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