The

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

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SEC. HERRINGTON RESTARTS 2nd REPOSITORY PROGRAM

On October 1, Secretary Herrington, explaining that he was compelled to act under obligations imposed by the Nuclear Waste Policy Act (NWPA), and a DOE court affidavit filed this June 26, notified the Governors of the seventeen states that had been under consideration for the second repository that "DOE will resume the second repository site selection process from the point at which it was suspended in May 1986."

The Secretary then emphasized in his letter that the resumption of activities would be at a minimum level of effort --

"the only step contemplated is the resumption of the preparation of the Area Recommendation Report (ARR) which now involves the review and consideration of the 60,000 comments received on the draft ARR. This process will take approximately 12 to 18 months. Until the ARR has been completed, the Department need not, and does not intend to conduct any activities on any site described in the draft ARR."

(See 2nd Round in the HLW Focus)

PA LLRW BILL REQUIRES SITING REGS FOR LLRW PROCESSING FACILITIES

On September 25, when Pennsylvania Governor Casey finally publicly revealed his proposed legislation for siting a LLRW disposal facility in the state for the Appalachian Regional Compact, he surprised more than a few observers by including provisions that would require the state to issue regulations to govern the siting of a commercial LLRW incinerator or compactor.

The Exchange had indicated (EXCHANGE, Vol. 6, No. 16 [Part II]) that changes to non-disposal aspects of the bill, following its review by the Public Advisory Committee and prior to its submittal by the Governor to the legislature was likely, but, the inclusion of this provision was not expected.

In addition to the LLRW processing facility siting requirements, the Governors' bill makes several changes in the earlier proposed version of the LLRW disposal facility siting provisions. One significant change is language calling for the establishment of a \$100,000,000 fund to cover claims for damages after the proposed regional disposal site is decommissioned.

(See PA Bill pg. 2)

202/362-9756

(PA Bill from pg. 1)

Compactor, Incinerator Siting Regs

The bill's provision requiring the development of siting regs for an incinerator or compactor facility reads as follows:

No license or permit to construct, alter, own or operate a commercial low-level radioactive waste incinerator or compactor shall be issued until the Environmental Quality Board (EQB) has promulgated siting regulations for such facilities. No such license or permit shall be issued unless the applicant has demonstrated with clear and convincing evidence that the site selected for the commercial incinerator or compactor satisfies the siting regulations. For purposes of this section, a commercial incinerator or compactor is any incinerator or compactor of low-level waste except 1) one which incinerates or compacts waste at the site of generation, including one situated on the premises of a hospital or research laboratory; 2) one which only incinerates or compacts waste generated by the facility owner; 3) a compactor which compacts waste at the regional facility."

If the bill is adopted with this provision, Babcock & Wilcox's proposed Parks Township Regional Waste Processing facility, intended for the purpose of offering commercial volume reduction services, would be delayed until the siting regs are promulgated. B&W could, however, use the facility for waste generated on site.

Highlights Of Governor's Changes

Included among the several changes in the Governor's bill from the version reported earlier (See EXCHANGE Vol. 6, No. 16 [Part II]) are the following:

- A new "Regional Facility Protection Fund" is established of at least \$100,000,000 to cover any claims for damages arising 10 years after the site has been decommissioned and the license terminated. Surcharges on all waste

disposed at the site will pay for the interest bearing Fund.

- The definition of shallow-land burial was made more stringent than the Appalachian Compact definition by deleting the option to allow only packaging of waste without any further environmental restrictions.
- The selected site operator is to choose three sites instead of one to be submitted to Environmental Quality Board (EQB) for preliminary approval for further study.
- \$100,000 is provided on a per site basis to a potential host municipality to study the site proposal and provide input into the EQB decision.
- Access to the three preliminarily approved sites for further study is granted to the operator under provisions of the state's Eminent Domain Code.
- The Department of Environmental Resources (DER) is required to implement, the policies of the Compact Commission to reduce not only the volume but the toxicity of LLRW. **

CENTRAL STATES COMMISSION SETS PROCESS TO DESIGNATE HOST STATE

The Central States Commission, meeting on September 22, in Little Rock, Arkansas, adopted host state selection procedures and directed US Ecology to proceed to develop the necessary data in a manner that is "rational systematic, and verifiable."

The criteria to be used in the host state selection process includes:

- o hydrogeologic factors as contained in 10 CFR 61;
- o historic and projected volume of wastes and activities in curies, which shall include but not be limited to, the number and types of reactors; and transportation factors.

States are also to be given credit for `

currently providing waste management services for low-level radioactive or hazardous waste. Community interest in hosting a site is to be assessed independently by the Commission, not by US Ecology. All data used in the selection process criteria shall be based on primary data and not secondary or tertiary data.

US Ecology is to submit to the Commission, within the next two weeks, any additional information on specific data satisfying the specified criteria. The Commission is then to determine weighting factors for the various criteria.

Selection Set For November

Selection of the host state is to occur at the next Commission meeting in November, in New Orleans, Louisiana. At this session US Ecology is to submit recommendations on host state selection based on the criteria and weighting factors adopted by the Commission. The specific time and location of the meeting has not been set. **

NY BASED GROUP ADVOCATES KEEPING LLRW AT REACTOR SITES INDEFINITELY

On September 29, the Radioactive Waste Campaign, a New York based group which advocates "an orderly, rational phase-out of Nuclear reactors" released a new publication "Doing Without Landfills" in which Marvin Resnikoff, PhD., the author,

advocates stopping the search for new disposal sites, and storing LLRW at nuclear reactors for an indefinite period of time. Certain medical and institutional waste is proposed to be co-stored with reactor waste at nuclear plant sites. The 100+ page book, is intended "to enlighten citizens and state and local officials about the nature and hazard of [LLRW], and how to protect ourselves". It calls for the launching of Manhattan Project II, "to resolve all aspects of the nuclear waste problem." The proposed effort would be comparable to the Manhattan Project and run by a new independent entity, its members confirmed by Congress.

The book basically argues a case against the use of "landfills" for the disposal of LLRW, implying that landfill disposal technology is being proposed to be used in the development of new disposal sites. In a very quick review of the publication, the Exchange found that little or no recognition is given to the fact that shallow land burial or the use of landfills has already been prohibited by all the regions and/or states proceeding to develop disposal sites. The reader is given the impression that regional commissions have the power to site disposal facilities, when again, no regional commission has such authority. The book can be obtained by writing; The Radioactive Waste Campaign, 625 Broadway, 2nd Floor, New York, NY 10012. **

IN THE SOUTHEAST

The **Southeast Compact Commission** meeting on September 25 adopted, as expected, policy positions:

- -- Recommending that each party state amend their respective compact ratification law to incorporate party state compact withdrawal provisions ratified by North Carolina. This provision limits the period within which a party state may withdraw from the compact to 30 days following the commencement of operation of the second regional facility. This language must be ratified by every party state by December 31, 1988, and by Congress by January 1, 1992 for North Carolina to remain in the compact.
- -- Requiring that the third host state be designated no later than 10 years before the required opening of the third regional disposal facility.
- -- Approving an annual survey of LLRW generators. The first such survey will commence in March '88.
- -- Reinforcing Compact provisions calling for generators to use the best available technology to achieve volume reduction (VR) and directing each state to file a report with the commission on VR practices being utilized.

The commission directed the Sanctions Committee to look into specific sanctions that could be imposed on a party state if it did decide to withdraw in violation of the new compact withdrawal provisions.

On September 25 North Carolina's Radiation Protection Commission did adopt regulations governing the disposal of LLRW. **

IN THE MIDWEST

At their September 30 session the Midwest Compact Commission publicly revealed that Michigan, upon the advice of the State's Attorney General's Office does not intend to sign the Commission's proposed "Host State Agreement" document. The proposed agreement was determined to be an inadequate vehicle to attain the assurances and commitments the State desired if it was to host the regional compact disposal facility.

The decision not to proceed with the Agreement does not affect Michigan's intent to continue to proceed to reach an agreement with the Commission on the acceptance of its host state responsibility.

As was pointed out by compact officials, the primary intent of the Host State Agreement was to provide written assurances of the Commission's and party states' committments to the host, not vice-versa. Michigan had determined that the agreement was not the proper vehicle to execute such commitments. Instead, state officials requested that the substance of the commitments be incorporated directly into the regional Compact via amendments and articulated where necessary in formal Commission policy positions.

The Commission has agreed with this approach and has developed amendments to the Compact that are to be enacted by each state that would:

- -- provide for shared liability;
- -- ensure shared-costs for site development and operation;
- -- set penalties for party state withdrawal;

-- establish a region wide standard for sovereign immunity relative to liability for incidents resulting from operations of the LLRW disposal facility.

The Midwest Commission also directed the staff to prepare a Request For Proposals (RFP) seeking outside contractors with the capability to assist the Commission in the development of a methodology for setting a capacity limit on the proposed regional disposal facility. The RFP is to be released in November. For more information call the Commission Office at (612) 293-0126.

Tom Kalitowski, Commissioner of Minnesota's Pollution Control Agency and Compact Commission Chair announced that he has been appointed to a judgeship on the Minnesota Court of Appeals. The new Commission Chairperson will be Wisconsin's Commissioner and Compact Vice-Chair, **Teri Vierima.** Ms. Vierima is the staff scientist with the state's Radiation Protection Council. **

A LLRW disposal facility siting bill has been introduced in the Michigan legislature, and has been approved by the Senate's environmental committee. Action on the Senate floor is expected shortly. House consideration is expected to take a bit longer.

IN THE ROCKY MOUNTAIN WEST ... UPDATE LLRW SITE DEVELOPMENT

Overview

Under the terms of the Rocky Mountain Low Level Radioactive Waste Compact, Colorado is required to open the region's next low level waste disposal site by January 1, 1993. The Compact Board must approve the site, but it is the responsibility of the State of Colorado to locate, license and develop it.

State officials in Colorado, however, have been confronted with finding solutions for three interrelated radioactive waste problems:

- o An estimated 4,000 cubic yards of LLRW from the Rocky Mountain Compact Region (Colorado, Nevada, New Mexico and Wyoming) will need a disposal site over a 20 year period. These wastes will become Colorado's responsibility after the Beatty, Nevada site closes.
- o No disposal site or other solution has been finalized for 200,000 cubic yards of Denver radium wastes, which are mostly soils and building materials left over from World War I era radium processing. The various sites around Denver have been consolidated by the EPA into a Superfund site, however, the Rocky Mountain Compact specifically includes these wastes in the definition of LLRW.
- o There are 10,000,000 cubic yards of radioactive tailings and building materials at the URAVAN uranium mine and mill facility, another Superfund site operated by Union Carbide and their subsidiary UMETCO.

The LLRW/Radium/URAVAN Solution

In 1986, Colorado reached a settlement agreement with UMETCO on the URAVAN site. Among its provisions is the option for Colorado to dispose of the Superfund Denver radium wastes at the URAVAN site during the next ten years. Site characterization for disposal of LLRW at URAVAN has now started, with EPA providing \$200,000 to Colorado for drilling and other initial site screening work.

Colorado's Jake Jacobi, Section Chief of the Radiation Control Division at the Department of Health, hopes the site characterization work at URAVAN will meet the needs of both the Denver

radium wastes and the rest of the region's LLRW. Co-location of disposal sites in this instance would obviously streamline site development and operations. Jacobi pointed out that site characteristics for the disposal of radium wastes are essentially the same as for other LLRW.

Economic Motivation Behind Local Site Acceptance

The URAVAN site is in Montrose County, Colorado, where top elected officials have expressed strong interest in attracting radioactive waste management projects. Located in far western Colorado, the area has been hit hard by downturns in natural resources industries, especially uranium mining and oil shale. Unlike most regions of Colorado and the rest of the country, Montrose County would welcome diversification into other areas of the radioactive materials industry. "The fact that the Montrose County Commissioners want a radioactive waste disposal site makes the URAVAN site particularly attractive", according to Jacobi.

Problems Yet to Overcome

The URAVAN disposal site solution to Denver radium and the rest of the Rocky Mountain region's LLRW is not without problems. The Superfund status of Denver radium wastes interrelates EPA funding with the development of a URAVAN disposal site. Colorado wanted to get right into full preliminary siting studies at URAVAN but had to settle for initial screening work, and "it took a year just to get the first \$200,000 from EPA", according to Jacobi. Furthermore, Superfund status means Colorado is required to contribute 10% matching funds towards disposing the Denver radium wastes.

Another problem is that using URAVAN as a Denver radium repository was conceived of as one time disposal operation, so UMETCO might not agree to ongoing LLRW disposal at the site. Additionally, it is not yet known whether the URAVAN site is geotechnically suitable for LLRW disposal. A 1984 study by the Colorado Geological Survey was unable to identify a suitable site for LLRW disposal in western Montrose County.

Furthermore, by the terms of the Rocky Mountain Compact the Denver radium wastes are part of the region's LLRW waste stream, and the commercial viability of the next Rocky Mountain LLRW disposal site may depend on including Denver radium wastes for disposal. The Compact Commission can be expected to scrutinize any solution to the Denver radium problem, and may claim veto power over any solution to Denver radium which jeapordized the viability of a LLRW site.

Site Development Time Table

According to Jacobi, Colorado is moving "as fast as possible towards finding a disposal site for the Denver radium wastes, but site characterization and funding problems could cause delay. Additionally, the Rocky Mountain Compact could hold up the process if a radium disposal site is proposed which doesn't provide for the other LLRW. Colorado's general timeline calls for public hearing on a LLRW disposal site by August, 1988, having the radium disposal site operational by October of 1989, and the main LLRW site operational by the January, 1993 deadline. **

IN THE INDUSTRY

Chem-Nuclear has been awarded a contract to provide waste processing services at Arizona Nuclear Power Project's Palo Verde Nuclear Generating Station. Chem-Nuclear, using its Mobile Solidification Unit, has been solidifying waste concentrates at Palo Verde's Unit 1 since early July, 1987. The concentrates are being processed in Chem-Nuclear's 200 cu. ft. liners using Chem-Nuclear's patented cement chemistry to meet 10 CFR Part 61 and the NRC's Waste Form Branch Technical Position criteria.

International Technology Corporation (IT) is expanding its Radiological Sciences Laboratory (RSL) in Oak Ridge, Tennessee. The multimillion dollar expansion, which is expected to be completed in fiscal year 1989, will double the facility's capacity for the analysis of nuclear waste and mixed nuclear and chemical waste. "This latest expansion is necessary due to the award of several large multiyear contracts in support of remedial investigations currently being conducted at Department of Energy (DOE) facilities," said Murray H. Hutchison, chairman and CEO of IT. **

POSITION OPENINGS NY STATE LLRW DISPOSAL FACILITY SITING COMMISSION ALBANY, NY

A Quality Assurance Specialist to be responsible for the implementation and maintenance of a quality assurance and control program for the Commission's site selection and characterization activities and its disposal method selection activities. Emphasis will be on document control; control of purchased services; and control of engineering processes, particularly site characterization. An engineering or physical sciences degree is required, plus five or more years applicable QA/QC experience. Experience in the nuclear industry and familiarity with 10CFR50 App. B and ANSI/ASME NQA-1 is preferred. The starting salary is \$41,000.

LLRW Disposal Technology Specialists (Two positions available) to be responsible for technical oversight of contractor studies leading to selection of a LLRW disposal method or methods. Principal effors will include oversight of contractor disposal method analyses and assessments; assuring compliance with State and Federal regulations; accurate characterization of a source term from New York State survey data; interrelating disposal technology and site selection; development and assessment of construction cost estimates; and projections of operating staff and equipment requirements for various disposal methods. An engineering or physical sciences degree and some applicable experience in LLRW management studies are required. Knowledge of the properties and long-term behavior of materials likely to be used, particularly concrete, is desirable. The starting salary is \$34,000 to \$42,300, depending on qualifications.

The three positions are not permanent. It is estimated that the Commission will need three to four years to complete its work. Continued employment with the State of New York cannot be guaranteed when the Siting Commission is dissolved.

Please direct any applications or inquiries to: Jay Dunkleberger, Executive Director, NYS LLRW Siting Commission, c/o NYS Energy Office, 2 Empire State Plaza, Albany, NY, 12223, (518) 473-1986.

LLRW ACCEPTED FOR DISPOSAL AT BARNWELL, BEATTY AND HANFORD

Through AUGUST 1987 (Volumes in Cubic Feet)

	AUGUST	Year to Date		<u>July</u>	Year to Date	
Northeast	0 575 50	00 450 00	Rocky Mountain			
Connecticut	3,575.50	20,450.30	Colorado	315.00	1,100.10	
New Jersey	2,196.40	26,845.50	Nevada	0.00	0.00	
	5,771.90	47,295.80	New Mexico	990.00	990.00	
A 1 1. 2			Wyoming	0.00	0.00	
Appalachian	10 100 50	70 070 00		1,305.00	2,090.10	
Pennsylvania	12,108.50	78,070.80				
West Virginia	0.00	0.70	Western III	0.00	0.00	
Maryland	1,111.50	16,637.40	South Dakota	0.00	0.00	
Delaware	8.36	924.66	Arizona	3,448.50	8,833.50	
	13,228.36	95,633.56		3,448.50	8,833.50	
Southeast			Northwest			
Georgia	1,445.78	12,825.66	Idaho	0.00	1.50	
Florida	346.80	25,608.00	Washington	721.00	26,055.30	
Tennessee**	14,685.90	103,526.80	Oregon	3,361.70	45,748.00	
Alabama	6,686.30	51,341.60	Utah	660.00	1,320.00	
N. Carolina	6,442.10	53,343.50	Alaska	0.00	0.00	
S. Carolina	9,533.30	73,268.10	Hawaii	890.20	2,598.00	
Mississippi	1,680.80	10,231.40	Montana	00.00	38.20	
Virginia	4,313.80	43,420.15		5,632,90	75,761.00	
J	45,134.78	373,565.21		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	· - , · • · · ·	
			Unaligned			
Central States			Rhode Island	0.00	758.10	
Arkansas	3,069.20	10,545.90	Vermont	158.10	4,200.40	
Louisiana	4,362.20	14,474.20	New Hampshire	0.00	412.50	
Nebraska	307.00	13,758.40	Maine	202.50	2,749.70	
Kansas	733.50	3,672.40	New York	2,826.80	41,405.70	
Oklahoma	6,930.00	41,470.70	Massachusetts	3,906.70	31,298.10	
	15,401.90	83,921.60	Texas	20,580.20	49,186.50	
			North Dakota	0.00	2.90	
Central Midwes			California	10,793.70	61,658.70	
Illinois	22,398.20	123,615.60	Puerto Rico	0.00	0.00	
Kentucky	0.00	175.70	D.C.	0.00	<u>135.00</u>	
	22,398.20	123,791.30		38,468.00	191,807.60	
Midwest			TOTAL:	155,658.70	1,079,845.53	
Wisconsin	0.00	3,737.70	IOIAL:	133,030.70	1,0/9,043.33	
Indiana	0.00	1,282.40	(July total)	125,324.00	923,849.83	
Iowa	722.60	13,475.30	(July Cocal)	123,324.00	723,047.03	
Ohio	1,499.30	9,149.00	**The LIRW V	olumes repor	ted from Tennes-	
Michigan	2,141.10	20,126.80	**The LLRW Volumes reported from Tennes- see and possibly small volumes from a few			
Minnesota	26.16	10,932.76	other states may include waste delivered by			
Missouri	480.00	18,441.90	generators in other states to a TN-based			
	4,869.16	77,145.86	regional processing facility and then			
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			figures.	order operator		

the HLW Focus

(2nd Round from pg. 1)

He attempts to mollify any possible backlash from the seventeen states' respective Congressional delegations against ongoing legislation initiatives, in particular, the Johnston-McClure bill, by pointing out that this minimum level resumption is intended to minimize "interference from political forces" in the ongoing legislative process.

Litigation Reason for Action

The Secretary explains to the Governors that current litigative action compelled him to make this decision. He writes:

"Opponents of the Department's second repository decision have filed suit to compel the Department to resume the site-selection process. Numerous cases regarding this matter are being litigated, and the U.S. Court of Appeals for the Ninth Circuit has scheduled an oral argument on this issue on October 9. In a declaration filed on June 26, 1987, in the case of State of Washington v. U.S. Department of Energy (9th Cir. 87-7085), I stated that I have notified OCRWM to "recommence site-specific activities on the second repository program by September 30, 1987 ... in the event that Congress does not take legislative action ..."

Johnston Against Restart

Prior to deciding on the restart, the Secretary had consulted with various members of Congress, including Senator Bennett Johnston. In response, Johnston, joined by ranking Minority Energy Committee member McClure, wrote the Secretary on

September 25th, advising that the second round not be restarted in light of imminent action on the Energy Committee's HLW Bill, S.1668, which includes provisions to postpone the second round program for an indefinite time period. Several Senators from Eastern states also expressed their opposition to a restart. However, DOE legal counsel advised otherwise given the above cited pending litigative action.

Johnston-McClure Bill Supported

In his letter Herrington makes it very clear that he supports the Johnston-McClure bill "which includes a prohibition on further site-specific work on a second repository." He makes no specific reference to the single site characterization aspects of the bill, referring only to that fact that the bill "lays out an effective course of action for this program". He indicates that the Senate could conclude action on the bill in November and expresses hope that "this will provide impetus for action in the House of Representatives".***

\$5.8 BILLION FOR HLW SITE STUDIES, \$2.4 FOR HANFORD, SAYS GAO

In a recently released "Fact Sheet", ("Nuclear Waste -- Information on Cost Growth in Site Characterization Cost Estimates" (GAO/RCED-87-200FS)), complied at the request of Senators Bennett Johnston and James McClure, GAO estimates the cost of site characterization for the three potential sites -- Hanford, Yucca Mountain, Deaf Smith County -- at \$5.8 billion in year-of-expenditure dollars, with "as much as \$2.4 billion" of that amount projected to be spent on the Hanford Site.

According to GAO the two basic reasons for the "dramatic" increase in the cost estimates are:

- o the comprehensive program established by the Nuclear Waste Policy Act:
- o DOE's decision in July of this year to extend the schedule for bringing on the new repository from 1998-2003.

The data in the report was obtained from DOE headquarters staff and regional offices. GAO did not evaluate the accuracy of DOE's estimates in detail, or DOE's justification for the various site characterization activities.

DOE Staff Calls Estimates "Unrealistic"

Though the GAO report does not reveal any earth shattering news regarding characterization program cost estimates, it does cite the observation of one regional DOE office that "budget requests based on the earlier schedule were unrealistic."

It is reported that when DOE requested that each regional office explain their respective significant increases in their FY89 Budget Submittals, they generally responded that the increased estimates were due to: "(1) the need to perform technical tasks more comprehensively as required by the site characterization planning that was underway and (2) the accompanying retention of staff and contractor personnel for the extended program."

A Look Into the FY89 Budget

In preparing the Fact Sheet GAO staff did arrange to obtain data from the regional staff on the Nevada HLW Project Office's FY89 budget request. DOE headquarter's, however, declined to reveal any of the proposed budget estimates for the Hanford and Deaf Smith County sites.

With respect to the Nevada Project Office Project, GAO reveals that:

-- "In the Regulatory and Institutional cost category, state grant requests are

expected to increase by \$117 million."

- -- "Almost \$13 million in work-based increases for Yucca Mountain is a result of expanding the scope of the site characterization plan."
- -- "Time-based cost increases are expected to result in an additional \$18 million" in "prepare position papers containing technical information needed to resolve regulatory issues. The 1986 cost estimates assumed that 15 papers would be completed in fiscal year 1990 so that the staff would be free to work on the license application in fiscal year However, the shift milestones moved the projected completion date for the papers to fiscal year staff working on the with application during 1995."
- -- The additional time, "now allowed for submittal of a license application" under the amended schedule "will allow the project office to spread staff growth and decline over an additional 4 years. Maintaining some staff longer than may be necessary will cost an additional \$5 million. However, the field office sees the additional cost as bringing benefits such as increasing management's capability to recruit high-quality staff and place staff in other positions as specific work activities are completed."

More Delays, Higher Costs

Regional DOE office staff cautioned GAO investigators that any delays in the revised schedule will escalate costs even further, and, "that uncertainty in funding" has significantly affected the completion of work. It was pointed out by one office that "work is already starting to pile up because of work restrictions caused by funding reductions."

Regional DOE officials and their respective contractors further pointed out that "if the 1995 date for license submission is to be met, 1988 will be a crucial year for site characterization work." **