

The

Radioactive Exchange®

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

INSIDE: MI Reacts To Host Status	pg. 2
EPA Guidance On Lead In LLRW....	pg. 4
WA, SC Actions On Mixed Waste...	pg. 5
Wrap Up (LLRW).....	pg. 7
LLRW Volume Disposal Update.....	pg. 10
Calendar.....	pg. 20

the HLW Focus.....	pg. 11
MRS Authorization Introduced....	pg. 13
GAO Faults DOE HLW Fee Estimates	pg. 13
Report On Spent Fuel Acceptance.	pg. 14
Breaux Getting Into HLW Program.	pg. 15
DOE Super-Gorilla Contract	pg. 17
Wrap Up (HLW)	pg. 18

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UDALL, SWIFT, 50+ SPONSORS; SENS. SASSER ADAMS, OTHERS SEEK STOP TO HLW PROGRAM

In two separate July 1 press conferences prominent Senate and House members, including the progenitor of the Nuclear Waste Policy Act, Interior Chairman Udall, announced the introduction of legislation to stop all site specific activities under the HLW program while an independent Commission "reviews the policies underlying the Nation's Radioactive Waste Program and implementation of those policies by the Department of Energy."

As reported in previous editions of the The EXCHANGE (Vol. 6, Nos. 10, 11), momentum was building to stop the HLW program. Senators Sasser and Brock Adams and Representative Swift played a major role in structuring the move. For a while staffers termed the ever circulating initiative the "Bill d'jour" because provisions changed daily to meet the various interests of potential cosponsors. A major breakthrough was achieved in the past week or so when House Interior Chairman Udall agreed to endorse the legislative effort and, in fact, be its primary sponsor. He headed the list of some 50+ cosponsors, most of whom serve as members of either the House Interior or Commerce Committees. (See **Stop HLW in the HLW Focus**)

MICHIGAN DESIGNATED AS MIDWEST LLRW DISPOSAL SITE HOST

To the surprise of almost no one the Midwest Compact Commission has designated Michigan as the host state for the Midwest regional disposal site. The designation was approved by a 6-1 vote at the June 30 Commission meeting in Dearborn, Michigan. Ohio was designated as the first alternative host with Minnesota coming in as the second alternative. (See Related Story inside.)

US ECOLOGY TO DEVELOP CENTRAL STATES LLRW DISPOSAL SITE

The Central States Compact Commission meeting in Oklahoma on June 29 selected US Ecology over Westinghouse to develop that region's LLRW regional disposal facility. According to comments made by various individuals contacted by the EXCHANGE, it seems that US Ecology's successful efforts, thus far, to select and develop a LLRW burial site in California weighed heavily in gaining the support of the Commissioners. Though the vote of the Central Commission members was only 3-2 in favor of the Louisville-based LLRW disposal operator, two of the three supporting votes (See **Central States** pg. 2)

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(Central States from pg. 1)

came from Commission members from Kansas and Nebraska -- states that rank high as possible hosts for the regional disposal facility. The third vote came from Oklahoma. The states voting in favor of Westinghouse were Louisiana and Arkansas.

When contacted at the company's headquarters in Louisville, Ky., Tom Baer, President of US Ecology-Nuclear, said they were pleased at their selection and will immediately begin to negotiate a contract with the Commission. Under terms of the selection process a contract must be negotiated and agreed to within the next 60 days.

Host State, Technology Undetermined

Under the Central States site selection procedure the first order of business following execution of the contract with US Ecology will be the designation of a host state. The designation is to be made by the Commission but will, of course, involve US Ecology as the potential site developer.

The technology of the proposed disposal facility is also undetermined. US Ecology's proposal included three alternatives: an enhanced base design; a below base design; and, an above-base design. The above-base design is essentially an Earth Mounded Concrete Bunker (EMCB), incorporating interlocking concrete containers designed by Bechtel. The actual technology to be used will be selected in concert with the state and host community following an extensive public participatory program. The disposal facility, scheduled to be completed by 1993, will cost an estimated \$40 million to site, design, and construct. It will be constructed to receive an average of 150,000 cubic feet of LLRW per year for a 30-year period.

So What Did US Ecology Win?

Skeptics (and even some optimists) view the selection of US Ecology as the developer of the Central States regional disposal facility as akin to receiving a notification that "you have already won a great prize,

but only if you call us and make an appointment to hear about..." You know, one of those great real estate come-on's.

US Ecology, however, feels differently. Tom Baer explained that indeed the next important step will be the selection of a host state to meet the January 1, 1988 Low-Level Radioactive Waste Policy Amendments Act (LLRWPA) deadline. Until that is done no site selection activities will be started.

President Baer did reveal that representatives of a number of communities had already contacted US Ecology expressing an interest in a disposal facility. He cautioned though that this local interest must now be coupled with officials at the state level to finally accomplish host state designation and then go on to site selection.

Kansas Remains In

In the past week Kansas's Governor voiced support for remaining in the Compact, remarking that if the state pulled out, then it would have to develop its own site to meet the Jan. 1, 1988 LLRWPA milestone. The Governor also stated that if Kansas is selected as the host he would like to see the site developed as close to the Wolf Creek nuclear generating station as possible.

Kudo's to Ex-Midwest Compact Staff

US Ecology's point man in the Central States selection process was none other than Richard Paton, formerly Executive Director of the Midwest Compact Commission. From discussions inside and outside the company it appears that Paton played a pivotal role in getting US Ecology to compete in the selection and worked hard on winning the award. According to Tom Baer, Paton is the Project Manager for the Central States effort. **

MICHIGAN DEFERS DECISION ON HOST STATE STATUS UNTIL AUGUST

David Hales, Michigan's Midwest Compact Commissioner explained in a telephone interview with the EXCHANGE staff, that

Michigan will defer making any decision regarding the designation of the state as the host of the Midwest Regional facility until after the Commission's August meeting.

He commended the Commission for doing a "wonderful job" in attempting to respond to the key concerns he had detailed in a June 18 letter to the members (See details below); and endorsing Michigan's request to host a meeting to bring together other potential host states and compact officials to discuss serious deficiencies in the national regional compact scheme.

Site Economics Key "Safety" Factor

He emphasized that Michigan's bottom line when it comes down to making the decision on accepting or rejecting host state status will be what is best for the safety of the citizens of Michigan. And, in his view public safety cannot be fully protected if the development of a regional disposal site is constrained by economic factors that would warrant "cutting corners" on site design.

He stated that the three crucial issues of concern to Michigan are:

- o Overall shared liability with the compact party states for the development and operation of the disposal site;
- o The stability of a regional disposal site's revenue flow in order that the site operate in the manner necessary to protect public health and safety and the environment; and,
- o The overall stability of the national compact system in light of the varied degrees of success within the regions of developing new burial capacity.

Seeks To Change National Policy

Prior to the June 30th meeting Hales had written Commission members seeking support for a move to have Congress re-examine the compact process with the objective of adopting new legislation that would, among other things, limit the number of concurrently operating disposal sites. In this

letter Hales described Michigan's view of the current compact scheme as "inherently unstable and fraught with liability, not only for host states but for all states." He called for Congress to "act to remedy obvious deficiencies before compacts or go-it-alone states make substantial investments in the construction of unnecessary facilities."

He outlined a list of deficiencies in the LLRWPA that Congress must be called upon to address, including the following items:

- o "Under the [LLRWPA] Act, as many as 13 facilities may be constructed, although the amount of waste to be handled on an annual basis is projected to be less than 30% of the 1980 volume. If shallow land burial is eschewed, each unnecessary facility will cost at least \$250,000,000 to construct and operate over the next twenty years, a totally unnecessary nationwide expenditure of at least \$2.5 billion. We believe Congress should establish a limit to the number of sites which may operate concurrently at three or four."
- o "If shallow land burial is adopted by any state as an appropriate isolation technology, substantial inequity in disposal fees from region to region may be created. Congress should remove shallow land burial as an option or establish some mechanism for equalizing fees on a national basis."
- o "Currently, substantial uncertainties surround the limits and provisions of liability coverage. In the event that private liability coverage should not be available, Congress should establish federal coverage to insure that the burden is not borne by taxpayers in host states."
- o "The provisions of the Act actually discourages source and volume reduction measures on the part of waste generators. The Act should be amended so that these activities, in which industry has acted extremely responsibly, are encouraged and incentives provided."

- o "The Act provides no funding mechanism for the design, construction, operation and long-term care of isolation facilities on the assumption that private sector monies will be available. If this assumption should prove incorrect, or if the federal law or compact relationships should be changed after facility construction, substantial liability could accrue to host state taxpayers. Congress should amend the law to provide a mechanism to prevent financial risk to host state taxpayers."

Hales revealed that he will be working with the Michigan Governor's Office to incorporate these concerns and the call for Congressional action in a policy resolution for consideration at the National Governors' Association Summer Meeting next month in Traverse City, Michigan.

Concerns With Host State Agreement

In addition to Michigan concerns with the overall compact scheme and the intent to work to change national policy, Mr. Hales, in his letter and in the interview with the EXCHANGE, emphasized the state's serious doubt as to whether the proposed "Host State Agreement" that is to be executed between the accepting host state and the Compact Commission is sufficiently legally binding on the Party States to ensure safe and economically viable operation of a regional disposal site. According to Michigan legal counsel's advice "as a legal contract the agreement is of a very dubious enforceability." Upon examining various ways to execute a more binding interstate commitment, Hales revealed that there "seems to be no simple or effective remedy for this flaw," and points out that "Without a binding agreement to ensure stable legal and financial relationships, the host state incurs substantial liability by constructing and operating a radioactive waste facility." He suggests that "One way to reduce this risk would be to have legislatures explicitly approve the agreement, or explicitly recognize the governor's authority to do so."

According to officials within the region, the possibility of having the party state

legislatures ratify the agreement is being explored and will be discussed at the August session. **

EPA SAYS LEAD CONTAINERS, LINERS NOT ALL SUBJECT TO RCRA REGS

In a June 26 letter to Terry Husseman, Director of Washington State's Nuclear Programs and Chairman of the Northwest Compact Committee, Marcia Williams, Director of EPA's Office of Solid Waste states that "lead whose primary use is shielding in low-level waste disposal operations is not subject to Federal hazardous waste regulations when placed on the land as part of its normal commercial use."

Ms. Williams, writing in response to Husseman's request for guidance on the treatment and disposal of LLRW that "contains uncontaminated lead used as shielding, surface contaminated lead and activated lead", explains that "Lead containers or container liners which are used as shielding in low-level waste disposal operations pose a unique problem. Containers or container liners are not regulated by the Agency (See 40 CFR 261.7) nor would they be a waste because they are fulfilling intended uses.... In this instance, containers or liners may be analogous to commercial chemical products (e.g., pesticides) where as a product, their normal use is placement on the land."

Encapsulated Lead Non-Hazardous Waste?

The EPA Solid Waste Director also adds that "in instances where it could be demonstrated that an encapsulation process [for lead materials] results in product that would not degrade after disposal, the resulting product could fall into the category of a non-hazardous waste." In such cases she advises the Washington Northwest Compact Committee Chairman to "petition to waive the [Agency's] EP toxicity test requirement."

According to her letter, work is now underway within the agency "to develop procedures for evaluating a waste's long-

term physical stability. [Such] procedures" she points out, "may then be used to demonstrate that the encapsulated material will not degrade and allow testing of an intact lead brick or the like."

Polymer Encapsulation Suitable?

With regard to lead encapsulation technology, Ms. Williams reports that EPA has not evaluated any specific technologies, nor performed "specific laboratory analyses of materials to determine their resistance to the EP toxicity test." However she adds that "a polymer or some other material which maintains its integrity under environmental stress would seem suitable."

Activated, Contaminated Lead

With regard to waste containing activated or contaminated lead, Ms. Williams emphasizes that it is a mixed waste and falls under RCRA regulation if the waste material is radioactive, and, if held in storage until the radioactivity decays, the remaining "non-activated or elemental" lead may be disposed of as a hazardous waste in a hazardous waste disposal facility. She further cautions that "in States authorized to administer the Federal mixed waste program or in States with Federally administered hazardous waste programs, any storage of mixed waste in excess of ninety days for generators and ten days for transfer facilities would require a Resource Conservation and Recovery (RCRA) permit. Similarly, designated storage facilities must obtain a RCRA permit." **

WA STATE DELAYS RCRA CERTIFICATION WHILE S. CAROLINA SETS REGULATIONS

Washington and South Carolina State Officials took the opportunity at the Radioactive Exchange Third Decision-maker's Forum in Traverse City, MI, June 16-19, to announce their respective actions regarding the treatment of LLRW contaminated with waste falling under EPA-RCRA regulations.

Terry Husseman, Director of Washington's Department of Ecology Nuclear Waste

Programs announced that the state had decided to "briefly delay" implementation of the proposed regulation requiring that all waste shipped for disposal to the Richland Commercial LLRW disposal facility be accompanied by a signed certification that the shipment was "RCRA-waste" free. Terry cautioned the attendees that the brief delay should not be construed to mean that the state was considering dropping the requirement. He explained that additional time was being taken to discuss a uniform certification requirement with the states of South Carolina and Nevada.

SC Sets Barnwell RCRA Guidelines

Prior to Husseman's "surprise" revelation, Heyward Shealy, Chief of the SC Department of Health and Environmental Control's Bureau of Radiological Health, outlined his states new requirements regarding mixed waste. As reported previously, he announced that the state "do[es] not plan to require specific certification that the waste [shipped to Barnwell] does not contain hazardous materials or mixed wastes" (See EXCHANGE, Vol. 6. No. 11).

However, he explained, because of recent actions at the federal level which "appear" to put mixed waste under the joint regulation of EPA and NRC, South Carolina, as an Agreement state, is "now planning to take two additional steps to reinforce its past and present prohibitions on the receipt of mixed waste and other hazardous substances" at Barnwell.

First, the state intends to "amend Chem-Nuclear's license to make it clear that they are not authorized to receive hazardous waste listed or characterized in 40 CFR Part 261." However, he added, Chem-Nuclear will be allowed "the opportunity to evaluate waste streams which may contain discrete quantities of hazardous materials or substances for possible approval by our Department for receipt and disposal."

Second, the state is developing a guidance document entitled "Prohibition of Mixed Waste at the Barnwell Waste Management Facility - Regulatory Guidance" which will be "made available to all S.C. Radioactive

Waste Transport permittees." Heyward emphasized that at this time there will be "no further requirements with regard to mixed waste."

Barnwell Not to be a RCRA Site

On the possibility of Barnwell being required to be designated as a RCRA facility, Shealy made it clear that the State's "review of past regulatory actions and prohibition of receipt and disposal of potentially hazardous and mixed waste, coupled with the site design and packaging requirements, and the environmental monitoring program for non-radiological constituents, strongly indicates that RCRA is not applicable to the Barnwell facility."

He emphasized that "To declare Barnwell a RCRA facility, would, in our opinion, be counter-productive to all our efforts and progress made thus far. We intend to continue our regulatory vigilance and avoid the receipt of mixed waste; but also be reasonable enough to at least evaluate potential health hazards associated with these wastes, and put them in perspective for appropriate disposal thus assuring protection of the public's health and safety and the environment."

The new guidance document should be available this summer. If you do not receive a copy and want one write the Bureau of Radiological Health, SC DHEC, 2600 Bull Street, Columbia, SC 29201. **

REPORTS OF NOTE (LLRW)

Low-Level Radioactive Waste Management Handbook Series: Low-Level Radioactive Waste Management in Medical & Biomedical Research Institutions (DOE/LLW-13Th); Published by National Low-Level Radioactive Waste Management Program, EG&G Idaho, Inc., Idaho Falls, Idaho 83415; Compiled under the direction of the University of California at Irvine, Health Physicist Jim Tripodes; Edited by Charlotte Baker. The handbook characterizes medical and biomedical LLRW; Describes management practices to reduce waste; discusses upcoming Federal regulatory changes. Available from EG&G-Idaho, National LLRW Program, Idaho Falls, Idaho 83415

Wrap Up (LLRW)

IN APPALACHIA

The **Pennsylvania Department of Environmental Resources (DER)** has awarded a \$1.5 million contract to **Roy F. Weston, Inc.** to provide technical support to the agency in facilitating the siting and development of a regional LLRW disposal facility. A separate solicitation will be issued for the actual development of the regional disposal facility. Weston's support contract is intended to be in effect for the next five years. The West Chester, PA-based firm is to provide support in the development of a regulatory framework, contractor selection, development of a siting plan, operator licensing, permitting of generators and brokers for use of the facility, and informational-community relations support for the overall program.

IN THE SOUTHEAST

South Carolina's Budget and Control Board, meeting on June 8, approved a budget of \$600,000 for operation of the Southeast Compact Commission July 1, 1987 - June 30, 1988. In addition, a \$40,000 budget was approved for South Carolina's administrative costs in collecting the surcharge funds.

The FY 87-88 budget will result in a substantial decrease in the surcharge from \$.84 per cubic foot, as collected in 1986-87, to \$.66 per cubic foot beginning in July.

Are the clients of Chem-Nuclear's Barnwell facility jumping for joy? Well, not exactly. The \$.22 decrease pales in the light of the \$2.00 increase in the tax on LLRW for South Carolina's general fund. This surcharge has been raised to \$6.00 per cubic foot for 1987-88.

IN THE CENTRAL STATES

On Wednesday, July 1, the **Nebraska LLRW Task Force** met and adopted a policy resolution recommending to the Governor that the state "not withdraw" from the Central States Compact. The use of the "not withdrawn" terminology rather than using "remain in" was a subject for considerable debate. The final choice was

made in order to connote the state's displeasure with some of the Compact actions. The recommendation was adopted by a 6-1 vote. The Task Force also adopted by unanimous vote a policy resolution calling on Congress to revise the LLRWPA to limit the number of disposal states and address the liability issue.

Arkansas Governor Bill Clinton, in a move that surprised everyone outside of the state, invited the Central States' Governors to meet in Little Rock on July 2nd to discuss the Compact. As this edition was going to print, the EXCHANGE learned that all but one Central States Governor was going to attend. No one was clear as to what was on the agenda for the session other than it was to be a general briefing session and that Ray Peery, the Commission's Executive Director, would be attending.

IN THE CENTRAL MIDWEST

At its upcoming July 16 meeting, the Central Midwest Compact Commission will consider adopting a policy resolution that would give the Commission the authority to pass through monies received from January 1988 generator surcharge rebates to communities that the Illinois Department of Nuclear Safety determines may serve as host communities for the region's LLRW disposal facility. The funds are to be used for supporting local public information programs on LLRW, identifying and evaluating the potential impacts of hosting a LLRW disposal facility, identifying the conditions under which the construction and operation of specific disposal facilities would be acceptable to the community, and other activities that would assist in establishing a LLRW disposal facility. Proposals are to be accepted from each county in which an alternative site, or portion thereof, is identified for characterization. Grants will be made in amounts up to \$100,000 per site and for a maximum of four sites.

Please note that the new telephone number for the Central Midwest Commission is 217-785-9937.

IN THE ROCKY MOUNTAIN WEST

Governor Bryan of Nevada has signed into law a bill adopted by the legislature that levies a \$2.00 per cubic ft. surcharge on any LLRW accepted for burial at the Nevada-Beatty LLRW commercial disposal site. The monies collected are to be used to support a comprehensive state program for monitoring and tracking the transport and disposal of hazardous waste; establishing a state training center for emergency response; and setting up a statewide hazardous materials radio communications network. The surcharge goes into effect on August 17.

The surcharge is expected to raise \$800,000 over the next two years, that is, if Beatty is able to come up with 200,000 cubic feet of waste per year. In 1986 only 100,000+ place cubic ft. was delivered to the site. Under the LLRWPA Beatty is required to accept 200,000 cubic ft. per year. For 1987 the state has decided to carry over the 100,000 cubic ft. it did not receive in '86, allowing acceptance of around 300,000 for 1987.

At their most recent compact meeting (June 22) the **Rocky Mountain Compact Board** considered but did not act on requests from the District of Columbia and Rhode Island to accept, under contract, LLRW from their respective generators for disposal at Beatty. Members of the Board have, however, indicated that they are "sympathetic" to the requests from the District and Rhode Island because of their concerted efforts to join compacts. The Board is, however, concerned that any action on establishing contracts for waste acceptance would undermine the basic tenet of the LLRWPA that every state should be responsible for its own LLRW. The Board directed Leonard Slosky, the Executive Director, to develop a staff paper on the pros and cons of entering into contracts to accept LLRW and possible repercussions on the implementation of the LLRWPA.

IN CALIFORNIA

The **California Department of Health**

Services has selected EnviroSphere/Ebasco as the outside contractor to evaluate enhanced disposal technologies and to develop recommendations for licensing conditions and/or regulations that would require the site developer to possibly utilize enhanced technologies in the construction of the state's LLRW disposal facility. A contract is now under negotiation. The maximum value of the contract is set at \$225,000. The project will be handled out of EnviroSphere's Sacramento office.

Roy F. Weston, Inc. (Weston) has also been selected by the California DHS to provide technical support to the low-level waste management program staff in evaluating US Ecology's site selection process work. The maximum value of the contract was set in the procurement at \$100,000.

IN THE INDUSTRY

LN Technologies has been awarded two separate contracts to evaluate the feasibility of full primary system chemical decontaminations. A PWR study was authorized by EPRI and a BRW study by Commonwealth Edison. These studies will address a number of issues related to full system decons with and without fuel in place. These issues include engineering feasibility, chemical requirements, waste generation considerations, material compatibility, deposit characteristics, system boundaries, application methods and, finally, an overall cost-benefit analysis. Both studies are expected to be completed by September, 1987.

ON THE MOVE

Donald L. Ledbetter has been elected vice president, business development, advanced technology, of Kaiser Engineers, Inc. In addition, **Donald B. Maussardt** and **W. Curt McGee** have joined the company as directors of business development, advanced technology. Ledbetter, who has been with Kaiser Engineers since 1986, will direct and manage the company's marketing activities for work in the fields of space/defense, nuclear research, and advanced technology. Maussardt, based at Kaiser Engineer's

office in Arlington, Va., was previously deputy director of the Nuclear Regulatory Commission's Office for Nuclear Material Safety and Safeguards. W. Curt McGee, based at Oakland, previously held management and marketing positions with Bechtel National, Inc.

Leo P. Duffy, formerly the manager of Westinghouse's Nuclear Waste Program, and who joined Roy F. Weston, Inc. a few months ago, has been named Vice President and Director of Project Development for Weston

Services, Inc. Duffy is now responsible for developing the firm's full range of services for turnkey remedial action and facility construction and operations programs.

Andrea Dravo, a former key staffer to Interior Chairman Morris Udall and for the past year or so a private consultant, has joined the American Nuclear Energy Council as Vice President for Planning and Strategy Development. Andrea can be reached at ANEC's office (202) 484-2670.

REPORTS OF NOTE (LLRW)

Development of a Computerized Data Base for Low-Level Radioactive Waste Leaching Data: Topical Report (LLRWM-TIC-4500); Nuclear Waste Research Group, Department of Nuclear Energy, Brookhaven National Laboratory, Associated Universities, Inc., Upton, Long Island, New York 11973. A computerized data base (db) of low-level waste (LLW) leaching data is being compiled by Brookhaven National Laboratory under contract to the DOE Low-Level Waste Management Program. Although this db is being compiled as part of an effort to develop accelerated leach test procedures for LLW forms, others involved in LLW management may find it useful. The db is implemented on an IBM PC XT and is self-contained in that its data manipulation and analysis programs are not proprietary (i.e., need not be purchased). The db includes data from the Accelerated Leach Test(s) Program plus selected literature data, which have been selected based on criteria that include completeness of the experimental description and elucidation of leaching mechanisms.

Weldon Spring, Missouri, Raffinate Pits 1, 2, 3, & 4: Preliminary Grout Development Screening Studies for in situ Waste Immobilization (ORNL/TM-9264); Oak Ridge National Laboratory, Oak Ridge, TN 37831; Results of Oak Ridge National Laboratory's initial support program to develop a preliminary grout formula to solidify in situ the Weldon Spring waste are presented. The screening study developed preliminary formulas based on a simulated composite waste and then tested the formulas on actual samples. Future data needs are also discussed. Available from NTIS, US Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161.

Heat Transfer for Grout Disposal of Radioactive Double-Shell Slurry and Customer Wastes (ORNL/TM-9227); Oak Ridge National Laboratory, Oak Ridge, TN, 37831; The primary purpose of this report is to document the history of the Transportable Grout Facility program at Rockwell Hanford. Available from NTIS.

