
The

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DEFENSE TO PAY 14-19% OF HLW PROGRAM, UTILITY GROUPS SEEK COURT REVIEW

The Department of Energy (DOE) revised calculational method that will be used to determine the Department Program's (DP) contribution to the HLW program only assigns between 14%-19% of the Total System Life Cycle Costs (TSLCC) of the HLW system to the DP.

The revised methodology estimates that the DP contribution could range from a low of \$5.17 billion (1986 dollars) for HLW Tuff or Salt repository using the assumption the number of nuclear plants will increase and extended fuel burnup will be utilized (i.e., the Office of Energy Information Agency's upper reference case), to \$6.1 billion for a Basalt or Hard Rock repository in the case of no new nuclear plants and utilizing increased fuel burn up.

It is important to realize, as the FR notice states, that this contribution is still subject to appropriations. In actuality it is just a recommendation to Congress which could disagree with the assessment. (See **Court Action in the HLW Focus**)

LEGISLATIVE EFFORT TO WITHDRAW NORTH CAROLINA FROM SE COMPACT FAILS

Overcoming dogged efforts to enact a bill rescinding North Carolina's membership in the Southeast Regional LLRW Compact, Representative George Miller, Chairman of a key legislative committee and a SE Compact Commissioner, exhibiting the political skills of a master craftsman, marshalled the forces necessary to keep North Carolina in the regional compact and effect the passage of a bill to establish a state LLRW siting authority.

Though the opposition succeeded in obtaining approval of an amendment to the siting bill conditioning North Carolina's continued participation in the SE compact on adoption of party state withdrawal changes to the regional agreement, the key to the successful legislative effort was, as one observer put it, the "awesome legislative maneuverings of Representative Miller." According to one state official he just totally outmaneuvered the opposition. In fact, he was able to avoid a floor vote on specific legislative initiatives to rescind the NC membership by winning table motions on three separate occasions when the opposition was able to get rescinding legislation to the floor. (See **North Carolina**, pg. 2)

(North Carolina from pg. 1)

Compact Must be Changed

The amendment inserted in the siting bill by the opposition provides that thirty days after the commencement of operation of the second regional facility a party state may withdraw from the compact **only with the unanimous consent** of the compact Commission and with the consent of Congress. It also stipulates that the second regional facility shall operate for twenty years or until 32 million cubic feet is accepted. This language must be incorporated into the compact and ratified by every party state legislature by December 31, 1998 and finally by the Congress by January 1, 1992 in order for North Carolina to remain in the compact.

Engineered Burial Required

Prior to the adoption of the LLRW siting authority bill, including the above-cited conditions under which North Carolina would remain in the compact, the legislature also adopted a bill requiring the use of engineered barriers in the design of a disposal facility.

Provisions of the Siting Authority Bill

The siting authority bill, as finally adopted, was not the initial siting legislation reported out of the respective legislative committees earlier in the session. It is a bill put together by Representative Miller that eliminated all specific revenue raising provisions in order to avoid referring the measure to finance committees where it probably would have died.

The bill sets up the Authority as an autonomous entity within the Agency for Administration. The Board of Directors is to be comprised of fifteen members, five chosen by the Senate, five by the House, and five by the Governor. The Senate and House designated their members the day after the bill passed. The Governor is expected to name his appointees this week (August 31). The Authority, which is to be in full operation by November, 1987, is

given a great deal of discretionary authority over the development and operation of the LLRW disposal facility.

Included in the bill is a requirement, successfully inserted by opponents to North Carolina's membership in the compact, that a \$90 million trust fund be established to deal with the mitigation of adverse impacts of the facility.

The Authority is given the power to enter into arbitration with local communities to set the conditions under which a site will be developed and operated; to establish payment-in-lieu-of-taxes to the local host community; and provide funds to compensate for negative impacts, including the devaluation of private lands.

The bill sets out a timetable for site selection that calls for identification of suitable locations by December 1, 1988; three sites for characterization by August 1, 1989; site selection by November 15, 1990; and, the beginning of site operation by December 12, 1992. **

MIDWEST SETS LLRW EXPORT FEE TO COVER DISPOSAL SITE DEVELOPMENT

The Midwest Compact Commission at their August 18 meeting approved the establishment of an LLRW export fee to take effect in FY 88 to cover the pre-operational and development costs of a regional disposal facility. The fee will be assessed in a unique manner with utility generators providing the entire funding for these expenses as they are needed, while the non-utility contribution to cover these costs is to be deferred until the Midwest Regional disposal facility commences operations. The utilities are, in effect, "loaning" the non-utility generators the funds to cover their portion of the pre-operational costs and they will be paid back with interest once the regional facility is in operation.

The combined fee set for FY 88 is set at \$3,000,000. In subsequent years the total combined collected fees are not to exceed \$9 million. The contribution of each utility generator to meet this annual combined total fee is calculated by

multiplying this amount by each "utility's percentage share of total projected utility waste volume as set forth in the Regional Management Plan."

Non-Utility Deferred Contribution

For each fiscal year that the Commission levies export fees, the aggregate amount of export fees payable by non-utility generators is to be calculated by averaging the non-utility percentage shares of waste volume (measured in cubic feet) and waste radioactivity (measured in curies) disposed by all regional generators during the previous calendar year, as reported by the site operators. The non-utility average percentage, applied to the annual revenue requirement, will then yield the aggregate deferred amount of non-utility export fees. Payment of these non-utility export fees are to be deferred until facility operations commence.

When the regional facility opens the Commission will establish a schedule for payment of the non-utility export fees that were deferred, including a reasonable interest charge. The amount scheduled for collection each year is to be made a part of the Commission's annual budget surcharge levied on waste disposed at the facility. That part of the annual budget surcharge will be paid only by non-utility generators.

Rebate to Generators

The surcharge rebates that will be awarded for meeting the site development milestones of the LLRWPA will also be used to reimburse utilities for covering the pre-operational cost attributable to non-utility generators. Once the utilities have been so reimbursed, the remaining revenues from

the surcharge rebate received by the Commission will be distributed.

HOUSE NRC AUTHORIZATION INCLUDES PROVISION TO HALT CHANNAHON OPERATION

With Chem Nuclear's supercompactor already having started operation in their community, the citizens of Channahon, IL, supported by others opposed to Chem-Nuclear's waste processing activities at the facility approached Illinois Congressman Madigan about the possibility of Congressional action that could revoke NRC's license for the facility. He, in turn, raised the possibility of adding an amendment to NRC's authorization bill which was coming up for floor consideration on August 5. He discussed the matter privately with Interior staff at the Udall August 4 hearing on the Appalachian Compact and when the bill came up for floor consideration on the 5th he offered an amendment and it **passed**.

The amendment as adopted and included as Section 7 of the NRC Authorization states that:

"the Nuclear Regulatory Commission shall use such [authorized] sums as are necessary to suspend any byproduct, source, or special nuclear materials license granted in accordance with application dated June 20, 1986, to any low-level nuclear waste processing facility in Will County, Illinois, until such facility has obtained a special use permit for such facility under the I-3 zone classification laws of such county."

Similar action in the Senate is under consideration at this time. **

AT THE DISPOSAL SITES

The volume of LLRW accepted for disposal at Beatty in 1987 through July 31 has significantly increased over the past year's level. The volumes at Hanford are notably lower than last year at this time. Barnwell's is about the same. According to figures supplied by the respective state officials, the LLRW volumes accepted at three sites through July 31, 1987 are as follows: Barnwell - 499,387 cubic feet; Hanford - 270,175 cubic feet; Beatty - 152,943 cubic feet.

The volume of waste being set to Beatty is averaging between 20,000 to 25,000 cubic feet per month and at that rate Beatty may reach its 1987 cap of 300,000 cubic feet by mid-December. Under LLRWPA provisions Beatty may close its gates at that time.

The aggregate volume of waste accepted during the first seven months of 1987 portends another possibility that overall annual waste volumes delivered for disposal during this year will be less than the volume of the past year. If the rate of waste acceptance over the past seven months remains the same for the next five, the 1987 total volume will be around 1,582,000 cubic feet as compared to 1,812,000. Where is all that waste going?

IN NEW YORK

The New York State Department of Environmental Conservation has issued draft regulations accompanied by a draft environmental impact statement setting forth the minimum characteristics for the state's LLRW disposal method and disposal facility.

This is only the first set of draft regulations to be released and only covers the selection of a disposal method and facility. Draft regulations governing financial assurance will be released in November 1987. Operations and closure regulations will be released by December 1, 1988. The first of seven public hearings on the draft regulations is scheduled for September 28 at the Albany Public Library Auditorium. The last is on October 8 in

White Plains. Written comments as well as oral statements are solicited. The comment period closes on October 19, 1987. Copies of the Drafts can be obtained from Louis M. Concra, Jr., Director of Regulatory Affairs, NY State Department of Environmental Conservation, 50 Wolf Road, Albany, NY 12233-1010.

The released draft regs follow the federal requirement but include additional restrictions as dictated by the recently enacted NY State siting law. Included among the criteria that must be considered in the selection of a site and disposal method is the ability to recover buried LLRW. The regulations also specify current population density restrictions (i.e., no site shall be located within town or cities having at least 1,000 individuals per square mile as defined in 1980 census), and also prohibit siting a facility in areas where significant population growth is projected. Specific criteria are set out for alternative disposal methods, including above ground and mined disposal.

IN APPALACHIA

The Appalachian Compact has been introduced in the Congress. On August 4 Interior Chairman Udall held a hearing on ratification legislation, HR 3025. Immediately after hearing testimony from the States of Delaware and Pennsylvania he reported the bill out of his Committee. The next step in the House is up to Energy and Commerce which should act in a similar manner.

The bill was introduced in the Senate by Senator Roth as S 1551. It was referred to the Judiciary Committee where it will probably be held until action on the new California Compact clears up.

IN THE CENTRAL STATES

Negotiations toward executing a final contract with US Ecology as the designated LLRW disposal site operator continue in the Central states. So far no serious hitches have developed.

Though all Central state legislatures have

gone home without taking any action to rescind their membership in the compact there remains some anxiety regarding the **State of Kansas**. It is expected that the Governor will have to call a special legislative session in the state to deal with various problems, including highway taxes. And, once such a special session is convened, the legislature agenda is open to any initiatives. The likelihood of another legislative attempt to pull the state out of the regional compact is a distinct possibility, if not a certainty.

IN THE CENTRAL MIDWEST

As a result of public workshops on the **Illinois** proposed LLRW disposal facility site selection process, the Illinois Department of Nuclear Safety is in the process of making changes in the selection procedures. According to state officials, as a result of concerns raised at the workshops, more efforts will be devoted in the preliminary phases of site selection on safety and environmental aspects of prospective sites to ensure that preliminary site judgments are made on the basis of site safety not economics. This will mean more intensive safety and environmental studies in the first phase and will result in delay of the selection of the final four sites to be characterized until the early winter of 1988.

From the reports received from the state it still appears that several counties continue to express interest in hosting a disposal facility, though others have notified the Department of their opposition.

On September 9 through 16 a delegation of community leaders accompanied by **Central Midwest Compact Chairman Clark Bullard** will visit the LLRW disposal facility in France at the state's expense. A group recently toured the Barnwell site, after which some county official participants expressed an interest in further studying the possibility of hosting the regional disposal site.

IN THE MIDWEST

At their August 18 meeting the Midwest Compact Commission adopted a policy position indefinitely postponing any action on hosting a national forum to discuss the status of the compacts. The Commission received very little support from other state officials to convene such a meeting. The initial request that the Commission host a forum came from Michigan, the designated host state (See EXCHANGE, Vol. 6, No. 14).

The Compact Commission's Host State Selection Committee is hosting a special closed meeting with Michigan officials in September to continue discussions on the host state agreement document.

IN THE ROCKY MOUNTAIN WEST

The **Rocky Mountain Compact** has relocated its offices to 1675 Broadway, Suite 1900, Denver, Colorado 80202, Phone: (303) 825-1912.

IN THE NRC

In early August Hugh Thompson, NRC's Director of Material Safety and Safeguards, and Winston Porter, EPA's Assistant Administrator for Solid Waste, jointly issued a "Guidance on a Conceptual Design Approach for Commercial LLRW and Hazardous Waste Disposal Facilities." The intent of the document is to allow the development of designs for disposal facilities for mixed LLRW that fully meet "EPA's regulations covering minimum technology requirements for liners and leachate collection systems and NRC's requirements for minimization of contact of waste with water while also assuring long-term stability and avoidance of long term maintenance."

Both agencies committed to developing and issuing the guidance to ensure that states and compacts could proceed to develop new LLRW disposal facilities while awaiting release of final EPA locational standards for disposal facilities that would accept EPA regulated hazardous materials. The lateness of the expected release of these locational standards conflicts with the

need for states and regional compacts, currently without operating disposal facilities, to have new LLRW disposal facilities in operation, or arrange for an alternative means of disposal for their respective generators' waste by 1993.

Principal Design Concepts The key element of the agreed upon joint design concept is that mixed LLRW is to be placed "above the original ground surface in a tumulus that would be blended into the disposal site topography." The design incorporates two liners and a leachate collection system above and between the liners. A leak detection tank and leachate collection tank are to be encircled by a berm that controls surface water runoff from precipitation. Drainage pipes in the upper primary collection system are to be incorporated to collect any leachate that could possibly develop above the top flexible membrane liner and below the emplaced waste. Leachate collected from the upper primary system would drain through the pipes to the primary leachate collection tanks. Leachate collected by the lower leachate collection system would drain into a leachate detection tank.

The design of the cover, which is to be added at closure, is intended to minimize post-closure water filtration; function with minimum maintenance; promote drainage and minimize erosion; and have a permeability "less than or equal to the permeability of any bottom liner system."

Possible Acceptable Variations The guidance allows that "variations" on the described design approach may be acceptable. The list of possible variations includes placement of mixed LLRW in "an engineered concrete vault, a polymer-impregnated concrete vault, or double-lined high integrity containers that are hermetically sealed."

Copies of the Guidance document can be obtained by writing: Dr. Sher Bahadur, Division of LLRW Management and Decommissioning, MS 623-SS, USNRC, Washington, D.C., 20555. **

IN THE INDUSTRY

LN Technologies is offering a waste evaporator system for sale. The system, which is skid mounted, consists of a LUWA vertical wiped film evaporator with associated pumps, tanks, heat input skid and control panel. The unit is commonly used for the volume reduction of heat sensitive/fouling materials, viscous products and radioactive wastes. For more information, please call Ted Sonntag (803) 256-4355.

Roy F. Weston, Inc. was selected by the EPA for negotiation of a contract to provide support for remedial planning activities at uncontrolled hazardous waste sites in EPA's Region V which includes the states of Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. The probable value of the contract including all options is expected to be approximately \$200 million.

To fulfill the contract work scope, Weston will provide site-specific project management, remedial planning, design, and implementation, and other technical assistance. Negotiations are scheduled over the next few months with final contract award anticipated in early 1988.

Duke Power Company has awarded contracts to **Hydro Nuclear Services, Inc.** for three dry active waste segregation/volume reduction systems. Hydro Nuclear's DAW system is a semi-automated, microprocessor-controlled system that separates conventional waste and recoverable items from actual dry active waste materials. The system is designed to process 35 barrels of material during an eight-hours shift. The systems are being installed at each of Duke Power's three operating nuclear power stations -- Catawba, Oconee, and McGuire. The systems for Catawba and Oconee are in-plant systems while the system for McGuire is a mobile configuration housed in a custom-fabricated modular enclosure measuring 24 by 50 feet. Installed in July, the Catawba system is operating. The McGuire and Oconee systems are scheduled for installation in October and November, respectively.

Duratek Corp has been awarded a contract to process low-level radioactive waste water at the Fort Calhoun Station operated by **Omaha Public Power District** of Omaha, Nebraska. Duratek's full service processing began in May. The full service processing package includes demineralization with the Duratek Enhanced Volume Reduction (EVR) Processing System and Durasil ion-selective exchange media. Based on laboratory testing of the Fort Calhoun waste stream, Duratek projects that this combination may produce waste volume reductions of up to 95 percent over demineralization services using other types of ion exchange media. To complete the service package, Duratek will prepare expended media for disposal with the Duratek Heat-Enhanced Dewatering (HED) System and provide packaging for disposal of the dewatered waste product. Fort Calhoun is the fourteenth utility to contract with Duratek for EVR equipment and the ninth to establish a full service contract. For more information contact

Donald Burroughs, Manager, Marketing Services, Duratek Corp. (301) 474-2100.

ON THE MOVE

Dr. Richard J. Slember, general manager of the nuclear fuel business unit, has been elected a vice president of the Westinghouse Electric Corporation. As vice president and general manager of the nuclear fuel business unit, Dr. Slember will continue to be responsible for the supply and delivery of nuclear fuel products and services to customers in both the commercial and government sectors. Dr. Slember joined Westinghouse in 1955 as an engineer at the Bettis Atomic Power Laboratory and subsequently served in a variety of engineering management positions in the advanced reactors division, nuclear equipment divisions and nuclear technology division before being named General Manager of the strategic operations division in 1980. **

REQUEST FOR PROPOSAL

ILLINOIS DEPARTMENT OF NUCLEAR SAFETY

The Illinois Department of Nuclear Safety (IDNS) will issue a Request for Proposal within the next few weeks for a contractor to design, construct, and operate a low-level radioactive waste (LLW) disposal facility in Illinois.

With the assistance of Battelle Memorial Institute and Hanson Engineers, Inc., IDNS is now conducting a search for alternative facility sites. Four sites will be characterized, and the Director of IDNS intends to select the site to be developed before January 1, 1990. IDNS will select the contractor to develop and operate the facility early in the alternative site characterization process in order to provide an opportunity for that contractor to work closely with the affected communities. IDNS is interested in receiving proposals from contractors highly qualified to design, construct, operate, monitor, and close a LLW disposal facility in Illinois, and invites expressions of interest in the project. Disposal by shallow-land burial is prohibited by law in Illinois.

Prospective proposers should notify IDNS of their interest by mail, by providing the name, address, and telephone number of a designated contact person to: Dr. John Cooper, Manager, Office of Environmental Safety, Department of Nuclear Safety, 1035 Outer Park Drive, Springfield, Illinois 62704.

LLRW Volume Disposal Update

LLRW ACCEPTED FOR DISPOSAL AT BARNWELL, BEATTY AND HANFORD

Through June 1987
(Volumes in Cubic Feet)

	<u>June</u>	<u>Year to Date</u>		<u>June</u>	<u>Year to Date</u>
Northeast			Rocky Mountain		
Connecticut	2,230.90	15,679.60	Colorado	155.10	785.10
New Jersey	3,423.60	21,316.20	Nevada	0.00	0.00
	<u>5,654.50</u>	<u>36,995.80</u>	New Mexico	0.00	0.00
			Wyoming	0.00	0.00
				<u>155.10</u>	<u>785.10</u>
Appalachian			Western III		
Pennsylvania	8,554.70	58,544.40	South Dakota	0.00	0.00
West Virginia	0.00	0.00	Arizona	0.00	4,006.60
Maryland	8,875.70	13,653.40		<u>0.00</u>	<u>4,006.60</u>
Delaware	120.00	667.50			
	<u>17,550.40</u>	<u>72,865.30</u>			
Southeast			Northwest		
Georgia	1,027.20	9,920.08	Idaho	0.00	1.50
Florida	1,696.50	23,221.10	Washington	4,200.50	22,181.30
Tennessee**	11,215.80	73,219.90	Oregon	5,192.30	37,878.00
Alabama	4,469.70	37,990.50	Utah	0.00	0.00
N. Carolina	5,267.20	40,513.70	Alaska	0.00	0.00
S. Carolina	9,073.00	56,667.40	Hawaii	0.00	1,707.80
Mississippi	1,617.50	7,354.20	Montana	37.50	38.20
Virginia	10,546.00	32,908.45		<u>9,430.30</u>	<u>61,806.80</u>
	<u>44,912.90</u>	<u>281,795.33</u>			
Central States			Unaligned		
Arkansas	3,961.20	4,265.50	Rhode Island	114.60	434.90
Louisiana	618.00	9,297.60	Vermont	386.00	2,990.90
Nebraska	2,338.50	13,047.40	New Hampshire	0.00	367.50
Kansas	728.00	2,806.50	Maine	366.00	2,546.50
Oklahoma	3,090.00	29,988.20	New York	6,924.50	33,210.80
	<u>10,735.70</u>	<u>59,395.20</u>	Massachusetts	4,227.50	23,982.60
			Texas	4,801.00	22,540.60
Central Midwest			North Dakota	0.00	2.90
Illinois	19,156.40	89,310.70	California	6,647.40	40,119.00
Kentucky	0.00	175.70	Puerto Rico	0.00	0.00
	<u>19,156.40</u>	<u>89,486.40</u>	D.C.	112.50	135.00
				<u>23,579.50</u>	<u>126,330.70</u>
Midwest			TOTAL:	137,736.00	798,525.43
Wisconsin	1,089.50	3,448.00	(May total)	115,139.00	660,789.43
Indiana	0.00	1,282.40			
Iowa	2,371.00	12,426.10			
Ohio	1,092.00	7,649.70			
Michigan	1,330.90	13,607.60			
Minnesota	227.80	8,682.50			
Missouri	450.00	17,961.90			
	<u>6,651.20</u>	<u>65,058.20</u>			

**The LLRW Volumes reported from Tennessee and possibly small volumes from a few other states may include waste delivered by generators in other states to a TN-based regional processing facility and then shipped to Hanford, WA for disposal. We are working with site operators to correct the figures.

(Court Action from pg. 1)

NARUC, EEI Seek Court Action

The DOE in issuing the final version of the methodology rejected formal petitions by the National Association of Regulated Utility Commissioners (NARUC) and the Edison Electric Institute (EEI) requesting that DOE institute a formal rulemaking to establish the Defense fee allocation methodology. EEI and NARUC received formal letters rejecting their petition just a day or so prior to the release of the revised methodology. An EEI spokesman said that the group does plan to file to overturn the action. It may take the utility group a month or so to obtain the necessary concurrence of all utility interests involved. Meanwhile NARUC could file suit in Washington, D.C. Federal District Court by Tuesday, September 1, to stop the action and petition the Courts to require the DOE to proceed with a formal rulemaking.

Revisions to Initial Proposal

The calculational methodology finally agreed upon by the Department revised the preferred version published in the December 2, 1986 Notice of Inquiry (NOI) in the Federal Register incorporating:

- changes made to the TLSCC structure as a result of more detailed information on various program costs and the manner in which the costs of the Monitored Retrievable Storage (MRS) facility were taken into account;
- three instead of two cost account designations: direct costs, which are identifiable and assignable to either defense high level waste (DHLW) or

commercial HLW; common variable costs, which are also directly assignable; and common unassigned costs, which are cost components of TLSCC not included in the other two categories, and are not readily identifiable with any particular system parameter.

Determination of DP Share

In order to determine the DP share of the common variable cost elements the DOE developed cost sharing factors based upon piece count and areal dispersion. Piece Count is the ratio of DHLW packages placed in the programs waste-handling buildings to the total number of packages placed in the buildings. Areal Dispersion is the ratio of repository area required for DHLW to the total disposal. It may be measured by the proportion of the mined volume in the disposal areas that is attributed to DHLW.
**

DOE REVISES PROCESS FOR ISSUING SITE CHARACTERIZATION PLANS

On August 27 OCRWM Director Ben Rusche agreed to revise the process for the issuance of the HLW Repository Site Characterization Plans (SCPs) to allow for simultaneous issuance of "consultation drafts" of the SCPs for the three potential sites (Hanford, WA, Yucca Mt., NV, Deaf Smith County, TX) on January 8, 1988; establish an intensive interactive consultation program with the states and Tribes on the drafts, then commence a 90 day public comment period on the final versions. Along with revising the SCP issuance process the OCRWM will also concurrently release the HLW site Environmental and Socioeconomic Monitoring and Mitigation Plans (MMPs).

Consultation Workshops

According to an internal memo obtained by the EXCHANGE, after the simultaneous release of the SCPs in January, a series of "consultation workshops" with the states, Tribes and NRC representatives will be convened in January, February and March. After the last workshop, the memo explains that DOE would "at some time shortly" thereafter close out the consultation period, and, after consideration of comments, proceed to prepare the SCPs with a scheduled date determined by the results of the consultation period. Then, upon completion of the SCPs a "90-day public review with public hearings" would be held.

Surface-Based Testing to Continue

According to the memo, the OCRWM will continue to plan for and perform surface-based testing during and after the SCP consultation phase. The resulting data is to be shared with the states and Tribes, with the plans for these activities to be provided through the SCP study plans. One major hitch in these intentions is that DOE has not received any permits to carry out any tests on the proposed Deaf Smith County site which is on privately owned land.

No Firm Deadlines Projected

In contrast to past DOE pronouncements of changes in schedules (except for the indefinite postponement of the second round program) this internal memo provides no specific date upon which the final version of SCPs will be released. The only indication that a final release timetable has been developed is contained in the memo's closing paragraph which notes, the process is not expected to "measurably affect the start of exploratory shaft construction at BWIP and SALT and may result in no more than a 3 month delay in Nevada."

Some DOE and state officials told the EXCHANGE that this assessment of the new timetable is more hopeful than realistic. One DOE official postulated that the likely release date for the final version of the SCPs for the public review period would be

"around January 1989," with a good deal of time being spent one-on-one with individual state and Tribal officials following the last "consultation workshop."

Another time factor raised by state officials in Nevada and Washington is the projected issuance date of January 1, 1988 for all three plans. Officials in both states seriously question how DOE will be able to develop a "consultation draft" of the Deaf Smith County site without having access to the area to collect the necessary data. They believe the issuance date will have to be delayed in order to achieve comparability as to the content of the three SCPs.

States' Reaction

Nevada's head of nuclear waste programs, Bob Loux, said he was pleased at what he had been told by the Nevada Ops office about the new process. Nevada's SCP was scheduled for release in September prior to the issuance of Washington's and Texas'. His impression of the new process after discussions with DOE officials was that the consultation process would be an "informal, intense, interactive one-on-one participatory process with DOE," and was very pleased with the prospect. Terry Husseman of Washington State remarked that the DOE's action was "a positive step in the consultative process."

Perspectives...

The open-ended timetable on the final issuance of the SCPs does not reflect Ben Rusche's management style. It is definitely a victory for the states. But to what end? Was the new process established to avoid having final SCPs out for public review just prior to the election, or with the hope that new legislation, ala Bennett Johnston - Mo Udall, would effectively change the selection process to allow sequential site characterization. One can be sure that any decisions in any areas that would affect the attitudes of Texans during a Presidential election or Nevadans during a Senate campaign are under the control of the Administration's team of managers outside the doors of the Forrestal Building.

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COMPACT GROUPINGS, MILESTONE COMPLIANCE, LLRW SITE STATUS, & LEGISLATIVE STATUS (CONGRESS & STATE)

(UPDATE AS OF 8/31/87)

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CONGRESSIONALLY RATIFIED COMPACTS

Unsited Regions In Compliance With First LLRWPA '86 MILESTONE

(No Generator Penalty Surcharge In Effect)

COMPACT (MEMBER)	REGIONAL PLAN (RP)	RP STATUS	HOST STATE (HS) DESIGNATION	HS STATUS	SITE SELECTION STATUS	SITE TECHNOLOGY RESTRICTIONS
CENTRAL STATES (OK, NE, AR, LA)	No	N.A.	HS to be designated by Commission upon suitable site identification		US Ecology selected as site developer	Pre-1979 SLB banned by Commission
CENTRAL MIDWEST (IL, KY)	Yes	Being developed Contr: Rogers & Assoc.	IL Host under compact		To identify 8 sites by 11/87	SLB Prohibited by IL law
MIDWEST (WI, IN, IA, OH, MN, MO, MI)	Yes	Approved 1/28/87	Michigan designated 6/30 Acceptance not decided		Legislation being considered in MI	SLB prohibited by Commission
NORTHEAST (NJ, CT)	Yes	Being Developed Contr: Roy Weston	Yes	No Action	No Action	To be determined

Currently Sited Regions

(Not Required to meet Milestone Requirements)

SOUTHEAST (GA, FL, TN, AL, NC, SC, MS, VA)	Yes	Complete; Requires One Disposal Site	Yes	NC picked for 2nd site Failed to act to with- draw NC from compact	Bill passed setting up NC LLRW Disposal Authority	Bill passed requiring engineered barrier disposal
NORTHWEST (ID, WA, OR, UT AK, HI, MT)	No	N.A.	WA to be host, Hanford to be Site. No provision for 2nd site.			N.A.
ROCKY MOUNTAIN (CO, NV, NM, WY)	Yes	Complete	CO to Host 2nd facility under compact		Possible site under negotiation	None

COMPACTS ADOPTED BY MEMBER STATES NOT CONGRESSIONALLY RATIFIED

Unsited Regions in Compliance with LLRWPA '86 Milestone

(No Generator Penalty Surcharge In Effect)

APPALACHIAN (PA, WV, MD, DE)	No	N.A.	PA Host State [Intro. Congress (S 1551; HR 3025) Reported out of House Interior 8/4]			SLB Prohibited
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WESTERN III (SD,AZ) [N.B.]	No	N.A.	AZ Host under terms of compact	No further action	None
Compact introduced in Congress; Approved by House Interior Committee 5/87.]					
SOUTHWEST(1) (CA,AZ,SD,ND)	No	N.A.	California is first regional host under terms of Compact	Three sites selected Final selection 1988	SLB permitted but enhanced disposal likely

STATES UNALIGNED AND MEMBERS OF PROPOSED COMPACTS

STATES	COMPACT UNDER CONSIDERATION	COMPLIANCE WITH MILESTONE* (S.States - DOE)		PENALTY SURCHARGE IN EFFECT*	TO HOST STATE SITE	SITE STATUS
TEXAS	N	Y	Y	N	Y	Detailed site studies underway in Hudspeth County.
NEW YORK	Possibility	Y	Y	N	Y	Law passed; SLB prohibited Program underway
MASSACHUSETTS	Possibility	Y	Y	N	(?)	Siting bill passed Senate 4/87 SLB prohibited
NEW HAMPSHIRE*	Y	N(NV) Y(WA,SC)	N.E.	No access to Beatty	N	
MAINE	N	Y	Y	N	Y	Has Siting Law. Siting Authority bill introduced
RHODE ISLAND	Y	N(NV) Y(WA,SC)	N	N(WA, SC) No access to Beatty	N	No action
VERMONT*	N	Y	Y	N	N	No action
D.C.* (2)	Y(NE)	Y(WA,SC) N(NV)	N	(See Note 1)	N	No action
PUERTO RICO*	Y	N	N.E.	No access to any site	N	No action

NOTES:

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SLB = Shallow-Land Burial; HS = Host State; N.E. = Not evaluated by DOE; N.A. = Not Applicable;

* The determination of compliance with a milestone for a state or compact is currently being decided separately by DOE and each of the sited states. The DOE LLRW Program Management's determination is only made to decide on whether a state or compact is eligible for the 25% rebate of the surcharge following receipt of a formal request from a state or compact for the rebate. Sited state officials in WA, NV and SC make the determination to decide the application of the penalty surcharge and granting site access. Though the three states are coordinating their determination, they do act independently.

- (1) The Southwest Compact is expected to replace Western III Compact.
- (2) DC and North Dakota were found out-of-compliance with the LLRWPA's first milestone by the Rocky Mountain Board, but were not denied access to the Beatty facility.

The **Exchange** staff hopes you had a good summer that included some vacation time. We had both. The **Exchange** resumes its normal publication schedule for 1987 with this issue. Editions will be published the first week and mid-month for the remainder of the year.

We always look forward to serving your radwaste needs.

DOE CERTIFIES "GOOD FAITH" EFFORT WITH STATES, HOUSE RELEASES \$79 MILL

In a August 17 letter to Secretary Herrington, House Energy and Water Development Appropriations Subcommittee Chairman Bevill and ranking minority member Myers gave their approval to release the \$79 million FY87 appropriations that were withheld from the DOE pending "certification" by the Secretary of Energy that he has made a "good faith effort" to comply with the provisions of the Nuclear Waste Policy Act regarding consultation with the states.

Bevill's and Myers' letter releasing the funds followed DOE's submittal of a "certification report" to the Appropriations Committees by less than two weeks.

Secretary Herrington, in his cover letter transmitting the report to the Appropriations Committees and requesting release of the the \$79 million, maintains that, even though binding written consultation agreements with the States' or Tribes have not been negotiated, DOE's "efforts to initiate negotiations for such agreements and consummate them have been extensive." The executive summary of the report explains that although DOE has taken reasonable measures to encourage States and Indian Tribes to negotiate consultation and cooperation agreements, has issued invitations to negotiate and has responded favorably to all requests for negotiations, "...DOE has no authority to require States and Tribes to negotiate." It further adds that "several parties have not responded favorable to DOE's requests for the

initiation of negotiations."

State Reaction

Some state officials initially contacted by the EXCHANGE were unaware of the House release of the \$79 million. Within a few days, however, it appeared that state officials from Washington and representatives from Indian Tribes were working on a response to the "certification report" to support an effort on the Senate side to impede release of the \$79 million.

Senate Approval Not as Easy

Though House release of the funds came quite easily, action from the Senate may not come as quickly. Senator Johnston, Chairman of the relevant Senate Appropriations Subcommittee and an avid supporter of DOE efforts, as well as a critic of state actions, has, according to our information, given a commitment to Oregon's Senator Hatfield (Appropriations Subcommittee ranking minority member) that he will not approve the release of the funds without prior consultation. And, though Hatfield was successful in getting Senator Johnston to accept amendments to the Energy Committee's recently adopted HLW bill (See EXCHANGE, Vol. 6, No. 13) which are intended to diminish Hanford's chances of being named as the repository site, it is expected that the Oregon Senator will seek more clarification and explanation of the DOE's activities with the states and Indian Tribes, as described in the certification report, rather than support a release of the \$79 million at this time. **

IN THE STATES

In the past two weeks Steve Frishman the outspoken head of the **Texas Nuclear Waste Office** resigned his post. When reached out in the Texas Panhandle where he was advising a local group regarding their HLW program activities, Steve explained that his leaving had nothing to do with policy differences with the current administration. The principal reasons were problems with the current administrative set up which had his office supposedly working directly with the Governor's office in a policy mode but under the direction of another cabinet agency for administrative purposes.

Steve confirmed the rumors, circulating since his surprising resignation, that he has spoken with **Nevada's** Director of Nuclear Waste Program's, **Bob Loux**, about the possibility of joining the Nevada program. Loux and Frishman confirmed that, providing things can be worked out, Frishman can be expected to assume a highly visible position within Nevada's HLW program.

IN THE CONGRESS

HLW LEGISLATION Interior Chairman Morris K. Udall has scheduled a September 18 hearing on the two HLW bills he introduced in the past month (HR 2888 and HR 2967). The session will convene at 9:45 a.m., in Room 1324 Longworth.

Further action on the Senate side regarding the Energy Committee's proposals to revamp the HLW program will occur at the Energy and Water Appropriations hearings and impending markup which should occur during the week of September 12.

PRICE-ANDERSON REAUTHORIZATION The Senate Environmental and Public Works Committee completed markup of a Price-Anderson Bill on August 4. As of August 31st it had not yet received a bill number. The reported bill is based on a legislative vehicle introduced by Nuclear Regulation Subcommittee Chairman John Breaux and parallels to a great degree the bill adopted by the House. However it does not have the effect of providing unlimited liability coverage for incidents resulting from DOE

nuclear waste activities. Liability for waste activities is limited to liability coverage provided for commercial reactors -- about \$7 billion.

Also in contrast to the House-passed version, the Senate Environment bill:

- extends P-A for 30 years;
- includes \$100,000 per day civil penalties for DOE contractors guilty of gross negligence or willful misconduct (GN&WM). This is similar to provisions in the Energy and Natural Resources contractor-only reauthorization bill (S 748), which exempts certain named non-profit contractors who manage national laboratories;
- includes a criminal penalty provision of up to \$25,000 fine or 2 years in prison for HLW contractors found guilty of GN&WM.

As this edition went to print there appears to be a plan developing to have a reconciled version of a P-A bill for Senate floor action by the week of September 21. The reconciled version would incorporate the contractor only provisions bill adopted by the Energy Committee. There is also the possibility that the House passed bill may be introduced in the Senate in lieu of having a new Senate vehicle. There is considerable interest in pursuing the latter course of action in the Energy Committee.

IN THE OCRWM

PERSONNEL CHANGES Roger Gale OCRWM's very able "point man" for dealing with the states tribes, etc., is moving over to the Federal Energy Regulatory Commission to take over the External Affairs Office under Martha Hesse, the Commission's Chairperson. Roger won the respect of state officials and Congressional staff during his tenure at OCRWM. He will be missed. **Jerry Saltzman**, Roger's Deputy, will assume the overall responsibility for the office in an acting capacity. Jerry is a capable and respected professional who won his spurs in the arena of "intergovernmental wars" over at the NRC's Office of State Programs.

In a somewhat expected, but at this time surprising, move Associate Director **Roger Hilley** has announced his resignation from OCRWM effective September 11, 1987. His responsibilities will be assumed by **Keith Klein** on an acting basis.

With all the moving around, there are rampant rumors that Ben Rusche is about to resign. All Exchange sources within the DOE deny the possibility of this happening at this time. When Mr. Rusche was asked by publisher Ed Helminski about his resigning at Roger Gale's going away party, the OCRWM Director remarked politely "Ed, you know me better than that."

Carl Gertz's formal appointment as Director of the HLW project office for the Nevada Ops Office is eminent but the paperwork has not cleared all the necessary in- and out-boxes. Good luck Carl.

CONTRACT AWARD After more than a year following their initial selection to provide technical support services to OCRWM headquarters staff, **Roy F. Weston** was notified on August 24 that they were again awarded a contract to provide the same services for the next two years with three one-year options.

DOE had initially selected Weston for the contract in January, 1987, but NUS Corporation successfully protested the award. The competition was then reopened with only NUS and Weston eligible to submit proposals. Weston has been providing support services to OCRWM since 1983 when it was competitively selected after passage of the NWPA.

Weston, the prime contractor, will again lead a team of subcontractors that will include the Jacobs Engineering Group, Inc., Pasadena, CA; United Engineers and Constructors, Inc., Philadelphia, PA; Williams Brothers Engineering Company, Tulsa, OK; ICF Incorporated, Washington, DC; Rogers and Associates Engineering Corp., Salt Lake City, UT; and Engineering and Economics Research, Inc., Vienna, VA.

DOE has selected **Stone and Webster** of Boston, MA, to provide technical and field

services for the Salt Repository Project in Texas. The firm was among three responding to a Request for Proposals issued by DOE's Chicago Operations Office in July 1986.

Under the contract Stone and Webster will carry out site characterization and related support activities in Texas involving up to \$320 million over an initial three-year contract period, with seven one-year optional extensions. As Technical and Field Services Contractor the firm will plan, organize, conduct and report on studies of a candidate repository site in salt host rock. This will include site characterization activities at the site in Texas, including geotechnical field studies, environmental and socioeconomic studies and engineering studies. DOE expects that Stone and Webster will locate several hundred employees in Amarillo, TX during the peak of site characterization activities.

DOE has yet to release the RFP for the "**Super Integrator**" or Gorilla contractor. Despite the fact that such a contractor may not be necessary if new legislation is adopted establishing sequential site characterization, DOE is going ahead with preparation of the RFP for release, hopefully, in September.

AT RICHLAND and HANFORD

On August 1 **Westinghouse Electric Corporation** opened the regional Northwest Environmental Technology Center in Richland, Washington. Establishment of the center is one of the corporate investments in the Tri-Cities that were pledged by Westinghouse when it was awarded the five-year Hanford operations and engineering contract by the U.S. Department of Energy. Pres Rahe, general manager of the corporation's environmental technology division in suburban Pittsburgh, said the new center will allow Westinghouse to pursue environmental services and diverse new technology applications for waste treatment programs. George A. Jacobson, a Westinghouse engineer and program manager for 14 years, will head the new office and laboratory. Services will include detection, analysis and on-site high-technology

treatment methods for various types of organic, toxic and hazardous wastes, including dioxins and commonly used chemicals such as pentachlorophenol (PCP) used in wood preservatives and pesticides. The Northwest Technology Center can be reached at (509) 946-9774.

Recent revelations in the press of memos sent by **NRC's Hanford on-site representative, Robert Cook**, to **Bob Browning**, Director of the NRC's HLW Waste Management Office, have added to already serious doubts as to whether Hanford can remain as a viable potential site for the first round repository. According to a story carried in Eugene Oregon's Register-Guard of August 9th, Mr. Cook sent a memo on February 3 of this year to Mr. Browning saying that he did "not believe [Hanford] represents a practical safe option." Both men are cited

as revealing concerns over earthquake zones in the Hanford site and ground water moving faster than previously believed, based partly on disclosures of radioactive Iodine in aquifers deep under the reservation. Browning's comments are based on a report prepared by Nuclear Waste Consultants that was reviewed in an earlier edition of the EXCHANGE (See EXCHANGE, Vol. 6, No. 6).

The above-cited revelations of internal NRC memos adds to the growing serious doubt of the proposed Hanford site viability as a potential repository site following the recent announcement that radioactive Iodine-129 has been discovered in confined aquifers on and off the Hanford reservation. (A more detailed perspective on the problems at Hanford will be featured in an upcoming edition.)

REPORTS OF NOTE (HLW)

Multifactor Test Design to Investigate Uniform Corrosion of Low-Carbon Steel in a Nuclear Waste Salt Repository Environment (BMI/ONWI-642); Office of Nuclear Waste Isolation, Battelle Memorial Institute, 505 King Avenue, Columbus, OH 43201-2693 (Also available from NTIS, 5285 Port Royal Road, Springfield, VA 22161).

SIMREP 1.1--A Simulation Model for Repository Operations (BMI/ONWI-648); Office of Nuclear Waste Isolation, Battelle Memorial Institute, 505 King Avenue, Columbus, OH 43201-2693. This report serves as a documentation for SIMREP 1.1., a discrete event computer simulation model of repository operations in the surface wastehandling facility. The logic for this model is provided by Fluor Technology, Inc., the architect/engineer of the salt repository. Part I of this report deals with simulation techniques and program design. Simulation methods and the use of the SIMSCRIPT II.5 simulation language are discussed. Repository operations modeled in SIMREP are briefly described. Detailed program logic is included in Appendix A. Part II is a guide for the use of SIMREP 1.1. Input data requirements, output file organizations, and software and hardware specifications are described in detail. A sample problem is provided to illustrate the use of SIMREP 1.1. The required input data and the resulting output files for the sample problem are shown in Appendix B and Appendix C.

REPORTS OF NOTE (LLRW)

EPA-RCRA Reports: Engineers, government officials and citizens groups concerned with safe treatment of wastes will benefit from the practical, detailed information provided in four new EPA reports now available from the National Technical Information Service (NTIS) of the U.S. Department of Commerce.

Prevention in Underground Storage Tanks: A State-of-the-art Survey, PB87-168662/KFJ, (Softcover 104 pp.), \$18.95. The objectives were to examine the structural design and operational practices associated with underground storage tank systems in order to prevent leaks from such systems and identify areas for further research and development. Other recommendations are also given.

Minimum Technology Guidance on Double Liner Systems Landfills Impoundments, Design, Construction and Operation, PB87-151072/KFJ, (83 pp.) \$13.95. Provides guidance on design in addition to the design set out in section 3004(o)(5)(b) that the EPA believes meets the requirements of sections 3004 (o) of HSWA.

RCRA Guidance Document, Surface Impoundments Liner Systems, Final Cover, and Free Board Control, PB87-157665/KFJ, (21 pp.) \$9.95. Presents surface impoundment design specifications that the EPA believes comply with the design and operation requirements of Section 265.228 (a) of surface impoundment regulations.

TECHNOLOGY BRIEFS: Data Requirements for Selecting Remedial Action Technology, PB87-161238/KFJ, (174 pp.) \$18.95. The data requirements for screening, evaluating, designing, and constructing remedial action technology at hazardous waste sites. Air pollution, surface water, leachate, etc. are all covered.

All the above reports are available from NTIS, Springfield, VA 22161; (703) 487-4650. Order by PB number and add \$3 handling fee to total order. **

Accelerated Leach Test(s) Program Annual Report (BNL 52042 UC-70B); Nuclear Waste Research Group, Department of Nuclear Energy, Brookhaven National Laboratory, Associated Universities, Inc., Upton, Long Island, New York 11973. This report summarizes the work performed for the Accelerated Leach Test(s) Program at Brookhaven National Laboratory in Fiscal Year 1986 under the sponsorship of the U.S. Department of Energy's Low-Level Waste Management Program (LLWMP). Programmatic activities were concentrated in the following areas: (i) A computerized data base of LLRW leaching data has been developed; (ii) Long-term tests on portland cement, bitumen and vinyl ester-styrene (VES) polymer waste forms containing simulated wastes are underway which are designed to identify and evaluate factors that accelerate leaching without changing the mechanisms.

Investigation of Leaching of Radionuclides and Hazardous Materials from Low-Level Wastes at Oak Ridge National Laboratory (ORNL/TM-9883 UC-70b); Chemical Technology Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37831. Leaching of both radioactive contaminants and Resource Conservation and Recovery Act (RCRA) hazardous material from representative low-level radioactive wastes generated at Oak Ridge National Laboratory (ORNL) was investigated using two different leaching methodologies: the current Environmental Protection Agency (EPA) Toxic Waste Extraction Procedure (EP) and a proposed EPA Toxicity Characteristic Leach Procedure (TCLP).

Calculation of the Inventory and Near-Field Release Rates of Radioactivity from Neutron-Activated Metal Parts Discharged from the High Flux Isotope Reactor and Emplaced in Solid Waste Storage Area 6 at Oak Ridge National Laboratory (ORNL/TM-10233 UC-70B) Chemical Technology Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37831.

Calendar

September

- 3 Symposium: LLRW Waste Regulation: Science, Politics, and Fear; Spons: American Chemical Society's Div. of Chem. and the Law; New Orleans Marriott, 8:00 a.m. - 4:30 p.m.; Contact: Michael E. Burns (202) 639-2280.
- 10 Markup: HLW Program Appropriations; Senate Energy and Water Appropriations Subcommittee; Contact: Proctor Jones (202) 224-0335.
- 18 HEARING: House Interior Committee; HLW Program Moratorium, Negotiator bills; 9:45 a.m., 1324 Longworth HOB; Contact: Sam Fowler (202) 225-8331.
- 21(?) Possible Senate Floor Action, Price-Anderson Reauthorization.
- 27-30 Conference: The Second International Conference on New Frontiers for Hazardous Waste Management; Westin William Penn Hotel, Pittsburgh, Pennsylvania; Sponsor: NUS Corporation; Contact: Debra Wroblewski (412) 788-1080. NUS Corporation, Park West Two, Cliff Mine Road, Pittsburg, PA 15275.
- 29(?) Scheduled Action on Reconciliation Bill in the Senate. Possibly include Energy HLW legislation.
- 27-30 Conference: Integrated Spent Fuel & HLW Mgmt. Systems; Albuquerque, NM Marriott; Spons: ANS; Contact: Neil Norman (415) 768-4035.

October

- 14-16 Conference: DOE Oak Ridge Model Conference, Oak Ridge, Tenn; Subjects: Waste Management, Environmental Protection, and Health and Safety. Contact: Lance J. Mezga (615) 574-7259.
- 27-29 Workshop: Radioactive Waste Packaging, Transportation and Disposal; Sheraton Charleston Hotel, 170 Lockwood Drive, Charleston, SC; Spons: Chem--Nuclear Systems, Inc.; Contact: Jan E. Folk (301) 259-1781 or Tammi Pennington (803) 256-0450.
- 29-30 Conference: Nuclear Materials Licensee Conference; Ambassador West Hotel, Chicago, Illinois; Contact: Illinois Department of Nuclear Safety, Office of Radiation Safety (217) 785-9918.

November

- 13 Annual Conference: Calrad Forum "The Future of Low-Level Waste Management and Disposal in California;" Radisson Plaza Hotel, Manhattan Beach, CA; Contact: Jean Parker, Administrative Director, CRMFF, P.O. Box 40279, San Francisco, CA 94140 (415) 647-3353.
- 14 Workshop: Calrad Forum "Radioactive Materials Users' Workshop: Working Together to Promote the Development of New LLRW Disposal Facilities;" Radisson Plaza Hotel, Manhattan Beach, CA; Contact: Jean Parker, Administrative Director, CRMFF, P.O. Box 40279, San Francisco, CA 94140 (415) 647-3353.
- 15-18 Atomic Industrial Forum Annual Conference; Los Angeles, CA; Contact: AIF (301) 654-9260.
- 15-19 Meeting: American Nuclear Society; Los Angeles, CA; Contact: ANS Meetings Dept. (312) 352-6611.

November-December

- 30-5 Conference: International Waste Management Conference; Kowloon, Hong Kong, Westin Shangri-La Hotel; Spons: ASME/IAEA/AESJ/Canada Nuc. Soc./-ANS/Rep. China Nuc. oc./ENS; Contact: Larry Oyen, Sargent & Lundy, (312) 269-6750.

December

- 1-3 Short Course: Packaging and Transportation of Radioactive Waste Material; emphasizes "hands on" skills in dealing with regulatory compliance, techniques and procedures and disposal facility requirements. Las Vegas, Nevada; Fee: \$525.00 (includes a tour of a LLRW disposal facility. Contact: Peggy Thompson, US Ecology Nuclear, 926 Shelbyville Road, Suite 300, Louisville, KY 40222; (800) 626-5334.
- 8-9 Conference: IL Department of Nuclear Safety's Fourth Annual Low-Level Radioactive Waste Generators' Conference; Ambassador West Hotel, Chicago, IL. Contact: IL Department of Nuclear Safety, Office of Environmental Safety (217) 785-9958

(Changes from previous calendar in bold print)