The

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

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Compact, LLRW Site Development Chart Centerfold

Volume 6 No. 7

SAFETY OF HIGH DENSITY RACKS FOR SPENT FUEL STORAGE POOLS QUESTIONED

A draft report from Brookhaven National Laboratory on beyond-design basis accidents for spent fuel storage pools has raised concerns about the use of high density storage racks. The concerns, which are being downplayed by Nuclear Regulatory Commission staff who question assumption relied the upon in the Brookhaven report, come at a time when utilities are increasingly applying for licenses to install high density racks in their spent fuel pools. Vermont Yankee's Central Vermont Public Service Corp. and Diablo Canyon's Pacific Gas & Electric are two recent applicants for licenses for such racks.

The primary concern in the draft report is that the high density racks restrict air flow such that, even after the spent fuel cools for more than a year, there is a potential for "self-sustaining oxidation" of the zircaloy cladding so that in an accident involving a complete loss of cooling water, "catastrophic" cladding fire could result that spread from fuel assembly to fuel assembly. (See Racks in the HLW Focus)

WASHINGTON AWAITS COMMENTS **ON LIABILITY REGULATIONS**

The State of Washington's Department of Ecology is awaiting comment on "preliminary" rules that would require Hanford site use permit holders, LLRW transporters and US Ecology to maintain certain levels of liability insurance or other types of financial assurance. The "preliminary" draft rules mailed at the end of March are written to set specific minimum requirements for liability in three categories of waste depending on their degree of hazard: high hazard; medium hazard; and low hazard. Within each class a minimum is proposed to be set for: general liability; nuclear energy liability; transportation liability; and, environmental impairment. There is а separate category for the disposal site operator, US Ecology.

Alternative Coverage Mechanism

The preliminary draft suggest four alternative ways that liability coverage could be provided in lieu of purchasing insurance: guarantees; bonds; corporate surety self insurance. letters-of-credit; and Comments are invited on other possible means of coverage. (See Liable on pg. 2)

Edward L. Helminski, Publisher

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the HLW Focus..... pg. NRC "Qualifies" HLW Criticism... pg. DOE on Accepting Spent Fuel..... pg.

April 19, 1987

(Liable from pg. 1)

Under the preliminary draft proposal the state would be held harmless from "claims, suits, damages, or expenses on account of injuries to or death of persons and property arising or growing out of any operations and activities" undertaken by licensees or permitees. The state is to be named as an insured party on any insurance policy purchased to meet the rules. Firms who fail to comply with the liability coverage rules would have their licenses or permits suspended.

Draft rules are scheduled to be issued in the summer or fall of this year, with final rules expected to be in effect by December 1, 1987. A public meeting on the rules is scheduled for May 20 in Lacey, Washington. For more information contact Carole Richmond at (206) 459-6228. **

NC LEGISLATURE CONSIDERS RESTRICTING LLRW SITE TO THREE COUNTIES

A LLRW facility siting criteria bill which would limit siting of LLRW facilities to counties where a commercial nuclear reactor is licensed, or to counties which have volunteered for a site, is being considered by the House Water and Air Committee of the North Carolina General Assembly. If this bill were ratified, it could have the effect of limiting siting to only three of North Carolina's one hundred counties: Mecklenburg, Wake and Brunswick.

The proposed committee bill SB 46-CSRT-008 was referred to a subcommittee for further study on April 15. The same siting criteria bill, but without the restrictive language, has passed in the Senate. If the House elects to pass the more restrictive substitute it would be referred back to the Senate for concurrence.

Financial Requirements Bill Passed

The only bill relating to low-level waste thus far ratified in the 1987 session of the NC General Assembly was Senate Bill 47. The statute amends the licensing process for a low-level radioactive waste facility by first requiring the applicant to satisfy the state licensing agency of its financial and technical capabilities.

As of April 15, the status of other bills still under consideration in the North Carolina General Assembly is as follows:

HB 69; SB 48: An Act to Prohibit Shallow Land Burial of Radioactive Waste and to Require Engineered Barriers at any Near Surface Disposal Facility. Would require engineered barriers for any near-surface disposal facility and a distance of at least 10 feet between the seasonal high water table and the facility bottom. Referred to House Committee on Water and Air. Referred to Senate Committee on Environment.

SB 49: An Act to Suspend the Issuance of any License for a Commercial Low-Level Radioactive Waste Facility. Would prohibit receipt or processing of a license application for any low-level waste facility until December 1, 1987. Passed in Senate. Referred in House to Committee on State Government.

HB 66: Companion bill of SB 49, would prohibit license issuance until August 1, 1988. Referred to the House Committee on State Government.

SB 359: An Act Authorizing the Legislative Research Commission to Study the Management of Low-Level Radioactive Waste and Appropriating Funds for the Study. Would appropriate \$8,000 in FY 87-88 and \$8,000 in FY 88-89 to study all aspects of LLRW in NC and report back to the 1989 General Assembly. Referred to Senate Committee on Rules.

HB 35: An Act to Repeal the Southeast Interstate Low-Level Radioactive Waste Management Compact and to Provide for a North Carolina Low-Level Radioactive Waste Facility Operated by the State. House Committee on Water and Air referred this bill to subcommittee on March 8. No companion bill has been introduced in the Senate.

Legislative staff report that they expect a

new bill to be introduced in both houses of the General Assembly on April 16. The bill(s) would authorize a Siting Authority and outline a timeframe and process for siting a LLRW disposal facility. The North Carolina Assembly is not expected to adjourn until at least June, 1987. The EXCHANGE will keep its readers informed with frequent legislative updates. **

At EPRI

EPRI DEMONSTRATES DIRECT ASSAY FOR LLRW CLASSIFICATION

Because of the work done by the Electric Power Research Institute (EPRI) in cooperation with utilities and DOE, two technologies that offer substantial improvement in accuracy and simplicity over existing sampling and radiochemical assay or calculation methods used for waste classification are going to be introduced into utility use. Both are direct-assay methods and promise to satisfy NRC criteria for keeping personnel radiation exposure as low as reasonably achievable (ALARA) because they permit scanning of entire waste packages without requiring workers to open containers and withdraw samples.

The 10CFR61 requirements for waste classification cannot be met with radiation detection equipment currently available on-site at nuclear power plants. Utilities have had to sample wastes and radiochemically analyze the samples for their isotopic content at off-site laboratories. The cost of this approach ranges from \$30,000 to \$200,000 a year per plant

Not only is this practice costly, it can result in unrepresentative samples, lead to personnel radiation exposure, and some wastes -- such a neutron-activated components -- may be too radioactive to sample in a practical manner. In addition, because of sampling inaccuracies, the typical practice of estimating isotopic content from dose-rate measurements often leads to very conservative over estimates of total radioactivity, which in turn leads to unnecessarily high disposal costs. Research results indicate that some isotopes may be overestimated by factors of 1000 to 10,000.

One of the two techniques now being used is for determining the content of transuranic (TRU) isotopes (those with atomic numbers greater than uranium) in a waste volume, was originally developed under a Department of Energy (DOE) contract. The second, a commercially available technology, employs collimated high-resolution spectroscopy to measure the gamma activity in bulk waste. Results from both types of measurements become input to microcomputer codes that calculate individual concentrations of TRU and gamma-emitting radionuclides. If concentrations of key isotopes are known, plant-specific scaling factors can then provide reliable measurement of the amounts of all isotopes in waste shipments.

Both technologies have now been successfully demonstrated in co-sponsorship with Florida Power Corp. at the utility's Crystal River nuclear plant, following earlier individual testing at other plants. Used in combination, the TRU and gamma-scanning techniques may revolutionize the technical means for compliance with federal LLRW regulations and reduce sampling undertainties and the cost of disposal in the process.

Eventually, direct assay of LLRW could be commonplace at all nuclear plants. Both of these technologies are acceptble to NRC as alternatives to radiochemical sampling and analysis. With the trend in federal requirements for LLRW and the economic pressures tied to burial site capacity, the benefits of these technologies are clear. ******

IN THE CENTRAL STATES

Chem-Nuclear Systems, Inc. informed the **Central Compact Commission** that it did not submit a bid to establish a LLRW disposal facility in the compact region because of "extremely low volumes of waste projected from within [the] compact region." Chem-Nuclear stated that "future waste volumes are much too low to economically justify a site and estimated disposal rates could be as much as ten times current rates at the existing sites, thereby encouraging longterm storage of low-level waste at the point of generation." In Chem-Nuclear's view this would ultimately result in a poor system of LLRW management for the region.

The S.C. based disposal operator also stated its objections to the process adopted by the Commission whereby the private contractor selects the state and the site for a facility without an established framework for garnering support or guidance form the Commission or member states. Vic president Barnhart, of Chem-Nuclear. explained that the firm "could not afford the speculative risks of attempting to develop this facility where the probability of commercial success is small." He explained that "Our response to this proposal is not an indication of an unwillingness to bid on other facilities. Chem-Nuclear will bid for the development of disposal sites where the volumes are sufficient and the operating requirements are realistic enough to justify devoting our resources to such a project."

IN THE MIDWEST

The Midwest Compact Commission is currently negotiating with Rogers and Associates of Utah to undertake a study to determine the costs of developing a LLRW disposal facility in the Midwest region and the resulting disposal charges that would need to be assessed to support it. The study is also determine what effect to the Commission's proposed host state incentive package would have on the cost of disposal.

Rogers and Associates completed a similar study for Texas. The study for the Midwest

is planned to be completed by June, when the Commission is to designate a host state if no state volunteers by that time. Under the Midwest LLRW Regional Management Plan the region's disposal facility can be one of four designs; an above or below ground vault, a concrete cannister based burial facility (ala Westinghouse-Hittman), or a combination of the technologies. The next meeting of the Commission is scheduled for May 12-13 in St. Paul or Minneapolis. For information contact (612) 293-0126.

ON THE MOVE

David Waite Dr. and the State of Washington's Nancy Kirner have joined the staff of Envirosphere Company in Ebasco's Seattle Regional Office. Dr. Waite, formerly with Battelle Memorial Institute, will lead Ebasco's program services to the waste industry. He nuclear will be supported in his endeavors by Ms. Kirner, a certified health physicist, who was the moving force behind the State's Radioactive Waste Management Section with responsibility for the licensing and inspection of the LLRW disposal site at Hanford.

Dr. Waite is President-elect of the National Health Physics Society. While at Battelle, Dr. Waite managed all occupational and environmental safety activities associated with the national Salt Repository Program at Battelle's Office of Nuclear Waste Isolation. He was appointed to the World Health Organization Working Group on Health Implications of High-level Radioactive Waste Disposal, and serves as editor of **Health Physics.** He received the 1979 Elda E. Anderson Award from the National Health Physics Society as the nation's outstanding health physicist.

Bill Newberry, who served both South Carolina's current Governor Campbell and former Governor Riley as a hardworking and aggressive staffer on nuclear waste issues, is leaving state service to join the EG&G-Idaho National LLRW Program. Bill has been assigned to provide technical and policy support to Jeff Smiley at DOE Headquarters in Gaithersburg, MD.

BELOW REGULATORY CONCERN - MUCH ACTIVITY, BUT NO PROGRESS

Donald J. Silverman Newman & Holtzinger, P.C.

The notion that the radiation hazard associated with the disposal of certain low-level radioactive wastes is so low as not to warrant further regulation has received considerable attention over the last several years, and the Nuclear Regulatory Commission, in particular, has acknowledged the benefits of developing **de minimis** or "below regulatory concern" (BRC) standards. Despite this attention and recognition, there has been no progress to date in incorporating BRC provisions into the Commission's regulatory scheme.

As early as 1982, the NRC explicitly recognized the "importance of setting timely standards for disposal of certain wastes by less restrictive means," and **invited** petitions for rulemaking to declare specific waste streams to be BRC. Although two such petitions were filed with the NRC -- one almost three years ago related to waste oil from nuclear plants and another over three years ago related to very low concentrations of short-lived radionuclides -- neither has been acted upon.

In 1984, the Chairman of the NRC's Advisory Committee on Reactor Safeguards strongly endorsed the development of **de minimis** values, noting among other things, that establishment of such values "would foster consistency, equity, and reasonableness in regulation," and would obviate "the need to devote resources to consideration of trivial levels of radiation exposure." Despite this advice, the Commission and licensees continued to expend resources on the management and disposal of wastes that have negligible impact on public health and safety.

Congress has also recognized the benefits of identifying wastes that may be disposed of as BRC. In the Low-level Radioactive Waste Policy Amendments Act of 1985, it directed the NRC to establish standards and procedures for the "expeditious" processing of requests for disposal of waste as BRC. In response, the NRC issued a Policy Statement and staff implementation plan.

The Policy Statement and staff implementation plan establish substantial new and unnecessary technical criteria and informational requirements for BRC rulemaking petitions. Those criteria and requirements (as previously formulated) make it even more difficult to obtain approval of BRC petitions than other rulemaking petitions, and provide no guarantee that BRC petitions will be processed any more quickly than other rulemaking petitions. In fact, the staff implementation plan rejects, without explanation, the use of existing "fasttrack" review procedures, promising instead, to process petitions "in full compliance" with a pre-existing and non-binding staff policy to complete all rulemaking proceedings within two years.

The latest NRC activity in this area is the issuance of an Advance Notice of Proposed Rulemaking to develop "generic" regulations on BRC waste. Development of generic BRC regulations is a worthwhile endeavor, but will require considerable effort. In fact, it is likely to be substantially more difficult than reaching determinations on the existing rulemaking petitions, or than developing a reasonable and appropriate expedited BRC rulemaking procedure.

It is time to translate Congressional mandate, Commission policy, and staff regulatory activity into real progress on the issue of BRC waste. The Commission should, without further delay:

- (1) Act on the two pending BRC petitions;
- (2) Adopt a truly expedited BRC rulemaking procedure; and,
- (3) Develop and implement appropriate and reasonable BRC standards and criteria. **

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REPORTS OF NOTE (LLRW)

Report to US Ecology on the Low-Level Radioactive Waste Disposal Site Selection Citizens Advisory Committee, Gloria Anderson, Project Manager, League of Women voters, Southern California Regional Task Force; The Site Selection Citizens Advisory Committee (CAC) is a key element of US Ecology's public participation program in siting a low-level radioactive waste disposal facility in California. This summary describes the process by which this independently chosen group of citizens worked with US Ecology, Inc., to recommend preferred sites for detailed study and to offer advice on effectively involving the public in siting decisions.

Twelve citizens were appointed to serve on the committee. Two members were appointed by the Board of Supervisors of each of the three study counties of Inyo, Riverside, and San Bernardino. The League of Women Voters appointed three members, one from each of the study counties. The other three were appointed by the Sierra Club, the Native American Heritage Commission, and the CalRad Forum. The League of Women Voters provided support services for the committee under a grant from US Ecology.

The CAC met six times from June 1986 through January 1987. With the help of the convenor/facilitator, individual members progressed through a series of steps to get to the final step of recommending preferred siting areas to US Ecology. They were provided with background information from a variety of sources, including US Ecology and its support contractors, the State Department of Health Services, the Desert Studies Consortium, and County Environmental Health Departments. For copies of the report contact: Phyllis Schmidt, 2642 Mangrove Way, Riverside, CA 92506 (714) 369-1861.

REQUEST FOR PROPOSALS

State of California Department of Health

LLRW Disposal Site Environmental Impact Report and Environment Impact Statement (RFP-87-020) (TO BE RELEASED BY MAY 1): The Dept. of Health will be issuing this RFP seeking contractors capable of completing a LLRW disposal site Environmental Impact Report/Statement upon US Ecology's submission of a license application to the State for the selected site. Request for Proposal not yet issued.

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^{the} HLW Focus

of the Radioactive Exchange *

(Racks from pg. 1)

Possible Accident Compared to Core Melt

According to the report, the health effects from such an accident could be "comparable to," or possibly worse than, the health effects from a reactor core melt. The report says that the health effects from this kind of spent fuel pool accident could range from 12 person-rem/RY for BWRs to 130 person-rem/RY for PWRs. "These estimated risk results are comparable to the estimated risks posed by severe core damage accidents and appear to warrant further study," the report said. Addition-ally, spent fuel pool accidents would involve "substantial releases of long-lived isotopes" and would have the "potential to be much worse than a reactor core melt," as stated in the report.

Use of Low Density Racks Recommended

The report suggests that "the one measure which is likely to be effective in reducing risk is the utilization of low density storage racks for recently discharged fuel." In fact the report appeared to suggest **prohibiting** the use of high density racks for this type of spent fuel. "Since high density storage racks are predicted to cause self-sustaining oxidation even after storage of one or more years, it seems clear that it would be undesirable to store spent fuel in high density racks if it has been discharged within the last two years."

Other measures are suggested to minimize the risk for the type of accidents described, including: reducing stored radioactive inventories by transferring some of the spent fuel to a different location; increasing air circulation of spent fuel by not only using low density racks, but also by keeping them away from walls and older fuel; adding loss-of-cooling systems to storage pools; and improving procedures and equipment to reduce the likelihood of cask drop accidents. "However," the report cautions "before such preventive measures are implemented, a complete plant specific risk assessment for pool related accidents should be performed including a structural fragility analysis of the pool itself."

Possible Accident Scenarios Described

The report looked at four types of accident scenarios that could result in a complete loss of cooling water for spent fuel pools. The scenarios involved, earthquakes, missiles (generated by tornadoes, aircraft crashes or turbine failures), failures of refueling cavity seals and dropped spent fuel casks.

Previous accident studies relating to spent fuel pools, and specifically the Reactor Safety Study, concluded that the risks associated with spent fuel storage accidents were extremely small compared to the risks from reactor accidents. But these studies did not consider the possibility that a spent fuel pool would lose all of its cooling water. The NRC staff decided to look at the risks of a more serious accident where all cooling water was lost for two reasons. First, large spent fuel inventories are building up across the Nation with the shelving of reprocessing and delays in the repository program. Second, a statistical model developed by Sandia National laboratory suggested that a catastrophic zircaloy fire could result from a complete loss of cooling water at a spent fuel pool.

NRC Downplays Report

In a March 27, 1987 memorandum notifying the Commissioners about Brookhaven's draft report, Thomas M. Novak, Director of NRC's PWR Licensing Branch, downplayed the report's findings. "Preliminary staff opinion is that substantial portions of the report will need more critical review because some assumptions appear to be oversimplified," Novak said. According to the memo, the NRC staff will provide comments to Brookhaven so that a final report can be issued this summer. Novak told the Commissioners that he was notifying them of the draft report because the NRC staff "believe[s] that the subject may involve substantial public, press, or Congressional interest." **

NRC TELLS JOHNSTON NO REASON TO DELAY HLW SITE CHARACTERIZATION

In an April 15 letter to Senator Bennett Johnston, Commissioner Lando Zech, Chairman of the Nuclear Regulatory Commission, states that "...there is no reason, based on the NRC staff review of the FEA's [DOE's Final Environmental Assessment of the potential sites for a HLW repository], to delay characterization of the three sites selected by DOE." The Chairman wrote in The Chairman wrote in response to a March 10 request from the Chairman of the Senate Energy and Natural Resource Committee for NRC comments on a series of questions regarding assertions made by state officials that NRC's review of DOE's Final Environmental Assessments (FEA's) of the potential sites for the HLW repository supported their own criticisms (See EXCHANGE, Vol. 6, No. 5). The letter is accompanied by staff responses to each of the Senator's questions. The "bottom line" emphasized in the letter and in most every staff reply is that "NRC staff concerns can only be addressed through the site characterization process."

The Chairman points out that:

"the NRC staff review of the five FEA's did not identify concerns that would call into question the suitability of any of the

five sites for site characterization. While numerous concerns have been identified by NRC staff relative to each site, these concerns are of the nature anticipated at any site for which the existing data base is limited. While these concerns should not disqualify the sites from further testing to determine their suitability for the repository, they are significant with respect to the licensability of each site."

The response provided by the NRC Chairman was not concurred in by Commissioner Asselstine who will be providing his own reply prior to the planned April 28-29 hearings scheduled for the Energy Committee.

No Disqualifying Factors Found

In response to Johnston's query as to whether the Committee should be concerned that DOE is "recklessly" plowing ahead with flawed sites, the staff replied that DOE evaluated each site against the Siting Guidelines to which NRC gave concurrence and that NRC staff "has not identified any disqualifying factors. "However," it is pointed out "the NRC staff did identify a number of factors, typical of any site with a limited data base, needing to be addressed during site characterization."

In answer to the question of whether NRC concerns with the current sites infer that DOE should select other sites for characterization, NRC states that no such inference should be made.

DOE Performance Improving

In commenting on DOE's performance, the NRC staff said that "there has been a continuously overall improvement in the DOE program to develop an adequate data base, in particular as demonstrated by resolution in the final EA's of many of the NRC concerns identified relative to the draft EA's."

It is pointed out that DOE's future performance will be judged on how well it implements "the issue resolution strategy" it has set out. The staff notes that one indication that DOE is heading in the right

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

(UPDATE AS OF 4/16/87)

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Unsited Regions In Compliance With First LLRWPAA '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 (AS,OK,NE,AR,LA	No)	N.A.	No	N.A.	Developer to select; Westinghouse, US Ecology submit prop.	Pre-1979 SLB banned by Commission
CENTRAL MIDWEST (IL, KY)	Yes	Being developed Contr: Rogers & As	IL Host und soc.	er compact	Preliminary phases just completed	SLB Prohibited by IL law
MIDWEST (WI,IN, IA,OH,MN,MO,MI)	Yes	Approved 1/28/87	Yes by 7/87 if no volunteer	Selected MI, OH, WI, MN; Volunteer Sought	No action until HS designated; Communities intereste	SLB prohibited by Commission ed
NORTHEAST (NJ, CT)	Yes	Being Developed Contr: Roy Weston	Yes	No Action	No Action	To be determined
		(Not Req	Currently S i uired to meet N	i ted Regions Milestone Requireme	ents)	
SOUTHEAST (GA,FL,TN,AL, NC,SC,MS,VA)	Yes	Complete; Requires One Disposal Site	Yes NC Reg dec	Designated for 2nd ional facility; No ision on acceptance	Bill on Siting agency in Legislature	NC considering bill to prohibit SLB.
NORTHWEST (ID,WA,OR,UT AK,HI,MN)	No	N.A.	WA to be host, No provision fo	Hanford to be Site. or 2nd site.		N.A.
ROCKY MOUNTAIN (CO,NV,NM,WY)	Yes	Complete	CO to Host 2nd compact	facility under	Two possible sites under negotiation	None
		COMPACTS ADOPTED	BY MEMBER STAT	ES NOT CONGRESSION	ALLY RATIFIED	
		Unsited Regio r (No Ger	n s in Complianc nerator Penalty	e with LLRWPAA '86 Surcharge In Effe	Milestone ct)	
APPALACHIAN (PA,V ^{**} MD, DE)	No	N.A.	PA Host under t	erms of compact	Siting Bill being introduced	SLB Prohibited
WRSTRAN ITT	No	N.A.	A7 Host under t	erms of compact	No further action	None

(CD 47)

[N.B. Compact introduced in Congress; Hearing in House Interior Committee 5/7/87]

STATES UNALIGNED AND MEMBERS OF PROPOSED COMPACTS

STATES	COMPACT UNDER CONSIDERATION	COMPLIANC WITH MILEST S.States -	E ONE [*] DOE)	PENALTY SURCHARGE IN EFFECT	TO HOST STATE SITE	SITE STATUS
TEXAS	N	Y	Y	Ν	Y	Selection delayed by court action until 8/87
NEW YORK	Possibility	Y	Y	N	Y	Law passed; SLB prohibited Program underway
MASSACHUSETTS	Possibility (?)	Y	Y	Ν	(?)	Siting bill introduced 1986. SLB prohibited
NEW HAMPSHIRE*(1)	Y	N(NV) Y(WA,SC)	N.E.	No access to Beatt	ty N	
MAINE	N	Y	Y	N	Y	Has Siting Law. Siting autho- bill introduced.
RHODE ISLAND(1)	Y(2)	N(NV) Y(WA,SC)	N	N(WA, SC)	N	No action
NORTH DAKOTA(1)	Y(Western)	Y(WA,SC)	N.E.	(See Note 1)	N	No action
VERMONT [*] (1)	N	N(NV) Y(WA.SC)	Y	No access to Beatt	cy N	No action
D.C.(See *(1),(2)) - Y(NE)	Y(WA,SC)	N	(See Note 1)	N	No action
PUERTO RICO [*] (1)	Y	N(NV)	N.E.	No access to Beatt	y N	No action
CALIFORNIA	Y (SD,AZ,ND)	Y	Y	N	Y	US Ecology to be site operator 3 sites selected
SOUTH DAKOTA	Y (See Above) Y	Y	Ν	N	(See Western III Compact above)

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) At their February 27 meeting the Rocky Mountain Compact Board ruled New Hampshire, Vermont and Rhode Island out-of-compliance and denied generators in their respective states access to the Beatty facility. D.C. and ND though noted as out-of-compliance were granted a six month grace period.

(2) DC's petition for membership in the NE Compact was turned down for lack of supporting information.

DON'T FORGET TO REGISTER!

THE THIRD ANNUAL DECISIONMAKERS' FORUM Low-Level Radioactive Waste Management: Facing the New Realities. Traverse City, Michigan June 16-19, 1987

Whether you work in government or industry -- whether you're a regulator or one of the regulated -- decisions that will be made in the coming months at state and federal government levels and in the industry will affect you, making your job tougher than ever.

That's why our theme for our third Decisionmakers' Forum, "Facing the New Realities" seems so appropriate. We've brought together an impressive group of speakers whose experience and expertise can help you meet the challenges of our rapidly changing field. And, like past Forums, this one promises to be a lively and highly informative three days.

Our speakers include **Congressmen Edward J. Markey** of Massachusetts and **Thomas Luken** of Ohio, who chairs a House Subcommittee with jurisdiction over mixed waste; **NC State Senator and SE Compact Commissioner George Miller; PA State Senator D. Michael Fisher;** Illinois' **Terry Lash; Don Womeldorf** from California; the Chairman of the MW, NE, CS and NW Compacts; officials from South Carolina, Nevada, the State of Washington and other key states; the Presidents of Chem-Nuclear and US Ecology; LLRW managers from major utilities; plus other key Decisionmakers. They will be joining us to discuss our mutual concerns with the development of new disposal capacity; utility perspectives on LLRW management and disposal; the probable costs of disposal capacity in the near and long term; and, the liability for potential environmental contamination at disposal sites. The panel sessions have been designed to allow maximum interaction among attendees.

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direction is the Department's recent "recognition of the need to conduct key hydrologic testing at the Hanford site prior to construction of the exploratory shaft."

Comments On Nevada Concerns

With respect to specific technical issues raised by Nevada regarding the Yucca Mountain site and for which the Chairman of the Energy Committee requested a response, the NRC staff reiterated the comments included in their review of the FEA. In each case they pointed out what DOE would have to do during site characterization to resolve each of the concerns raised. **

DOE LEGAL COUNSEL: SPENT FUEL CAN BE ACCEPTED PRIOR TO HLW SITE OPENING

In a letter to House Energy and Power Committee Chairman Phillip Sharp the Department of Energy's General Counsel, Michael Farrell, argues that if Congress intended to restrict DOE to accepting spent fuel only when the geological repository was ready for operation, it would have "logically" expressed this intent in certain specified provisions of the Nuclear Waste Policy Act. Therefore, since Congress did not express such explicit requirements in what Mr. Farrell has identified as the logical places for such expressions of intent to occur, it follows that it was not Congress' intent to hold DOE to this restriction when the Act was passed.

In defense of DOE's intent to accept spent fuel prior to the repository being in operation, Mr. Farrell argues that the word "disposal" in Section (302)(a)5(B) (See Note at end of article) of the NWPA wherein the Secretary is directed to "dispose" of spent fuel, does not have the same meaning as "disposal" in other provisions of the Act where it is intended to mean (as so defined in the Act) as "emplacement in a repository."

"Logic" Offered in Support of DOE

Mr. Farrell began his defense by pointing out that if Congress' use of the "disposal" in Section (302)(a)5(B) was intended to require that spent fuel be disposed of (i.e., emplaced in a repository), "logically" Congress would have addressed the "question when a repository would be required to begin operations" in the companion section -- Section (302)(a)5(A). He points out that Congress did not do so.

He explains that "instead [Congress] refrained from specifying a date certain for commencement of repository operations, but required only that, once a repository has begun operations, the Secretary shall act with expedition to take title to spent fuel on the request of the generator or owner of such spent fuel."

And Furthermore No Subtitles?

The General Counsel further argues that Congress' use of "dispose" in Section (302)(a)5(B) could not "indirectly mandate commencement of first repository operations by 1998" because the subsection describes "the duty to 'dispose' of spent fuel in the manner as provided in this subtitle." But he points out this particular title of the Act is "not structured as to have subtitles." So, because the section wasn't structured to have subtitles and Congress used the terminology "in this subtitle," he concludes that Congress "meant something other than the entirety of the Nuclear Waste Policy Act." He then conjectures that the subsection reference

"could mean the entirety of section 302 within which the subsection appears, which describes in detail the Secretary's authority to enter into contracts with generators or owners of spent fuel, specifies the fees to be paid by owners and generators for the services to be rendered by the Secretary in accepting spent fuel, requires annual subsequent review of those fees by the Secretary, conditions Nuclear Regulatory Commission license issuances or renewals for utilization or production facilities on entry into a contract for disposal of spent fuel, and establishes the Nuclear Waste Fund that is to finance the nuclear waste program."

He concludes by stating that

"None of these provisions deals even remotely with procedures or the schedules leading to commencement of operation of the first repository. Similarly, if one interprets the use of the words 'this subtitle' as having been intended to relate the contract obligation to 'dispose' of spent fuel 'beginning not later than January 31, 1998' to the entirety of Title III of the Act, the only provision remotely germane to the time by which the first repository will begin operations is section 301, which imposes the requirement to formulate and submit to the Congress the original Mission Plan. If anything such a construction would suggest that the requirement to contract to 'dispose' of spent fuel beginning in 1998 would be fulfilled in the manner specified in the Mission Plan."

[EDITOR'S NOTE: Section (302)(a)5(B) reads as follows: "In return for the payment of fees established by this section, the Secretary, beginning not later than January 31, 1998, will dispose of the high-level radioactive waste or spent nuclear fuel involved as provided in this subtitle."] **

McCLURE KILLS P-A COMPROMISE ON "GROSS NEGLIGENCE, WILLFULL MISCONDUCT"

More than a small victory was about to be achieved by Senator Metzenbaum and those supporting his effort to require that DOE contractors be liable for incidents resulting from "gross negligence and willful misconduct" (GN&WM) at the recent Senate Energy and Natural Resource markup on Price-Anderson, when Senator McClure dashed into the fray killing a Metzenbaum-Johnston compromise that would have set out civil and possibly criminal penalties for contractor's GN&WM.

At the markup, Johnston, in what could only be described as an attempt to accommodate fellow Democrat Metzenbaum, initially proposed a scheme for civil penalties for contractor gross negligence and willful misconduct with a limit of \$10 million. Sen. Metzenbaum expressed intrest but was not satisfied with this ceiling. The Chairman then agreed to raise the ceiling and the groundwork for a compromise was set.

Metzenbaum agreed not to offer three amendments he was holding on strict liability, subrogation and punitive damages. Johnston, who had opposed folding contractor liability for gross negligence and willful misconduct into the P-A bill, agreed to raise the ceiling on penalties from \$10 to \$30 million. The amendment would allow the Energy Secretary to determine the amount of penalty for any nuclear incident. Following this Johnston was also prepared to offer another amendment on criminal liability. This second amendment would have provided for a fine of up to \$25,000 and imprisonment of up to two years for an individual, director, official or employee of a DOE contractor responsible for first-time gross negligence or willful misconduct resulting in a nuclear incident. The fine could be raised to \$50,000 and imprisonment for five years for a second such offense.

McClure Argues Against Compromise

The amendments appeared reasonable to the members and it looked good for committee adoption. After all shouldn't DOE contractors be held accountable for gross negligence and willful misconduct? Why should the taxpayers have to pay as they would under the existing system set up under Price Anderson where DOE fully indemnifies the contractor? And wouldn't the prospect of some liability give DOE contractors more incentive to operate as safely and responsibly as possible. Senator Pete Domenici (D-NM) appeared to support the idea.

Then Senator James McClure (R-ID), seeking to raise "a few points," began to wax eloquent on the dangers of legislatively circumventing the due process inherent in the judicial system. "More and more in our society, we're going outside of our judicial system and using civil penalties for punishment because people want swift and sure punishment. But I think that this is a very dangerous development in our society today," McClure told his colleagues. McClure particularly was concerned that in the civil liability amendment the Energy Secretary, not the courts, would assess penalties. The decision would be an administrative one without the defenses provided by the courts. "What happens to the [need for] proof of negligence on the part of the defendant? What about the issue of contributory negligence?" McClure asked.

McClure further questioned whether insurance companies would want to insure contractors knowing the liability for a nuclear incident would be determined administratively.

He also asked whether it was appropriate to set different standards for DOE contractors than for others in other industries. "We are changing the entire body of tort law in these amendments for those people in this industry," McClure complained. DOE contractors would be exposed to different standards than private contractors for the nuclear power plant industry, he pointed out.

McClure said he had even greater concerns regarding criminal liability because individuals could be heavily fined or imprisoned. "I think we ought to be careful to look at the scope of what we're doing," he said.

Members Swayed by McClure Reasoning

McClure's speech shot down any possibility of compromise. At first Johnston held out hope that McClure could be placated if the ceiling on civil liability were reduced. But McClure wasn't backing off his basic complaint about the concept. Domenici began to take up McClure's view. "The Senator has made a good point. I think we ought to really know what we're doing with regard to civil liabilities," Domenici said. He worried about whether universities would have trouble getting insurance coverage for a potential administratively-levied fine. Sen. Daniel Evans (R-WA) echoed concerns about setting different standards for DOE contractors when NRC licensees.

Seeing the compromise amendment failing, Johnston postponed the markup and asked the Subcommittee staff to come up with a "tightly drawn section on civil and criminal penalties" that could be supported by Committee members. The next markup was scheduled for April 22.

New Agreement on GN&WM?

Late last week, as several Committee staff members headed for Sweden, sources reported that Johnston and McClure had reached agreement on a possible alter-native to his "compromise" amendment with Sources said that the two Metzenbaum. Senators agreed to a three-tiered system of fines for violations of regulations, patterned after Chapter 18 of the Atomic Energy Act. The alternative would be directed at violations of regulations and would not single out gross negligence or willful misconduct for penalties. Contractors would have a choice between an administrative review process with opportunity for appeal or the judicial process.

Asked if Metzenbaum was on board the alternative amendments, one source said, "I don't know. If not, he can offer his earlier amendments on the floor." **

<u>Calendar</u>

April

- 17 Meeting: Washington State Nuclear Waste Advisory Council and Waste Board; EFSEC Hearing Room, 4224 Sixth Avenue, Lacey, WA 98504; Contact: Marta Wilder (206) 459-6695.
- 14-16 Workshop: Packaging, Transportation and Disposal of LLRW; Spons: Chem-Nuclear; Sheraton Charleston, Charleston, SC; Contact: Jan Edmunds-Folk (803) 259-1781.
- 22-24 Conference: Sixth Annual Incineration Conference on Incineration of Mixed and LLRW; Pheasant Run Resort, St. Charles, Illinois; Spons. University of California in cooperation with DOE, IAEA, ASME, and chapters of the Health Physics Society; Contact: Charlotte Baker, LLW Projects Coordinator, University of CA, Irvine, CA 92717. (714) 856-7066. Telex: 7101 115 338.
- 23 CHANGE: Hearing: House Interior Committee, Nuclear Power Reactor Decommissioning; Contact: Sam Fowler (202) 225-8331.
- 23 Hearing: DOE HLW Program; Senate Environment and Public Works; (Witnesses include Sec. Herrington); Contact: Dan Berkovitz (202) 224-4039.
- 23 Meeting: Northwest Interstate Compact Committee; Portland Room, Red Lion Inn, Lloyd Center, 1000 N.E. Multnomah, Portland, OR. 97232; 9:30 a.m. to 3:30 p.m.; Contact: Elaine Carlin (206) 459-6244.
- 27 week Hearing: Appropriations of HLW program; Senate Appropriations Energy and Water Subcommittee.
- 28-29 Hearings: NRC on HLW Program; Amendments to NWPA providing financial incentives to host state; (S. 839; Spons: Sens. Johnston, McClure); Senate Energy and Natural Resources; Contact: M. L. Wagner (202) 224-7570.
- 28-30 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. Richland, Washington; Fee: \$525.00 (includes a tour of a LLRW disposal facility); Contact: Peggy Thompson, US Ecology Nuclear, 9200 Shelbyville Road, Suite 300, Louisville, KY 40222; (800) 626-5334.
- 29 Hearing: (Afternoon) MRS Proposal; Senate Energy and Natural Resources Committee; Contact: Ben Cooper (202) 224-5360.
- 30 Hearing: P-A Reauthorization; Comprehensive Bill (S. 843); Spons: Senator Stafford) Senate Environment and Public Works; Contact: Dan Berkovitz, (202) 224-4039.
- 30-1 Meeting: Fifth Annual Spring Meeting: CALRAD Forum; "Progress Toward A Safe, Reliable, Cost-Effective LLW Disposal Facility in CA"; Palm Springs, CA; Contact: Jean Parker (415) 647-3353.
- May
- 3-6 Meeting: Low-Level and Mixed Waste Disposal: The Public and the Science; Hyatt Regency Bethesda, Bethesda, MD; Spons: American Nuclear Society; Contact: Mary Keenan (312) 352-6611.
- 3-6 Fourth International Symposium on Environmental Aspects of Stabilization/Solidification of Hazardous and Radioactive Wastes; Hotel Tower Place, Atlanta, GA.; Spons: ASTM; Contact: T.M. Gilliam (615) 574-6820.

- 5-7 Nuclear Power Assembly; Washington, D.C.; Co-Spons: American Nuclear Energy Council, American Nuclear Society, American Public Power Association, Atomic Industrial Forum, Edison Electric Institute, National rural Electric Cooperative Association and the U.S. Committee for Energy Awareness; Contact: AIF (301) 654-9260.
- 5-7 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, 9200 Shelbyville Road, Suite 300, Louisville, KY 40222; (800) 626-5334.
- 6-8 Annual Conference: The Hazardous Materials Advisory Council; Radisson Mark Plaza Hotel, Washington, D.C. Contact: (202) 783-7460.
- 7 Hearing: Western Compact (AZ-SD); House Interior Committee; Contact: (202) 225-8331.
- 11-15 Short Course: ASME Short Course on Radioactive Waste Management for Nuclear Power; Old Town Holiday Inn, Alexandria, VA; Contact: Gloria Greene (212) 705-7398.
- 12-13 Meeting: Midwest Compact Commission; St. Paul or Minneapolis, MN; Contact: (612) 293-0126.
- TBD (Spring 1987) Coordinated Research Program on High-Level Waste Forms; Australia; Spons: IAEA; Contact: W. Porter (202) 252-4573.
- 20 Public Meeting: Washington State Dept. of Ecology; Financial Liability Insurance/Assurance Requirements for Hanford LLRW site users: Lacey City Hall, 420 College Street, Lacey, WA; 9:00 a.m. - 12 noon; Contact: Carole Richmond (206) 459-6228.
- June
- 16-19 THE THIRD ANNUAL RADIOACTIVE EXCHANGE DECISIONMAKERS' FORUM -- LOW-LEVEL RADIO-ACTIVE WASTE MANAGEMENT: FACING THE NEW REALITIES -- Site Development; Long Term Liability; Economics; Public Acceptance. Grand Traverse Village, Valleyview Conference Center, Traverse City, Michigan. Registration: Exchange Subscribers: Prior to May 1 - \$595.00; After May 1 - \$635.00. Non-Subscribers: Prior to May 1 - \$650.00; After May 1 - \$690.00. Contact: (202) 362-9756.
- (?) HOST STATE DESIGNATION: The Midwest Compact Commission is to designate a host state if none of the four candidate states volunteer.

June/July

28-1 Meeting: "The Critical Path" (A DOE Low-Level Waste Management technical assistance project on disposal technology selection); Copley Plaza Hotel, Boston, MA; Registration Fee: \$125.00; Contact: Julie Conner (208) 526-0648.

REGIONAL SITE OPERATOR SELECTIONS: Central States Compact Commission to Select Regional Site Operator.

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