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WILL DOE TAKE TITLE TO, OR TAKE SPENT FUEL IN 1998?

At the same time the Department of Energy is urging Congress to approve plans to have a Monitored Retrievable Storage facility (MRS) on line by 1998, DOE attorneys seem to be backing away from the position that the Department is legally required to begin taking spent fuel away from utility sites by that date. "We certainly have an obligation to accept the waste beginning in 1998. But whether we can take title to it [onsite] or have to actually take it [to an MRS] is an open question," Ben Rusche, Director of DOE's Office of Civilian Radioactive Waste Management, told members of the Senate Environmental and Public Works Subcommittee on Nuclear Regulation at their April 23 hearing. The OCRWM Director accompanied Secretary Herrington to a hearing convened by Subcommittee Chairman Senator John Breaux of Louisiana.

Utilities Concerned Over Legal View

After the hearing, utility officials told the EXCHANGE that they were annoyed that DOE would question what they see as a clear legal commitment to begin taking spent fuel from utility sites in 1998. (See **Spent Fuel** in

DOE ISSUES FINAL RULE PLACING ALL DOE MIXED WASTE UNDER DUAL REGULATION

The May 1 **Federal Register** is to include a final rule issued by the Department of Energy that will make "all DOE radioactive waste which is hazardous under RCRA, ...subject to regulation under both RCRA and the Atomic Energy Act" (AEA). The action culminates a very closely held effort undertaken over the past four months under the direction of DOE Undersecretary Joseph Salgado.

Back in December the Undersecretary brought together an "inside departmental team" and installed Deputy General Counsel Eric Fygi as its chair. He directed the team to develop specific options for his consideration regarding the earlier proposed "byproduct" definition that would have had the effect of reserving AEA jurisdiction over a substantial amount of DOE's mixed waste stream. In addition to the General's Counsel office, the team members included individuals representing the field office and DOE's Assistant Secretary for Environment, Safety and Health, but no one from DOE Defense Program headquarters staff. (See **Mixed Waste** pg. 2)

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(Mixed Waste from pg. 1)

At the last meeting of the group held in late March the decision was made to proceed toward a final rule that would provide for dual regulation.

Undersecretary Salgado then announced DOE's intent at Congressman Dingell's Subcommittee on Oversight and Investigation hearing on April 28.

The action took Congress (and everyone else for that matter) by complete surprise. Legislation dealing with regulation over DOE's hazardous and mixed waste was just introduced by Senator Glenn on April 23.

The New By-Product Definition

As released to the **Federal Register**, the new definition of by-product material is as follows:

(a) ...the term "byproduct material" means any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material.

(b) For purposes of determining the applicability of the Resource Conservation and Recovery Act (42 U.S.C. 6901 **et seq.**) to any radioactive waste substance owned or produced by the Department of Energy pursuant to the exercise of its atomic energy research, development, testing and production responsibilities under the Atomic Energy Act of 1954 (42 U.S.C. 2011 **et seq.**), the words "any radioactive material," as used in subsection (a), refer only to the actual radionuclides dispersed or suspended in the waste substance. The nonradioactive hazardous component of the waste substance will be subject to regulation under the Resource Conservation and Recovery Act.

MASSACHUSETTS SENATE PASSES LLRW FACILITY SITING BILL

On April 21, in less than 12 seconds after it

was read on the floor of the State Senate, the Massachusetts LLRW disposal siting bill, accompanied by legislation to allow the state to become an NRC Agreement State, was adopted by unanimous consent. After untold number of headline stories on LLRW disposal in the various state newspapers the action received only a matter of fact note in one major Boston newspaper. The comprehensive bill, S. 1716, was forwarded to the House Ways and Means Committee for further action. At this date, no definite schedule for action by the Committee has been set.

Public Referendum Provisions Deleted

The Senate's quick action on the bill can be attributed to the dogged persistence and hard work of Senator Carole Amick, who co-chaired the Special Legislative Commission from its inception (and, of course, Commission Executive Director, Richard Smith).

The bill as adopted is, for all practical purposes, identical to the legislation proposed by the Special Commission with one exception. The legislative provisions requiring a public referendum prior to the state joining a compact, and legislative and voter approval of a specific disposal site, which were identical to the current referendum adopted law (referred to as Referendum 503) requiring the same, were deleted. Last year the State Supreme Judicial Court, at the legislature's request, issued a legal opinion that the legislative language was unconstitutional.

The siting process outlined in the bill was viewed by many when it was proposed as cumbersome, but in the end it won the support of most all the major environmental groups and utilities. Under the legislation traditional shallow-land burial disposal is prohibited.

[ASIDE: Rich Smith, who for the past four years has served as the Executive Director to the Special Commission, and during that time had to face the criticism for Massachusetts' lack of action from his peers in other states, has indeed been spent out by the experience. Rich is moving to

the island of St. Croix in May to dabble in real estate development.] **

"EMERGENCY" CENTRAL STATES MEETING CALMS KANSAS OPPOSITION TO COMPACT

According to Kansas officials, the actions taken by the Central States Commission at an April 24 "emergency" meeting calmed the "fires of opposition" to the state's remaining in the Compact and prompted the Governor to issue a statement recommending that Kansas remain a member. As a direct result of the combined actions, the legislature will adjourn (probably on May 2) without adopting a bill to rescind the states membership in the Central States Compact. A Governor-appointed task force will continue to study the state's LLRW management options and issue a report in the summer.

Shallow-Land Burial Bill Adopted

The legislature did adopt a bill that for all practical purposes prohibits the siting of a below-surface burial facility for LLRW in the state. The bill already signed into law by the Governor would only allow a below-ground disposal if the state's existing Hazardous Disposal Facility Approval Board ruled that such a facility provided better protection than an above ground facility, and the legislature specially approved the facility. **

NORTHWEST COMPACT ADOPTS CRITERIA FOR ACCESS TO HANFORD "UNDER CONTRACT"

At the April 23 meeting of the NW Compact Committee meeting in Portland, Oregon, members adopted a set of criteria for judging the acceptability of states' applications to enter into contracts for disposal with the Northwest Compact. The criteria includes: 1) The state must have at least one border contiguous with one or more party states of the Northwest Interstate Compact; 2) The state must not under normal circumstances generate low-level radioactive waste in excess of 1,000 cubic feet per year. An exception may be made for waste generated as the result of an accident; 3) The state must not be a member of a compact approved by Congress

on or before April 23, 1987, and must exhibit a clear need for the contract and, must have either limited or no reasonable alternative options available for disposal of its waste; 4) The state must not have an operating commercial low-level radioactive waste disposal facility; 5) The state must certify that it will encourage its generators to minimize the generation of low-level waste by sound management practices and engage in volume reduction techniques and the storage of waste for decay, when applicable, to further minimize waste volumes; 6) The state must acknowledge that its generators will be required to pay to the state of Washington the non-penalty surcharges specified in Public Law 99-240 until January 1, 1993; and, 7) The state must certify that it will require its generators to conform with all applicable state and federal regulations of the host state.

Reduced Volumes Affect Site Monitoring

At the meeting Washington State reported that the reduction in LLRW volumes being sent to Hanford have severely cut into revenues needed to oversee and monitor site operations. The present volumes, if maintained, will result in a shortfall of revenues for the program of about \$600,000 per year. Efforts are being made to have the legislature provide state funds in order to maintain the program without deep cuts in activity, but as of the date of the meeting, no funds were included in the state budget for this purpose. **

WA STATE PROPOSING COMPANY EXECS SIGN LLRW-RCRA CERTIFICATION FORM

The Washington State Department of Ecology's draft regulation requiring that all shipments of LLRW destined for disposal at the Hanford LLRW burial facility be certified that they do not contain any RCRA-regulated waste, proposes that the certification form be signed by an executive of the waste generator company, repackager or shipper/broker.

The "draft" regulation, revealed at the Northwest Compact Committee meeting, has raised considerable concern among LLRW

generators, waste processors and brokers. The general view is that a company executive not directly involved with the shipping of LLRW will not sign such a certification, and that the net result of the regulation will be that a non-trivial quantity of waste will be shipped instead to Beatty or Barnwell.

No Requirement in NV, SC

Neither Nevada or South Carolina officials have indicated that such a certification requirement will be instituted within their states, though, under federal law, waste containing RCRA-regulated materials is prohibited from being buried at either of the facilities. US Ecology has made it very clear that a one state enforcement program of federal regulations is clearly not justifiable or equitable, and the requirement should be implemented on a national basis.

One US Ecology official attending the NW Compact meeting estimated that the certification requirement could reduce the waste coming into Hanford "to as low as 300,000 to 400,000 cubic feet."

LLRW Shipment Analysis?

Under the state's proposed regulation a shipment of waste to Hanford must be certified that it contains no RCRA regulated waste. Under EPA regulations this means either a listed waste or a waste that would exhibit certain hazardous properties similar to a listed waste.

The Washington state proposal gives no indication on what waste streams may include RCRA-regulated waste. A generator or broker may, in fact, have to analyze questionable shipments for contaminants that may exhibit hazardous properties similar to listed materials.

The requirement that a company executive formally sign the certification that no RCRA-regulated waste is in a shipment, thereby accepting the liability if it does contain such waste, must assuredly will either result in an analysis being done or the waste being shipped elsewhere.

Lawyers for utilities and waste processing firms would surely advise their corporate officials not to accept this liability.

A major problem facing generators or brokers will be obtaining outside analytical services if they desire to have their waste shipments analyzed. According to US Ecology, only one of seven DOE identified labs was capable of performing suitable RCRA analyses.

US Ecology Planning RCRA Trench

In response to the State of Washington's certification requirement, US Ecology has announced plans to construct a RCRA-permitted LLRW trench at the Hanford facility capable of accepting mixed waste. US Ecology believes that if the federal and state agencies cooperate a RCRA trench could be operational in a short period of time. **

WESTERN STATES ADOPT RADWASTE TRANSPORTATION COMPACT

In an action that accentuates the increasing importance of radwaste transportation issues, the legislatures of Washington, Idaho, and Oregon have passed common legislation creating an interstate compact titled "The Pacific States Agreement on Radioactive Materials Transportation Management." It has been signed by the Governors of Washington and Idaho, thereby making it effective. The Montana state legislature adjourned without adopting the compact language. Other eligible states include: Arizona, California, Colorado, New Mexico, Nevada, Utah, and Wyoming.

Following the initial organization of the compact other eligible party states can join, temporarily, by an executive order of the Governor. However, if no legislation adopting the compact has been enacted by an eligible state by July 1, 1988 they will lose their opportunity to join.

Compact to Coordinate Transport Regs

The stated purpose for the compact is to establish a committee of representatives to cooperate on emergency response activities

and to coordinate state activities to eliminate unnecessary duplication of rules and regulations regarding the transportation and handling of radioactive materials. The committee is to develop model regulatory standards for state adoption. It is also directed to coordinate decisions relating to routing and inspection of radioactive material shipments.

Under the compact, each state is to designate one official to represent the state on the compact committee. Members are charged with coordinating their activities with legislators, other state officials responsible for managing transportation of radioactive material, and with affected Indian Tribes. The method of selecting state representatives is not provided in the legislation, nor is there any mention of a Committee budget or staff. **

DOE SEEKS PERMIT TO BURN MIXED LLRW IN COLORADO, PUBLIC OPPOSED

The Department of Energy (DOE) has applied to the State of Colorado for permission to incinerate mixed hazardous and low level radioactive wastes at its Rocky Flats nuclear weapons plant outside of Denver, which is operated by Rockwell International. The request is part of DOE's application to the state for a RCRA Part B permit for the operation of the Rocky Flats plant.

Rocky Flats presently has stockpiled 26,000 gallons of liquid and 1,500 cubic feet of solid mixed wastes, and generates 900 gallons of liquid and 75 cubic feet of solid mixed wastes each month. However, there currently is no disposal process or site for mixtures of hazardous and radioactive wastes in the United States. The proposed incineration at Rocky Flats would be one of the first mixed waste disposal operations in the country. However the application has aroused significant public opposition.

Scheduled Trial Burn

A trial incineration is proposed to demonstrate the capacity of the incinerator and to evaluate and set environmental

permit conditions. The "trial burn" would involve 3,100 pounds of uranium contaminated hazardous wastes, and is scheduled for late May. At the April 22-25 Incineration Conference in St. Charles, IL, EPA and Colorado state officials emphasized that the trial burn is the critical element in the permit application process.

Opposition to Trial Burn Proposed

The trial burn has drawn the attention of public and governmental leaders and may be delayed by public evaluation of the proposal. Local citizens say past fire incidents at Rocky Flats, and misstatements and lack of disclosure by plant management, make them wary of Rocky Flats operations and of the risk of extreme incidents. Recent misstatements by plant officials regarding whether or not the incinerator proposed for mixed waste burning has been used in the past have caused the State to request a detailed history of the use of the incinerator before approving the trial burn.

State authorities have also requested more details from DOE about the presence of plutonium, plastics, PVC tubing and latex in the wastes to be incinerated. Further information is also being requested about the proposed air filter system and about the levels of plutonium and other hazardous materials likely to be emitted from the incinerator.

Revision of Site EIS Considered

The EPA is considering whether it is necessary to revise the Environmental Impact Statement for Rocky Flats for the incineration of mixed wastes. Furthermore, local citizens and government officials involved in a review panel which has been convened by Congressman David E. Skaggs (D-CO) are engaging their own technical experts to evaluate the proposed incineration of mixed wastes.

Deficiencies in the Part B application are being addressed now and a draft permit may be prepared by the end of 1987. Colorado hopes to issue the Part B permit for Rocky Flats during the summer of 1988. **

LLRW Volume Disposal Update

LLRW ACCEPTED FOR DISPOSAL AT BARNWELL, BEATTY AND HANFORD

Through March 1987

(Volumes in Cubic Feet)

	<u>March</u>	<u>Year to Date</u>		<u>March</u>	<u>Year to Date</u>
Northeast			Rocky Mountain		
Connecticut	2,245.70	8,300.10	Colorado	0.00	0.00
New Jersey	7,329.20	9,737.40	Nevada	0.00	0.00
	<u>9,574.90</u>	<u>18,037.50</u>	New Mexico	0.00	0.00
Appalachian			Wyoming	0.00	0.00
Pennsylvania	11,087.40	26,140.30		<u>0.00</u>	<u>0.00</u>
West Virginia	0.00	0.00	Western III		
Maryland	83.00	1,305.00	South Dakota	0.00	0.00
Delaware	195.00	345.00	Arizona	453.90	453.90
	<u>11,365.40</u>	<u>27,790.30</u>		<u>453.90</u>	<u>453.90</u>
Southeast			Northwest		
Georgia	2,609.98	6,496.98	Idaho	0.00	0.00
Florida	933.00	18,243.70	Washington	1,678.10	12,614.00
Tennessee	13,949.70	35,618.00	Oregon	5,207.40	19,962.80
Alabama	6,053.30	14,983.40	Utah	0.00	0.00
N. Carolina	7,554.80	19,460.60	Alaska	0.00	0.00
S. Carolina	10,120.90	27,699.20	Hawaii	0.00	573.80
Mississippi	1,179.00	3,933.00	Montana	0.00	0.00
Virginia	6,909.75	12,772.15		<u>6,885.50</u>	<u>33,150.60</u>
	<u>49,310.43</u>	<u>139,207.03</u>	Unaligned		
Central States			Rhode Island	67.50	239.70
Arkansas	0.00	0.00	Vermont	278.00	718.50
Louisiana	942.00	5,479.00	New Hampshire	0.00	367.50
Nebraska	1,704.00	7,475.00	Maine	0.00	45.00
Kansas	0.00	1,714.50	New York	6,248.80	14,288.60
Oklahoma	6,735.00	18,270.00	Massachusetts	5,112.50	11,185.70
	<u>9,381.00</u>	<u>32,938.50</u>	Texas	961.00	961.00
Central Midwest			North Dakota	0.00	0.00
Illinois	14,159.30	46,082.70	California	7,727.00	21,112.30
Kentucky	0.00	124.20	Puerto Rico	0.00	0.00
	<u>14,159.30</u>	<u>46,206.90</u>	D.C.	0.00	0.00
Midwest				<u>20,394.80</u>	<u>48,918.30</u>
Wisconsin	354.00	1,790.50	TOTAL:		
Indiana	.80	1,278.80		136,899.93	389,439.73
Iowa	1,975.00	3,815.00	(As reported 3/15/87)		
Ohio	2,356.00	5,002.00	FEBRUARY:		
Michigan	4,378.50	8,031.00		123,859.40	252,539.80
Minnesota	2,985.10	6,896.30			
Missouri	3,325.30	15,923.10			
	<u>15,374.70</u>	<u>42,736.70</u>			

(Spent Fuel from pg. 1)

"We keep hearing these noises from DOE now that the Department doesn't have to physically take spent fuel in 1998," said one utility official. However he added, "What our attorneys are telling us is that DOE has an unequivocal responsibility to begin accepting spent fuel in 1998. Acceptance to us means you've got to take the spent fuel into one of the facilities. Right now that means the MRS."

The official said that "accepting spent fuel on paper is like only half a loaf" because utilities are then faced with the possibility of having to find more onsite storage space, which creates uncertainties and the potential for increased costs, and makes it difficult for utilities to plan.

Legal Action Threatened

The utilities "feel strongly enough about this issue to pursue it in the courts," according to another utility representative. However it was explained that the utilities are legally in a Catch 22 situation with regard to the courts. If they have to show that they have been adversely affected by a DOE action, they would have to wait until 1998. But starting legal action against DOE in 1998 almost guarantees that utilities would not get relief until several years later.

Reimbursement For SF Storage Expenses?

Utilities have already written DOE suggesting that if the Department doesn't begin taking utility spent fuel in 1998, it should reimburse utilities for any costs associated with the need for more spent fuel storage after that date (a position endorsed by the EXCHANGE, See Vol. 6, No. 6).

Richard Flynn, Chairman of the New York Power Authority, made his concerns known in a March 31 letter to Energy Secretary John Herrington. Flynn told Herrington that DOE's announced five year delay in repository startup, from 1998 to 2003, and greater emphasis on an MRS "give substance to concerns" that the utility had about DOE's meeting its spent fuel acceptance obligations when it signed the standard contract with DOE in 1983.

Flynn noted that the Power Authority has "been compelled to pay approximately \$35 million into the Nuclear Waste Fund" and is also "spending millions of dollars" to expand its onsite capacity to store spent fuel through 1998. He explained that "Because of the Department's schedule slippages, however, the Power Authority is faced with the need to build increased storage to meet the necessity to provide for onsite storage for the post-1998 period." He then added that "these facts compel the conclusion that the Department is not meeting its essential obligation under the contract."

Flynn concluded firmly that DOE should revise the standard contracts with utilities "to adjust the assessment of costs to account for the extra expenses borne by utilities which expand onsite storage facilities in order to continue operation pending Department completion and availability of the spent fuel repository."

Other utilities, members of EEI's utility waste management group, have informally asked the Institute to consider the possibility and implications of utilities withholding their 1 mil/kilowatt hour waste fee if DOE refused to take spent fuel in 1998. "That is a real dicey issue," said one utility representative. **

BREAUX ASKS FOR MRS BILL, DOE SAYS NEW 2ND HLW SITE WORK TO START IN '95

In addition to exposing DOE's quandary over whether spent fuel will be taken away or just "legally" taken over in 1998, the Senate Environment and Public Works Nuclear Regulation Subcommittee hearing was marked by Chairman Breaux's suggestion that DOE get an MRS bill up to Congress quickly, and Secretary Herrington's announcement that DOE is clearing up the confusion surrounding the announced "postponement" of the second round repository by including in the amended Mission Plan a revised preliminary timetable for a "new" second HLW site selection process. The revised schedule would, of course, only be put into effect if the amended plan is approved. Otherwise DOE would resume the program where it had been stopped.

MRS Opposed

Chairman Breaux (D-LA) asked OCRWM Director Rusche about the need for legislation to proceed with an MRS. Rusche replied that the Department's position is "that you have to enact specific legislation for an MRS." "Then I would suggest that you start drafting the language," Breaux told Rusche.

Senator Jim Sasser (D-TN) voiced his opposition to the MRS. He reemphasized the position that he and Senator Gore revealed earlier in letters to the NRC and the Secretary of Energy that "DOE has failed to comply with the statutory guidelines" in proceeding with the MRS and delaying the repository program (See **NRC Response** in this issue). Sasser said that the MRS is moving forward because "it has become the path of least resistance The Department is hell-bent on doing something, even if its the wrong thing." He then added that "the Department's approach is wrongheaded because it has abandoned a well-reasoned and long-negotiated repository schedule for a quick and dirty MRS schedule."

Sasser pointed out that the preliminary findings of GAO's report on the MRS found that DOE has not determined the need for, or

feasibility of, the MRS and has, perhaps, understated the costs for such a facility. GAO found that DOE's \$1.6 billion to \$2.6 billion estimated cost for the MRS did not include probable additional costs such as in-lieu-of-tax payments and mitigation funds for affected localities.

A New 2nd Round in 1995

DOE's submitted testimony revealed a complete new effort and timetable for identification, characterization, recommendation and operation for a second HLW repository that would include crystalline geological formations. According to the statement, the plan and timetable for a second repository will be included in the Mission Plan Amendment to be submitted to Congress this June or early July.

Under the proposal DOE will scrap all previous work done on identifying possible crystalline regions suitable for the location of a HLW repository, and start an entirely new national survey in 1995. The survey is to be completed in 1997, with the objective of recommending sites for characterization in 2007 and making a final site recommendation to Congress in 2016. The new schedule would be implemented only if the amended Mission Plan is approved.

East vs. West on 2nd HLW Site

Though the specific details of the new 2nd round program were not the subject of any open discussion, the idea of the possibility of locating a repository in the East (or the possibility of delaying it's siting beyond currently set NWA deadlines) did again provoke a parochial exchange of views between East and West Senators.

Senator John Warner (R-VA) told Rusche, "You made the right decision on the second repository site. We don't need it now." Sen. George Mitchell (D-ME) agreed and told Rusche, "I will do everything in my power to stop the Secretary of Energy" from continuing the search. Senator Alan Simpson (R-WY), on the other hand, said that that DOE "clearly is not in compliance with the requirements of the Nuclear Waste

Policy Act" by postponing the search for the second site. He noted that other countries have sited waste disposal facilities in granite and asked Rusche, "How can the Department say that granite is less preferable than the other three media?"

When Rusche informed the Committee members that DOE plans to include the second round repository proposal in the Mission Plan Amendment to be submitted for Congressional review this summer, Senator George Mitchell (D-MA) complained that DOE was imposing a "truly impossible time limit" on Congress by expecting lawmakers to act on the amendment in a timely fashion. **

STATES OPPOSE HIS BILL, JOHNSTON WARNS AGAINST DELAYING HLW PROGRAM

At the Energy Hearing on April 29, officials from the three repository candidate states - Washington, Nevada and Texas -- joined by Senator Harry Reid of Nevada, voiced strong opposition to Sens. Bennett Johnston's (D-LA) and James McClure's (R-ID) bill (S. 839) to provide financial incentives to states or Indian Tribes willing to accept an MRS or a repository.

Johnston opened the hearing by asking the state officials to set aside their political interests and remember three things: 1) "the experts are virtually unanimous in saying that there is no harm from a repository or an MRS;" 2) it is likely that the DOE will "gold plate" whatever facilities are built to allay public fears and concerns; and, 3) there are some 100 nuclear power plants that generate waste which must be disposed of somewhere. He then expressed the hope that the states would "regard S. 839 as friendly and sympathetic." His plea was ignored.

All the state officials charged that the bill ignores the technical suitability of a repository site. The Louisiana Senator responded in kind later in the hearing with a warning that the HLW program would not be delayed "just because they didn't like it."

Signing Over Protest Rights Opposed

The key criticism of the Johnston-McClure proposal again, voiced by Terry Husseman, Director of the Washington State Nuclear Waste office, was that "It would change the primary focus of the site selection process from a scientific and technical search to the point where [a state] is willing to take a site if [DOE] gives it enough money."

Husseman said that another major concern was the bill would require that a state give up its rights of protest and basically become a coapplicant for an MRS or repository to gain the financial benefits. In his view the states "would not have the ability to participate in the process...We would have to sign away our legal position on licensing." Johnston replied, "Well you can't buy lawsuits" under the bill and suggested that it would be foolish for the government to give a state money only to have the state delay the repository process by using every legal trick possible.

Texas' Frishman insisted that it was important for the state to be able to take an adversarial position in the licensing process because, "[t]he intent of the licensing process is to ferret out the greatest technical process and truth available...in order to assure that the highest quality decision possible comes from the Nuclear Regulatory Commission."

Complaints Against DOE Voiced

During the hearing all of the state officials complained about DOE's implementation of the Nuclear Waste Policy Act and made various recommendations for putting the DOE repository on hold or starting the site selection process over again.

Governor Richard Bryan from Nevada, calling DOE's site selection and characterization process "unfair" and "fatally flawed," said that "an immediate moratorium on the program is needed." Bryan again voiced his recommendation that an independent, nonpartisan repository investigation commission, similar to the Rogers or Towers Commissions for the space program be established (See EXCHANGE, Vol. 6, No. 6).

Johnston clearly had problems with the recommendation. "The Rogers and Tower Commissions were politicians and lawyers. Do you want politicians and lawyers to make these decisions?" he asked Bryan. Johnston suggested that the Congress and the public would fare better with the National Academy of Sciences and the Nuclear Regulatory Commission watching over the nuclear waste program. He noted, in fact, that most of Bryan's concerns about the Nevada repository candidate site were technical and said that these concerns should be scrutinized by technically qualified experts.

Johnston Warns Against Delay Tactics

The Senate Energy Chairman urged the panel of state officials to reconsider S. 839 and to weigh carefully the employment and economic benefits it would offer. "One hundred million dollars per year is serious money. You could create the best educational system in the world," he exclaimed.

He then issued a warning to state officials: "Don't think that the nuclear waste process is going to be delayed because you don't like it." He said that Committee members had continuously heard witnesses in recent hearings saying, "Not now, later; not here, there; not an MRS but a repository; not a repository, but an MRS; not in the West, but in the East; and not in the East, but in the West." Johnston said firmly: "It is our responsibility to see that a repository is located somewhere." **

NRC, NAS GIVE GREEN LIGHT TO PROCEED WITH HLW SITE STUDIES

At the April 28 Energy and Natural Resources hearing Hugh Thompson, Director of the NRC's Office of Nuclear Material and Safeguards, Dr. Frank Parker, Chairman of the National Academy of Sciences Board on Radioactive Waste Management and Dr. Alvin Weinberg, Director of the Institute for Energy Analysis in Oak Ridge, assured Committee Members that there are no technical issues that preclude continuing with the site characterization process for the three repository candidate sites in Washington, Nevada and Texas.

Thompson, however, reiterated the view expressed by NRC Chairman Zech in his April 15 letter to Senate Energy Chairman Bennett Johnston, that there are technical issues which could potentially thwart licensing for each of the three candidate site but these issues can only be resolved through site characterization (See EXCHANGE, Vol. 6, No. 7).

Thompson urged Committee members to support concurrent characterization of the three sites to avoid delays in the repository program. His open advice that action be taken to avoid delaying the program provoked some members to suggest that NRC should stick to public health and safety concerns and not bother about the timing of the program.

Waste Container Work Emphasized

Dr. Weinberg urged that DOE place more emphasis on the waste containers. He noted that some studies have postulated flooding of the repository and suggested that DOE consider copper containers for the waste like those used in Sweden, to provide maximum protection against leakage. But Committee Chairman, Sen. Bennett Johnston noted that copper containers are not suitable for use in salt. **

SENATOR EVANS TO PROPOSE NATIONAL SYSTEM OF LONG TERM MRS FACILITIES

Senator Daniel Evans (R-WA) is in the midst of drafting a bill which will push for the immediate development of a series of Monitored Retrievable Storage (MRS) facilities and delay the development and operation of a deep geologic repository for years -- perhaps pushing repository startup 50 years beyond the 1998 date envisioned in the Nuclear Waste Policy Act. The bill will propose a complete restart of the repository siting process. "We had fundamental problems with the May 18, 1986 decision to go with the Washington, Nevada and Texas sites," an Evans aide said, adding, "we think that [DOE's] use of the MUA [Multiattribute Analysis Technique] was flawed." The bill is expected to be introduced next month.

Financial Incentives to be Included

The bill is to include financial incentives for states or localities that accept MRS facilities or the repository but the incentive scheme will be structured differently than the one proposed by Sens. Bennett Johnston (D-LA) and James McClure (R-ID) in S. 839.

"We think the incentives in the Johnston/McClure bill are too low," explained the Evans aide. "And we would call for the financial incentives to be paid after the scientific and technical work was done." He emphasized that "Compensation wouldn't start until the waste started flowing to a facility."

Evans Says MRS First Priority

Evans alluded to the new bill at the April 29 Energy and Natural Resource hearing. Rumors and discussions of a regional MRS proposal were reported earlier in the EXCHANGE (See Volume 6, No. 6).

Evans, in his opening statement, told his colleagues that previous committee hearings "clearly support the MRS as the first priority" of the waste program and that moving full speed ahead with it would provide several benefits. He emphasized that, first of all, it will allow more time for utility spent fuel to thermally and radioactively cool down. This will ease the technical constraints for a repository. Secondly, it will allow postponement of repository development so that lawmakers and others can consider whether it would be wiser to reprocess utility spent fuel. "We need to look at whether we're throwing away a massive source of potential energy," Evans said. He then informed his colleagues that he "will introduce a bill to further the MRS concept." **

. . . FROM OUR VIEWPOINT . . .

As noted in a previous EXCHANGE Perspective (Vol. 6, No. 6), and in the actions described above, key members of the Senate are moving toward a complete revamping of the nuclear waste program. As one utility representative remarked, the

mood of what he described as "the influential neutrals" -- those Senators like Alan K. Simpson (R-WY), who have repeatedly come to the defense of the program -- is that the program must be reoriented. The Wyoming Senator has increasingly complained that the program is in trouble and he is concerned about its costs relative to the costs of programs in other countries.

Senators Johnston (D-LA), McClure (R-ID), and Evans (R-WA) clearly are interested in the idea of a long-term MRS and a delayed repository program. Evans is drafting legislation proposing regional MRSs, and both McClure and Evans are again advocating consideration of reprocessing spent fuel.

These "new" concepts or ideas seem to have taken hold due to several factors including: (1) a recent trip by members of the Senate Energy and Natural Resources Committee to Sweden where they were impressed with that country's plans to store spent fuel in an interim storage facility and spend roughly 30 years to put in place a deep geologic repository; (2) the apparent view among some Senators that it makes sense to thermally and radioactively cool spent fuel for many years to maximize safe disposal and ease the technical constraints of repository design. Dr. Alvin Weinberg, who is with the Institute for Energy Analysis in Oak Ridge, Tenn., last week drew a favorable response from Senate Energy and Natural Resources Committee members when he suggested that spent fuel be allowed to cool 50 to 100 years, instead of 10 years as planned, before disposal in a deep geologic facility; (3) a growing consensus among some Senators that delaying repository development will allow more time for resolution of technical and political issues and will hold open the possibility that spent fuel could be reprocessed to recover uranium and plutonium; (4) an increasing interest among western Senators in redoing the site selection and characterization process for candidate repository sites; (5) concern over DOE estimates that it will cost at least \$1 billion to characterize each candidate repository site. An MRS would be cheaper and would allow sequential,

rather than concurrent, characterization of repository sites, perhaps ultimately saving \$2 billion if the first repository site turns out to be technically suitable for waste disposal. **

NRC'S ZECH RESPONDS TO GORE, SASSER CHARGES ON NRC ROLE IN MRS STUDY

NRC Chairman Lando Zech in an April 27 letter to Tennessee Senators Gore and Sasser released in time for Senator Bennett Johnston's Energy and Natural Resource April 28 hearing on the HLW program, explains that NRC is not required by the Nuclear Waste Policy Act (NWPA) to perform a needs assessment for the DOE MRS proposal and lauds the attractive benefits of an MRS facility.

As stated by the Chairman, "Congress left it up to NRC to decide which particular aspects of the DOE [MRS] proposal [would] warrant NRC comment" and NRC decided "that its most useful role would be to focus its comments on subjects falling within its later licensing responsibility." The "matter of need" was regarded "primarily [as] a business decision within the overall waste management system...."

The letter, written in response to Senator Gore's and Strasser's charges (See EXCHANGE, Vol. 6, No. 6) that the MRS proposal, as submitted by DOE to Congress, was in violation of the NWPA because it did not include an NRC assessment of need for the facility, also points out "several attractive" benefits of the MRS.

NRC Endorses MRS Role

After explaining that NRC elected not to evaluate the need for the MRS, the Chairman takes the opportunity to call attention to "attractive benefits, both operational and regulatory, to be gained by providing an MRS as part of an integrated high-level waste disposal system." As stated in the letter the operational benefits of the MRS include:

- o flexibility for the DOE waste management system by decoupling the repository from the reactors and reactor sites;

- o simplification of the surface facility operations at the repository;
- o a firmer base for utilities to plan for their fuel storage requirements; and,
- o early planning and focus for the DOE transportation system.

MRS Regulatory Advantages Cited

On the regulatory side, Chairman Zech points out that a DOE MRS would permit:

- o fewer designs for handling and storage to be reviewed, licensed and constructed;
- o fewer sites and methods for spent fuel rod consolidation and packaging;
- o fewer surveillance demands and more focused inspection;
- o a greater degree of quality assurance.

An Integrated MRS Endorsed

In spelling out the benefits of the MRS the Chairman specifically endorsed the integrated packaging, storage facility concept currently promoted by DOE and OCRWM Director Ben Rusche, rather than Congress' initially intended role as a possible back-up facility.

The NRC staff is cited as examining other alternative roles of the MRS and finding that "the use of the MRS as a backup or near-term alternative to a repository would accrue fewer of the benefits and most of the costs when compared with the MRS as an integrated step in the system for high-level waste disposal."

The letter closes with an open endorsement of the MRS:

"In conclusion, while there are operational and regulatory benefits to be gained from an MRS as part of an integrated system for high-level waste disposal, they are not essential for safety. An MRS holds potential for providing management flexibility for addressing and responding to the institutional complexities of the waste management system." **

TEXAS DENIED FUNDS TO EASE IMPACTS OF HLW CONTRACTOR EMPLOYEE INFLUX

At the April 29 Energy and Natural Resources hearing Texas' Steve Frishman revealed that DOE has refused the state's request to provide funds to help mitigate the adverse impacts likely to result from a planned relocation of hundreds of Department of Energy (DOE) contractor employees to Hereford, Texas. Senator Bennett Johnston (D-LA) appeared very sympathetic to the Texans concerns. He told Frishman, who appeared on behalf of Texas' Governor Clements' office, "This is the first I've heard of this. We certainly want to work with you. You might give us suggestions on what you think should be done about it." He then took the opportunity to ask OCRWM Director Ben Rusche about the matter, requesting that the DOE legal staff "look into the question of local services [that may be needed] and suggest any changes in law we might need."

Deaf Smith Eligible, Not Hereford

Frishman explained to the Committee that DOE was planning to move a large number of workers associated with repository site characterization activities to the Texas Panhandle area -- three times the number of workers that were envisioned in the Environmental Assessment for the Deaf Smith County repository site. Frishman said DOE had told the Board of Directors of the local school district that they would not receive any funds to mitigate the socioeconomic impacts from this influx.

In an April 16, 1987 letter to OCRWM Director Ben Rusche, Dillard S. Hammett, Director of the Texas Energy Office, requested funds to deal with the adverse effects of the influx of 800 or so workers from Columbus, Ohio to the Hereford, Texas area. Hammett told Rusche in his letter that while DOE assured Hereford officials in 1985 that they would receive funds to offset repository impacts, the Department announced at an April 14 meeting of the local school district that no funds were available to offset site characterization activities. DOE representatives indicated to the Board that "the only local governmental jurisdiction eligi-

ble for a grant of payments equal to taxes is the County of Deaf Smith."

Postponement of Relocation Urged

Hammett told Rusche that state officials were about "to initiate a rapid and necessarily noncomprehensive analysis of potential early impacts of such a population influx." He urged the OCRWM Director, on behalf of Governor Clements, to "postpone the planned relocation into Hereford or any other community in Texas until the matter of how the anticipated and actual impacts of OCRWM site characterization activities will be addressed and financially compensated."

Frishman appealed to the Committee members for help, exclaiming, "We are very certain that Congress did not intend for these taxpayers to be responsible for the negative financial impacts of a boom community with no idea as to how long it will last." He said that Texas was prepared to work with Congress to obtain funds to help mitigate the impacts through the appropriations process if necessary. **

SENATE ENERGY APPROVES PENALTIES FOR NEGLIGENT CONTRACTORS IN P-A BILL

As predicted by the EXCHANGE, the Senate Energy and Natural Resources Committee last week approved a four-tiered system of civil penalties and criminal penalties for DOE contractors, subcontractors, and suppliers that violate DOE safety-related rules, regulations and orders. The vote was 15-2 in favor of the measure. (More than a small victory for Ms. Kehoe of EPI and Senator Metzenbaum.)

Penalties Similar to NRC's

The system of penalties agreed to by the Committee is similar to, but tougher than, one used by the Nuclear Regulatory Commission for its licensees. Under the Committee-approved measure, a fine of up to \$100,000 per day would be assessed for each violation of DOE safety-related rules, regulations or orders. A fine of up to \$500,000 per day would be assessed for each such violation that was "knowing and willful." In the case of a knowing and

willful violation that causes a nuclear incident, a penalty of up to \$10 million could be assessed. For a knowing and willful violation that causes an extraordinary nuclear occurrence a penalty of up to \$30 million could be assessed.

Contractors faced with civil penalties would have a choice between an administrative assessment of the penalty with the opportunity for judicial appeal or a trial on the merits in a federal district court.

The Committee measure also provides for criminal penalties of up to \$25,000 and/or two years in jail for any individual officer or employee of a contractor "who by act or omission knowingly and willfully violates a DOE safety-related rule, regulation or order" that results in a nuclear incident. A second offense can bring a fine of up to \$50,000 and five years in jail.

The Committee agreed that, in setting the amount of any penalty, the Secretary "shall take into account: the circumstances; [the] extent and gravity of the violation(s); [the] violator's ability to pay and ability to continue to do business; [the] history of violations; [the] degree of culpability; and other appropriate matters."

Johnston Amendments Approved

The Committee also adopted, without objection, a series of amendments to the initial markup vehicle offered by Chairman Johnston. These included the following:

Retroactive Increase in Contractor Indemnity -- Would make the indemnification provisions of existing DOE contracts co-extensive with the new aggregate limitation on liability under Price-Anderson;

Precautionary Evacuation -- Would extend coverage for DOE contractor activities to include reimbursement of costs of precautionary evacuations;

Theft or Sabotage -- Would extend coverage for DOE contractor activities to compensate claims from a nuclear incident involving nuclear material that has been illegally diverted;

Inflation Indexing -- Would require the

aggregate limitation on liability to be indexed for inflation; and

Length of Extension -- Would extend the Price-Anderson Act for 30 years, but would require DOE to report to Congress every 10 years on the need for modifications to the Act.

Metzenbaum, Johnston Exchange Barbs

The idea of making DOE contractors liable for "knowing and willful" violations of regulations was agreed to before the Committee markup by Committee Chairman, Sen. Bennett Johnston (D-LA) and Sen. James McClure (R-ID). They hatched the idea to replace a proposal by Sen. Howard Metzenbaum (D-OH) which would have made DOE contractors liable for "gross negligence and willful misconduct."

Johnston had agreed that the Metzenbaum proposal, with a ceiling on liability was a preferable alternative to an earlier Metzenbaum proposal which had no ceiling until McClure raised objections about the overall concept (See EXCHANGE, Vol. 6, No. 7).

At the outset of this second markup session, Metzenbaum accused Johnston of renegeing on the previous agreement, saying that Johnston's action were "not exactly cricket." Metzenbaum told Johnston: "I thought we had an agreement. Now you're changing the agreement...to something totally different. I'm not prepared to negotiate on your new proposal. I'm willing to have my amendments considered on the merits on the [Senate] floor." Metzenbaum indicated that he was especially concerned about changing the standard from "gross negligence", which has been defined and interpreted by the courts, to "willful and knowing" which is less clear.

Metzenbaum Reintroduced Initial Proposal

After the 15-2 vote in favor of the new Johnston/McClure proposal, Metzenbaum put to vote his original "Contractor Accountability" amendment which had no ceiling on liability. It almost passed with 9 yeas and 10 nays, despite Johnston's warning to Committee members that "This is a killer

amendment....Don't think that this bill is going to pass with this amendment."

Johnston scoffed at Metzenbaum's concerns about the Johnston/McClure proposed measure that passed, telling Metzenbaum: "I would hope that you would recognize victory in this vote. We never would have done this without your killer amendments. So you should put your name on it and declare victory. My amendment was really a 'Metzenbaum' amendment."

Another Markup Necessary

The Committee's action on the criminal penalties surprised observers and gave heartburn to the Committee staff and industry officials because the measure was approved without resolution of two potentially far-reaching issues: whether contractors operating on a not-for-profit basis should be exempt from civil liability; and whether penalties should apply to violations of all safety-related rules and regulations applicable to DOE contractors, including those of other federal agencies and the states.

Sen. Jeff Bingaman (D-NM) was concerned about the penalties applying to DOE contractors such as the University of California or AT&T, which agreed to operate facilities years ago on a not-for-profit basis. "I think we may be building in some disincentives for these not-for-profit institutions," he told his colleagues. But

other Committee members suggested that exempting these institutions (which would include DuPont at the Savannah River Plant) would simply lead all DOE contractors to begin operating facilities on a "not-for-profit" basis.

Johnston put the issue aside and directed the staff to come up with language to resolve the concerns of Bingaman and other Committee members.

Penalties To Apply To State Regs?

Sen. Timothy Wirth (D-CO) wanted to make sure that the penalties in the measure would apply to violations of state regulations. He particularly was concerned that the contractor at the Rocky Flats plant abide by state transportation regulations which require that nuclear materials be transported along the least populated and least potentially hazardous routes. Johnston asked the staff to come up with clarifying language to satisfy Wirth's concerns.

Two other issues left unresolved because of objections from Metzenbaum were: whether DOE should be required (instead of allowed) to indemnify all contractors involved in nuclear activities; and whether the statute of limitations of filing claims from an accident should be reduced from 30 to three years. Johnston said that these two issues, as well as language addressing Bingaman's and Wirth's concerns would be considered at a May 6 markup session. **

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Wrap Up (LLRW)

IN WASHINGTON STATE

The long-rumored and talked about proposal of Washington State Senator Al Williams to exchange DOE's consideration for Washington as the location for the HLW repository for the state becoming a national LLRW disposal site finally made it to the papers. In an article which appeared in the **Seattle Post-Intelligencer**, Senator Williams describes the selection process for a HLW repository "as a political decision in scientific dress". He explains that the East has the votes in Congress to override a Washington veto of the facility but Washington has something to trade for those votes. His offer is simple: If California and the East provide votes to send their spent fuel and radioactive waste from nuclear reactors to someplace other than Hanford, "the state of Washington will take in the nation's low level waste." Williams conditions his proposal on Congress kicking in "hundreds of millions of dollars needed to remove or safely store the 40-year accumulation of defense wastes already at Hanford."

OTA RELEASES REPORT ON OCEAN WASTE DISPOSAL

In the past week Congress' Office of Technology Assessment released a comprehensive study - - "Waste in Marine Environments" -- outlining several policy options with respect to disposal of wastes in the open ocean and estuaries and coastal waters. The report does not foreclose the option of ocean disposal of LLRW, though it's primary focus is on wastes other than radioactive. The study is a comprehensive resource on the problems that have been experienced with ocean dumping and the possible implications of further use of marine environments for disposal. Copies of the study can be obtained from the OTA, U. S. Congress, Office of Congressional and Public Affairs, Washington, D.C., 20510-8025; phone (202) 224-9241.

IN THE INDUSTRY

The **Babcock & Wilcox Nuclear Power Division** has been awarded a contract by Lawrence Livermore National Laboratory (LLNL) to develop waste container fabrication and closure techniques for the DOE's Yucca Mountain, Nevada, high-level waste repository project.

The contract award, valued at several million dollars, requires B&W to evaluate various container fabrication techniques for the six metals and alloys being considered, to fabricate prototype containers, and develop a prototype remote closure system.

The project will be managed by the division's recently formed Office of Spent fuel and High-Level Waste Services. Technical operations support will be provided by the company's Alliance Research Center in Alliance, Ohio. B&W will perform this work as a subcontractor to LLNL, which is responsible to DOE for developing a waste container designed to provide containment of high-level waste for up to 1,000 years.

IN THE DOE

To the surprise of almost everyone at DOE, **David Rossin**, the DOE Assistant Secretary for Nuclear Energy, announced his resignation on Tuesday, April 28, 1987. According to the DOE press office Mr. Rossin has no specific plans for the immediate future. The office emphasized that the action was a surprise to DOE management. Mr. Rossin had the Secretary's and Undersecretary's support. Upon resigning Mr. Rossin remarked that he was doing so to pursue activities that he could not undertake while in his current position. He served as Assistant Secretary for only approximately nine months.