

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
ATOMIC SAFETY AND LICENSING BOARD**

**Before Administrative Judges:**

**Thomas S. Moore, Chairman  
Alex S. Karlin  
Alan S. Rosenthal**

<b>In the Matter of</b>	<b>Docket No. PAPO-00</b>
<b>U.S. DEPARTMENT OF ENERGY</b>	<b>ASLBP No. 04-829-01 PAPO</b>
<b>(High Level Waste Repository: Pre-Application Matters)</b>	<b>November 8, 2005</b>

**NEVADA'S RESPONSE TO DOE'S "NEW PATH FORWARD"**

On October 25, 2005, DOE filed with the PAPO Board its startling announcement that it had instructed its lead Yucca contractor to institute major changes in the Yucca Mountain program to implement a "new path forward." The press release attached to DOE's filing noted, among other things, broad changes in the design of the repository, changes in the canisters to be used for shipment and burial of wastes, and programmatic efforts to make operation of the repository "clean."

On November 1, 2005, DOE filed its Sixth Monthly Status Report Regarding LSN Certification and License Application Submittal, stating that the agency "has instructed its managing contractor for the Yucca Mountain repository to devise a plan that would, among other things, make certain changes in the waste canisters to be used at the repository as well as in the repository's surface facilities." Because of this, "DOE is unable to provide a predicted date for LSN certification at this time."

Nevada wishes to bring to the PAPO's attention, as it recently did in a Fed. R. Civ. Pro. 28(j) letter to the D.C. Court of Appeals filed last week, further information obtained from third parties about DOE's ostensible plans. A copy of that filing is attached. Included in the filing were the following documents:

1. An October 13, 2005 Memorandum from Paul M. Golan, Principal Deputy Directory of DOE's Yucca program, to a broad distribution of senior managers "formally assigning expectations and actions" for implementing DOE's new path forward, including assignments for each manager to develop a "Plan of Action and Milestone" ("POAM") for respective program changes.
2. An October 25, 2005 letter from W. John Arthur, III, Deputy Director of the Yucca program, to Ted C. Feigenbaum, President and General Manager of Bechtel SAIC, directing this lead M&O contractor to implement major changes in the Yucca program.
3. A special bulletin published by the Radioactive Exchange Monitor on October 24, 2005, outlining many additional changes in the overall high-level waste management program that are apparently under consideration by DOE.
4. An article on DOE's "New Path Forward" from the October 26, 2005 *Las Vegas Review Journal*.

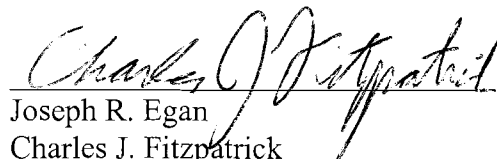
Of particular interest to Nevada was the Golan memo. It assigned to G. Runkel the task of developing a POAM "for independent certification of LSN" and a POAM for "independent certification of LA," as well as a POAM "to implement university-based oversight process." These seem to raise issues of profound interest to the PAPO as well as to Nevada. Moreover, the deliverables associated with these assignments were due, according to the Golan memo, on

October 24, 2005. Therefore, DOE presumably has much more advanced information than was indicated in its Sixth Monthly Status report on November 1.

Perhaps even more troubling are the press reports, which indicate that DOE is considering efforts to exempt parts of the repository from NRC licensing requirements, from the National Environmental Policy Act, and from the Resource Conservation and Recovery Act, and to attempt to build large "aging facilities" (a euphemism for Monitored Retrievable Storage facilities or Independent Spent Fuel Storage Facilities) without either new legislation or NRC licenses. DOE is apparently even considering resurrecting reprocessing in the United States, and possibly even the breeder reactor.

In short, the sparse information currently available to Nevada, much not provided by DOE, raises important questions directly relating to the PAPO proceeding and the expenditure of time and resources by Nevada, NRC, and other interested parties. Nevada would be pleased to cooperate with the PAPO in any effort to learn more about the "New Path Forward" from DOE, so that all parties may better evaluate the implication of these developments to this proceeding.

Respectfully submitted,



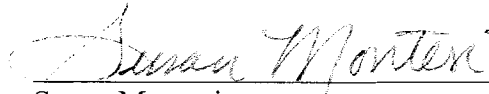
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Attorneys for the State of Nevada

November 8, 2005

### **CERTIFICATE OF SERVICE**

In accordance with the PAPO Board's Second Case Management Order of July 8, 2005, I certify that I have filed a true and correct copy of the above and foregoing State of Nevada's Response to DOE's "New Path Forward" on the Electronic Information Exchange on this the 8th day of November, 2005.

  
\_\_\_\_\_  
Susan Montesi

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November 2, 2005

## **BY HAND DELIVERY**

Mark J. Langer, Esq.  
Clerk  
U. S. Court of Appeals for the District of Columbia Circuit  
E. Barrett Prettyman U.S. Courthouse  
333 Constitution Avenue, N.W.  
Washington, D.C. 20001-2866

Re: *State of Nevada v. United States Department of Energy*, No. 04-1309  
Oral Argument Held Oct. 18, 2005 Before  
Circuit Judges Edwards, Henderson, and Randolph

Dear Mr. Langer:

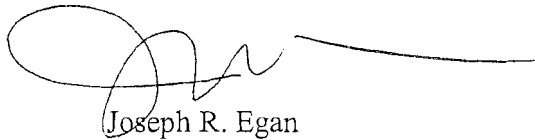
Pursuant to FED.R.APP.P.28(j), Petitioner apprises the Court of a decision by DOE (made just before oral argument) to adopt what it calls a completely "new path" for shipping nuclear waste to the proposed Yucca repository by using new, standardized multi-purpose canisters instead of the casks that were analyzed and discussed in DOE's FEIS and Record of Decision ("ROD"). By internal memorandum dated October 13, 2005, DOE assigned actions to execute this "new path," publicly announcing them in an October 25, 2005 filing with NRC and accompanying press release. That same day DOE directed its lead Yucca contractor to implement this fundamentally new transportation plan. These documents and the press reports that brought them to Nevada's attention are attached.

DOE claims its change "will improve the safety, operation, and long-term performance" of the repository. Perhaps. DOE's October 13 memorandum makes clear, however, that DOE's wholesale revision of its waste transportation regime remains a work in progress, raising startling new questions about the environmental impacts of the Yucca transport program. Indeed, DOE's October 25<sup>th</sup> direction to its contractor explicitly concedes that many details of these new "canisterized operations" have not been evaluated, instructing the contractor to analyze its "impacts to the ... Environmental Impact Statement."

Mark J. Langer, Esq.  
November 2, 2005  
Page 2

This latest development further underscores Nevada's oral argument that DOE's waste transport plans remain a moving target, making utterly untenable DOE's claim that its final ROD selecting the "mostly rail" transport option and a six-year "interim" transport mode, each allegedly based on its repository site-selection FEIS, was adequate without having first prepared a Supplemental Environmental Impact Statement ("SEIS"). Clearly, DOE's transport plans have undergone so many profound transformations since the Yucca FEIS was completed that the ROD must be vacated so that a thoroughgoing SEIS may be completed to genuinely shape whatever transport decisions DOE ultimately makes in implementing its "new path."

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Joseph R. Egan', with a long horizontal line extending to the right.

*On Behalf of Petitioner,  
The State of Nevada*

Attachments

cc: John Bryson  
Michael A. Bauser  
(By electronic mail and Federal Express)

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE PRE-LICENSE APPLICATION PRESIDING OFFICER BOARD

In the Matter of	)	Docket No. PAPO-00
	)	
U.S. DEPARTMENT OF ENERGY	)	ASLBP No. 04-829-01-PAPO
	)	
(High Level Waste Repository: Pre-Application Matters)	)	October 25, 2005

THE DEPARTMENT OF ENERGY'S INTERIM STATUS REPORT

Consistent with this Board's interest in schedule developments pertaining to the Yucca Mountain repository, the United States Department of Energy (DOE) provides the Board a copy of the attached press release issued today. DOE will provide any further available information as to the effect of the developments described in the press release in DOE's next regular monthly status report, due November 1, 2005.

Respectfully submitted,

U.S. DEPARTMENT OF ENERGY

By Michael R. Shebelskie

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Department of Energy  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585

Dated: October 25, 2005





October 25, 2005

## New Yucca Mountain Repository Design to be Simpler, Safer and More Cost Effective

WASHINGTON, DC – The U.S. Department of Energy's Office of Civilian Radioactive Waste Management (OCRWM) today instructed its managing contractor to devise a plan to operate the Yucca Mountain repository as a primarily "clean" or non-contaminated facility. Operating the site "clean" will improve the safety, operation, and long-term performance of Yucca Mountain.

"Our new path forward will provide clear direction to improve safety and reliability as well as reduce programmatic risk," OCRWM's Acting Director Paul Golan said. "While this change requires coordination with utilities and the Nuclear Regulatory Commission (NRC), we are confident that the simpler we make the design, the more reliable the project will be."

The direction for the change in design, outlined in a letter to Bechtel SAIC, means that most spent nuclear fuel would be sent to the repository in a standardized canister that would not require repetitive handling of fuel prior to disposal. Prior to today, plans called for shipping spent fuel assemblies in various types of canisters to the repository where workers would handle 70,000 tons of spent fuel up to four separate times per fuel assembly.

The improved design is intended to simplify fuel handling and the construction of the repository, while easing complexities of Yucca Mountain's post-construction operations. The new path envisions spent fuel being delivered to Yucca Mountain primarily in standard canisters which are then placed in a waste package for emplacement, without handling individual fuel canisters.

Switching to a clean facility frees the project from having to construct several multi-million square-foot, multi-billion dollar facilities for handling spent fuel. It also reduces the potential hazards caused by the oxidation of bare spent nuclear fuel during handling. Under the previous plan, the design was to construct large handling facilities that would prepare fuel for emplacement into the repository once it is received from utilities or other sources. These facilities would have been inerted, meaning the composition of the air in the facilities would be altered to reduce potential oxidation. The old design was unique to the proposed repository, as no similar facilities had ever been built or licensed in the United States.

"The old plan is complex and adds a dimension of uncertainty to

obtaining an NRC license. Nothing like this has even been licensed," Acting Director Golan said. "The program needs to make a solid, fully defensible technical case to the Nuclear Regulatory Commission, and this change takes a degree of complexity out of the licensing process. The bottom line is that this new path gives us simplification in design, licensing, and construction, while increasing worker and public safety."

The letter, signed by OCRWM's deputy director W. John Arthur, specifies development of a "conceptual design," or CD-1, package that addresses simpler surface facility and canister operations. The final package will be submitted to the Secretary of Energy's Acquisition Advisory Board for review. If the board approves the package, it will become the project's baseline design.

**Media contact:**  
Craig Stevens, 202/586-4940




Department of Energy  
Washington, DC 20585

QA:NA

October 13, 2005

MEMORANDUM FOR DISTRIBUTION

FROM: PAUL M. GOLAN   
PRINCIPAL DEPUTY DIRECTOR  
OFFICE OF CIVILIAN RADIOACTIVE  
WASTE MANAGEMENT

SUBJECT: ACTIONS

The purpose of this memorandum is to formally assign expectations and actions as a follow on to last weeks meetings. For actions that will take longer than 30 days to complete, you are directed to develop a Plan of Action and Milestones (POAM) that includes precursor actions to support delivery of final work product. These action plans will be tracked by Ron Milner, the Chief Operating Officer for the organization. If you have any questions on what is expected, please see me as soon as possible so we may all start on the right foot. These assignments are due to me not later than Monday, October 24, 2005.

**ACTION: A. Fromstein**

- Develop implementation plan to establish Lead Laboratory for the Office of Civilian Radioactive Waste Management including contract clearance, DOE statement of work (SOW), communication plan, and transition plan.

**ACTION: C. Kouts**

- Develop POAM for a disposal canister that can be engineered, licensed, procured, and used to store, transport and dispose of SNF.

**ACTION: G. Lanthrum**

- Develop POAM for accelerated development and demonstration of transportation infrastructure (with the exception of the Nevada rail line).

**ACTION: J. Arthur**

- Develop Critical Decision package (CD-1) for design and license to operate Yucca Mountain surface facilities as a primarily non-contaminated operations.
- Develop reporting metrics that accurately and independently assess performance of important activities

**ACTION: J. Weagle**

- Develop POAM for potential application of Structurally Amorphous Metal (SAM) to waste packages



Printed with soy ink on recycled paper

**ACTION: C. Lukasik**

- Twice weekly update of all open personnel hiring actions

**ACTION: E. Knox**

- Develop POAM for Land Withdrawal Legislative Package
- Develop and transmit requirements to USGS for certification of scientific work products

**ACTION: B. Greene**

- Rollout plan for new path forward

**ACTION: B. Boyle**

- Develop POAM for review, validation, augmentation, and replacement of USGS work products as they support infiltration model and maps
- Develop POAM for improvement of TSPA model

**ACTION: G. Runkel**

- Develop POAM to re-perform Extent of Condition Review
- Develop POAM for independent certification of LSN
- Develop POAM for independent certification of LA
- Develop POAM for independent certification of infiltration model and maps
- Develop POAM to implement university-based independent oversight process

**ACTION: S. Mettlington**

- Develop POAM for new contract package from SOW to implementation

**ACTION: V. Trebules**

- Develop POAM for SOW, project baseline, critical path, earned value in accordance with DOE 413.3 requirements

**ACTION: R. Minning**

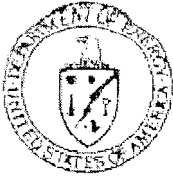
- Develop FY06 financial plan
- Develop FY07 financial plan based on new path forward

**ACTION: M. Van Der Puy**

- Develop POAM for implementation of Safety Conscious Work Environment across RW organization

**ACTION: R. Milner**

- Develop integrated POAM and provide weekly updates on project status



**Department of Energy**  
Office of Civilian Radioactive Waste Management  
Office of Repository Development  
1551 Hillshire Drive  
Las Vegas, NV 89134-6321

QA: N/A

OCT 25 2005

Ted C. Feigenbaum  
President and General Manager  
Bechtel SAIC Company, LLC  
1180 Town Center Drive, M/S 423  
Las Vegas, NV 89144

**DIRECTION TO PREPARE A REVISED CRITICAL DECISION-1 (CD-1) FOR  
ACCEPTING AND HANDLING PRIMARILY CANISTERIZED FUEL AT THE YUCCA  
MOUNTAIN (YM) REPOSITORY; CONTRACT NUMBER DE-AC28-01RW12101.**

The purpose of this letter is to direct Bechtel SAIC Company, LLC (BSC), to develop a revised CD-1 package in accordance with DOE Order 413.3 for accepting and handling primarily canisterized fuel at the YM repository. The objective of this modification is to simplify the design, licensing, construction, and operation of the repository surface facilities. The program is revising the current program approach to include the use of Transport, Aging, and Disposal (TAD) canisters for the acceptance of spent nuclear fuel from the utilities. The use of TAD canisters will permit smaller, less complex surface facilities to operate in a clean, simplified, and safe manner, while minimizing radiological contamination issues. The U.S. Department of Energy (DOE) will develop a commercial approach that will rely upon the private sector to design and license the TAD canister based transportation systems that meet DOE performance specifications.

BSC is directed to stop work associated with activities that support primarily bare fuel handling at the repository, other than that required for limited bare fuel and off-normal operations, and develop a CD-1 package that addresses the following:

1. Canisterized operations with a focus on simple, safe, and clean operations.
2. Canisters arriving at the repository will be disposable after being placed in a waste package.
3. Develop minimum bare fuel handling capability that would also be used for off-normal operations with remediation capabilities.
4. Utilize aspects of the current design to the extent practicable.
5. Maintain phased construction approach.
6. Include capability for both truck and rail deliveries.
7. Is consistent with Civilian Radioactive Waste Management Requirements Document acceptance rates of spent nuclear fuel.
8. Examine the feasibility of utilizing commercially available shielded canister transfer facility with addition of a waste package closure cell.

Ted C. Feigenbaum

-2-

9. Minimize impact on initial conditions for post closure safety case.
10. Location of surface facilities are not constrained to the north portal area but in the EIS analyzed space.
11. Evaluate and recommend other system optimizations to ensure best cost and schedule value.

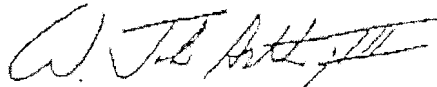
The revised CD-1 should use proven technology and commercial approaches where possible. The revised CD-1 should also include an analysis of the impacts to the License Application, Environmental Impact Statement, Total System Performance Assessment, Preclosure Safety Analysis and CD-1 documentation, and it should identify risks associated with each. In addition, BSC should provide recommendations on optimum methods and timing of handling waste in existing non-disposable dual purpose canisters.

BSC will be responsible for the development of the CD-1 documentation deliverables; specifically, the Conceptual Design Report, Risk Assessment, the Safety Hazards Analysis, and updated preliminary design phase budget and schedule and total project cost and schedule range. The DOE will maintain responsibility for the Project Execution Plan, the Acquisition Strategy, and the assessment of programmatic risks.

BSC is directed to complete a preliminary report due to DOE in writing within 30 days from the date of this letter with an overall goal of completing the revised CD-1 within 90 days. The preliminary report should address the planning assumptions, feasibility, and risks associated with the conceptual design alternatives, deliverables, and schedules to develop the CD-1 documentation. BSC is directed to provide weekly updates to DOE management through the completion of this effort in accordance with DOE Order 413.3 requirements.

If it is determined by the contractor that this direction results in changes to the terms of the contract, you are directed to notify the Contracting Officer immediately so that appropriate action can be taken.

Should you have any questions in this regard, please contact me at (702) 794-1300.



W. John Arthur, III  
Deputy Director

OPM&amp;E:VF1-0030

Ted C. Feigenbaum

-3-

cc:

P. M. Golan, DOE/HQ (RW-1), FORS  
E. K. Knox, DOE/HQ (RW-1), FORS  
C. A. Kouts, DOE/HQ (RW-20), FORS  
J. G. Lanthrum, DOE/HQ (RW-30), FORS  
D. J. Schlismann, BSC, Las Vegas, NV  
B. V. Hamilton-Ray, DOE/ORD (RW-621),  
Las Vegas, NV  
P. G. Harrington, DOE/ORD (RW-65),  
Las Vegas, NV  
K. W. Powers, DOE/HQ (RW-60), Las Vegas, NV  
OPM&E Records Coordinator,  
Las Vegas, NV  
Records Processing Center = "7"

# Radioactive Exchange

*Covering the disposition of radioactive materials and the back end of the nuclear fuel cycle*

Vol. 24 No. 21

Special Bulletin

Oct. 24, 2005

## REPROCESSING TO REPLACE ONCE-THROUGH NUCLEAR FUEL CYCLE

*New Direction for DOE Includes Long-Term Interim Spent Fuel Storage*

The Bush Administration appears poised to replace the United States' two-decade-old policy mandating a once-through nuclear fuel cycle with a new initiative that would resurrect spent fuel reprocessing and couple it with long-term interim storage, *The Exchange* has learned. The first official step in this new direction was taken Oct. 13 with the issuance of a memo by DOE Office of Civilian Radioactive Waste Management Principal Deputy Director Paul Golan that spelled out a set of specific actions to be taken by 15 OCRWM managers, a key part of which is the development of multi-purpose canisters to facilitate the long-term storage of spent fuel.

The programmatic changes at DOE, sparked by continuing legal and technical delays in submitting a license application for the planned Yucca Mountain repository (*Exchange*, Vol. 24 No. 20), are expected to be followed this fall by draft legislation from the Bush Administration that will set the stage for the FY 2007 budget request in February. According to what *The Exchange* has learned, the legislation, at a minimum, is expected to propose:

- Constructing at least two "Aging Pads" for the placement and storage of the multi-use spent fuel canisters to be located on federal reservations, one being the Nevada Test Site, the other yet to be designated;
- Exempting the proposed "Aging Pads" from the necessity of obtaining a Nuclear Regulatory Commission license/permit and instead constructing them in accordance with provisions of the Atomic Energy Act, the current governing statute of DOE nuclear facilities;
- Allowing the Aging Pads to be constructed without an Environmental Impact Statement;
- Taking the utility ratepayer-funded Nuclear Waste Fund 'off-budget' and using the fund to finance the program;
- Exempting the spent fuel proposal from RCRA requirements; and

— Withdrawing federal land necessary to accommodate the Yucca Mountain repository and rail corridor.

The last step, which could possibly be part of the legislative package creating the interim storage program, would be directing the development and construction of one or possibly two reprocessing facilities. This initiative—the Global Nuclear Energy Initiative (GNEI) as it is now being called—will reportedly involve international partners and include the construction of a fast breeder reactor. All this would proceed in parallel with OCRWM continuing to complete and submit the license application for the geological repository at Yucca Mountain by the end of 2006. *The Exchange* has also learned that the license application will not be changed to support a higher capacity 'cold' repository that would accommodate lower temperature, older spent fuel than currently specified, as had been considered (*Exchange*, Vol. 24 No. 20). Reportedly, the change was rejected so that the submission of the license application would not be further delayed.

Notably, the Administration's action, though in line with reprocessing proposals from House Energy and Water Appropriations Subcommittee Chair David Hobson (R-Ohio), differs from a legislative proposal reportedly being contemplated by Senate Energy and Natural Resources Chairman Pete Domenici (R-N.M.) calling for long-term on-site storage at reactors prior to reprocessing.

### The New Action Plan(s)

The Oct. 13 Golan memo calls for the development nearly 20 'Plan of Action and Milestones' (POAMs) intended to lay the foundation for a national long-term spent fuel storage program and sets the path forward for submitting a license application for Yucca Mountain repository by the end of FY 2006. The critical actions called for by Golan include the development of:



- A plan for a “disposal canister that can be engineered, licensed, procured and used to store, transport and dispose of SNF.”
- An implementation plan to establish a ‘Lead Laboratory’ for the Office of Civilian Radioactive Waste Management;
- Accelerated development and demonstration of transportation infrastructure (with the exception of the Nevada rail line);
- A Critical Decision package (CD-1) for design and license to operate Yucca Mountain surface facilities as primarily non-contaminated operations;
- A potential application of Structurally Amorphous Metal (SAM) coating for waste packages to be put in the repository to solve the corrosion problem;
- The Land Withdrawal legislative package;
- Requirements to the U.S. Geological Survey for certification of scientific work products;
- A plan for review, validation, augmentation, and replacement of USGS work products that have come under scrutiny; and
- A plan for improvement of Total System Performance Assessment model.

### A New Acquisition?

Notably, the ‘sea change’ in the direction of the program is likely to result in a new acquisition for a contract to carry out the initiative. *The Exchange* has learned that an

‘all hands’ OCRWM meeting is scheduled for Oct. 25 to discuss a transition from current contractor Bechtel SAIC, and Golan directs in his memo that a plan for a new contract package be developed.

In addition, Golan’s memo directs the creation of an oversight process including the creation of a “university-based independent” entity that is to obtain “independent certification” of the:

- Licencing Support Network;
- License and Application; and
- Groundwater infiltration model and maps.

### A Bit of Deja Vu

The approach put forward by the Administration and OCRWM harkens back to the provisions of the 1982 Nuclear Waste Policy Act allowing for the construction of a Federal Interim Storage Facility, which was earlier rejected as an option by the Department (*Exchange*, Vol. 5 No. 3). Notably, the plans to construct the spent fuel ‘Aging Pads’ under the AEA and not seek an NRC license—viewed by DOE as a time-saving measure that will allow the federal government to take title to commercial spent fuel and avoid further financial penalties—will require legislation since current statutes direct that commercial spent fuel can only be handled at NRC-licensed facilities. ■

## Calendar

### October

- 24-28 Conference: Eighth Annual Session on Quality Assurance and Quality Control: A Forum for radiochemistry, Caesars Tahoe, Stateline, Nev.; Contact: Mary Wisdom [wisdom.mary@epa.gov](mailto:wisdom.mary@epa.gov).

### November

- 1-3 Conference: 6th Annual Business Opportunities Conference; Crowne Plaza Knoxville, Knoxville, Tenn.; Sponsor: East Tennessee Environmental Business Association; Contact: Grace Miller, 865-947-5505; Information: <http://eteba.org>.
- 13-15 Expo: American Nuclear Society Nuclear Technology Expo 2005; Omni Shoreham Hotel, Washington, D.C.; Sponsor: American Nuclear Society; Information: [www.ans.org](http://www.ans.org).
- 13-17 Meeting: 2005 ANS Winter Meeting: “Talk About Nuclear Differently: A Good Story Untold”; Omni Shoreham Hotel, Washington, D.C.; Information: [www.ans.org](http://www.ans.org).
- 14-18 Symposium: Int’l Symposium on Trends in Radiopharmaceuticals; Vienna, Austria; Sponsor: International Atomic Energy Agency (IAEA); Information: <http://www.iaea.org/meetings>

### December

6-9

#### THE SIXTEENTH ANNUAL CLEANER, SAFER INDUSTRIAL MATERIALS & PROCESSES (C.S.I.M.P.) WORKSHOP (Formerly International Workshop on Solvent Substitution)

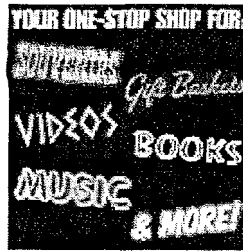
*Understanding and Overcoming the Hurdles  
to Implementing New Materials and  
Processes on the Shop Floor*  
The Rancho Bernardo Inn  
San Diego, California

#### Workshop Objectives:

- Promote practical discussion on material and process changes put into practice by end users;
- Identify materials used in industrial processes that of evolving regulatory interest;
- Exchange experience on proven pathways to adopting new technology;
- Provide performance data on new materials and processes from ongoing demonstrations and initial commercial application; and
- Provide user-focused data on new materials and processes that are being introduced commercially.

#### For Call for Papers Go To:

[http://www.exchangemonitor.com/Dec\\_call\\_05.pdf](http://www.exchangemonitor.com/Dec_call_05.pdf).



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## **Canister changes proposed**

### **DOE sees 'new path' for nuclear waste**

By KEITH ROGERS  
REVIEW-JOURNAL

Energy Department officials announced Tuesday they are switching gears in their effort to haul spent nuclear fuel to Yucca Mountain and dispose of it.

They said a design change using standardized containers is simpler and safer and avoids the need for repetitive handling of spent fuel assemblies. But critics say the new strategy is part of a ploy to sidestep the licensing process and eliminate scrutiny for building above-ground pads where the waste can cool.

"To me it's a smokescreen to cover up everything else that's gone wrong," said Nevada Nuclear Projects Agency chief Bob Loux, a leading critic of the Yucca Mountain Project.

The design change was outlined in a letter this month to prime contractor Bechtel SAIC and was heralded Tuesday by acting Civilian Radioactive Waste Management Director Paul Golan as a "new path (that) gives us simplification in design, licensing and construction, while increasing worker and public safety."

Under the old method, plans called for shipping spent fuel assemblies in various types of canisters to the repository, where workers "would handle 70,000 tons of spent fuel up to four separate times per fuel assembly," a statement announcing the new design read.

In a telephone interview Tuesday, Golan said the "new path" is different "relative to the one we're on today."

"We think it offers some advantages today over our current design," Golan said.

He said the new strategy "is probably as economical as the path we're on" but will be safer with more inherent quality controls, because packaging of the fuel assemblies will take place at the utilities that generated the fuel and know most about it.

But Loux said the "new path" is really an old path that a former energy secretary, retired Navy Adm. *James Watkins*, proposed in 1992.

"It now appears that a multiple purpose and standardized container system for spent fuel receipt, storage, transport and disposal can be developed to reduce costs (and) minimize required handling of spent fuel assemblies. ... Such a system would simplify the design of a storage facility," Watkins wrote in an attachment to a Dec. 17, 1992, letter to Sen. J. Bennett Johnston, D-La., then chairman of the Senate Energy and Natural Resources Committee.

That path was not followed because it would have been too expensive and too difficult to haul such large containers to the mountain, 100 miles northwest of Las Vegas, Loux said.

Loux cited Monday's special bulletin in a trade publication, "The International Radioactive Exchange," that claims DOE's new direction to develop multipurpose canisters is part of a strategy that includes constructing two above-ground pads, where much of the 77,000 tons of spent fuel and highly radioactive defense waste can be aged before entombing it inside a maze of tunnels in the mountain.

One of the "aging pads," would be at the Nevada Test Site, adjacent to the mountain. The Bush administration intends to propose legislation this fall, according to the trade publication, to exempt the pads from the Nuclear Regulatory Commission's licensing process and allow them to be built without an environmental impact statement.

Referring to DOE officials, Loux said, "It's clear they can't do anything to play by the rules. I think this is moreover an attempt to divert attention from a completely failing program."

Golan said he had not seen the special bulletin from "The International Radioactive Exchange" and couldn't comment on it.

He acknowledged, however, that aging the fuel, or allowing the heat generated by the decaying spent fuel pellets to cool, has always been part of the Yucca Mountain plan.

"There will be fuel that has too much thermal heat, and we'll have to let that thermal heat dissipate before we put it into the repository," he said.

Golan said the project will still need a smaller, inert facility where damaged or "off-normal" fuel assemblies can be repackaged for disposal without oxidizing it. Fuel surrounded by damaged, metal cladding could trigger chemical reactions when exposed to the air, causing gases to escape and fuel pellets to oxidize into dispersible powders.

Powders released would cause high levels of contamination from the thousands of assemblies expected to arrive at Yucca Mountain damaged.

Nevada's senators were not impressed with DOE's new design plan.

"After 20 years of work, DOE's big announcement is that they will now start working towards a clean, uncontaminated site. We have said all along the project is not safe and the science is bad, but never thought DOE would actually admit it," Sen. Harry Reid, D-Nev., and Sen. John Ensign, R-Nev., said in a joint statement. "We certainly appreciate the likely decades-long delay this announcement means. But this proposal is just words and a made-up scenario with no substance or fact."