

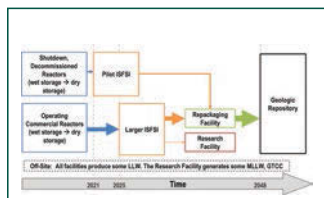
Low-Level Waste Management



Disposing of Oak Ridge's U-233 34

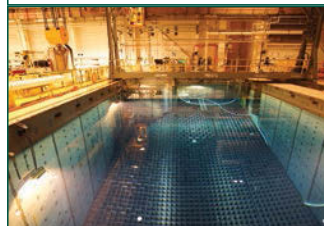
The DOE wants to ship 403 canisters of LLW being stored at Oak Ridge to Nevada, but the state so far has been opposed to the plan.

High-Level Waste Management



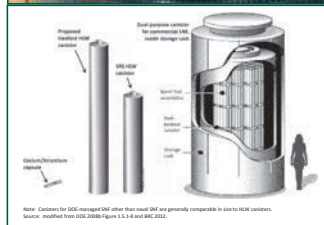
Estimating Worker Collective Doses from a Revised Approach to Managing Commercial Used Nuclear Fuel... 40

Evaluating the radiological impacts of a federal waste management system using worker collective dose.



From Pool to Pad at Zion..... 50

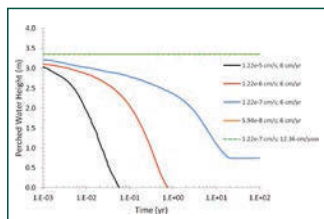
ZionSolutions marked a milestone in its 10-year, nearly \$1 billion decommissioning project when it transferred the last of Zion's used nuclear fuel to dry storage.



Assessing Other Disposal Options 54

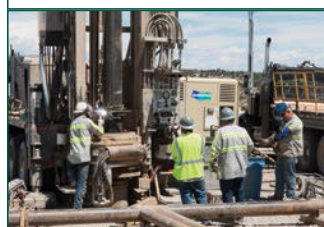
With the future of Yucca Mountain uncertain, the DOE is looking at alternatives for its inventory of HLW waste and used nuclear fuel.

Environmental Remediation



Flux-Based Evaluation of Perched Water in the Deep Vadose Zone at the Hanford Site 60

Considering perched water dynamics to help support remediation decisions at Hanford by estimating future contaminant flux to groundwater.



Environmental Recovery at Los Alamos 66

Corrective actions taken at Los Alamos National Laboratory last year included groundwater and soil remediation, as well as flood recovery efforts.



The NRC completed its safety review of the Yucca Mountain repository in January. See Headlines, page 12, for details.

Meeting Reports

Discussions on WIPP and Other Issues..... 70

A report from the Eighth Annual RadWaste Summit, held September 2-5, 2014, in Las Vegas, Nev.

Fuel Cycle Options and D&D Solutions..... 72

A report from the American Nuclear Society's 2014 Winter Meeting, held November 9-13, 2014, in Anaheim, Calif.

Departments

- | | |
|---|--|
| 4 Editor's Note
<i>Comments on this issue</i> | 78 Moving Up
<i>People in the news</i> |
| 6 Headlines
<i>Industry news</i> | 83 It's Business
<i>Contracts, business news, etc.</i> |
| 9 Radwaste Solutions Subscription Information | 87 Index to Articles in Radwaste Solutions (1994-2014) |
| 75 Index to Advertisers | 107 Calendar
<i>Meetings of interest</i> |
| 76 Direct Answer | |

On the Cover:

A used nuclear fuel canister is loaded at the Zion nuclear power plant in Illinois (p. 50). Soil samples are taken at Los Alamos National Laboratory (p. 66).

Next Issue:

- *Decontamination and Decommissioning*
- *2016 Buyers Guide (See pages 24A-B)*

www.ans.org/RadwasteSolutions

Editorial Staff

PUBLISHER
Betsy Tompkins

EDITOR
Tim Gregoire

DESKTOP EDITOR
Chris Salvato

COPY EDITOR
Allen Zeyher

Advertising & Circulation Staff

SALES MANAGER
Jeff Mosses

ADVERTISING/PRODUCTION ASSISTANT MANAGER
Erica McGowan

ADVERTISING/CIRCULATION SALES ASSISTANT
Jessica Vazquez

ANS Officers

PRESIDENT
Michael C. Brady Raap

VICE PRESIDENT/PRESIDENT-ELECT
Eugene S. Grecheck

TREASURER
Margaret E. Harding

CHAIRMAN, PUBLICATIONS STEERING COMMITTEE
Martin Grossbeck

Administrative

EXECUTIVE DIRECTOR
Robert C. Fine

ANS HEADQUARTERS
555 N. Kensington Ave.
La Grange Park, IL 60526
708/352-6611
Fax 708/352-0499
www.ans.org

RADWASTE SOLUTIONS EDITORIAL
166 Kensington Dr.
Madison, WI 53704
414/530-2455
Fax 708/579-8204
editor@radwastesolutions.org

RADWASTE SOLUTIONS ADVERTISING

Phone: 708/579-8226 • 800/682-6397 • Fax: 708/352-6464
advertising@ans.org • www.ans.org/advertising

Radwaste Solutions (ISSN 1529-4900), Volume 22, Number 1. Published two times a year (Spring and Fall) by the American Nuclear Society, Inc., with business, executive, and editorial offices at 555 N. Kensington Ave., La-Grange Park, IL 60526. Copyright © 2015 by the American Nuclear Society.

Subscription rate for 2015 is \$440, which includes complimentary electronic access, 1994 to current issue; for subscriptions outside of North America, add \$20 for shipping and handling. This rate is valid for all libraries, companies, departments, and any individual subscribers (who are not ANS members). Alternatively, subscription rate is \$400 for Electronic Access Only to entire historical archive, 1994 to current issue. ANS member rate is \$40; members who live outside of North America should add \$20 for additional postage and special handling. Single copy price is \$110, plus \$10 for customers outside of North America.

Opinions expressed in this publication are those of the authors and do not necessarily reflect the opinions of the publisher, the editor, the American Nuclear Society, or the organizations with which the authors are affiliated, nor should publication of the authors' points of view be construed as endorsement by the American Nuclear Society.

Reprints of articles that appear in *Radwaste Solutions* can be purchased by contacting Dennis Matl, Production Supervisor, American Nuclear Society, 708/579-8236; dmatl@ans.org