## DOE Issues Draft Environmental Impact Statement to Clean Up Nuclear-Waste Tanks

On April 10, the Department of Energy (DOE) and the Washington State Department of Ecology (Ecology) issued a draft environmental impact statement for cleaning up high-level nuclear weapons waste stored in aging tanks near Richland, Washington. The Draft Environmental Impact Statement (EIS) for the Tank Waste Remediation System (TWRS), jointly prepared and issued for public comment by DOE and Ecology, explores nine alternatives for remediating the 56 million gallons of radioactive and hazardous waste stored in 177 underground tanks and approximately 60 inactive miscellaneous underground tanks at the Hanford Site. DOE and Ecology's preferred alternative for tank waste is the Phased Implementation alternative, which would carry out the existing program identified in the Hanford Tri-Party Agreement. The analysis also identifies four alternatives for the management and disposal of radioactive cesium and strontium capsules located in the Waste Encapsulation Storage Facility. DOE and Ecology have not identified a preferred alternative for the capsules.

"We believe the phased retrieval and immobilization process offers the most balanced solution for tank waste cleanup," said Mary Riveland, Ecology Director. "It enables DOE to continue to treat highly radioactive tank waste and provides flexibility to change systems if new information or technologies are developed."

Copies of the Draft EIS can be reviewed at DOE public reading rooms in Richland, Seattle, and Spokane, Washington, and in Portland, Oregon. A copy of the TWRS Draft EIS can also be obtained by calling Hanford Cleanup Hotline toll free 1-800-321-2008. Written comments should be mailed to Ms. Carolyn Haass, TWRS EIS NEPA Document Manager, U.S. Department of Energy, Richland Operations Office, PO Box 1249, Richland, Washington 99352, or Mr. Geoff Tallent, TWRS EIS Project Lead, Washington State Department of Ecology, PO Box 47600, Olympia, Washington 98504-7600.

DOE and Ecology are scheduled to complete the final EIS in July 1996.

Send news to MRS Bulletin Materials Research Society 9800 McKnight Road Pittsburgh, PA 15237-6006 e-mail bulletin@mrs.org.

## DOE Offers Commercial Assistance for Fuel Cells

The Department of Energy (DOE) will make available \$15 million in grants as partial assistance for fuel cell purchasers. The department will provide \$1,000 per kilowatt, or up to one-third of total project costs (including unit costs, delivery, installation and one year of precommercial operation). Utilities, other energy service providers and other prospective users of fuel cell power are eligible, with priority being given to projects that serve Department of Defense (DoD) needs. The assistance will be available to buyers who want to purchase market-ready fuel cells between 100 kW and 3,000 kW in size. The fuel cells must be substantially manufactured in the United States, and installation must be completed within three years.

A first round of awards will be made by September 30. Congress appropriated the funding to the DoD which, under Congressional guidance, has provided it to DOE to administer. Congress has also appropriated an additional \$12 million for a second round of purchase assistance.

Compact and silent, fuel cells can operate at extremely high efficiencies with virtually no pollution. Boosting the efficiency of energy processes is a highly economical way to reduce emissions of carbon dioxide, a greenhouse gas. Fuel cells can achieve fuel-to-energy efficiencies of 70% or more, in some cases more than doubling the efficiencies of conventional fossil fuel technologies. As a result, greenhouse gas emissions can be cut by as much as 50%.

The major economic hurdle for fuel cells is cost because each fuel cell unit is virtually custom-made. By providing limited financial assistance to purchasers who buy commercially ready fuel cells, the U.S. government is hoping to create the market breakthrough that will encourage largervolume manufacturing plants to participate, which in turn, will bring costs down. In the initial grant effort, the program will effectively double the amount of U.S. manufactured fuel cell power.

The "Application/Information Package" for the fuel cell initiative is available on the Internet at http://www.metc.doe.gov/ business/solicita.html. If Internet access is not available, a diskette version (Word-Perfect 5.2) may be requested from the U.S. Department of Energy, Morgantown Energy Technology Center, Attn: R. Diane Manilla, M.S. 107, 3610 Collins Ferry Road, Morgantown, WV 26507; 304-285-4086; or fax 304-285-4683.

## AARC Center Invests in Industrial Uses of Agricultural Products

The Alternative Agricultural Research and Commercialization Center (AARC), a federal agency operating within the U.S. Department of Agriculture, forms partnerships to assist private firms involved in commercializing research and technology that bring new, environmentally friendly, renewable resource-based products to the marketplace. The materials field includes biodegradable polymer products and packaging materials, clean burning biofuels and bio-based chemical products made from corn and soybeans; biodegradable lubricants; treeless paper; building materials and construction panels utilizing straw and agricultural fibers; cleaning products, solvents, inks, paints and coatings derived from citrus and oilseed crops; and cosmetic products from alternative crops.

In its first three years of operations, the AARC Center invested \$22.3 million in 54 projects in 28 states. W. Bruce Crane, AARC Center Director, said, "AARC is not a grant program. The AARC Center makes repayable risk investments in companies, such as buying redeemable stock or taking a percentage of future sales (royalties)." As companies repay the AARC Center investment, these funds are placed in a revolving fund for reinvestment in other ventures.

Examples of currently funded AARC projects include windshield washer fluid using ethanol from corn; a composite furniture material made of soybean meal and waste newspaper; biodegradable, highperformance lubricants made from vegetable oil crops; chlorine-free paper made from kenaf; biopolymer products made from corn and wheat starch; reusable adsorbents for oil spill clean-up made from low-grade waste wool; and construction wall system panels made from compressed wheat straw.

For more information about the AARC Center's programs or for an application for funding, contact AARC Center, U.S. Department of Agriculture, 0156 South Building, 14th and Independence Avenue, S.W., Washington, DC 20250-0400; 202-690-1634; fax 202-690-1655.

## National Institute of Standards and Technology Seeks Proposals for New Manufacturing Extension Centers

Proposals must be received by July 8, 1996.

For further information on submitting a proposal, including the necessary application forms, contact MEP, NIST, Building 301, Room C121, Gaithersburg, MD 20899-0001; phone 301-975-5020; or e-mail MEPinfo@mep.nist.gov.