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THE AUTHORITATIVE NEWS RESOURCE FOR HAZARDOUS MATERIALS CONTROL AND WASTE MANAGEMENT

EPA Wants \$2.5 Billion Increase For Program

The Environmental Protection Agency has requested \$6.2 billion in funding for the fiscal 1992 budget — a 7 percent, \$2.5 billion increase over last year.

About 70 percent of the increase is devoted to the implementation of the Clean Air Act Amendments of 1990.

After the \$1.9 billion request for the grant program for the construction of sewage treatment plants, the Superfund slice of the budget pie amounts to the largest portion at \$1.75 billion. The leaking underground storage tank program would receive \$85 million.

The "enforcement first" strategy under Superfund will continue to be a priority, EPA Administrator William K. Reilly told Daily Report for Executives.

Implementing the Clean Air Act Amendments of 1990 will also be a top priority, Reilly said.

Among other things, EPA continued on page 2

Inside:

- Force feedback: Researchers at Kraft Telerobotics have developed a remote control hazmat handler that allows the operator to "feel" the material he is handling. Page 5

Voluntary Compliance Audit Program Begins

The Environmental Protection Agency has implemented a one-time voluntary Compliance Audit Program involving the "substantial risk" information reporting clause of the Toxic Substances Control Act.

EPA's TSCA Section 8(e) Compliance Audit Program incorporates stipulated monetary penalties and an overall penalty ceiling. It sets forth guidelines whereby a toxic substance generator can identify in advance the agency's enforcement response for each violation. Thus, toxic substance handlers can assess the liability they face if they choose not to participate in the program.

EPA stated in a press release that it hopes the program will "provide maximum encouragement" to companies to voluntarily audit their files for information reportable under TSCA Section 8(e) that has not yet been reported.

Section 8(e) covers any person who manufactures, continued on page 2

At Press Time:

Superfund: EPA's *Progress Toward Implementing Superfund*: Fiscal Year 1989, is available from the agency's publications office. For more information, call (513) 569-7562.

Persian Gulf oil spill: Investors are hoping to reap a profit from the stocks of U.S. firms that stand to play a part in cleaning up the largest oil spill in history. According to *The New York Times*, stocks of firms involved in spill cleanup, hazwaste management and water purification are hot.

RCRA Renewal: Rep. Al Swift, D-Wash., will spearhead House efforts to reauthorize RCRA, according to *WasteTech News*. Environmental groups are pleased.

RCRA Handbook: ENSR Consulting and Engineering has published its third edition of the *RCRA Handbook*, a 180-page overview of the act's most pertinent items. For more information, contact ENSR at (800) 722-2440.

MAILING LABEL

COMING UP:

EPA Administrator William K. Reilly's campaign to set national environmental priorities.

Operators 'Feel' Material They Are Excavating

A firm in Overland Park, Kan., has developed a remotely operated excavator and materials handling system that lets the operator "feel" the material he is handling.

A network of actuators that sense changes in hydraulic pressure in the joints of the excavator arm sends signals to corresponding points on a small-scale control arm moved by the operator. Thus the operator feels the same resistance, to a scaled down degree, that the excavator arm is experiencing, and is able to operate the excavator as if it were his own arm.

This "force feedback" technology was perfected on a smaller scale eight years ago by Kraft Telerobotics techniHarbur, product development director for Kraft Telerobotics, told *HazMat News*.

The operator can perform such functions as digging through soil, removing earth from around buried piping and picking up 55-gallon drums. Harbur said an operator could control two master arms at once and operate two slave excavators "as if he were using both of his arms" to move materials around.

Because the technology reflects the natural motion of the human hand and arm, there is very little training required. In less than an hour, an operator can learn how to lift a barrel and transfer it to another slave arm.

The fact that the technology

The technology enables a man to sculpt soil and move waste barrels "as if he were using his own arms."

cians and is already being used in undersea, space and electric power applications. Now it has been scaled upward on an excavator known as the "Haz-Trak" so that it is applicable to hazardous and radioactive waste site cleanup operations.

The operator controls the equipment by remote control in a booth with three color television monitors. The operator uses a joystick in one hand to control directional movement of the entire excavator. To move the vehicle's arm, the operator places his other hand in a pistol-grip-equipped, scaled-down version of the equipment's arm. As he moves the little arm, the excavator arm moves in parallel fashion. The increase or decrease in resistance that the excavator experiences is transferred to the control arm.

The technology allows the operator to perform large-scale remedial activities such as soil excavations and the handling of radioactive waste barrels with the finesse of the operator's own arm and hand, Steve

mimics the human arm and hand also allows for the addition of the "roll" and "yaw" motions to the equipment on the end of the excavator arm. This facilitates activities such as contouring soil.

The standard 6,800-pound vehicle is controlled by a system of hydraulic aircraft valves and on-board microprocessors similar to the ones located at the operator's control booth. The technology is integrated into a standard John Deere excavator chassis.

Kraft plans to market Haz-Trak to Department of Energy contractors involved in the cleanup of contaminated nuclear waste sites and the decommissioning of nuclear power facilities, Harbur said. He said the technology also has applications at Superfund sites and military operations.

A variety of accessories can be attached to the excavator arm to accomplish varying tasks, such as excavating, picking up drums, demolishing contaminated buildings, and picking up test tubes.

RCRA Revisions Ahead

Congressional sources predict that the fight to reauthorize the Resource Conservation and Recovery Act will pit region against region and cross party lines, according to the Bureau of National Affairs.

Because of a power shift in the

Some of the key subjects of RCRA's reauthorization are:

- A new definition of solid waste;
- Setting national waste management goals;
- Tightening the rules on hazardous waste disposal; and

One compromise may establish out-of-state waste restrictions the states have clamored for.

House, the possibilities for change are great. Energy and Commerce Subcommittee on Transportation and Hazardous Materials chairman Rep. Thomas A. Luken. D-Ohio, and ranking minority member Rep. Robert Whittaker, R-Kan., retired. Rep. Al Swift, D-Wash., is expected to receive the chairmanship.

 Deciding whether such common substances as used motor oil should be regulated as hazardous waste.

One compromise proposal in the works would require states to provide EPA with a 20-year plan for disposal of waste before they have the authority to prevent other states from transporting solid waste across their borders.

Environmental Software Update

Program: EZ-TRAK™

Areas of use: Hazardous waste, hazardous materials and regulatory/compliance.

Cost: \$1,595; government contract pricing available for SERC and LEPC offices.

User training required: Onscreen and manual.

Compatible hardware: IBM PC's or compatibles with 640K, hard-drive (3.0 DOS); 132 column printer.

Features: EZ-TRAK manages large amounts of environmental information. Clear reports are configured for 8 1/2" x 11" paper for easy hard-copy filing. The Master Inventory report meets OSHA requirements for an MSDS book index and most Local Emergency Planning Committee (LEPC) reports. EZ-TRAK puts SARA Title III reporting data at your fingertips; identifies CERCLA reportables and provides information about potential sources of hazardous waste.

EZ-TRAK is designed for users with little or no database experience. It is entirely menu-driven and user-friendly. Intelligent data entry features minimize costly errors and save valuable time.

Database files can be imported to Foxbase + or dBase III + for further analysis or custom reports without the expense of additional data entry.

Information brochure and free demonstration packet are available. Time on market: The software was copyrighted in 1989 and has been on the market for four months.

Updates: Included for six months from date of purchase; after that for minimal cost to cover postage and handling. Upgrades will be made available at a significant discount.

Offered by: Environmental Compliance Source Ltd., P.O. Box 6849, New Albany, Ind. 47151; (812) 945-1541; fax (812) 948-8301.