

U.S. ENVIRONMENTAL PROTECTION AGENCY • WASHINGTON, D.C. 20460 • JULY-AUG. 1974

Key Trial Evidence: EPA Pictures

Aerial surveillance by EPA experts which showed how heated water spread into Lake Michigan from Indiana Harbor was important evidence in a water pollution case under trial in Chicago.

William J. Scott, Illinois attorney general, said the Agency's work was a key factor in presenting the State's case against Inland Steel Co. The State charges the firm with polluting the lake waters near Illinois from which the City of Chicago draws its drinking water supplies.

The trial in Cook County's Circuit Court was still under way at press time, and no decision is expected for at least a month.

Scott said Albert Pressman and Gordon Howard of NERC-Las Vegas, did an "outstanding" job of data collection and analysis, "despite severe time limitations . . . and adverse weather conditions."

In early May the NERC-Las Vegas aerial sensing team flew over the Michigan shoreline where the two states meet and obtained infrared scanning pictures. The pictures showed the heated water discharged from Indiana Harbor, where the company has a big steel mill, drifting

north into Illinois waters with little or no mixing.

The heated water served to track the movement of the "plume" of pollution, which other witnesses testified contains phenols, ammonia, suspended solids and other deleterious substances, requiring frequent shutoffs of Chicago's water supply intake.

"It is our opinion," the Illinois state official wrote in a letter to EPA's General Counsel Alan G. Kirk II, "that the infrared pictures taken by your personnel will be a cornerstone for liability in this complex environmental litigation. In addition to gathering the remote sensing data . . . Mr. Pressman testified with great skill and precision as a witness in our behalf."

Scott also thanked Dr. Murray Felsher and Robert Zener of Kirk's staff and Regional Counsel Harvey Sheldon and his people for assistance in the case. "These gentlemen were extremely helpful in cutting through the red tape normally associated with obtaining the extent of technical assistance supplied," wrote Scott.

Other Region V people who assisted in the case included James O. McDonald, director, and Walter Romanek, Glenn Pratt, and Howard Zar of the Enforcement Division, and James Pappas and Roscoe Libby, Surveillance and Analysis.

Attorney Romanek said the Inland Steel case is very unusual and one of the first of its kind. The complaint against Inland Steel was filed by the State of Illinois nearly two years ago. It was later consolidated with a similar case filed by the Metropolitan Sanitary District of Greater Chicago. Both charge violations of clean water standards for Lake Michigan and the existence of a nuisance.





Trial evidence included Skylab satellite photo (left) of Lake Michigan shoreline from East Chicago, Ind., at bottom, to Chicago's southeast fringe at top. Polluted water from Indiana Harbor (arrow), dark with suspended solids, flows away from Illinois with a northwest wind. EPA's infrared scanning image (right), covers strip of same area on same scale taken from an aircraft when wind was from southeast. Heat traces pollution plume, lighter gray to the scanner, as it flows northwest toward Chicago's water intake. Short white lines on water are ships. Dark streaks at bottom are factory fires that momentarily overload the sensor.

Rules Proposed for 'Farming' With Heated, Polluted Water

Certain kinds of water pollution can be useful in aquaculture— "farming" fresh or salt water ponds to grow fish, shellfish, and other water plants and organisms.

EPA recently proposed regulations to assure that aquaculture projects make full and safe use of such pollutants and that discharges from the projects do not pollute downstream waters.

Some commercial and many experimental aquaculture projects already under way make use of heated water from power plants ("thermal pollution"), according to Leonard J. Guarraia, Office of Water Planning and Standards, who led the EPA team that drafted the proposed regulations.

Water carrying waste heat is being used on Long Island to speed the growth of oysters and clams. Facilities are being developed at Trenton, N.J., to grow freshwater shrimp, and there are several catfish farms in the central part of the country which use such "thermally enriched" water.

Experimental projects which use nutrient-rich, disinfected effluent from sewage treatment plants to nourish as well as warm aquatic farm organisms open up new areas for pollutant utilization. Guarraia said. At Woods Hole, Mass.. treated sewage is used in a multi-stage farming process: the first crop is algae; this is fed to oysters and clams; after the shellfish are harvested, several kinds of fish are grown, and even worms for bait.

The National Science Foundation and the National Oceanic and Atmospheric Administration are supporting many aquaculture projects in these areas, Guarraia said.

The regulations do not apply to fish hatcheries or fish farms that do not use waste water as an input. Their output wastes, however, are subject to EPA's discharge permit system (NPDES).

The object of the aquaculture regulations, which are authorized by

the Federal Water Pollution Control Act of 1972, is to stimulate the productive use of waste water wherever possible, while safeguarding the environment and public health.

EPA anticipates that in some cases a discharger would be allowed under the new rules to discharge more heat or more nutrients into an aquaculture project pond than he could into a waterway. The project would use the pollutants to produce animal and vegetable protein. Waste water from the aquaculture operation would have to satisfy EPA's discharge permit standards.

Guarraia said some industrial effluents are rich in nutrients and suitable for aquaculture, principally the waste waters from food processing and canning.

Other EPA people who helped draft the proposed regulations include: Joseph Lewis, Water Planning and Standards; Roy Irwin, Permit Program; Peter Smith, Federal Activities; Robert McManus, Henry Garson, and William Frick, Enforcement and General Counsel's Office; and Harry Thron, Effluent Guidelines Division.

Alexander Joins Washington Staff

George R. Alexander Jr., Region VI (Dallas) Deputy Regional Administrator since 1972, has been selected as EPA's first mobility assignee under the Executive and Management Development Program. Alexander's Fellowship assignment will be in the Office of Regional Liaison at Headquarters in Washington.

One goal of this assignment, according to Deputy Administrator John R. Quarles, Jr., is to strengthen overall coordination and control between Washington operations and regional activities across the country.

Prior to joining EPA, Alexander was an attorney in private industry.

EPA Attorney In World Series Of Lacrosse

Stephen H. Schroeder, attorney in EPA's Region I Office, Boston, was a member of the 26-man United States squad that won the world lacrosse championship in Melbourne, Australia last month.

The team competed against England, Australia, and Canada for the world championship.

Schroeder played lacrosse for four years at Massachusetts Institute of Technology and was team captain in his senior year, 1967. Since 1969 he has played with the Boston Lacrosse Club and has been captain of that team for the last three seasons.

Vote Decides Paper Drive's Beneficiaries

Employees at NERC-Las Vegas voted recently to determine which charities or institutions should get the proceeds from the Center's paper salvage program.

The top three organizations selected were the American Cancer Society, the EPA Scholarship Fund, and the NERC-Las Vegas Employees Association. Each will receive a share proportionate to its vote tally: 36 percent, 35 percent, and 29 percent, respectively. The money will be disbursed whenever there is at least \$300 in the paper salvage fund.

Jeff van Ee is in charge of the volunteer drive.

N.C. Fund for Band

Funds from a similar scrap paper drive at NERC-Research Triangle Park will be donated to help pay for sending the Cary High School Band of Cary, N.C., to an international school band festival in Geneva, Switzerland, in August.

The Cary band recently performed at Duke University at a track meet which had been scheduled between top athletes of the United States and the Soviet Union.

Standards Will Be Set Soon For Interstate Truck Noise

Nationwide noise standards for interstate trucks are expected to be formally adopted by EPA soon, after more than a year's work by the Agency's Office of Noise Control Programs.

The standards as proposed will apply to all interstate motor carriers weighing five tons or more and will affect an estimated five million vehicles, mostly diesels, according to Dr. Alvin F. Meyer, deputy assistant administrator for noise control. The regulations will be the first to be promulgated under the Noise Control Act of 1972.

About 350,000 trucks now on the road would be in violation, Meyer said. He estimates that owners may have to spend an average of \$115 per vehicle to meet the standards.

The standards involve five different criteria: measurement by sound-level meters under three conditions, visual inspection of engine exhaust systems, and visual inspection of tires.

The maximum sound levels permitted are 90 decibels when the truck is driving in speed zones greater than 35 mph, 86 decibels in speed zones less than 35 mph, and 88 deibels in stationary engine rev-up tests. A decibel is a physical measure of sound pressure. All measurements are to be taken at a distance of 50 feet.

An adequate and well-maintained exhaust system is the principal cure for noisy trucks. A secondary factor is the type and condition of tires. Tires with "pocket" treads—i.e., road-contacting cavities in the tire surface not connected to grooves on the tire's circumference or not vented to the side—are particularly noisy and will, in effect, be banned by the new regulations.



HEARING TEST—Dr. Alvin F. Meyer Jr., head of EPA's noise control programs, was one of 550 EPA employees who were given hearing tests during May, Better Hearing and Speech Month, in Washington, Dallas, Philadelphia, Atlanta, and Kansas City.

photo by Don Moran

STORM WATER STUDY STARTS IN ROCHESTER

New methods of reducing water pollution from urban areas that have combined sanitary and storm sewers will be tried in a two-year project in Rochester, N.Y.

An EPA grant of \$600,000 will cover about 70 percent of the cost of the project, part of the joint effort by the U.S. and Canada to control pollution in the Great Lakes, under Section 108 of the Federal Water Pollution Control Act. of 1972.

The project will involve first a system study and modeling of the sewers and storm drains in the Rochester area, simulating the use of different kinds of treatment facilities and storage basins, and then the construction of a pilot system at the city's Eastman-Durand wastewater treatment plant.

The grantee is the Rochester Pure Waters District of Monroe County, which includes the City of Rochester and adjoining parts of the county. Some of the district drains into Irondequoit Bay, an almost-closed arm of Lake Ontario. The bay's ecology has been altered in recent years by urban drainage, especially from de-icing salts spread on streets and roads in winter.

EPA people who will oversee and assist in the demonstration project include Richard Field of the Edison, N.J., Water Quality Research Laboratory; Ralph Christensen and Anthony Tafuri of the Region V Office, Chicago, and Lawrence Moriarity, of Region II's Rochester field office.

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Tel. (202) 755-0872

Narragansett Lab Helps in River Cleanup



More than 500 tires were removed from Rhode Island's Saugatucket River in a cleanup drive recently in which 15 volunteers from EPA's Narragansett laboratory took part. At upper right, Mimi Johnson loads a pickup truck, and at lower right, Karen Koltes rests after a long day. Other volunteers were Carolyn Barszcz, Doranne Borsay, Earl Davey, Linda Ferraro, Neal Goldberg, John Gentile, C.S. Hegre, Ross Johnson, Carol and Gerold Pesch, Bruce Reynolds, Peter Rogerson, and Suzanne Sosnowski, plus several members of their families.

Sewage Treatment Progress Seen in Great Lakes Area

Municipal sewage systems in the Great Lakes area will be providing adequate wastewater treatment for 15 million people, or 95 percent of the area's sewered population by 1978, Administrator Russell E. Train announced recently.

By the end of this year, Train said, all of the waste treatment construction called for in the U.S.-Canada Great Lakes Agreement should be under way. The agreement, signed by President Nixon and Prime Minister Pierre Trudeau in Ottawa two years ago, calls for extensive action by both nations to clean up Great Lakes pollution. Train was then chairman of the President's Council on Environmental Quality and head of the U.S. team which developed the two-nation agreement.

"We have made substantial progress in meeting our commitments," he said. "We are basically on schedule in waste treatment construction and phosphorus removal."

At present 588 municipal systems on the U.S. side are giving adequate wastewater treatment for 6.8 million people, 43 percent of the sewered population. By the end of 1975 it is expected that 700 systems will be completed, serving 9.6 million people, or 61 percent of the sewered population of the basin.

With the completion of the Detroit treatment plant, scheduled for September 1976, the adequately served population will rise to more than 80 percent. By 1978 an additional 47 treatment plants are expected to be





operating and the percentage will rise to 95.

Phosphorus removal is the second aspect of the Great Lakes cleanup program. On the U.S. side 466 municipal systems will require the extraction of phosphorus from waste water to reduce algal growth and eutrophication of the lakes. Nearly half of these systems, 205, now provide such treatment, Train said. By the end of next year this number will grow to about 300 systems, representing 80 percent of the wastewater flow and serving 78 percent of the sewered population.

EPA has allocated \$4.4 billion to the eight Great Lakes States for waste treatment construction. This is nearly 40 percent of all such funds available.

Reducing Consumption Is Her Bag

What do a returnable beer bottle, a string shopping bag, and a Rolls Royce have in common?

Eileen Claussen has the answer: Each lasts a long time and is reusable. Compared to competing products, each uses less material and energy over its normal life, and when it finally must be scrapped, there is less unrecoverable waste.

Ms. Claussen manages the Office of Solid Waste Management's effort to promote saving resources at the beginning of the economic cycle.

A refillable beer or soda bottle can be used 10 or 15 times before it is discarded, she points out. There is less drain on resources and less litter to clean up. The string shopping bag can replace hundreds of kraft paper grocery bags before it wears out.

The Rolls Royce is a tongue-incheek example, an attention-getter, Ms. Claussen admits. Any big, heavy, luxurious automobile is wasteful of resources. But the Rolls is a symbol of product quality, long life, and no planned obsolescence—the "string-bag" limousine. Why not, she asks, apply Rolls Royce principles to small cars, appliances, housing, or any other product?

While most of the Office of Solid Waste Management works on better ways to dispose of trash, the Resource Recovery Program seeks to develop ways to recover materials and energy from the trash.

Ms. Claussen's small group, allied to the Resource Recovery Program, seeks to reduce consumption at the start. The program's official name, "source reduction," is misleading; it really means waste reduction at the source. Through research and persuasion the program seeks to promote some revolutionary changes: design products to use less material; reduce and simplify packaging; make things that last

longer and don't go out of style. Finally, (an almost unthinkable thing only a few years ago), design products so they can be easily recycled.

Frank Smith and Michael Loube, economists; Larry McEwen and Charles Peterson, operations research analysts; and Harold Samtur, environmental engineer; also work in the program. Ms. Claussen says she's looking for "at least one more person."

Through contract studies, speeches, and testimony before legislative bodies, the program is trying to get industry to change its products, people to change their habits, and legislatures to spur these changes with new laws.

Hottest item on the agenda right now is the refillable beverage container. Three states, Oregon, Vermont, and South Dakota, have adopted laws banning throwaway beer and soft drink containers. Since January, Ms. Claussen says, "We have testified on this issue in California, New York, Virginia, Maryland, Ohio, and Massachusetts."

Last month EPA spoke out in favor of nationwide legislation to require reusable beverage containers, in Senate testimony by Deputy Administrator John Quarles.

Other facets of the waste reduction program are:

Consumer information—Studies of the environmental impacts of different products and their packaging. The group plans to publish its findings in non-technical brochures.

Product design — Some good things have already been done, due largely to current shortages of energy and materials. An example is a new half-pint milk container that uses 25 percent less material.

Plastics and polyvinylchloride (PVC) — These studies are just beginning. Plastics are difficult to sort from mixed waste, and PVC is hazardous when burned.

Future policy—Should EPA seek authority to set standards for waste reduction, material saving, and product life?

Wins Honorary Doctorate

Ruth Mondschein of the Women's Programs Division, Office of Civil Rights and Urban Affairs in Washington, was awarded an honorary Doctor of Letters at Dakota State College, Madison, S.D., recently, and she gave the commencement address. She was the first woman to be commencement speaker and the first woman to receive an honorary doctorate at the college which was founded in 1881.

The citation noted her distinguished work in the Federal civil service and in other organizations "in behalf of women and minorities."

Ms. Mondschein told 300 graduates and more than 2,000 guests that, while America's material abundance may be declining, there is a new frontier for individual action: creating a better physical and spiritual environment.

With EPA since 1972, Ms. Mondschein was on loan to the U.S. Civil Service Commission for six months last year to plan and



Ruth Mondshein

organize a national conference on women in Government. During this time she helped to organize and took part in a Conference on Women and Business at the college.

Before joing EPA she had been program director for B'nai B'rith, the Jewish social service organization, working on cooperative educational programs with many Federal agencies.

SPECIAL BUS NEEDS RIDERS

The special bus that carries a group of EPA headquarters employees from two Maryland suburbs and back again each day has room for more riders, according to Jean Maguire, secretary in the Radiation Programs Office.

The bus provides fast service, 50 to 60 minutes, from Gaithersburg and Rockville at an average cost of \$35 per month.

Persons interested in joining the group — or in using the bus occasionally — should call Ms. Maguire, ext. 54894.

Cincinnati Lab —Beautiful!

The Taft Laboratory at NERC Cincinnati is beautiful. Says who? Says the Garden Center of Cincinnati, and they should know. The lab won a second place award in the Garden Center's Annual Industrial Beautification contest. Accepting the award on behalf of all Lab employees was Facilities Operations Branch Chief Robert Chandler. The beauty of the facility has recently been enhanced by new plantings and major building renovations, inside and out.

30 to Speak at Conference On Hazardous Material Spills

More than 30 EPA officials and technical experts will take part in the 1974 Conference on Control of Hazardous Material Spills Aug. 26-28 in San Francisco.

The three-day session is sponsored by EPA's Industrial Waste Treatment Research Laboratory, Edison, N.J., a component of NERC-Cincinnati; and the American Institute of Chemical Engineers.

About 600 chemical engineers, environmental and government specialists, and people from the transportation, petroleum, and chemical industries are expected at the meeting. It is being managed by the Institute, with Ira Wilder of the Edison laboratory as EPA project officer.

Accidental spilling of dangerous chemicals like acids, pesticides, phenols, and heavy metal salts can cause extreme damage to the environment and hazard to public health. Individual sessions and workshop groups will concentrate on different aspects of spill control: prevention, emergency planning,

cleanup methods, and legal and economic effects.

New rules on hazardous spills, to be proposed soon by EPA, will be discussed. These will extend the list of substances designated hazardous, quantities deemed harmful, and the penalties for violation.

Directors of all four EPA research centers will preside at different sessions: John F. Finklea, NERC-RTP, airborne problems associated with spills; Delbert S. Barth, NERC-Las Vegas, surveillance and detection; Andrew W. Breidenbach, NERC-Cincinnati, safe disposal practice; and A.F. Bartsch, NERC-Corvallis, environmental damage.

Other session chairmen from EPA include Deputy Counsel Robert V. Zener, Kenneth E. Biglane and Robert Suzuki, Oil and Special Materials Control Division; C. Hugh Thompson, Hazardous and Toxic Substances Branch; John E. Brugger, Peter B. Lederman, Ira Wilder, and Joseph Lafornara, of the Edison laboratory; Paul R. Heitzenrater, Research and Development; Allyn M. Davis, Region IX; and Clarence Clemmons. NERC-Cincinnati.

Region IX Administrator Paul DeFalco Jr., Dr. Breidenbach, and Dr. Thompson will speak at the opening plenary session.

Authors of technical papers and speakers at workshop sessions include Allyn W. Hemenway, Region I; Howard J. Lamp'l and P.R. Elliott, Region II; Roger B. Griffith, Region III; Al Smith, Jack Moser, and George Moein, Region IV; David Henderson, Region IX; John Brugger, Ira Wilder, Joseph Lafornara, Thomas Roush, Royal Nadear, Edison laboratory; Michael Roulier, NERC-Cincinnati; and Russel H. Wyer, Richard E. Hess, Harold Snyder, T. William Musser, Donald R. Jones, Alfred W. Lindsey, and Allen Jennings, Washington.



IN THE ARMY NOW—Two employees in the Financial Management Division, Washington, recently joined the Army Reserve. They will take their basic training at Fort McClellan, Ala. before serving with the 354th Civil Affairs unit at Riverdale, Md. They are Barbara Edmondson [second from left] and Kate Awkward [right]. With another recruit, they were sworn in by Col. Arthur Wagner, unit deputy commander.

Awards Day Held at North Carolina

More than 100 EPA employees were honored at an outdoor Awards Day ceremony recently at Research Triangle Park, N.C.

Deputy Administrator John Quarles told the group of more than 700 Agency people and family members that, though it has been "a long, cold winter" for the environmental movement because of the energy shortage, "I feel we are on the winning side. I believe Congress and the public do not want us to back away from our environmental mission."

Bronze medals for commendable service were presented to 33 persons by the directors of the three Agency components in North Carolina, Dr. John F. Finklea, NERC; Dr. B.J. Steigerwald, Office of Air Quality Planning and Standards; and Dr. Burton Levy, Office of Administration, which serves both NERC and the air quality office.

Gerald R. Groon of the Personnel Management Division, and Chandlee L. Murphy, coordinator of women's programs, also took part in the presentations.

Bronze Medals

Bronze medals went to:

NERC — Frank F. McElroy, Gordon C. Ortman, Larry J. Purdue, David L. Coffin, Robert P. Hangebrauck, Gloria J. Koch, John B. Moran, John S. Nader, William C. Nelson, Frank T. Princiotta, and Homer C. Wolfe.

AQPS — Donald P. Armstrong, Robert C. Clark, Nancy P. Eggleston, Sally T. Gordon, Sheila L. Law, Eva G. Lloyd, John L. Robson, Robert C. Ryans, David C. Sanchez, Lewis D. Tamny, Ronald A. Venezia, Susan H. Watson, and Frederick Winkler.

Administration — Cynthia A. Bass, Swade W. Carroll, Paul H. Harris, Richard Hines, Joseph M. Moore, Arnold L. Samuel, Nelson Stone, David L. Westmoreland, and John DeFord.

Performance Awards

Outstanding performance awards were given to 15 persons as follows:

NERC — Ann H. Akland, Thomas G. Ellestad Jr., Bruce W. Gay Jr., Larry E. High, and Foy G. King Jr.

AQPS — J. Roger Morris, Andrew R. Trenholm, and Mary C. Wilkins. Administration — Cooper S. Atamanchuk, Allan P. Baker Jr., John B. Cline, Carold J. Daves, Maureen M. Johnson, Darlene C. Jones, and Gerald O. Miller.

A special local award was given by Benjamin Loftin to 14 employees for outstanding achievement in the field of equal employment opportunity: Linda H. Carroll, Marie L. Davidson, Deloris K. Harrison, Elaine C. Hyman, Beatrice T. Weaver, Eleanor M. Westmoreland, Esther M. Anctil, Frances P. Duffield, Anne S. Rampacek, Charlotte V. Small, Ann H. Akland, Dorothy C. Avent, Peggy M. Hamilton, and Carole R. Sawicki.

Gordon C. Ortman received a certificate of commendation for having donated more than nine gallons of blood, a record topped by only one other person in the Durham area.

Service Pins

Nine employees received 30-year service awards: Gory J. Love and James E. Moore, NERC; Rosa T. Brown, Robert M. Chunn, Harry M. Daskam, F. Cecil Myers, and Isabel S. Parker, AQPS; and Martha C. Abernathy and David R. Hicks, Administration.

Twenty-year service awards went to 29 employees as follows:

NERC — Aubrey P. Altshuller, Earl J. Blommer, Donald H. Fair, Marvin F. Guyer Jr., John C. Lang, Ernst Linde, James E. Meeker, Henry C. Miller Jr., John S. Nader, Charles D. Robson, Eugene Sawicki, Jack E. Thompson, Ernest R. Whitcomb, and Frank T. Wilinski.

AQPS — Willis E. Brothers, Dorothy S. Carpenter, Virginia M. Henderson, William O. Herring, Herschel H. Slater, Lewis D. Tamny and Frederick Winkler.

Administration — Ruth E. Biddy, Harris L. Gibson Jr., Elmer E. Gray, Frank A. Jones Jr., Franklin D. Mathews, Harriet J. Myers, Edwin R. Strickland and Laborn D. Sullivan.



OUTSTANDING FEDERAL EMPLOYEE in the Cincinnati area in 1973 is Dr. Robert S. Safferman, EPA research microbiologist, left, shown with NERC Director Andrew Breidenbach beside the Robert A. Taft Laboratory's new electron microscope. The award was made by the Federal Executive Board in Cincinnati. Dr. Safferman is the discoverer of, and foremost authority on, algal viruses.

Labeling Pesticides Is a Problem

How to make the labels on pesticide containers clearer and more effective was discussed last month in Washington, D.C. The two-day conference attracted about 700 people from Federal and State regulatory agencies, farmers and other user groups, industry people, and university scientists.

Sponsored by EPA's Office of Pesticide Programs, the symposium was the first of its kind ever held. Conferees agreed that most present labels could be improved. They suggested many ways—sometimes conflicting—to make labels safer for users, more specific for their target pests and crops to be protected, and yet simpler to read and easier to understand.

The label is "getting to be too much of a legal document," said James Dewey of Cornell University,

Conference Set On Home Sewage Disposal Methods

New methods of handling and disposing of sanitary waste from individual homes, small housing developments, recreational areas and marinas will be discussed at the first nationwide Home Sewage Disposal Symposium to be held in Chicago Dec. 9-10.

Sidney Beeman, a sanitary engineer in EPA's Municipal Pollution Control Division, will speak on the Agency's research that relates to home sewage systems. This research includes studies, completed and under way, on flow reduction, pressure-grinder systems, and the handling and treatment of "septage," or sewage sludge.

The conference is sponsored by the American Society of Agricultural Engineers. EPA's Office of Research and Development is one of seven government and scientific organizations cooperating in the conference.

More information may be obtained from Beeman, mail code RD-678, EPA, Washington. His telephone is (202) 426-0823.

yet he advocated giving more detail on recommended dosages for different crops, climates, and pests.

Few Words, Large Print

Simplifying the label was urged by Channing Jones of the Chevron Corp., a pesticide manufacturer. The message should be given in "the fewest words, largest print, and simplest language," he said.

James Rod of the National Audubon Society said that hazard notices were often insufficient but that signal words like "warning" and "caution" were used so much as to lose their effectiveness.

EPA's primary job is to register pesticides rather than labels, said William Wells, head of the Standards and Labeling Section. Wells, one of five EPA speakers, said the Registration Division is beefing up its screening procedures. The product manager is the contact point for each product, and internal guidelines are being developed for application reviewers. Ideas and problem areas being considered, he said, are: standardized terms, better use of symbols (many speakers agreed that the skull-and-crossbones sign for poison should be kept because it is so widely recognized), uniformity of information placement on labels, regional labels keyed to climates and crops, and labeling in two languages. He said he felt the signal word should give the most hazardous aspect of the product, for instance, "poison," or "flammable."

Difficult to Read

The average pesticide label contains 487 words and is "fairly difficult" to read, reported Rudolph Salcedo of Milwaukee, an environmental scientist who led a four-year EPA-supported study of more than 37,000 pesticide labels. Signal words were generally legible, the study found, but the direction type tended to be small. Labels are too often designed to sell the product, with too much emphasis on brand names and too little on cautions, he said. Many contain scientific terms that are hard to understand, yet fail to include information essential for safe and

effective use.

Other EPA speakers at the meeting included James Agee, assistant administrator for water and hazardous materials, and Henry Korp, John Ritch, Douglas Campt, and A.E. Conroy of the Office of Pesticide Programs.

The proceedings of the symposium are being published and will be available soon. OPP hopes to have a follow-up symposium aimed at small manufacturers and the regional handling of labeling requirements.

Radio, Video Tapes Issued

The pesticide labeling symposium was the subject of a four-and-a-half-minute tape recording distributed to farm editors of 218 radio stations by the Office of Public Affairs. Prepared and broadcast by Anne Blair, the tape includes comments by John Ritch, head of EPA's Pesticide Registration Division; Delman W. Dean of the California Department of Agriculture, and Administrator Russell E. Train.

The radio farm editors also recently received a series of questionand-answer spots on new national regulations for agricultural pesticides, featuring Edwin Johnson of the Office of Pesticide Programs.

Safety Program Wins Award

EPA's safety and health program has won an Honorable Mention in the President's Safety Award competition, it was announced recently by Peter J. Brennan, Secretary of Labor.

EPA competed with 14 Federal agencies having 6,000 to 112,000 employees and rated by the Department of Labor as having "medium hazard" exposure. Each agency received points for its annual safety report, accident reduction improvement in Fiscal 1973, and an on-site evaluation by the Occupational Safety and Health Administration.