

## Data Bank Speeds Work on Grants

EPA's largest single task—the administration of Federal grants for municipal waste water treatment works—has been speeded up and made more efficient by a new computerized data bank launched last month.

Thirteen representatives from the Agency's 10 regional offices came to Washington the first week in August for a five-day training session in using the new computer system.

The data bank's value lies in the efficiency, accuracy, and speed it can bring to the management of wastewater treatment projects and the Federal grants that support them, according to John T. Rhett, deputy assistant administrator for Water Programs Operations.

Having information complete, up-to-date, and instantly available can improve EPA's water pollution work and save money for the municipalities concerned, he said. At any given moment there are thousands of projects under way, valued at more than \$5 billion. The data bank can reduce administrative delays and hence, interest costs.

### Computer in Bethesda

The heart of the data bank is a giant computer storage and processing unit in Bethesda, Md., at the National Institutes of Health.

The computer is connected by telephone to input-output terminals in the Agency headquarters in Washington—the Municipal Wastewater Systems Division and the Grants Administration Division—and in EPA Regional Offices throughout the country.

Each stage of progress of a construction project and each step in funding is entered in the data bank when it occurs by the EPA office



—photos by Don Moran

**Paul Wagner, center, watches Althea Patrick and Limmie E. Varner, both of Region V, Chicago, practice entering items in data bank terminal.**

immediately concerned.

All "significant action" items are entered, from the application by a State or local agency to final approval when a finished plant is certified as meeting its design objectives. For any given project the significant actions are complex and various and extend over several years. They include identifying and descriptive data on the project; the stages of environmental assessment, conformance with river basin plans, approval of technical specifications; the dates and amounts of awards and outlays of money; and construction, inspections, and approvals.

The stored information is accessible almost instantaneously to any EPA office with a computer terminal. A typewritten request to the data bank evokes a printed answer. Queries may range from the status of single projects to

elaborate summaries by project types, geographical location, funding status, and many other categories. The big computer can provide the data in analytical forms that would be impossible with a manually operated record system.

### Learning to 'Talk'

At the training course, EPA personnel learned how to "talk" with the computer. They learned the common data definitions and coding procedures. They practiced entering new information, double-checking entries for accuracy, and ordering readouts.

The computer's ample magnetic memory now embraces management information about waste water treatment projects and grants for the fiscal years 1973 and 1974 to date authorized by the Federal Water Control Act Amendments of

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Regional representatives discuss data bank operation with Charles Hyle, back to camera. From left are Jean Cannaday, Dallas; Thomas Schreeve, New York; Sharon Metz, Dallas; and Veronica Harrington, Boston.

## Data Bank Speeds the Work On Water Treatment Projects

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1972.

Each week the headquarters divisions order a current status print-out. It covers design, construction, and award and outlay information for each project for which a certified application has been made during these two fiscal years.

As new projects are initiated by States and applications made to Regional Offices, information about them is added to the data bank.

This fall the Regional Offices will code and enter into the data bank all their information about projects approved in fiscal 1972 and earlier. In this way, the data bank will soon reflect complete, historical management data on the Nation's waste water treatment projects.

### Others Use Computer

Although the computer "belongs" to NIH, it is used by other Federal agencies on a time-sharing basis. Other EPA components that use the computer for storing and handling data include the headquarters library, cataloguing and accessioning books, and the Facilities and Support Division, for

maintaining an inventory of office and laboratory equipment.

Establishment of the data bank was a joint effort by Harold Cahill's Municipal Waste Water Systems Division and Alexander Greene's Grants Administration Division. Paul Wagner, GAD's information chief, supervised the setting up, which was accomplished in about four months. He was assisted by Donald Thie, Jane Keininger, Ross Hardter, and Fran Clark. Kenneth Johnson, deputy director of MWSD, and Charles Hyle, management information officer, Air and Water Programs, directed the development and are now monitoring the data bank's performance.

Regional representatives responsible for maintaining the data bank include: Veronica Harrington and William Serovy, Region I; Thomas Shreeve, Region II; Esther Cohen, Region III; A. Virginia Jones, Region IV; Althea Patrick and Limmie E. Varner, Region V; Jean Cannaday and Sharon Metz, Region VI; Norma Anderson, Region VII; Thomas A. Entzminger, Region VIII; Myrna Elkins, Region IX; and Mary Ann Clark, Region X.

## 16 VOLUNTEERS IN TRAINING FOR EMERGENCIES

Sixteen employees at Research Triangle Park have formed an emergency operations team and are training to equip themselves to cope with fires, accidents, and other emergencies.

The idea for the team grew from conversations among Dr. John Finklea, NERC-RTP director; Everett Quesnell, president of Local 3347, American Federation of Government Employees; Orin Stopinski, special assistant to Dr. Finklea; and Greg Bujewski, EPA safety officer.

The team members' course in firefighting and rescue was a 42-hour course meeting four evenings a week. The instructors included Sidney Levy, on the faculty of Durham Technical Institute and member of the Durham Fire Department, and James Ellis, fire marshal for the Chemstrand Research Facility. Members of the Parkwood Volunteer Fire Department gave instruction in operating fire trucks, handling high-pressure hoses, and adjusting fire hose nozzles.

Team members plan to continue their training with courses in advanced firefighting, first-aid, and rescue operations. Eventually, according to Bujewski, the Agency team may become part of a mutual assistance program involving all the communities, industries, and government agencies in the Research Triangle Park area.

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# 25 Win EPA College Scholarships

Twenty-five sons and daughters of EPA employees throughout the country have been awarded scholarships totaling \$6,850 for college study this year.

The stipends, ranging from \$100 to \$450 each, come from the Agency's Scholarship Fund, made up primarily of honoraria and fees offered to EPA officials for speeches and magazine articles. Under Federal regulations, such payments are forbidden to government employees speaking or writing in their official capacities.

Ten of the awards were renewals of scholarships held during the 1972-73 academic year, and 15 were new. The presentations were made by the ranking EPA official at each location.

The winners' names, schools, and parents' names are listed as follows, according to Agency locations:

**NERC—Cincinnati, Ohio**—Mark Fischer, freshman at the University of Cincinnati, son of Mrs. Mary Louise Fischer, secretary in the National Field Investigations Center.

Thomas Gehring, freshman at the University of Cincinnati, son of Robert R. Gehring, public affairs specialist.

Pamela Gustin, freshman at Edgecliff College, Cincinnati, daughter of Mrs. Nancy G. Juilerat, clerk typist.

Jeffrey and Thomas Kamphake, sophomore and junior at the University of Cincinnati, sons of Lawrence J. Kamphake, research chemist.

Martha Piepmeyer, junior at the University of Cincinnati, daughter of Mrs. Virginia R. Piepmeyer, personnel clerk.

**EPA headquarters units, Washington, D.C.**—Debra Beasley, Michigan State University, East Lansing, Mich., and Walter Beasley, York College, York, Pa. Their mother, Mrs. Alma Beasley, is an administrative assistant in the Office of Research and Development.

Wanda Clegg, freshman at Kentucky State College, Frankfort, Ky., daughter of Mrs. Clara Williams, secretary in the Office of Research and Development.

Elizabeth Culliton, Salisbury State

College, Salisbury, Md., daughter of Mrs. Mary Anne Culliton, public health analyst in the Office of Hazardous Materials Control.

**NERC—Research Triangle Park, N.C.**—Serrell Hevenor, junior at Oral Roberts University, Tulsa, Okla., daughter of Mrs. Hazel Hevenor, secretary in the Division of Meteorology.

Susan Margolin, junior at the University of North Carolina, Chapel Hill, daughter of the late Emanuel D. Margolin, supervising chemical engineer in the Office of Air Programs.

Alice Terry, freshman at the University of North Carolina at Greensboro, daughter of Mrs. Abbie Terry, accounting management clerk.

Mary F. Wilson, sophomore at the University of Cincinnati, daughter of Ward Fleshman Sr., chemist at NERC—Research Triangle Park, N.C.

**Chamblee Toxicology Laboratory, Chamblee, Ga.**—George Evans, senior at Georgia Institute of Technology, Atlanta, son of Mrs. Lily Evans, illustrator.

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—photo by Don Moran

Scholarship winners from Washington area pose with parents and EPA officials at presentation Aug. 6. From left are Mrs. Mary Anne Culliton, Elizabeth Culliton, Robert F. McDonald, Mrs. Clara Williams, her daughter Wanda Clegg, Acting Administrator John Quarles Jr., Debra and Walter Beasley, and Mrs. Alma Beasley.



# Getting to the Bottom of the Problem

Environmental scientists are carrying their studies to new depths: the floor of the ocean.

To find out what happens to sewage sludge dumped into the ocean and what damage the sludge does to ocean life, three scientists recently spent a week on the bottom of the Atlantic.

They were William P. Muellenhoff, of EPA's Pacific Northwest Environmental Research Laboratory, Corvallis, Ore.; Dr. J. Morgan Wells of the National Oceanic and Atmospheric Administration (NOAA); and James Washburn of Oregon State University.

They spent six days on the ocean bottom near Grand Bahama Island, conducting their experiments in wet suits and scuba gear and living in an 8-by-16-foot steel cylinder at a depth of 50 feet.

## Big City Problem

Sewage sludge is recognized as a potential threat to aquatic environments, especially in the cases of large cities, like New York and Philadelphia, where sludge from sewage plants is barged to sea and dumped, and Los Angeles, where



**Cluttered but comfortable in their underwater habitat are William Muellenhoff, seated; Dr. J. Morgan Wells, upper bunk; and James Washburn.**

processed sludge is pumped offshore via pipeline.

These practices can result in accumulations of sludge up to several feet deep on the ocean floor. Although general locations of such deposits are known, there is little information on the movement, degradation rates and long-term bio-

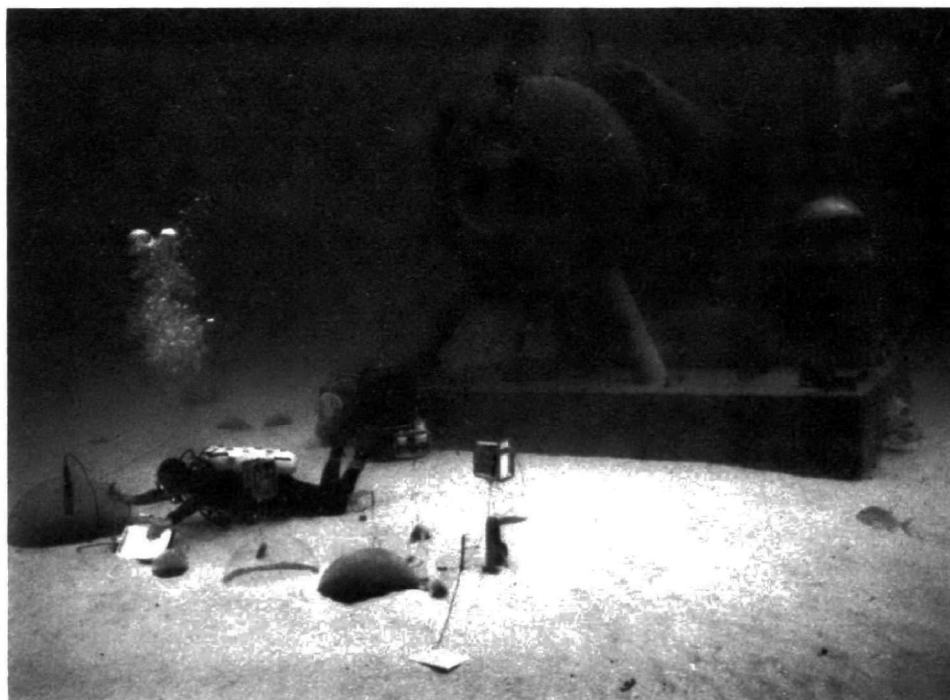
logical impact of sludge on the marine environment.

As their underwater habitat, the scientists used "Hydro-Lab," leased by NOAA for marine research. It provides living and working space for three or four persons as long as a week.

Muellenhoff, an ocean engineer and research associate in EPA's Coastal Pollution Research Program, headed the study, conducted jointly by EPA and NOAA.

The scientists brought with them electronic equipment for monitoring environmental conditions in the habitat and in the surrounding water. Electricity and air for the facility were provided from the surface, and Edward Siefert of Oregon State University's Oceanography Department managed an on-shore laboratory set up to process sludge, seawater and sediment samples.

A separate undersea instrument chamber, moored to the ocean floor, was also used in the study. The chamber—an upright cylinder four feet in diameter and 17 feet high—contained an air environment large enough for one researcher and data recording equipment.



**Plastic domes in foreground are used to measure oxygen demand of sludge in sea water. In background is Hydro-Lab where scientists lived.**

The project's first experiment involved examination of sludge placed under 30-inch-diameter plastic domes to measure the rate of oxygen use by the degrading material.

Two domes were used, one containing anaerobic sludge (processed without oxygen) and the other containing aerobic sludge (processed in the presence of oxygen). Oxygen levels of the sea water within the domes were continuously recorded.

Submerged pumps supplied the domes with oxygen-laden sea water. The transparent domes insured uniform exposure of sea water to sludge beds of defined area and thickness.

The second experiment involved release of 55-gallon drums of digested sludge, while instruments measured water movement and quality. The drums' contents, released upcurrent from the instrumented site, settled to form a thin bed of sludge about 40 feet wide and more than 200 feet long.

Sea water and sediment samples were taken at numerous locations several days before and for several days afterward to measure the release rates of carbon and nutrients from the sludge.

Although two surface storms occurred while the team was work-

ing under water, the only effect below was an increased sea current.

### Lights Go Out

Storm winds and 10-foot waves developed during the mandatory 14-hour decompression period at the end of their underwater stay and caused a partial—but harrowing power failure.

Muellenhoff said, "We knew the problem was due either to a failure in the surface generator or an internal electrical short in the habitat. Since we were breathing pure oxygen at the time, there was some concern about the possibility of a fire."

For two weeks after the undersea phase of the study, the researchers conducted surface dives to gather additional data. The undersea instrument chamber was the operational base during that phase of the research.

"The results of the study," Muellenhoff said, "will help in estimating, in advance of disposal, the oxygen demand and short-term effects of sludge dumping in ocean waters. They should also be useful in formulating further research on this problem by EPA and NOAA."



Sewage sludge makes a dark cloud when released by scuba-equipped scientist near sea bottom, later settles in 40-by-200-foot bed of sediment.

## 25 Win EPA Scholarships

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Susan Parks, sophomore at DeKalb Community College, Clarkston, Ga., and Gretchen Parks, Georgia State University, Atlanta. Their mother, Mrs. Christine E. Parks, is a publications clerk.

**Region VI Office, Dallas, Texas**—William Bixby, freshman at the University of New Mexico, Albuquerque, son of William E. Bixby, pesticides engineer.

Karen Olson, freshman at North Texas State University, Denton, Texas, daughter of Mrs. Agnes Olsen, grants assistant.

**Region V Indiana District Office, Evansville, Ind.**—Ginaloretta Regalbuto, freshman at Loyola University, New Orleans, La., and Philip Regalbuto, junior at the University of Wyoming, Laramie. Their father is Constantine J. Regalbuto, chemist.

**NERC—Corvallis, Ore.**—Lynne MacDonald, freshman at Oregon College of Education, Monmouth, daughter of Mrs. Eleanor MacDonald, administrative assistant in the NERC director's office.

**NERC—Las Vegas, Nev.**—Barbara Rizzardi, sophomore at Stanford University, Palo Alto, Calif., daughter of Charles J. Rizzardi, technical writer-editor.

**Region VII Office, Kansas City, Mo.**—Mary Jo Poskin, sophomore at the University of Missouri, Columbia, daughter of Joseph D. Poskin, inspector in pesticides regulation.

**Region III Wheeling Field Office, Wheeling, W.Va.**—James Bradac, junior at Ohio State University, Columbus, son of Charles J. Bradac, chemist.

Scholarship applicants must be children of career employees having at least three years of service. They must be full-time students at accredited colleges or junior colleges. The awards are determined by a five-man board of trustees, based on academic performance, need, and available funds.

# Computer Speeds Publishing Of Timely News on Pesticides

EPA is using a computer to help ride herd on the use and abuse of pesticides.

The Office of Pesticides Programs in Washington recently streamlined its management information network by instituting a computerized newsletter for the speedy transmission of data among key people at OPP headquarters and the pesticides generalists in each Regional Office.

Called the Pesticides Newsletter, the new periodical is "published" via a network of computer input-output terminals anywhere from twice a week to once every two weeks, depending on the development of new policies, control actions, and other significant happenings in the pesticides field.

The computer is used not only in disseminating the newsletter but also in its writing and editing.

Most items for the newsletter are collected or written by Kathy Smith of the Systems and Information Branch, Technical Services Division in Washington. Items are stored in a computer at the National Institutes of Health in Bethesda, Md., by typing them out on a computer terminal in the Pesticides Office.

Pesticides officers in the ten EPA regions also contribute articles and news items to the data bank via their computer terminals.

When the newsletter is ready to "go to press," Mrs. Smith, at her terminal, orders the computer to print out everything that has been contributed to that moment. Editor Smith then reviews the copy, makes any changes and corrections needed, and issues the print command. The newsletter is then printed automatically at each regional or headquarters terminal linked to the system.

Since the Pesticides Newsletter is a management tool, only a limited number of copies are distributed. They go down the chain of command at headquarters only as

far as the four division directors, who may disseminate the information by whatever method they choose, e.g., staff meeting announcements, buck slips, or office machine copies. The same flexibility applies to the Regional Offices.

By August 31, six Pesticide Newsletters had been published.

The newsletter is just one aspect of a broader communication system being developed in OPP's Technical Services Division. It is hoped that such communication tools will help to sort out the enormous body of information in the field and make it more useful to all agencies and people concerned with pesticides use and regulation.

## Have You Missed This Newsletter?

Do you know that EPA has the *Personnel Newsletter*, a monthly publication of the Personnel Management Division?

The *Personnel Newsletter* features short informational items about Civil Service Commission policies and programs, relevant legislation, labor relations news in EPA, and manpower planning hints and guidelines.

If you are a supervisor, manager, or interested party and are not now receiving the *Personnel Newsletter*, please notify Laurie May, Personnel Management Division, room 3910C, Waterside Mall, Washington, D.C. 20406, and your name will be added to the mailing list.

## Job Training Program Expands; 2,200 to Be Enrolled This Year

Job training in pollution control will be provided for 2,200 persons during fiscal 1974, it was announced recently by John Ropes, of EPA's Office of Education and Manpower Planning.

Under an interagency agreement, the Department of Labor will pay the Agency \$1.8 million to carry out training programs in 39 states to help alleviate the shortage of skilled technicians in water and waste water treatment, air pollution control, solid waste management, and pesticides regulation.

The new agreement represents a significant expansion of the Agency's training work, according to Richard Guay of the manpower development staff, Water Programs Operations.

Under previous interagency agreements, about 3,300 persons were trained in the last three years, all in the water treatment field. This year's plans call for expanding the training offered into air pollution, the disposal of hazardous wastes,

and pesticides regulation.

About half the trainees will be veterans, Guay said, with preference being given to those who have been disabled in military service. At least 40 percent will be newly hired persons and remainder holders of environmental jobs who are believed capable of upgrading their skills.

The instruction will be given by qualified educational institutions, both public and private, under contract to the Agency, which certifies the competence of the contractors and supervises the individual projects. Guidelines for contractors have been drawn up by EPA's Manpower Development Office.

The trainees will be recruited through employers—mainly city and State environmental agencies—and through referrals by Federal and State employment agencies. Much of the training will be conducted at the work sites, and trainees will receive regular wages and employment benefits.



# Scientist Finds Just What He Needs

Dr. William H. Snyder, an expert in meteorology, is also something of an expert in serendipity—the happy art of finding things when you aren't looking for them.

Snyder found a wind tunnel. It just happened to be there when he needed it.

The story began last winter when Snyder, working at the Meteorology Laboratory at NERC—Research Triangle Park, N.C., was investigating the dispersion of air pollutants from industrial and power plant smokestacks.

He reasoned that a wind tunnel would be very useful to simulate urban air pollution conditions in the laboratory. Smoke generators could spew "pollution" from model stacks, and the tunnel's controllable "wind" could carry it past models of urban topography.

Snyder made a feasibility study of the kinds of research problems that a wind tunnel would help answer: how stack design affects pollution dispersion, what happens to airborne pollutants around tall buildings downwind from the stack, and how best to avoid "downwash" concentrations of pollutants

in the vicinity of urban buildings.

Snyder's proposal was approved, and he went on to design a tunnel for this work, specifying its size and power rating and the kinds of instrumentation it should have.

A contract to build the Snyder-designed tunnel was recently awarded to Aerolab Supply Company, Hyattsville, Md., for \$165,000. It will be 3.6 meters (12 ft.) wide, 21.1 m (7 ft.) high, and 18 m (60 ft.) long. But it will not be completed until January.

While Snyder was deep in his feasibility study he found a wind tunnel in his own backyard.

It was a small (3 x 3 x 12 foot), off-the-shelf tunnel that had been purchased two years before but never used.

"Apparently it was bought by our manpower development people, to help in training technicians to use and calibrate instruments," Snyder said. "Then there were staff shifts or a change in plans, and it was never erected."

"I found it, disassembled, in outdoor storage. The plywood was beginning to blister, but it was still usable. All I did was to find space

for it, bolt it together, and scrounge up some instruments."

Snyder has been happily using the tunnel for several months in an EPA warehouse off Highway 54 and Brunson Drive. He finds it suitable for some of the "rather minor" studies in his long-term program while he waits for the bigger tunnel to be built.

What about next year, when the big tunnel is working, what will happen to the little one?

"I think we'll keep it," said Snyder. "There will be many studies for which we won't need the larger space. And there are some things the little tunnel can do that the big one cannot, for instance: we can get higher wind velocities in the little tunnel!"

## Coate Is Appointed To Region X Post

L. Edwin Coate, former director of Environmental Management for San Diego County, Calif., has been appointed deputy administrator for EPA's Region X Office in Seattle. He succeeds Donald Moos, who resigned recently to become a special assistant in the Washington governor's office.

Coate will assist Regional Administrator James Agee in managing Federal pollution control programs in Washington, Oregon, Idaho, and Alaska.

Announcing the appointment, Agee pointed to Coate's experience in local and Federal environmental work: in the drafting of transportation control plans for the San Diego Region and, before that, as manager and chief engineer of the Valley Center, Calif., Municipal Water District, and as a staff worker for President Nixon and the Council on Environmental Quality.

Coate is 37 years old and holds an engineering degree from Oregon State University and a master's in public administration from the University of California at San Diego.



Meteorologist William H. Snyder uses this wind tunnel to study air pollutant dispersion. An industrial fan blows air through 12-foot test section where smoke generator and model buildings simulate urban air pollution problems, while instruments and camera record the experiment.

# 70 Honored in OGC, Permit Programs

Seventy persons in the Office of General Counsel and Enforcement and in the Office of Permit Programs were honored for their work in the Agency at separate ceremonies held in Washington headquarters and at Crystal Mall, Arlington, June 29.

John R. Quarles, general counsel and then acting deputy administrator, presented the awards and commended the recipients for their outstanding work.

Silver medals for superior service, the second highest Agency award, were presented to Richard Denny and Murray Stein. These awards had been announced more than a year before, but the medals were not available at that time.

Bronze medals for commendable service, EPA's third highest award,

went to Augustine Conroy II, pesticides enforcement; Helmut Reinhardt, technical analysis; Norman Shutler, mobile source enforcement; and Joseph Zorc, grants administration.

Within-grade salary increases were presented to Eurilia V. Bartel, C. Richard Boehlert, Joan Davenport, David T. Deal, Carl E. Edlund, Claudelia Harris, Joyce A. Johnson, Shirley Leacraft, Andrew J. McErlean, Paula M. Murray, Georgia K. Prapas, J. Perrin Quarles, Edward E. Reich, Shirley A. Ross, and J. Kemper Will.

Special achievement awards, of a sum of money and a certificate, were presented to Leslie Carothers and William Heglund.

Length-of-government-service awards were presented as follows:

Thirty years: Eurilia V. Bartel, Alex Berman, Alice J. Coughlin, Bernice Hiatt, Dominick A. Manfre, Thaddeus Rajda, Ruth E. Schmidt, and Murray Stein.

Twenty years: Mae C. Blackford, Benjamin H. Bochenek, Robert Chadwick, Anthony Dellavecchia, Willie R. Oldham, Rheta B. Piere, Georgia K. Prapas, Henry P. Stetina, Shirley J. Tacey, James Walker, and John Zaricki.

Ten years: Margaret Beason, C. Richard Boehlert, John R. Busik, Kenneth Gutterman, Frank E. Hall, Charles E. Holmen, Rosanne Light, Ludvik A. Matyas, Sylvester I. Olson, Alan E. Peckman, Shirley J. Rembold, Marie A. Schuermann, Margaret M. Smith; Margaret T. Stuart, Ralph Turpin, LaRue L. Weimer, and Roger L. Williams.

At the ceremonies at Crystal Mall, ten persons received quality step increases, three were given special achievement awards, and one a length-of-service award.

The in-grade salary increases went to John W. Jordan, Bennie McIntyre, Victoria Nelson, Marjorie Polacco, Murray P. Strier, William A. Telliard, Jerome Temchin, Maryann Volkmar, John P. Whitescarver, and Linda S. Yount.

Stephen A. Cywin, John C. Golueke, and Robert L. Hardaker won cash awards and commendations for special achievement. Hope M. Howard was given a 20-year service pin.

## 3 From EPA to Speak On City Problems

Three EPA officials will take part in the third annual Urban Technology Conference in Boston Sept. 25-28.

They are John S. A. McGlennop, Region I administrator, who will give the keynote address at the Sept. 27 session on the theme, "Protecting the Environment," and two specialists from the Region I staff, John Calcagni and Wally Woo, who will give a paper on EPA's work in air pollution abatement.

## Young Biologist Off to Zurich For Year of Graduate Study

Shirley Gerken, 21, biologist at the Region VII water quality laboratory in Kansas City, recently won a fellowship for a year of graduate study at the Federal Technical Institute at Zurich, Switzerland.

The fellowship, awarded by the Rotary Club International Foundation, will provide travel, tuition, and living expenses for Miss Gerken to study European methods of water pollution control at the Swiss university.

Miss Gerken has been a fulltime assistant to marine biologist Steven Bugbee only since May, but had worked parttime in the EPA laboratory for her last two years of college. She earned her B.S. degree in biology in January from the University of Missouri's Kansas City branch.

When she returns from her year of study in Zurich, Miss Gerken plans either to work for a master's degree at UMKC or to study environmental law at the University of Oregon Law School at Eugene.



Shirley Gerken

She is now in Switzerland for a two-month brush-up course in German before the Institute's academic year begins.