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FUROR OVER OFFSHORE DRILLING
U. S. ENVIRONMENTAL PROTECTION AGENCY

Of Offshore Oil, the Nile River and Plagues

EPA's interest in protecting the environment extends even to the bottom of the oceans.

The reasons for this concern are explained in an article on drilling the seabed for oil and gas. As a result of the Nation's growing need for fuel, drilling in the ocean floor is now being proposed in new areas off both the Atlantic and Pacific Coasts.

One aspect of this proposed search that the Agency is giving close attention to is the probable development impact on the nearby shore areas if oil is discovered.

Another article reports on an effort EPA is helping to finance in Egypt—a study of the impact of the Aswan Dam on the Nile River area.

While much has been written about the negative environmental impact of the huge dam, the scientific evidence has been skimpy. EPA is helping a team of scientists to make a careful assessment of the impoundment's long-range effects.

On another front, the Journal has an article on the pioneering work being done by a Maryland organization, Environmental Concern, Inc., to help save, and in some cases expand, marsh areas by new techniques. The marsh grasses act as pollution filters and help retard shore erosion.

Once again the Journal carries one of its periodic interviews with Alvin L. Alm, Assistant Administrator for Planning and Management, to help answer some of the questions of interest to Agency employees generally.

A little known loan program that has helped save some companies faced with the necessity of installing expensive pollution control equipment is reported on also in this issue.

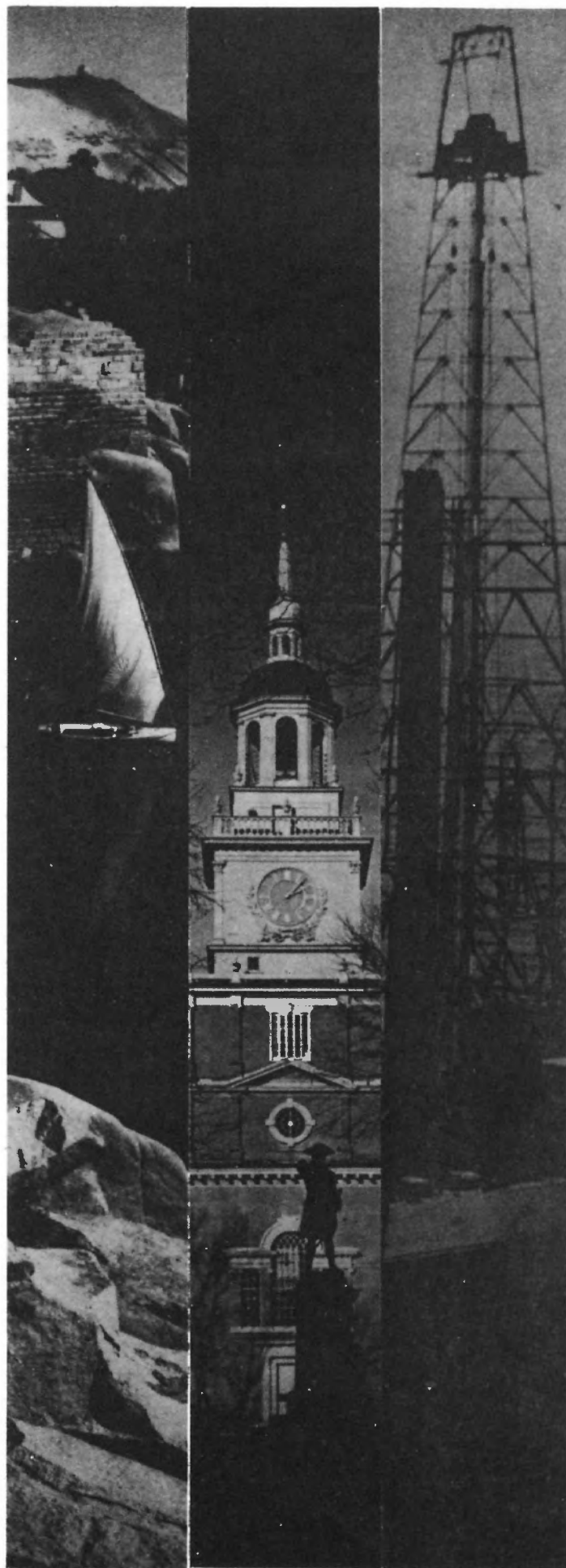
A profile of the new Assistant Administrator, Andrew W. Breidenbach, attempts to give a picture of how this well-known EPA executive from Cincinnati is doing in his new Washington job.

The status of the Agency's budget is also reviewed in this issue. An article reminds us that the new fiscal year starts Oct. 1, 1976, rather than July 1.

Other articles include:

Region III on Parade.

A report on EPA's first registration of one plague—a virus insecticide—to help combat another plague: insect pests in the Nation's cotton fields.



EPA JOURNAL



U.S.
ENVIRONMENTAL
PROTECTION
AGENCY

Russell E. Train
Administrator

Patricia L. Cahn
Director of Public Affairs

Charles D. Pierce
Editor

Staff:
Van Trumbull
Ruth Hussey

Cover: Offshore oil wells in the Gulf of Mexico off the Texas coast.

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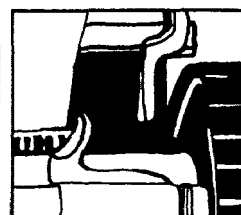
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FUROR OVER OFFSHORE DRILLING

As the intensive drive to meet the Nation's energy needs turns to the potentially great, untapped sources of new oil and gas along the continental shelves of the Atlantic Ocean and the Gulf of Alaska, concern has mounted for protecting the environment from these proposed developments.

The Administration has proposed speeding up its program of leasing outer continental shelf lands to oil companies. However, a substantial number of Governors and environmentalists have protested that the proposed leasing is too hasty because environmental and coastal planning needs have not been met.

As a result the Department of the Interior has reduced the size of the offshore areas now under consideration for leasing.

EPA is playing a significant role in the leasing process through its comments on the environmental impact statements for leasing in the Gulfs of Alaska and Mexico, offshore California and the Atlantic.

In commenting on the environmental impact statement for the proposed Northern Gulf of Alaska leasing, Administrator Russell E. Train took the unusual step of advising the Secretary of the Interior that this proposed development is "unsatisfactory from the standpoint of environmental quality . . ."

Mr. Train called for a delay in the sale of Gulf of Alaska tracts.

He noted that the Gulf of Alaska was rated by the Council on Environmental Quality "as having the highest risk of any virgin Outer Continental Shelf area being considered for oil and gas development.

"The area was described as having storms more frequent than any place else in the Northern Hemisphere, and seismic activity as violent as any place in the world.

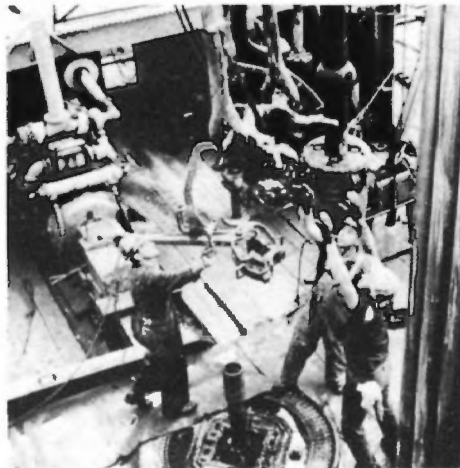
"Gale force winds occur year around, gusts of 60 knots or greater occur during the winter season, and wave heights frequently exceed 20 feet in months from September through April.

"Earthquakes with magnitudes above 7.0 (on the Richter scale) can be expected to occur on the average of

once a year, and damage to structures can result from direct seismic vibrations, ground breakage, landslides, rockslides, mudflows, liquefaction of sediments, differential settlement and seismic seawaves."

At the same time, Mr. Train said the Gulf of Alaska is extraordinarily rich in bird, fish and other animal life, all of which could be threatened by major oil spills.

The Administrator also stressed that oil spill cleanup measures under the hostile environment in the Gulf of Alaska "would be virtually impossible."



Drill riggers at work on an offshore platform.

Mr. Train said that sale of these Gulf areas should be delayed for several reasons. One of the most important, he pointed out, is the need for time to improve the proposed Department of the Interior Operating Orders which would set drilling conditions, including those designed to help prevent oil spills.

The proposed operating orders, he said, are largely "a recasting of operational procedures used in the drastically different environmental setting of the Gulf of Mexico."

The Administrator also called for a delay to permit time for completion of environmental studies now being conducted in the Gulf of Alaska and to allow the State of Alaska to plan and prepare for development on the Gulf Coast that will result from offshore drilling.



Offshore drilling rigs in the Gulf of Mexico are reached by boat and helicopter.

After a series of meetings, sponsored by CEQ, between EPA, representatives of the Department of the Interior, the State of Alaska and the National Oceanic and Atmospheric Administration, Administrator Train wrote to CEQ that "if in the national interest, it becomes imperative to proceed with the sale this year, it is our view that such an action could only be made environmentally satisfactory" if the sale is restricted to certain tracts in the Northeastern zone of the Gulf.

"Such a limited sale would involve minimal off-shore environmental disturbance while allowing an estimated 30 percent of the total crude oil resource to be developed," Mr. Train said. He emphasized that restricting the sale to one area would provide a greater degree of ecological safety and permit consolidation of oil storage and onshore operating facilities. EPA also stressed the need to complete adequate operating orders and to help the State of Alaska cope with the expected onshore development.

Meanwhile, EPA is developing comments on a Department of the Interior environmental impact statement on drilling in the Atlantic Ocean.

Considered the three most promising Atlantic areas for oil and gas are the Georges Bank Basin off New England, the Baltimore Canyon Basin off the Middle Atlantic States and the Blake Plateau Basin off the Georgia-South Carolina Coast.

The best drilling prospects are all more than 30 miles from shore and most are over 50 miles offshore, well beyond sight from land.

The first Atlantic environmental impact statement reviewed by EPA is not expected to pose problems as serious as the Gulf of Alaska proposal.

The preliminary indications are that EPA will express concern about the need to tighten operating procedures for the proposed drilling some 50 miles off the Maryland coast, but that the Agency will not find this proposal "unsatisfactory."

EPA is expected to continue to emphasize the potential problems from rapid major onshore developments stimulated by offshore oil production.

An article in the Conservation Foundation's monthly Letter last November urged that the United States look to Scotland and the North Sea for insight about the effects of offshore oil drilling.

Even though the United States has had an offshore industry which has operated in the Gulf of Mexico for 40 years, this experience may not be entirely relevant to the proposed drilling in the Atlantic and Gulf of Alaska, the article pointed out.

"Along the Atlantic and Alaskan coasts, the climate, sea conditions, landscape, and perhaps even the social structure, resemble the North Sea coast of Scotland more closely than the shores of Texas and Louisiana."

The report, largely based on a study by Pamela L. and Malcolm F. Baldwin for the Conservation Foundation, notes that while the discovery and production of oil in the Gulf of Mexico occurred gradually over a period of time, current demands for oil can be expected to trigger much more rapid exploration and drilling activity.

Only with a full, detailed analysis of onshore effects can the United States properly assess and plan for new oil development, the article warns.

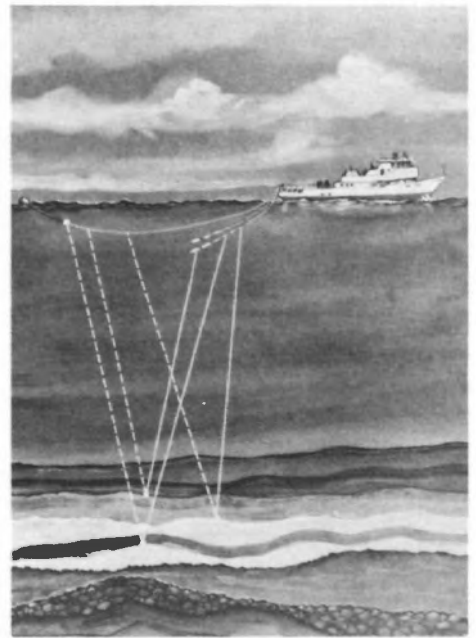
Meanwhile, in the Gulf of Mexico where thousands of wells have already been drilled the Nation's energy needs have pushed oil and gas exploration up to 100 miles offshore. Some offshore drilling is being conducted 24 hours a day.

Plans to build a huge offshore platform the height of the Empire State Building in approximately 1,000 feet of water 100 miles southeast of New Orleans have been announced by Shell Oil Company. The platform which will be used for development drilling is expected to cost in excess of \$100 million and will rise some 1,220 feet off the ocean floor, according to Shell.

Region VI has the primary responsibility for EPA in protecting Gulf coastal waters from pollution caused by the oil drilling and production. For operations up to three miles offshore, Region VI is reviewing Spill Prevention Control and Countermeasure plans the oil companies are required to prepare by EPA regulations. These prevention plans must be approved by Regional Administrator John White.

Beyond the three-mile limit, Region VI works, on a consultation basis, with the United States Geological Survey and the Coast Guard which have the primary oil spill control responsibility in these waters.

Although EPA's spill prevention control authority is limited by the three-mile limit offshore, it has authority under the National Pollutant Discharge Elimination System program to issue permits for discharge of wastes from any production facility, regardless of the distance from shore. While EPA has developed effluent guidelines for offshore oil production



Schematic drawing shows how pressure waves travel downward (solid lines) and are reflected back (dashed lines) by various rock layers to instruments trailing behind the vessel.



An air "gun" suspended from a float, is lowered from the stern of a Shell Oil Co. vessel. Pressure waves from the guns are directed downward through the water into rock layers below.

facilities, court action challenging these guidelines has delayed issuance of permits.

"Preventive planning is the key to oil spill reduction in Region VI," Regional Administrator White states. "Progressive strides have been made. Through the cooperative efforts of EPA, State and local agencies, and each company, Gulf of Mexico waters will be kept environmentally sound, while economic development and resource exploration continue."

The oil companies begin their exploration for offshore oil by using seismic data to detect the kind of subsurface configurations where oil and gas are often found.

A ship often obtains subsurface data by using air guns which bounce shock waves off the rock straight below in

much the same way that radar utilizes reflected electromagnetic waves to locate objects above the earth's surface.

After a company believes it has found oil and has obtained a lease, it sends a movable rig to the scene to drill exploratory wells.

The odds of actually striking oil are low. But if the exploratory drilling indicates a good supply of oil is present, a fixed platform is erected.

The platforms are designed to withstand severe storms. As many as 30 or more wells can be drilled directionally from a platform. Some wells have been drilled on a slant as much as a mile horizontally from a platform.

Once the wells are drilled, production equipment is installed. The oil produced is usually transported to shore by pipeline. □

EPA AND THE NILE RIVER

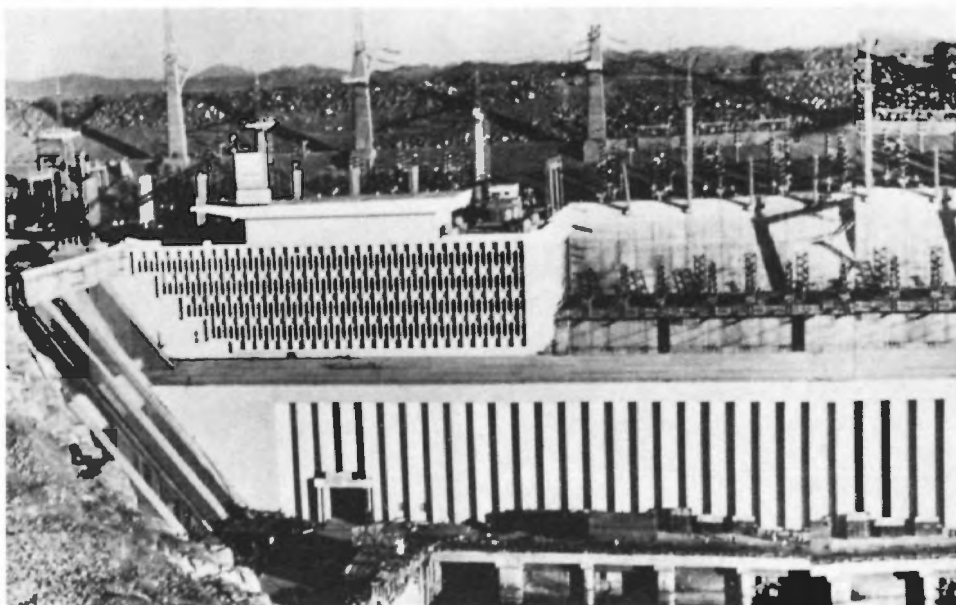
For more than five thousand years the River Nile nourished a rich civilization in its 500-mile-long lower valley. Regular summer floods spread fertilizing silt on the fields. During the high-water months canals and ditches irrigated the crops. Throughout the year—except during the floods—the river was Egypt's main highway; all the stone for the pyramids was carried on Nile barges from southern hill quarries to the great cities in the North.

Five years ago this ancient pattern ended with the completion of the High Dam at Aswan. Now Lake Nasser, a reservoir that extends 270 miles, controls the annual flood, generates more than half of Egypt's electric power, irrigates farms for two or three crops a year instead of one, and keeps the river navigable all year.

EPA is cooperating in a five-year study to provide hard scientific data concerning all of the environmental impacts of the dam and to develop decision tools that can be utilized by the various Egyptian Government ministries to realize the full potential benefits while controlling and minimizing any adverse effects.

The study is financed under the Special Foreign Currency Program of the Office of International Activities, headed by Fitzhugh Green, Associate Administrator, and supervised by the Office of Research and Development headed by Assistant Administrator Wilson K. Talley.

The program, "Water Quality Studies on the River Nile and Lake Nasser," is starting its second year. It is expected to cost about \$1.2 million over the five-year period, almost all of which will come from existing United States credits in Egyptian pounds which cannot be spent outside that country. (Such "excess currency" funds are also supporting EPA-supervised scientific projects in Poland, Tunisia, and Yugoslavia, and the Office of International Activities is negotiating for similar bilateral programs in India and Pakistan.)



Main building, power plant, and switch yard at Aswan High Dam.

The Nile-Nasser project is one of the most significant and comprehensive studies ever undertaken of the environmental effects of a manmade lake. The studies will cover all facets of the lake itself: its chemistry and physical characteristics, its plant and animal life (already there is a fishing industry on Lake Nasser), and its shores and watershed. Downstream the studies will measure what is happening to the river: sediment transport, pollution from municipal, industrial and agricultural runoff, effects on industrial and municipal water supplies (particularly in the Cairo area), and the changes taking place in the delta where the river water meets the salty Mediterranean.

Value to EPA

"The things we expect to learn will be of great value to the United States and other countries," according to Donald Oakley, Director of OIA's International Technology Division. "Our special-currency projects are not a form of foreign aid. These scientific studies in Egypt will add to our knowledge of the environmental effects associated

with reservoirs in arid areas, something of great interest in our own southwestern States."

The Ford Foundation is also sponsoring this work and is providing about \$125,000 in the project's first three years, primarily for instruments, laboratory equipment, and personnel training that cannot be obtained in Egypt.

The work is being carried out primarily by Egyptian scientists and technicians under the direction of Dr. Moustafa Hafez, of the Egyptian Academy of Scientific Research and Technology at Cairo. The principal investigator is Dr. Khalil H. Mancy, Professor of Environmental Chemistry at the University of Michigan in Ann Arbor. Ten other Michigan faculty members are on a team of consultants who make periodic visits to Egypt to assist in the work.

EPA's project officer is Dr. Walter M. Sanders, III, Associate Director for Water Quality at the Environmental Research Laboratory at Athens, Ga., who recently returned from one of his periodic visits to Egypt.

The Aswan High Dam was com-



The Nile near Aswan is narrow and deep, the shores rocky.

pleted in July, 1970, after 10 years of work. It cost \$625 million; the Soviet Union provided technical assistance and loans totalling \$240 million. During construction some ancient monuments, most notably the Abu Simel temple, were moved at great expense to higher ground to protect them from being flooded.

Lake Nasser is now about 270 miles long and extends far into Sudan, where it is called Lake Nubia. It twists and turns above the old riverbed, with an average width of seven miles. The lake has just filled to its operating level of 175 meters above sea level, and when it is filled to capacity some time in the 1980s the lake will cover approximately 2,500 square miles and store approximately 158 billion cubic meters of water. It is the second largest artificial lake in the world; Lake Bratsk in the Soviet Union is the largest.

Benefits

Lake Nasser has already brought these benefits to the Egyptian economy:

- *Assured water supply for irrigation.

From 1965 to 1974, Nile flows were below average, and the reservoir provides a continuous supply.

- *Electric power. In 1974, the most recent year for which figures are available, 4.46 billion kilowatt-hours were produced. This was 53 percent of Egypt's power consumption that year. The dam is designed to supply 8 billion kwh when Lake Nasser is full.

- *15 percent more land irrigated, and growth of two and three crops a year made possible.

- *River flow control, year-round navigation and flood protection. In 1975 there was an exceedingly large flow, and the lake level rose 10 meters above normal. The dam's ability to contain these large flows prevented a possibly disastrous flood in lower Egypt.

- *Creation of a large lake in a formerly barren region. Lake Nasser fisheries already produce an estimated 10,000 tons per year, and shoreline development for cities, industries, and parks is now possible.

Along with these unquestioned benefits have come some environmental



Fellucca sail boats on the Mahmudiya Canal, near Alexandria, have scarcely changed in design and construction since pyramid-building days.

problems that have been blamed on the dam and have received worldwide publicity. However, most of the accusations are based on little solid scientific evidence, according to Dr. Oakley.

- *Schistosomiasis, a debilitating disease that is carried by snails, is said to have increased since the dam construction.

- *River bank erosion is no longer counteracted naturally by annual silt deposits carried by the flood waters.

- *The virtual disappearance of sardines in the Mediterranean near the Nile delta is also blamed on the lack of nutrients that used to be carried with the silt; the silt now settles in Lake Nasser above the dam.

- *Egyptian farmers are said to be using eight or nine times more chemical fertilizer than a few years ago. This is also blamed on lack of silt, but it may be due to a number of other coincidental circumstances.

- *The river and lake are said to be showing signs of eutrophication, with algae clogging Cairo's water supply plant, and with water weeds covering the delta branches of the Nile.

The EPA-supported studies will gather scientific data on these and many other aspects of the Aswan High Dam's effects, concentrating on exhaustive and careful measurement and monitoring of both Lake Nasser and the 500-mile stretch of the Nile from the dam to the delta.

Information Center

A Nile Information Center and Data Bank is being established at Cairo University, capable of storing and retrieving huge masses of information about the river and the lake. Other scattered scientific studies already made will have their data entered in this computerized system, which will resemble in many ways EPA's STOR-RET system for water quality information on United States lakes and rivers. Professor Rolf A. Deininger of the University of Michigan is special advisor on the data bank project.

Computer modeling of lake and river ecosystems is another important aspect of the Nile-Nasser program. Dr. Sanders of EPA's Athens laboratory will be working with Egyptian experts on modeling studies. Experience with the EPA's "controllable river" physical model and the aquatic ecosystem mathematical models being developed at Athens are expected to be of use in modeling both the Nile and Lake Nasser. Nile data obtained will be used by the Athens staff to refine and verify their models.

The Nile-Nasser program also involves extensive training of technicians and scientists in water quality monitoring, hydrogeology, and several other specialized fields. Many professors and students from Egyptian universities are being employed in the studies, and a few Michigan students are taking part also.

The program includes corollary studies of the effects of the lake and dam on people: public health effects, like rural sanitation; the impacts on agricultural practices and labor in the Nile valley; and the social and economic implications, on families, occupations, recreation, and so on.

Only when all these interconnected factors are measured and understood together can the new environment of the River Nile and Lake Nasser be effectively managed for human betterment, said Dr. Oakley. "We believe these studies will be of great importance to Egypt, to the United States, and to the world." □



A debilitating disease, schistosomiasis, can spread from snails to people when clothes are washed like this in irrigation canals watered by the Nile.



Wadi Halfa, a Sudanese town near the Egyptian border, as it appeared before it was submerged by the Aswan High Dam.

IS EPA A SUCCESS?

INTERVIEW WITH ALVIN L. ALM, ASSISTANT ADMINISTRATOR FOR PLANNING AND MANAGEMENT

Will there be any reductions in force in calendar 1976? Will some Headquarters officials be given tours of duty in the Regions? What progress is being made in the Headquarters review to determine proper job classifications? What are the prospects for a four-day week? What is being done to help minority employees? Mr. Alm answers these and other questions.

QUESTION: Is EPA a success?

ALM: In my opinion, the accomplishments of the Agency are quite remarkable. Over a five-year period, EPA has established itself as a very viable institution. Visible progress has been made in the quality of both our air and water. We have developed a highly talented professional staff and have strengthened our relationships with State and local governments. The Agency has weathered both the energy crisis and national economic troubles. We still continue to have strong Congressional and public support. I can think of few institutions that can look back on as much progress as EPA.

QUESTION: What do you think will be the major emphasis in EPA programs in 1976?

ALM: The most significant new emphasis in 1976 and later years will be in the area of toxic chemicals. The recent incidents involving PCB's and Kepone are only indicative of a broader problem. As our measurement techniques improve and as more health effects research is accomplished, I am afraid the health problems from toxic chemicals will appear even graver than today. I might add that we hope to have enactment of the Toxic Substances Control Act sometime in the spring of 1976 and that should give the Agency a very strong boost in the endeavor to control chemical pollution.

QUESTION: What is your impression of EPA's future for this year and over the next five years?

ALM: Overall, I think the future is very bright for the Agency. In the near future, budgets and personnel ceilings will be tight, but livable. On the positive side, Congressional and public support is high, and the efforts the Agency has made in the past are beginning to pay off in terms of environmental improvement. I think EPA will be viewed as a Federal agency which made major changes in the course of the Nation's history.

QUESTION: Do you anticipate that EPA will become part of another Government department in the future?

ALM: No.

QUESTION: When is EPA's lease on Waterside Mall up?

ALM: There is no EPA lease on Waterside Mall. The GSA has a lease that extends until May 31, 1992, and EPA occupies the space under assignment from GSA.

QUESTION: Do you anticipate that EPA will continue to remain at Waterside Mall then?

ALM: As of this time, we have no plans to move. If

appropriate facilities were available, however, I would certainly be interested in pursuing them.

QUESTION: Is any thought being given to raising parking fees at Waterside Mall?

ALM: No.

QUESTION: Were any employees laid off or rifed in 1975?

ALM: Only a handful. In those cases where positions were lost, the affected employees were generally placed in other positions.

QUESTION: Do you think there will be any RIFs in the 1976 calendar year?

ALM: We are not contemplating any significant reductions in force, although in a number of cases, RIFs will be necessary.

QUESTION: Since this is an election year, will your Office issue any special cautions on how to avoid violating the Hatch Act?

ALM: The same restrictions that apply now will continue to apply in the future unless the Hatch Act is amended. We do plan to get out guidance, but that guidance will be consistent with the current policy.

QUESTION: On a scale of 0 to 100, how would you rate the quality of overall management of EPA?

ALM: I would place EPA's management pretty high on that scale. I think the Agency has achieved major accomplishments—greater than almost any other Federal agency over the same time period.

We administer the largest public works program in the country with only one-fifth as many people as the Highway Program for example. We have achieved substantial compliance with the Federal Water Pollution Act and the Clean Air Act. We have built up a highly professional staff and we have developed programs, such as the Executive Development and the Upward Mobility ones, to better train and use that staff.

QUESTION: Is any effort being made to send more high- and middle-grade personnel from Headquarters to the regional and field offices for short tours of duty?

ALM: Yes. In our original Executive Development Program, we emphasized long-term mobility assignments. Upon gaining experience with the program we are now emphasizing two- to six-month mobility assignments. These assignments would allow Headquarters personnel to familiarize themselves with regional operations and vice versa. I feel that this kind of interchange is critical, not only as a training experience but also as a method to gain better Headquarters and regional office understanding of each others operations and responsibilities.

QUESTION: Are the regions going to welcome individuals from Headquarters?

ALM: I have discussed this program with a number of Regional Administrators and staff and am certain they will be enthusiastic about this program.

QUESTION: Last summer, you spoke of a review being done of all Headquarters positions to determine proper job classifications. Has this review been completed?

ALM: No, it has not. We have completed the review in the Office of Enforcement, the Office of Air and Waste Management, and the Office of Research and Development.

The total survey will probably not be completed until October of 1976. Generally, the survey has found that a significant number of positions are overgraded, although, in some cases, we find that the incumbents are actually undergraded.

We have been working very hard to find solutions to these problems by organizational changes, through reassignment, and by increasing levels of responsibility. Through these steps, we have been able to minimize the number of adverse actions, and at the same time, greatly improve the management of the Agency.

QUESTION: Do you plan a position classification review in the regional offices and laboratories as well?

ALM: We currently have a program for periodic regional evaluations. We initiated these evaluations a number of years ago and have been so successful that the Civil Service Commission relies upon our evaluations rather than doing their own. We have covered all our regional offices at least once, and have re-reviewed many of them. In addition, our personnel offices conduct an annual review of positions.

QUESTION: Last summer, the Agency's average grade was 9.3, and you said you thought that was about right. Has this grade level remained relatively constant or has it been raised or lowered?

ALM: The Agency's average grade target remains at 9.39, while our actual grade level has been in the neighborhood of 9.25 for the past year and a half.

QUESTION: Doesn't this restriction in the average grade penalize the eager hard-working employee who wants to move up?

ALM: No. The average grade controls place a constraint on management to take a number of actions to prevent aggregate grade increases. Management should fill positions at lower grades when they become vacant and take other actions to stabilize average grade. If these actions are successful, then promotions are possible. Moreover, by filling positions at lower levels, there should be even greater potential for promotions.

QUESTION: What is your assessment of employee morale?

ALM: As I've indicated previously to you, I do not think morale is nearly as high as it ought to be in the Agency. I think there are a number of reasons. Some of the reasons are inherent in the way EPA was put together from a number of Federal agencies five years ago. The perceived progress or lack of progress being made in EPA's programs affect morale. Problems stemming from reorganization have had a harmful effect on morale, as have the Headquarters position audits.

I do think we have taken a number of steps that should have a positive impact on morale. Our employee development programs, such as Executive Development, Upward Mobility, and other training programs should open greater opportunities for EPA's employees. We have taken steps to reduce the number of reorganizations and the turmoil that often results from them. I am confident that we are on the upswing in terms of improving morale and will see decided improvements in the future.

IS EPA A SUCCESS?

QUESTION: I understand that EPA is experimenting with flexible working hours and a four-day week in some of the regions and laboratories. Is this arrangement working well?

ALM: We have experimented with flexible hours in our Region IX office and in our Cincinnati facility with great success. Federal laws and regulations, however, limit our ability to experiment. For example, EPA does not currently have the authority to implement a four-day work week, even as an experiment. If Congress does pass such legislation providing more flexibility in terms of both flexible hours and the four-day week, I believe EPA could and should take the initiative in promoting both of these flexible working arrangements.

From the environmental point of view, both flexible hours and the four-day week would have positive impacts on reducing congestion and air pollution. For this reason, and for the reason of improving employee productivity and morale, I think we should take the lead in flexible working hours.

QUESTION: What is happening to improve the grade structure for women?

ALM: Since 1973, the number of women in grades 13 through 18 has increased from 3.8 percent to 5.0 percent. Although this level is unacceptably low, there has been some improvement.

We are taking a number of steps to improve the overall grade level for women in EPA. For example, we are setting a requirement that 15 percent of all executive development slots be filled by women and minorities. The Upward Mobility Program should have a significant impact on average grade for women, since 65 percent of all full-time employees at grade 9 and below are women. We are also planning an Administrative Management Development Program for employees at grades 9 to 11, which should be particularly helpful to women.

QUESTION: Have training and development programs been effective in upgrading the employment and career opportunities for blacks and chicanos, and other minorities?

ALM: I think there is no doubt that these programs have had some effect. We do not have precise statistics available at this time, but based on feedback from employees and supervisors throughout the Agency over the past two years, I would say our training and development programs have been successful in upgrading employment opportunities for women and minority groups.

However, we have to do much more in the future. I am especially hopeful that the Upward Mobility Program, and the Administrative Management Development Program will help lower-grade employees reach new levels of responsibility.

QUESTION: Have we met the goal set for the hiring of minorities and women in the 250 new Construction Grant positions?

ALM: We set a goal of employing 36 professional minorities and women, and currently, 28 have been selected for the program. In addition to the 28 professionals, we have also hired 62 minorities and women for clerical or administrative type positions.

As you may be aware, the Administrator sent a number of memoranda to Regional Administrators first urging them to hire women and minorities for the program, and ultimately holding back positions until an adequate number of women and minorities were hired. This vigorous action represents the strongest step that has been taken to increase the number of women and minorities in the EPA work force.

QUESTION: What is the present Agency enrollment in the various training and development courses?

ALM: The latest statistics we have available are for Fiscal Year 1975. During that year, 7,744 Agency employees were enrolled in some type of training during the course of the year. Obviously, the level of participation varies from office to office depending upon the workload and funds available.

We are currently working on the development of computer reports which will give us a more precise comparison of the various EPA components. The greatest amount of training is in areas of technical skills and communication courses, which include a large number of clerical and administrative employees.

QUESTION: Has the reorganization of the Office of Research and Development been completed?

ALM: It has been substantially completed.

QUESTION: Is it working well?

ALM: While it is difficult to give a definitive answer because the reorganization is just being implemented, progress is apparent in a number of areas. The reorganization was designed to streamline relationships between the field and Headquarters, to develop a more straightforward planning system, and to be more responsive to program office and regional needs. Achievement in these areas is already being noted.

However, any reorganization is a traumatic experience for some employees. I would be less than candid if I did not indicate there will be a certain amount of unrest for a period of time. I'm optimistic, however, that as employees become used to their new supervisory arrangements and duties, that other problems will be overcome and morale will greatly increase. In the long run, I believe the program will be better for these changes.

QUESTION: As a way of encouraging employee bike riding, have additional shower and changing facilities been provided?

ALM: The facilities are currently being designed. There is limited space, and we have had some problems designing the facilities so they don't interfere with other ongoing activities. I have asked Jack Tarran to move ahead on the shower facilities as fast as it is humanly possible.

QUESTION: Has tightened security decreased theft and physical harassment of employees?

ALM: During 1975, there has been a significant decrease

in thefts at Waterside Mall. For example, there was a 51 percent decrease from 1974 to 1975 in the theft of Government property. Also, during 1975, we were essentially free of harassment by outsiders within the EPA office space.

Having said this, I realize there are still security problems both within and outside the building. These problems are of great concern to Charlie Jenkins and myself. We are taking every step possible to provide adequate security in the building, but it is not an easy job.

QUESTION: During the fall and winter months, some offices in Waterside Mall are inadequately heated. Is there any way, given the need for energy conservation, that heat could be better equalized in the Headquarters building?

ALM: This has been a perennial problem since I have been with EPA. We have spent a great deal of effort trying to equalize the heat, but I realize that some offices are exceptionally cold, and some are exceptionally hot. I might add that in my own office, I average a level of about 68 degrees; but the extremes range from 90 degrees to about 45 degrees. I suspect there are many other employees that have similar problems; I want you to know there is no discrimination in terms of rank.

QUESTION: There is considerable employee dissatisfaction with the present eating facilities available for Headquarters personnel. And the American Federation of Government Employees has petitioned the General Services Administration for an evaluation for the need for a cafeteria in Waterside Mall.

What is happening to this proposal?

ALM: We have given this proposal our very vigorous support. We have written GSA on a number of occasions. Recently, the Administrator, Ed Rhodes, Jack Tarran and I met with Mr. Jack Eckerd, the new Administrator for GSA, and discussed the cafeteria situation. I have also discussed our concern for a new cafeteria with the new Deputy Administrator of GSA. I will shortly meet with Mr. John Galuardi, GSA Regional Administrator for Region III.

The Union has played a positive role in setting forth employee concerns about the need for a cafeteria. This issue demonstrates how the union and management can work together on matters of mutual concern.

QUESTION: I understand there is a movement on to persuade the Government to provide day-care facilities for employees' children in much the same way it provides subsidized parking for VIPs and carpool drivers. Here in Washington, the proposal is being pushed by the National Organization for Women.

Have proposals for day-care centers reached the Office of Planning and Management?

ALM: We have not received any recent proposals for child-care centers. As you may know, there is currently no legal authority to provide day-care facilities. There are several bills pending in Congress, one of which would establish Federal day-care facilities on a pilot basis. If such a bill is passed, we would want to survey employee interest in participating in a pilot project. If interest is high, we could then offer to be one of the pilot agencies, or offer to participate in conjunction with other agencies.

In general, my feeling is that EPA should take leadership in this area. □

HELPING NATURE CREATE NEW MARSHES

By Truman Temple*

Environmentalists are increasingly aware that marshes are precious resources, serving as a kind of giant nursery for fish and waterfowl, and providing food and shelter for them during infancy. The marsh grasses also serve as handy pollution filters, absorbing nutrients that otherwise would encourage the spread of algae.

Scientists worry about the disappearance of these wetlands. During the last 100 years, more than half the Nation's coastal marshes have been destroyed by development. On the Chesapeake Bay, the problem is economically serious since the marshes not only nurture Maryland's celebrated blue crabs and striped bass but also help to keep muddy runoff from clogging and polluting the bay.

At one time it could be said that everybody talks about the wetlands but nobody does anything about them. That no longer is true. Numerous States have enacted laws to protect them. And a small non-profit organization called Environmental Concern, Inc. in St. Michaels, Maryland, has been attracting national attention since 1972 by actually creating new marshes through special planting techniques.

Environmental Concern came into being by a roundabout route. Its founder, president and director, Dr. Edgar W. Garbisch, Jr., was a chemistry professor at the University of Minnesota. But during a leave of absence back in 1970 he picked up a book by John and Mildred Teal, *Life and Death of the Salt Marsh*.

"The book and some other writings suggested that wetlands were a renewable resource, unlike coal or oil. I was intrigued with the idea," he says. He also was disturbed that the typical approach to wetlands was simply a holding operation, to keep existing marshes from any further destruction by developers.

Dr. Garbisch researched the subject and planted an experimental patch of marsh grass on a beach in front of a house he had bought near St. Michaels. The patch flourished, and he became fascinated with the possibilities. Marshes, as the Teals pointed



Edgar W. Garbisch Jr., left, President of Environmental Concern, Inc., with E. Curtis Bohlen, Deputy Assistant Secretary of the Interior for Fish, Wildlife, and Parks, and EPA Administrator Russell E. Train.



Pots of marsh grass are planted by hand near Quinby, Va., on a tidal flat of dredged material by workmen wearing special shoes to keep from sinking in the mud.

out, are highly productive places. These grasses not only become part of a rich food web including shellfish, game fish, and waterfowl, but also help to prevent erosion by trapping sediments. Obviously here was an environmental workhorse that could be very useful in helping to save estuaries and bays.

Nature Conservancy

Dr. Garbisch decided to pursue his new interest full-time. He joined the Nature Conservancy in 1971 as director of the Center for Applied Re-

*Truman Temple is a Headquarters Public Affairs Officer.

search in Environmental Science, and organized the creation of a salt marsh on tidal sand flats at Hambleton Island, a mile south of St. Michaels. The site was interesting for several reasons. It was uninhabited, small enough to measure results, and also subject to erosion because of its exposed position at the confluence of three tidal creeks.

Nothing like this experiment had been attempted before, and Dr. Garbisch had to improvise not only the techniques but the equipment for planting marshes. He found that if you coated snowshoes with plastic, for example, you could walk around muddy bogs without sinking up to your neck. To plant clumps of marsh grass under a foot of water, he and his colleagues discovered a way to float over the mud, lying on rubber mattresses, their arms immersed.

In 1972, encouraged by his success in planting 60,000 seedlings at Hambleton Island, Dr. Garbisch incorporated Environmental Concern and installed it in a rambling old antebellum house with white pillars overlooking San Domingo Creek in St. Michaels. He and his staff built greenhouses and added equipment, including a miniature phytotron or growth chamber to simulate the temperature conditions found in early spring in New England, where he has contracts to establish marshes.

Since 1972 Environmental Concern has been involved in nearly a score of projects along the Atlantic seaboard, including one with the Public Service Electric and Gas Company of New Jersey to restore wetlands disturbed by an underground transmission line that ultimately will bring power from a floating nuclear station.

Trial and Error

Dr. Garbisch and his staff have had to learn through trial and error in their work. After tropical storm Agnes in June, 1972 created a number of sand islands from sediment at the mouth of the Susquehanna River in the Chesapeake, the Maryland Department of



Jane Loth and Eric Knudtson, Antioch College students, and Dr. Paul B. Woller of Environmental Concern, Inc., use mechanical equipment to plant a salt marsh near Huntington, L.I.

Natural Resources backed a project by Environmental Concern to plant a marsh there to stabilize the islands. The crew succeeded in establishing a two-acre plot of cordgrass—but it proved so attractive to Canada geese that they nearly destroyed it by gobbling up the tender underground rhizomes of the plants. To keep the birds from eating up the profits, Environmental Concern found that it had to protect fresh plantings the first year with chicken wire.

The organization, which has varied from half a dozen scientists and nursery workers to more than double that during the warm planting months, has also taken on students from Antioch College pursuing work/study programs in ecology. A fleet of seven boats and barges as well as portable tractors and specially adapted planting rigs are used in the course of a season.

Right now Dr. Garbisch also is interested in encouraging communities to plant their own wetlands, and he sells packaged cordgrass and other species to coastal cities and towns

seeking to restore their marshes and stabilize dunes.

The ability of marsh grass to hold soil and resist wave action also interests Dr. Garbisch. The Chesapeake Bay is especially prone to erosion. One study by a Johns Hopkins University geologist estimates that in the past three and a half centuries, about 145 square miles of Maryland shoreline have been washed away.

Dr. Garbisch thinks that rather than building expensive seawalls and bulkheading, it would be far cheaper and environmentally desirable to plant marsh grasses. In several projects with the U.S. Corps of Engineers, he already has demonstrated that dredged material placed at the right elevation can be planted successfully to prevent erosion from tides and wave action.

The former chemist has had numerous job offers from universities to teach and lecture on his environmental work, but he is happy right where he is, creating new wetlands and new shelters for wildlife. □

CLEANUP LOANS FOR INDUSTRIES

A factory manufacturing household paper products was discharging a large volume of untreated wastes into Maine's scenic Kennebec River.

The Maine Department of Environmental Protection was pressing to get the paper company, Statler Tissue, to install adequate waste treatment facilities at its factory in Augusta, Maine, as part of a major drive to clean up the State's rivers.

Company officials were discouraged and uncertain what to do because of the high cost of obtaining a multi-million dollar loan to pay for the pollution control equipment.

Then, with the help of EPA, the company succeeded in getting the loan it desperately needed from the Small Business Administration at a low interest rate.

Leonard Sugarman, president of Statler Tissue, told EPA Journal "that low-interest loan was a wonderful thing.

"We were at the crossroads. We didn't know whether we could continue operating. Then the Federal government came along. This loan was a real help to us. Both the Federal government and Maine were very good. It took us a long time to install the pollution control equipment, but I am sure it will be well worth it. The pollution control facilities will be completed by fall of this year."

A spokesman for the Maine Department of Environmental Protection said that "The paper industry in Maine has spent \$125 million since 1970 on pollution abatement for best practical treatment, and most of this money has been spent since 1973.

"At the same time, the paper industry in Maine has undergone its largest expansion in the history of the State."

The Statler Tissue case is an illustration of an important but little known program under which EPA is helping industries across the Nation.

The loans are provided by the Small Business Administration through its revolving Disaster Loan Fund. The present loan rate is 6 and 5/8 percent, and loans may be stretched out over a 30-year period. The pollution abatement equipment itself may be used as collateral.



Construction work in foreground is part of the waste treatment facilities being built at the Statler Tissue Co., Augusta, Maine, on the Kennebec River.

EPA's role in the program is to certify to the Small Business Administration that the pollution control equipment is "necessary and adequate" to meet pollution control requirements.

Sheldon Sacks, the EPA coordinator for this program, said that since the project began in August 1974 more than \$18 million has been loaned to 32 businesses for water pollution control facilities and to 57 businesses for air pollution equipment and facilities.

The program is expected to be more fully utilized as deadlines for pollution cleanup get closer and businesses realize that they will be subject to heavy fines if they do not comply.

The loan program was created with the intent of providing low-cost long-term loans to those businesses faced with substantial economic hardships because of government regulations. The intent is to provide funds for businesses that are at a disadvantage with big businesses that can secure more favorable bank loans, utilize internal capital, or issue tax exempt pollution control revenue bonds. The pollution control loans are provided when commercial loan sources are unavailable, prohibitive in cost, or can only provide part of the required loan.

To be eligible for such loan assistance a business must be an independently owned and operated small business and must meet employment or sales size standards established by SBA. In addition, a small concern may be eligible for a loan if its need is a result of the following:

1. The business has an effluent discharge requiring a National Pollutant Discharge Elimination System permit

under Section 402 of the FWPCA.

2. The business emits discharges through a sewer line into a publicly owned treatment works, and the city or town requires the treatment of waste discharge.

3. The business plans to discharge into a municipal sewer system through the construction of a lateral or interceptor sewer.

4. The business must meet requirements of a State or Regional authority for controlling the disposal of pollutants that may affect groundwater.

5. The business needs a Corps of Engineers permit for disposal of pollutants that may affect groundwater.

6. The business must meet Coast Guard or State requirements regarding the standard of performance of marine sanitation devices controlling sewage from vessels.

7. The business is implementing a plan to control or prevent the discharge or spill of oil or other hazardous substances.

Section 8 of the FWPCA amended the Small Business Act by empowering SBA to make loans to assist any small business concern in making additions to or alterations in its equipment, facilities, or methods of operation to meet water pollution control requirements. SBA later interpreted their regulations to have these loans apply to air pollution control requirements as set forth by EPA and the States as well.

The loan coordinator in each of EPA's ten regions is responsible for certifying applications for SBA as to the 'necessity and adequacy' of pollution abatement equipment.

The States that have the NPDES permit program are expected to assume this certification program and are encouraged to do so. Maryland was the first State to assume the certification program. Several other States have also assumed this responsibility or are preparing to do so.

In Maryland, alone, about 2,000 businesses in the State could qualify for the low-interest loans, according to Mr. Sacks. He added that many of the Nation's 43,406 waste discharge permit holders might qualify for the low-interest loans. □

Andrew W. Breidenbach, EPA's new Assistant Administrator for Water and Hazardous Materials, is determined to help his programs "get ready for the environmental crises that will be emerging over the next few months or years."

"We need to get beyond the crisis of the week or the month. Now that the Agency is five years old, we should do a better job of anticipating the problems that will be confronting us. We need to get ready for some of these problems at less than crisis speed."

Discussing his goals in an interview with EPA Journal, Dr. Breidenbach, a friendly, down-to-earth executive, said that he feels strongly he must build a team to achieve his objectives.

"I am not implying that we don't have a team now," Dr. Breidenbach said. "My predecessor, Jim Agee, did a good job of placing significant amounts of responsibility in his deputies. I think that was a step I can agree with. It has made it much easier for me. Now I want to build on the existing foundation."

The EPA official also said that he is keenly aware of the importance of developing good relations with the regions and the States.

"The States must be full partners with EPA. It takes a lot of effort to make sure a partnership between the States and the Federal Government really works."

"Although 50 States seems like a tremendous number, I would like to get to know the State people better than I do. We need to develop a sensitivity about the intricacies of how programs are operated below the national level."

Dr. Breidenbach also said that he wanted to become better informed about the positions of organizations such as the American Waterworks Association and the Water Pollution Control Federation.

"These organizations represent a well established body of professionals in the field we serve," Dr. Breiden-



bach said. "They have front-line experience. We need their advice and counsel."

The EPA official also said that he spends a lot of time in meetings conferring with professionals such as the Committee of 10, a group consisting of a top-ranking State water pollution control official from each of the 10 regions.

Dr. Breidenbach said that while he spends a lot of time in meetings, he recognizes that personal contact and exchange of views is vital.

"If the guys in the Super Bowl had not been allowed to talk to each other in the huddle, they would have been terribly handicapped. Talking to each other is still very important."

The EPA official also said that he is interested in building better communication lines with the other Federal agencies EPA has to deal with.

"I have made two forays so far, in this area," he said. "I have discussed with an Assistant Secretary of Agriculture plans for improving cooperation and correcting problems at all staff levels in relations between EPA and Agriculture. I have also had the same kind of discussions with the Deputy Commissioner for the Food and Drug Administration."

Asked what he considered to be the

biggest problem in his new job, Dr. Breidenbach replied that he believes "budget responsibilities are the most serious. Trying to deploy your resources in the best way to meet legislative mandates is a tough thing to do because our budget is in a relatively static condition. It's much easier to deal with problems if your budget and resources are growing."

Dr. Breidenbach said that the biggest challenge ahead will be carrying out the Safe Drinking Water law in an effective manner.

"This program will have to grow to meet the legislative mandate. It will have growing pains. This is the program that has the greatest need for attention now, but the others are not far behind."

On the subject of reorganization, Dr. Breidenbach said that at present he plans "nothing major or sweeping."

On the differences between Washington and Cincinnati, where he served as an EPA research executive before his present assignment, Dr. Breidenbach said that "In Cincinnati I was pretty much in command of my own time. When I needed time to think I closed the door. But in Washington I find I am getting requests from all levels all the time. My calendar fluctuates on an hourly basis and the hours are a little longer here."

"I get to work at 7 a.m. The traffic is a little better at that hour. Also it gives me a little solitude to dig into things before the regular day begins. Washington does take a little getting used to, though."

Asked about his hobbies, Dr. Breidenbach said that "I love to play golf, but I haven't swung a club since I got here in September. I also like to fish. I did get in a week of fishing before I came here."

In his present position, Dr. Breidenbach has responsibility for the Offices of Water Planning and Standards, Water Program Operations, Water Supply, Toxic Substances, and Pesticide Programs.

Continued on page 14

Profile Cont'd.

From August 1971 to July 1975, Dr. Breidenbach was the Director of the National Environmental Research Center in Cincinnati, Ohio.

The Center's major focus was on environmental engineering and Dr. Breidenbach directed research in the areas of water supply and pollution, air pollution, solid waste management and radiation.

An internationally recognized authority in a number of environmental areas, Dr. Breidenbach has lectured frequently throughout the United States and abroad. He also serves as Adjunct Professor of Environmental Health and Civil and Environmental Engineering at the University of Cincinnati.

Dr. Breidenbach recently received "The President's Award for Excellence" from the University of Cincinnati.

The award said, in part:

"Breidenbach brought worldwide recognition to the EPA's Environmental Research Center because of its development of scientific methods for the detection and elimination of harmful substances in public water supplies. In the formative years of the Nation's war on environmental pollution, he carefully and scientifically led in the promulgation of environmental guidelines that were practical, reasonable and helpful to the total survey. He has published more than 50 articles and reports on the environment in widely studied publications and has thus added much to the store of knowledge on this subject. . . ."

Before his service with EPA, Dr. Breidenbach had worked for the Department of Health, Education and Welfare in a number of executive positions in both the solid waste management and water supply and pollution control areas.

He began his environmental career as Chief of the Chemistry Division of Maryland's State Health Department in Baltimore in 1953.

A graduate of the University of Cincinnati with a B.S. degree in chemistry and zoology in 1949, Dr. Breidenbach received his M.S. degree in 1950 and his Ph.D. degree in 1953 from the University of Florida.

Born in 1924 in Newark, New Jersey, Dr. Breidenbach is married to the former Jeanne Forsberg of Maplewood, N.J. They are the parents of a daughter and three sons. □

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Rebecca Hanmer



Glen R. Ballard



Lillian Johnson

Rebecca Ward Hanmer has been appointed Director, Office of Federal Activities. She has served as Acting Director of that Office since October of 1975. In announcing the appointment Administrator Train said:

"Becky Hanmer has served with our Office of Federal Activities since 1971. Over that period she has earned the high regard of officials throughout the Federal Government for her objectivity and competence."

Miss Hanmer began her Federal career in 1964 with the Department of Health, Education and Welfare. Her work with the Federal Government in the environmental field began when she joined the Office of Program Planning and Evaluation in the Federal Water Pollution Control Administration in 1966. Later she was Staff Assistant to the Assistant Commissioner for Environmental and Program Planning in the Federal Water Quality Administration, Department of the Interior. Miss Hanmer received a B.A. in political science in 1963 from the College of William and Mary, Williamsburg, Virginia, and her M.A. from American University, Washington, D.C. in 1966.

In 1974, she was awarded EPA's Silver Medal for Superior Service for her work as Assistant Director, Resource Development Liaison Staff. A Virginian by birth, Miss Hanmer now lives in Washington, D.C.

Glen R. Ballard, Electronics Technician at the Health Effects Research Laboratory in North Carolina, and Lillian Johnson, Public Information

Assistant in Region II, New York City, recently received personal letters from President Ford praising them for saving the taxpayers' money.

"You are to be commended for . . . improving Government operations and for the outstanding example you have set for all employees," the President wrote. Each had previously received an EPA cash award for money-saving suggestions.

The President launched a special campaign last year to encourage employee participation in cost reduction within the Federal Government. In an appeal to all Federal employees, President Ford said: "Each of you can make a personal contribution by submitting constructive ideas and working cooperatively to eliminate waste, improve equipment, streamline operations or make more productive use of time, facilities, and energy resources."

Mr. Ballard's idea dealt with the periodic replacement of a converter unit in nitrogen oxide analyzers used in air pollution monitoring. Instead of buying a new converter unit for \$220, he suggested replacing the graphite chips inside it for about \$5. This saves an estimated \$19,000 annually. Mr. Ballard was awarded \$775 and a certificate.

Ms. Johnson's suggestion was to group and combine the legal advertisements required in the wastewater discharge permit program, eliminating duplication and reducing the space, and cost, of such ads. Savings were estimated at \$47,600, and Ms. Johnson received a cash award of \$1,095.

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Frances E. Phillips



James H. Finger

Two appointments in Region IV have been announced by Regional Administrator Jack E. Ravan.

Frances E. Phillips, the new Regional Counsel in the Atlanta office, has been a specialist in environmental law with the firm of Bracewell and Patterson, Houston, Texas, for the past 16 months and was one of two associates selected for that firm's Washington, D.C. office.

Before that Ms. Phillips had been an assistant regional counsel for EPA in Atlanta and an attorney in the Agency's Enforcement Division.

A graduate of Baylor University and of the University of Texas Law School, Ms. Phillips also attended the World College Afloat, where she studied sociology and economic geography in 14 foreign countries.

James H. Finger, Research Chemist with EPA and its predecessor agencies, is the new Director of Region IV's Surveillance and Analysis Division, located in Athens, Ga. He succeeds John A. Little, recently named Deputy Regional Administrator.

Mr. Finger, a native of Gastonia, N.C., has been in Federal public health service work since 1960. His assignments have included directing laboratory work on the Charleston, S.C., Harbor Project, the Hillsborough Bay Project in Tampa, Fla., and the Lower Florida Estuary Study. In Region IV he headed a team that pioneered in testing for mercury in the waters of the Southeast.

He is a graduate of Western Carolina University and earned an M.S. in

Science and Public Health from the University of North Carolina. He lives in Athens with his wife, the former Marie Bradford, and their two children.

Robert M. Martin, Environmental Protection Specialist with the Office of Air Quality Planning and Standards in Durham, N.C., recently received a cash award of \$100. He devised a new type of filter holder for sampling the particulates in stack gases, and the Agency has applied for a U.S. patent on it.

Office Director B. J. Steigerwald, who presented the award, said, "Mr. Martin's design is a significant innovation in emission testing." It is smaller than the usual holders—permitting insertion through small sampling ports in an industrial stack—yet it contains the same filter medium and cross section as the larger devices for outside sampling. The Emission Measurement Branch's equipment shop makes the holders for EPA use, and a commercial vendor has begun to produce a similar holder.

The cash award was the first to be given under the EPA Awards Manual's new provisions that encourage employees to report inventions through their supervisors to the Office of General Counsel.

The patent application on Mr. Martin's device was filed last October. If a patent is granted, it will belong to the Federal Government.

Anthony M. Ventre, a student intern with the Office of Pesticide Programs, recently received a special achievement award of \$100 from Edwin L. Johnson, Deputy Assistant Administrator for Pesticide Programs.

Mr. Ventre's work last summer in collecting, organizing, and presenting information for the Office's Strategic Studies Unit saved both EPA and the Department of Agriculture "at least three man-months each," according to his supervisor, Charles D. Reese. Mr.



John H. DeFord

Ventre is a pre-law student at the University of Maryland and has been a Federal Junior Fellow for two summers and between semesters.

John H. DeFord has been named Acting Director, Office of Administration, for EPA's facilities at Durham and Research Triangle Park, N.C., succeeding Dr. Burton Levy.

Mr. DeFord, who has headed the Office of Administration's Contracts Management Division, worked for the former National Air Pollution Control Agency in Durham when that agency was made part of EPA in 1970. During his 18 years of Federal service he has worked with the Air Force Academy Construction Agency, Colorado Springs, Colo.; the National Aeronautics and Space Administration, Cleveland, Ohio; and the Department of Health, Education, and Welfare in Washington, D.C.

A native of Alton, Kan., he attended Kansas State University and served four years in the U.S. Army. He is a member of the National Contracts Management Association and the Society of American Military Engineers and a director of the Carolina Forest Property Owners Association.

Last year Mr. DeFord was awarded the EPA Bronze Medal for commendable service. He lives in Raleigh with his wife, Dena Richardson DeFord. They have a married daughter.

\$718 MILLION BUDGET PROPOSED FOR FISCAL '77

Congress is considering a budget for EPA operations in Fiscal 1977 totaling \$718 million, or \$53 million less than the current year, which ends June 30.

The \$53-million decrease, said Administrator Russell E. Train, is primarily due to the "phasing down" of grants for State and area-wide water quality planning. However, Mr. Train said, the proposed budget would "enable the Agency to continue most of its programs at current levels" and provide for "increases in some high-priority programs."

The Water Supply Program would be increased \$10.6 million to provide double the current level of grants to States to assist them in supervising public water systems and in establishing underground injection controls to protect groundwater supplies. EPA expects that 41 States will have assumed this responsibility by the end of Fiscal 1977.

Other budget items that would be increased are Regional Management and Support, \$7.4 million, and Scientific Activities Overseas, \$2.0 million.

Decreases are proposed for water

quality, \$59.7 million; pesticides, \$4.5 million; energy research and development, \$3.6 million; air pollution control, \$2.3 million; and radiation \$1.3 million. Lesser cuts would be made in interdisciplinary work, toxic substances, noise abatement, and solid waste management.

A detailed breakdown of the current and proposed budgets is given in an adjoining table.

The number of full-time, permanent positions in EPA would remain the same, 9,550, in Fiscal 1977, but there would be 99 positions reassigned

Table 1. EPA's Operating Budget
Current Year and Fiscal 1977 Proposed
by Program and Function
(dollars in thousands)

Program	Research and Development		Abatement and Control		Enforcement		Agency & Regional Management		Totals	
	1976	1977	1976	1977	1976	1977	1976	1977	1976	1977
Air Pollution	48,542.2	46,542.2	84,715.2	83,139.0	12,499.3	13,743.0			145,756.7	143,424.2
Water Quality	43,939.6	42,168.5	174,546.7	115,172.9	19,792.7	21,241.9			238,279.0	178,583.3
Water Supply	12,253.9	12,253.9	19,839.9	30,449.2	80.0	81.0			32,173.8	42,784.1
Solid Waste	4,066.0	4,066.0	11,618.6	11,670.4					15,684.6	15,736.4
Pesticides	10,887.0	10,887.0	29,492.2	24,175.0	3,911.1	4,745.1			44,290.3	39,807.1
Radiation	1,678.9	878.9	4,486.8	4,022.4					6,165.7	4,901.3
Interdisciplinary	28,155.4	25,355.4	8,788.9	10,664.4					36,944.3	36,019.8
Toxic Substances	1,355.0	1,355.0	6,850.3	6,012.0					8,205.3	7,367.0
Noise			9,544.2	9,576.4	1,029.3	708.6			10,573.5	10,285.0
Energy Research & Devel.	100,550.3	96,973.0							100,550.3	96,973.0
Program Mgt. & Support	15,587.4	15,915.1	33,694.4	34,692.3	15,431.3	16,031.9			64,713.1	66,639.3
Agency & Regional Mgmt.							68,183.4*	75,671.5*	68,183.4	75,671.5
Total	267,015.7	256,395.0	383,577.2	329,574.0	52,743.7	56,551.5	68,183.4	75,671.5	771,520.0	718,192.0

* Includes Buildings and Facilities and Scientific Activities Overseas totalling \$6.1 million in 1976 and \$8.1 million in 1977.

Table 2. EPA's Manpower Budget
Current Year and Fiscal 1977 Proposed
by Program and Function

Program	Research and Development		Abatement and Control		Enforcement		Agency & Regional Management		Totals	
	1976	1977	1976	1977	1976	1977	1976	1977	1976	1977
Air Pollution	473	473	803	815	462	482			1,738	1,770
Water Quality	548	548	1,819	1,816	738	764			3,105	3,128
Water Supply	85	85	175	210	4	4			264	299
Solid Waste	22	22	161	161					183	183
Pesticides	157	157	671	639	166	156			994	952
Radiation	50	30	184	174					234	204
Interdisciplinary	204	214	130	129					334	343
Toxic Substances	7	7	45	45					52	52
Noise			74	74	21	21			95	95
Energy Research & Devel.	123	123							123	123
Program Mgt. & Support	142	142	170	167	177	177			489	486
Agency & Regional Mgt.							1,822	1,798	1,822	1,798
Advances & Reimbursements							117	117	117	117
Total	1,811	1,801	4,232	4,230	1,568	1,604	1,939	1,915	9,550	9,550

among various programs and functions (see manpower budget table). Most of these would be shifts from Headquarters to Regional Offices to increase regional enforcement efforts in water supply, air pollution control, and water quality programs. Categories that would lose personnel would be pesticides, radiation, and Agency and Regional Management.

Mr. Train said these shifts would reflect two basic principles of the proposed budget: decentralizing manpower resources whenever possible and fulfilling high-priority needs first.

Budget Highlights

Here's a quick summary of salient features of the proposed EPA operating budget for the next fiscal year:

- *\$10.6 million more for drinking water supply than the current year, and 35 new positions.

- *\$59.7 million less for water quality, and 23 fewer positions, reflecting phase-out of areawide planning grants, though water quality enforcement would gain \$1.4 million and 26 positions.

- *Air pollution control, \$2.3 million less but 32 more positions, 20 of them in enforcement with a budget boost of \$1.2 million.

- *Pesticides, down \$4.4 million and 42 positions; a rise in enforcement grant funds more than offset by a drop in abatement and control.

- *Solid waste management virtually unchanged, budget down \$52,000, same number of positions.

- *Radiation \$1.3 million less and 30 fewer positions. □

No Increase Sought in Construction Grants

No new authorization for Federal construction grants to municipalities for sewage treatment facilities was proposed by the President in his recent budget request to Congress for Fiscal 1977.

About \$10 billion "currently available," said Administrator Russell E. Train, "will be sufficient to meet grant needs through Sept. 30, 1977."

At the same time Mr. Train revealed plans to ask Congress to make the construction grants more cost-effective by amending the Federal Water Pollution Control Act. The proposed amendments would:

- *Focus Federal aid on projects most

needed for pollution control—sewage treatment facilities—by continuing the current aid level of 75 percent.

- *Lower to 60 percent the Federal share for combined sanitary and storm sewers.

- *Eliminate aid for separate storm sewers, collector sewers, and sewer replacement and repair.

- *Eliminate aid for that portion of a project designed as reserve capacity for population growth.

- *Restrict aid to projects providing "secondary treatment" of sewage, except where the municipality can prove that higher treatment is worth the extra cost.

- *Allow EPA to extend the 1977 deadline for cities to comply with sewage effluent standards; this would be done on an individual basis and the extension would not exceed six years. About half the Nation's cities will not be able to meet the legal deadline, Mr. Train said.

Construction grant funds already authorized, Mr. Train said, will permit EPA to obligate (allocate to specific projects) \$4.5 billion in the current fiscal year, \$1 billion in the July-September transition period, and \$6.1 billion in Fiscal 1977.

Outlays, or payments, are expected to total \$2.35 billion this fiscal year, \$600 million in the transition period, and \$3.8 billion in Fiscal '77. The outlay "target" for Fiscal '78 is \$4.6 billion. □

Shifting Gears on the Fiscal Year

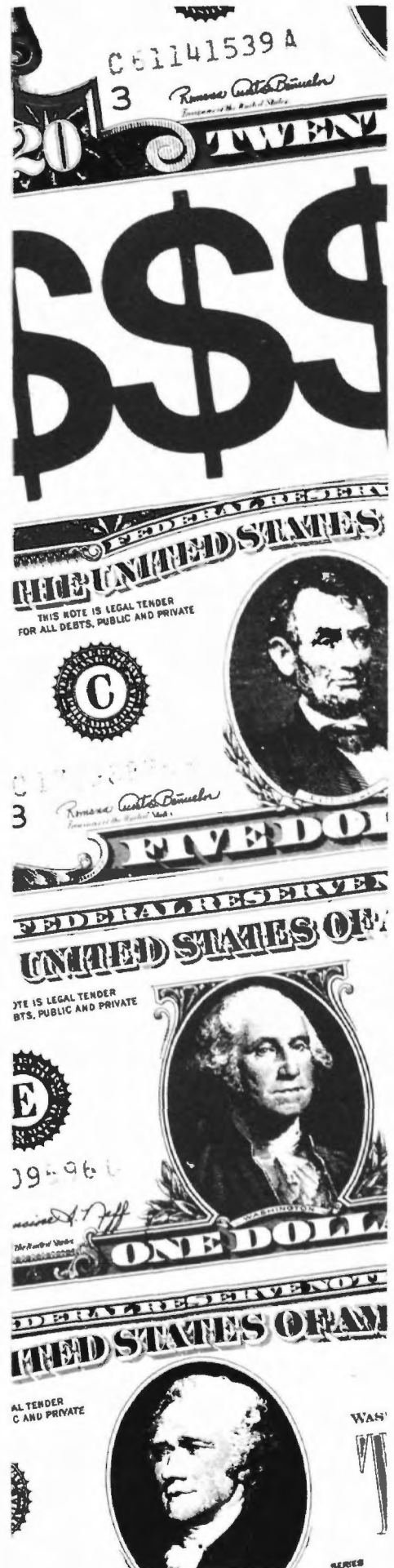
This year Uncle Sam is changing his bookkeeping.

Fiscal 1977 will start next Oct. 1 (instead of July 1) and will end Sept. 30, 1977. The shift was authorized in the Congressional Budget and Impoundment Control Act of 1974.

July, August, and September this year will be a transition period, a gap between Fiscal '76 and Fiscal '77.

Congress has authorized EPA in that period to pay salaries and spend money at approximately the rates set in the Fiscal '76 budget.

In the past EPA has usually started the fiscal year under a continuing resolution, because Congress had not yet formally adopted its budget for the Agency. Congress often makes changes in the budget proposed by the Executive Office. □



REGION III ON PARADE

Although the past year has been one of progress for the Middle Atlantic Region, it was not without disappointment.

Region III is composed of Delaware, Maryland, Pennsylvania, Virginia, West Virginia and the District of Columbia. Most of its environmental problems are representative of those in other parts of the United States.

Certain factors, however, compound the difficulty of environmental improvement.

The Region is home to 25 million people. It has much of the Nation's coal mining industry, about one-fourth of the primary metals industry, and three of the busiest seaports. A large share of the Nation's oil imports, as well as substantial domestic shipments, move through the Chesapeake and Delaware estuaries.

Improvement in the water quality has been dramatic in some areas, but less success has been shown in others. Major rivers continue to be polluted by poorly treated sanitary wastes, complex industrial wastes, and urban runoff. Non-point sources and agricultural runoff significantly contribute to the nutrient loadings of many of the streams of the region.

Although the upper reaches of the Delaware River are nearly pristine, the lower portions continue to experience zero dissolved oxygen levels in the summer months. Sections of the Potomac River have shown improvement, while other sections continue to be degraded. There has been enough improvement in the Schuylkill River that fish ladders are now being considered at one of the dams. The improved quality of the Monongahela River demonstrates that success can be achieved through acid mine drainage abatement programs and sewage treatment plant projects. Fishing and swimming are now possible in areas of the river which could support neither activity a few years ago.

Water quality is expected to improve considerably in the coming years because of several EPA programs. The most important of these is the construction grants program for municipal



Independence Hall in downtown Philadelphia, where the Declaration of Independence was signed, also served as the Nation's capitol in the formative years.

sewage treatment systems. Region III has 738 active projects costing a total of \$1.06 billion.

Discharge Permits

The Region has issued 3,675 wastewater discharge permits, including ones to virtually all major dischargers. Another 4,460 applications are awaiting action. Virginia, Delaware and Maryland have been delegated complete authority to issue permits. West Virginia and Pennsylvania issue permits in conjunction with EPA.

An important new program that holds bright hope of improved water quality over the next 20 years is comprehensive areawide planning for wastewater management. The region has 12 designated planning agencies, at least one in each State. Setting priorities for federally funded municipal wastewater treatment grants, identification and treatment of non-point sources, design of effective storm water systems, and an integrated planning strategy with air quality maintenance considerations are the major goals of this program.

Since a large share of the Nation's oil imports are handled in this region, oil spill prevention and cleanup is a

major program. Regional officials monitored or actively participated in the cleanup of more than 1,000 spills last year. Within the past year and a half two large tankers have had accidents on the Delaware River, spilling millions of gallons of oil. Of the spills reported last year, 43 were forwarded to the Coast Guard for civil penalty assessment and three have gone to the U.S. Attorney for criminal prosecution. More than 300 facilities have been inspected for compliance with EPA's spill prevention regulations, and 88 violations were found.

The Region has continued to wrestle with the problem of ocean dumping. Under the Marine Protection and Sanctuaries Act, interim ocean dumping permits have been issued to the Cities of Philadelphia and Camden and to the duPont facility at Edge Moor, Del. However, it has been demonstrated that there are alternatives to disposal of waste into the ocean, and all three permit holders must submit plans to phase out ocean dumping by 1981.

During the year, two major incidents in the Region emphasized the necessity of insuring the quality of drinking water.

In December 1974, complaints from residents in a section of Pittsburgh precipitated an investigation by EPA into the cause of taste and odor problems. Although positive findings could not be made, evidence pointed to industrial discharges from steel plants into the Monongahela River as the cause. EPA ordered the water company to closely monitor their intake system to determine when contaminants are present in the water. In addition they were required to upgrade treatment methods.

EPA's '80 Cities Survey' of drinking water led to the other incident. Analysis of a water sample collected at Philadelphia's N.E. Sewage Treatment Plant disclosed the presence of the organic chemical and suspected carcinogen, bischloroethylether, in the Delaware River. The source was discovered to be the Rohm and Haas Company. Following meetings between Region III, the City of Philadelphia, and Rohm and Haas, it was agreed that the operation causing the discharge should be discontinued. The company has developed pretreatment techniques to remove the substance from its wastewater and discharges are continually monitored to assure that the drinking water remains free of it.

Downward Trend

The problems of air pollution are faced by EPA on a day-to-day basis, and considerable progress has been made. An overall composite of air sampling sites shows a definite downward trend in air pollution, but trends and levels vary from area to area. In Philadelphia, carbon monoxide appears to have been reduced about 25 percent over the past three years. There have also been reductions in sulfur dioxide and particulates. Other areas are experiencing similar declines, but air quality standards are not being met in many of the Air Quality Control Regions.

Scanty past information makes it difficult to accurately measure the change, but it appears that oxidant and nitrogen dioxide levels have increased. Photochemical oxidants produced in one area can be transported to another. Therefore, while oxidant levels have decreased in places like Baltimore and Philadelphia, new monitoring sites are detecting levels in areas that may not have had them in the past. Although nitrogen dioxide levels have increased, it is anticipated that emission controls for the 1977 automobiles will have a beneficial effect.

A good deal of controversy surrounded the discovery of certain carcinogenic substances in the air around chemical plants. These substances included vinyl chloride and dimethyl nitrosamines. While levels of these substances found in the air are not immediate health hazards, their presence is cause for concern. The Region is continuing to monitor these substances closely.

Some great strides have been made over the past year in eliminating certain major fixed sources of air pollution. The Philadelphia Electric Company agreed to install flue gas desulfurization equipment (scrubbers) on two coal-fired stations that are major sources of sulfur dioxide in Philadelphia. Agreement was also reached with the City to equip two of its incinerators with pollution control devices. Operations are to be discontinued at four others.

Last October, EPA, Allegheny County, and the Jones & Laughlin Steel Corp. agreed on a timetable to clean up J&L's Pittsburgh Works. The order commits the company to spend about \$200 million for expansion and upgrading, approximately half of which is for pollution control.



Bird's-eye view looking west from the U.S. Capitol to the Washington Monument. Museums and government buildings flank the Mall. In the foreground are the Library of Congress, left, and the Supreme Court, right of center.

Comparable success has not been achieved in controlling mobile sources of air pollution. Four air quality control areas in Region III require transportation control plans: Philadelphia, Pittsburgh, Baltimore, and Washington, D.C. In recent months Federal courts have ruled that portions of the plans for Baltimore and Washington are unconstitutional. While upholding the plans in theory, the courts rejected EPA's authority to require certain legislative actions necessary to implement portions of these plans. The courts ordered EPA to work with the States in developing new measures which would be feasible and effective in meeting the requirements of the Clean Air Act. Although plans in Pennsylvania survived a similar court challenge, opposition to many of the proposals at the State and local levels has delayed implementation. Measures such as inspection and maintenance, retrofit, and exclusive bus lanes have met the most opposition. On the other hand, measures like car pooling and vapor recovery have proved to be both effective and well received.

Inspections

Region III regularly conducts inspections of pesticide manufacturers to insure that these businesses are following all legal requirements including proper labeling and product formulation. Pesticide-related accidents are closely investigated. Reports of widespread illness among employees at a company in Hopewell, Va., led EPA and other Federal and State agencies into an investigation of the cause. It was found that the company, the Nation's sole manufacturer of a pesti-

cide known as Kepone, was not a registered pesticide-producer establishment. Region III then issued a stop sale, use or removal order under the Federal Insecticide, Fungicide and Rodenticide Act. In a subsequent order the remaining Kepone at the plant was ordered stored until a safe disposal method could be found. The interrelationship of environmental effects was pointed out explicitly in this case, which touched on not only the pesticides issue, but on air, water, and disposal by land.

Regional efforts in the area of solid waste management, noise pollution and radiation have centered on technical assistance to State and local governments and in monitoring and program studies.

The Region's number one priority will be the administration of \$1.2 billion in construction grants. These funds will be granted for the construction of municipal sewage treatment works which are cost effective and planned so as to minimize adverse environmental impacts.

Region III officials feel it is important to operate both grants and regulatory programs in a manner that will encourage maximum re-use of waste products, thereby saving energy and scarce raw material resources.

Region III is pleased by the progress made, but is well aware of problems still unsolved. These problems can be solved if everyone is willing to work together on them. It demands the best ideas, the greatest cooperation, and a lasting determination to make the solutions work. □

TOURING THE MID-ATLANTIC REGION

By Michael J. Chern*

The Mid-Atlantic Region is a land rich in both scenic beauty and history.

Here we have the Appalachian mountains, rolling countryside, relatively flat stretches of the Tidewater country and finally the Atlantic Ocean.

Great and famous rivers course this land. The Potomac, Susquehanna, James, Delaware, Monongahela, Rappahannock and the Schuylkill.

This area is also part of the megalopolis which stretches from Boston through Washington. The portion of the giant urban chain in this region includes Philadelphia, Baltimore, Wilmington and Washington.

Yet, despite the fact that it is home to these major cities, the area also has a wealth of plant and animal life.

In the mountains of West Virginia, the urgent hammering of a pileated woodpecker breaks the forest stillness. Gulls screech as they compete for fish in Washington's Tidal Basin. Canadian geese winter in Delaware's Bombay Hook National Wildlife Refuge.

Glorious rhododendrons flourish in the Shenandoah National Park. Azaleas flame along the Skyline Drive. Camellias and wisteria decorate homes in the warmer portions of the region. Pink and white dogwoods lend grace and beauty to the area.

First State

In reviewing this region, let's start with Delaware which calls itself the First State because it was the first

State to ratify the Constitution.

The major city in the state, Wilmington, is the site of Ft. Christina, founded by Swedes in 1638.

Near Smyrna in the central part of the state is Bombay Hook National Wildlife Refuge, a breeding ground for many shore and aquatic birds.

At the southern end of Delaware is the 50,000-acre Great Cypress Swamp. While once used for mining bog iron, it is relatively untouched by man and is now a haven for many forms of bird and other animal life.

Along the Atlantic Coast, the resort of Rehoboth attracts huge crowds during the summer, including many Washingtonians trying to escape the steamy heat of the Nation's Capital.

Another major ocean resort city nearby is Maryland's Ocean City, where towering apartment and condominium buildings recently erected along the coast give the appearance of a Miami Beach of the North.

Offering relative peace and quiet a few miles to the south is the long sand barrier of Assateague Island. This isolated island provides a home for many forms of wildlife, including wild ponies said to be descendants of animals that escaped from a wrecked Spanish ship over 400 years ago.

To prevent the herd from getting too large for the limited food supply, a roundup is held annually and the surplus ponies sold at auction.

Nearby is Chesapeake Bay, the largest estuary in the United States.

Hundreds of Sails

The great gash of this Bay splits Maryland almost in two, isolating the Eastern Shore on the Delmarva peninsula from the main part of the state.

Dotted with hundreds of sails in summer, the bay is the source of a huge fishing industry as well as a boating center.

Near the northern end of the Chesapeake is historic Annapolis, capital of Maryland and home of the United States Naval Academy.

A few miles north in Baltimore Harbor is Fort McHenry, whose bombardment in the War of 1812 inspired Francis Scott Key to write our National Anthem.

Along the northern border of Maryland is Pennsylvania, with its two major cities of Pittsburgh and Philadelphia.

Scenic areas in this State include Moraine State Park, north of Pittsburgh, which was created by reclamation of abandoned strip mines. At the New York border is the large Allegheny National Forest.

In eastern Pennsylvania is the magnificent Pine Creek Gorge, sometimes called Pennsylvania's Grand Canyon, and the Delaware Water Gap, a noted scenic area where the Delaware River breaks through the Appalachian Mountains.

In Philadelphia, "birthplace of the Nation," are several historic attractions. Independence National Historic Park is the site of the national shrine of liberty, Independence Hall, where the Declaration of Independence and the Constitution were adopted.

One of the Nation's finest urban parks, Fairmount Park, is located in Philadelphia.

Also steeped in history is Virginia. The British founded their first successful colony in North America at Jamestown. Nearby is Yorktown, where Cornwallis surrendered to end the Revolutionary War, and Williamsburg, Virginia's colonial capital, now restored and a major tourist attraction.

One of Virginia's most striking assets is Shenandoah National Park. This slender national park in the Blue Ridge Mountains, only two hours from Washington, provides a sylvan retreat for residents of the megalopolis.

Washington itself is a city enhanced by trees and numerous park areas.

* Mr. Chern is a Writer/Editor in Region III's Public Affairs Office.



Wild pony grazes on marsh grass at Assateague National Seashore.

Rock Creek Park, with its forests and fields, provides a refreshing escape from the daily crises in this Rome of the modern world.

Washington is also the beginning of 185-mile long Chesapeake and Ohio Canal which winds along the north bank of the Potomac River, leading to Harper's Ferry, W. Va., where the Shenandoah meets the Potomac River.

Thomas Jefferson is reputed to have said that the view from the bluff at Harper's Ferry is worth crossing the Atlantic to see.

Flowing through the Region is one of the oldest rivers in the world—archeologists and geologists say probably only the Nile is older. Paradoxically, it is called the New River. It begins in North Carolina and flows north and west through Virginia and into West Virginia.

More than one million acres of West Virginia, sometimes called "America's Switzerland," are publicly owned and devoted to conservation and recreation. □



Daniel J. Snyder, III
Regional Administrator



Albert Montague
Office of Research and Development



Stephen R. Wassersug
Director, Enforcement Division



Alvin R. Morris
Deputy Regional Administrator



George T. Dukes
Director, Office of Civil Rights



Greene A. Jones
Director, Water Programs Division



James R. Elder
Director, Management Division



Ralph Rhodes
Director, Surveillance and Analysis Division



R. Diane Margenau
Director, Office of Congressional and Public Affairs



Gordon M. Rapier
Director, Air and Hazardous Materials Division

ON PARADE

Region III's LEADERSHIP TEAM

two units, modify an existing scrubber on the third unit, and upgrade existing precipitators on all three units. All work must be completed and the whole plant in compliance by May 11, 1978.



oil skimmer works

An oil-skimming device originally developed with EPA and Navy funding helped to clean up a big oil spill in Brooklyn recently. The Dynamic Inclined Plane Skimmer, developed by the JBF Scientific Corp., Burlington, Mass., was brought in by the Navy at the request of EPA and the Coast Guard. It recovered 165,000 gallons of oil from the harbor waters in its first 12 hours of operation. The spill followed an explosion and fire at an oil terminal near the Gowanus Canal Jan. 3. The amount of heating oil spilled was variously estimated at between 500,000 and two million gallons.

minority workers

Sewage treatment construction projects in New York City are employing more minority-group workers than they did a year ago.

An EPA analysis of hours worked during a recent month showed a four percent gain from the year before for operating engineers, dockbuilders, electrical workers, metal lathers, and plumbers working on EPA-supported projects. This occurred despite a 30-percent unemployment rate in the industry, the analysts noted.



power plant cited

Region III officials have ordered the Potomac Electric Power Co. to cut soot and dust emissions from its generating station at Dickerson, Md. The company burns coal with a high ash content in three boiler units, and its particulate emissions have been as much as six times the allowed amounts. It must install a stack gas scrubber for



deep-well test

Region IV is backing an experiment to determine if treated wastewater from the Orlando, Fla., area can be safely and economically injected into deep wells.

The Agency has agreed to provide 75 percent of the cost of drilling a test well at the Sand Lake Road sewage plant in Orange County. The well will be drilled down to the "boulder zone" of salt-water-bearing rock sealed off by impervious strata from the fresh-water aquifer that supplies Orange County's drinking water.

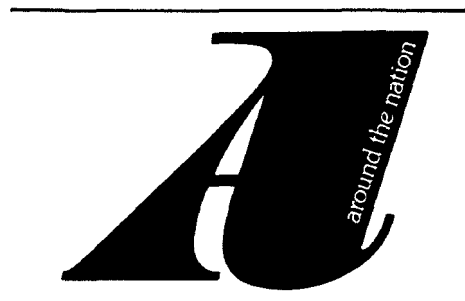
The well's depth is expected to be about 3,000 feet, but may have to go as far as 6,500 feet, which could cost about \$1 million.



coke batteries closed

After a three-year air pollution control effort by EPA and State officials, U.S. Steel Corp. recently closed three of its most highly polluting coke batteries in Gary, Indiana.

EPA's enforcement action began with issuance of a notice of violation in April 1973, and was followed by the issuance of an administrative order in June 1973, and included a subsequent Federal court civil suit. Although the civil suit was settled by entrance of a consent decree covering a majority of the facilities at the Gary Works, three coke batteries were expressly omitted from the decree because the parties could not agree on an appropriate time frame for achieving compliance. EPA's Chicago Regional Office advised U.S. Steel Corp. that if an acceptable



harbor cleanup

Region I has announced agreement on a 10-year, \$800-million construction program to improve the water pollution control facilities of Boston's Metropolitan District Commission. The Commission serves 43 communities in the Boston area, and the program is the largest pollution control effort ever undertaken in New England. It is designed to make Boston Harbor and the Neponset and Charles Rivers fishable and swimmable and to complement plans to develop the Boston Harbor islands for greater public use.

poems and posters

Entries have started pouring in for Region I's fourth annual Elementary Education Ecology Poem and Poster Program. Grade school pupils write poems and draw posters about environmental problems studied in class. Teachers select two outstanding entries from each class to submit to EPA's judging panel representing various citizen, environmental, and educational groups. Last year more than 100,000 students from all six States took part in the program.

agreement on these coke batteries could not be reached promptly, EPA would reissue a notice of violation and keep all enforcement options open, including criminal sanctions.

After long and frustrating negotiations, a second notice of violation was issued last March. Because the Company still failed to submit an acceptable compliance program, EPA in July of 1975 referred the matter to the Department of Justice to initiate appropriate action under Section 113 of the Clean Air Act. The Department of Justice advised U.S. Steel Corp. that continued operation of the three batteries beyond the end of calendar year 1975 would potentially subject the Company and its responsible officials to criminal liability.

Scott Fleming was the regional attorney handling the case, and the Chicago Regional Office's Air Surveillance Branch supported the actions with field investigations.



meetings, speeches

Regional Administrator John C. White's speaking engagements last month included the Arkansas Federation of Air and Water Users, Hot Springs, Ark.; the Mayors' Institute, Albuquerque, N. M.; the National Safe Drinking Water Advisory Council, Dallas; and the "Solutions '76 Seminar on Traffic, Transportation, and Parking," also in Dallas.

This month Mr. White is scheduled to speak at the 58th Annual Water Utilities Short School at College Station, Texas, and to give the keynote luncheon address at the National Air Pollution Conference in Dallas March 12.



photos speed survey

Thanks to EPA's photo interpretation experts in Vint Hill, Va., previously

unlisted facilities for oil production and storage in southwestern Kansas have been spotted, and Region VII field teams know where to go to make on-site inspections.

The Vint Hill unit, part of EPA's Environmental Monitoring and Support Laboratory, Las Vegas, Nev., was able to interpret aerial photos of a 2,706-square-mile area in six weeks, with substantial saving of time and manpower for the Regional office. Data from aerial photos and electronic scans were transferred to topographic and county road maps to locate oil wells, storage tanks, transmission lines, and possible spill areas.

breaking a record

Region VII's Grants Administration Branch had set a goal for the second quarter of the fiscal year, October through December: \$65 million in construction grants funds obligated. They surpassed their goal by nearly 60 percent, obligating \$103.7 million, and Carl Blomgren, Director of Water Programs, threw a party for all hands to celebrate.



woodman, spare that . . .

In the first two months of Region VIII's paper-saving drive, 42½ mature trees have been spared the axe. This is calculated on the assumption that it takes 17 trees to make a ton of high-grade paper.

Denver was the first regional office to join EPA Headquarters in the organized effort to save all high-grade white paper waste for recycling. Regional Administrator John A. Green is encouraging other Federal agencies to participate, collecting such paper in desk-top containers for shipment to a recycling contractor, Shade, Inc., Green Bay, Wisc.

Production of recycled paper requires about 60 percent less energy than manufacture of paper made from new wood pulp, and there is a reduction of 60 percent in air pollution and 15 percent in water pollution. Money for the reclaimed paper goes to the U.S. Treasury.



hawaii turnaround

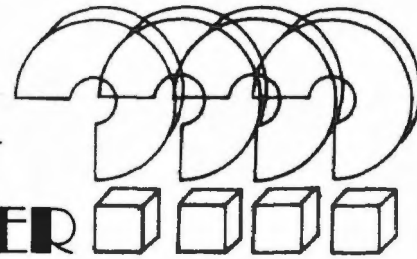
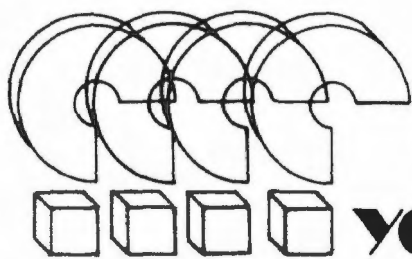
Hawaii has achieved a "historic turnaround" in its wastewater treatment construction program, according to Region IX Administrator Paul DeFalco Jr. Hawaii's "rate of progress among the 50 States has gone from near the bottom to near the top in less than a year," Mr. DeFalco said at a recent convention of the National Utilities Contractors' Association in Honolulu. Through outstanding Federal-State cooperation, he said, EPA has been able to approve projects and commit all presently available funds, \$93 million altogether, of which \$77 million was approved in the last nine months. "EPA is striving to transfer the 'nuts and bolts' of this program to the States," Mr. DeFalco said, "and in Hawaii this is now largely the case. The results will be a more effective program to achieve cleaner water and a program which is more responsive to the unique environmental needs of Hawaii."



tv town meeting

EPA's first television "town meeting" in Spokane, Wash., last month reached an audience estimated at more than 100,000 persons.

John H. Quarles Jr., Deputy Administrator, and Region X Administrator Clifford V. Smith led the two-hour session "live" from the studios of KSPS-TV, the Spokane educational station, on Feb. 9. Beyond the Spokane area the program was carried on about a dozen cable TV stations, bringing the town meeting to viewers as far west as Wenatchee, Wash., as far south as Oregon's northeastern corner, east across the Idaho panhandle to western Montana, and north to Calgary, Alberta, Canada.



WOULD YOU WANT YOUR CHILD TO ENTER THE FEDERAL CIVIL SERVICE?

Peter Devine, Regional Counsel, Region II, New York:

"If I had only one child I would have no objection to his or her entering the Federal service. It's been good to me. It's satisfying to provide a public service, to contribute to society—to *pro bono*—in a special way. Working for the Federal government is a good way to spend one's time in one's career, and, of course, it also provides a living in an admirable way.

However, since I happen to have 10 children, I hope they will have a variety of experiences. I look forward to vicariously enjoying a variety of different life styles. So I would certainly not discourage, and would probably encourage, one or more to enter the Federal service, if they so desire. But I would hope that they *all* don't decide to become civil servants."

Dolores D. White, secretary, Congressional Affairs Division, Region X, Seattle, Wash.:

"Yes, but only if there is a better chance for their advancing, getting proper training and equitable salary than in the private sector, regardless of their being a minority male or, two strikes against my daughter, being black and a woman. Now the Federal government is making progress in this area for minorities and women and is keeping abreast with the private sector. Hopefully by the time my children are of age they will be able to choose a job in either the

Federal government or the private sector because it offers them the benefits they want as a qualified person and not because there is potential advancement as a minority or a woman."

Clara J. Delay, secretary, Enforcement Division, Region IV, Atlanta, Ga.:

"Being the mother of two girls, I will definitely advise my children to go into Federal service when they become of age. In addition to the leave benefits, retirement plan, and low insurance costs, more women are reaching their full potential in Federal service in terms of job security, job advancement, training and educational opportunities, and upward mobility opportunities."

Donald W. Whitlock, Chief, General Services Branch, Region V, Chicago, Ill.:

"Until my exposure to EPA, my answer would have been 'no'. I had always felt that the Federal government was too impersonal in its dealings with employees, as well as being a haven for those without motivation for either improving themselves or alleviating national problems. Employment with EPA has shown me that the challenge to improve the environment has brought together a Federal agency composed of people willing to expend extra effort to attain Agency goals. There are many opportunities

available for Federal employees for self-improvement. They can obtain job related education at no cost to themselves which will prepare them for promotion. I have suggested to two of my sons that they seek employment with the Federal government, and I hope they will accept this piece of advice."

Gilbert M. Gigliotti, Director, Technical Information Staff, Office of Research and Development, Cincinnati, Ohio:

"I believe the question is a timely, well-conceived one, and I am pleased to say, 'Yes'! I have talked with my teen-age children who have reinforced my own conclusion.

"Although it is true the Federal Civil Service System has received much negative nation-wide attention, there are employees who perform their duties with dedication. These men and women have found selfimprovement in their job and advancement available in their work life. Regrettably, some employees have not been given or used the opportunities to make use of their skills and resourcefulness.

"Many of today's Federal service employees (scientists, engineers, clerks, and wage board) have long records of experience in their fields. They bring a high quality of manpower to the Federal family, and because of their example I can urge that my children include Federal employment among their career options."



Peter Devine



Dolores D. White



Clara J. Delay



Donald W. Whitlock



Gilbert M. Gigliotti



news briefs

QUARLES NOTES INDUSTRY CLEANUP

Most American industries have "responded positively to our efforts to develop reasonable solutions to environmental problems," Deputy Administrator John R. Quarles Jr. told a group of business leaders in New York recently. But, he said, there are exceptions, most notably the United States Steel Corporation. "Substantial compliance problems have been encountered" at 17 of the firm's 20 major steel-making facilities, he said. "In my opinion, U.S. Steel has compiled a record of environmental recalcitrance...second to none."

\$7.5 MILLION AVAILABLE TO STATES FOR DRINKING WATER PROGRAMS

EPA has allocated \$7.5 million to help States set up and administer drinking water programs under the Safe Drinking Water Act. The funds will be used to formulate standards, certify laboratories, and survey and enforce compliance. Each allocation was determined by the number of public water systems in the State, and its population and land area.

EPA SURVEYING RADIATION FROM TV AND RADIO STATIONS

A specially equipped van carrying three scientists from the Office of Radiation Programs is touring major U.S. cities to measure the amounts of microwave radiation near television and radio broadcasting stations. By next October the van will have surveyed seven large cities in the East and Midwest. It will visit a similar number of western cities in the following 12 months. Objectives are to measure the intensity of radiation present and possible effects on human health.

FINAL REGULATIONS ADOPTED ON SEWAGE DISCHARGE FOR VESSELS

EPA recently adopted final rules limiting the discharge of sewage from vessels into U.S. waters. When they are in full operation after a phasing-in period (January 1977 for new vessels and three years later for existing vessels), the rules ban any sewage discharge into most freshwater bodies within a State, and they require on-board treatment before discharge into coastal and interstate waters.



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PLAGUE AGAINST PLAGUE

New steps have been taken in EPA's efforts to encourage development of natural enemies of the insects which rob the American farmer of millions of dollars worth of crops each year.

For the first time an insecticide made from a naturally occurring insect virus has been registered by EPA. The product, Elcar, is approved for use against two highly destructive cotton pests, the cotton bollworm and tobacco budworm, which despite its name, also chews cotton plants.

The virus, Nuclear polyhedrosis, is a natural disease of these two pests. The insecticide is produced by raising diseased bollworm and budworm insects in a laboratory and then extracting the virus and mixing it with other materials, which can then be applied by either ground equipment or airplane.

This natural insecticide, produced by Sandoz, Inc., Homestead, Fla., appears to have no adverse effects on beneficial insects, birds or other wildlife that help keep cotton pests under control.

Other environmental benefits of the insecticide are that it becomes harmless shortly after application and that it is not capable of building up in the bodies of birds or other wildlife that might eat the treated bugs.

In cotton growing areas where other pests such as the boll weevil are a problem, research is being conducted on ways of combining Elcar with chemical products for effective treatment.

Registration by EPA means that the



Checking for bollworm damage in a Southern cotton field.

product has met extensive test requirements for safety and effectiveness.

Different viruses are now being tested under experimental use permits from EPA for control of two serious tree defoliating insects, the gypsy moth and the tussock moth.

Other natural or biological pesticides being developed are:

An insect bacterium, *Bacillus thuringiensis*, which recently was registered by EPA for use in combating the Eastern spruce budworm and for control of gypsy moth and several vegetable and crop pests.

A parasite, *Nosema locustae*, which is mixed with wheat bran and then dropped from airplanes in Montana and Wyoming to control grasshopper infestation. The *Nosema* feeds on the grasshopper's fat and multiplies until the insect gets puffy, turns white and dies. Mass grasshopper populations have been eating forage needed by cattle on western grazing lands.

Use of this parasite is being tested under an experimental use permit from EPA. Also being tried under such an EPA permit is a fungus that is a natural enemy of a weed common to rice fields in Arkansas. □