

U.S. EPA Region 5

**FY 91: IT WAS A VERY GOOD YEAR**

HIGHLIGHTS OF REGIONAL FIRSTS AND OTHER ACCOMPLISHMENTS



NOVEMBER 4, 1991  
CHICAGO, IL

## HUMAN RESOURCES

**Total Quality Management (TQM):** Region 5 is in the forefront of developing a strong TQM program. A prototype, integrated TQM Strategic Plan and Action Plan for FY92 is now in place. It was approved by senior management and has been used by Organizational Dynamics, Inc., as a model. Our structure:

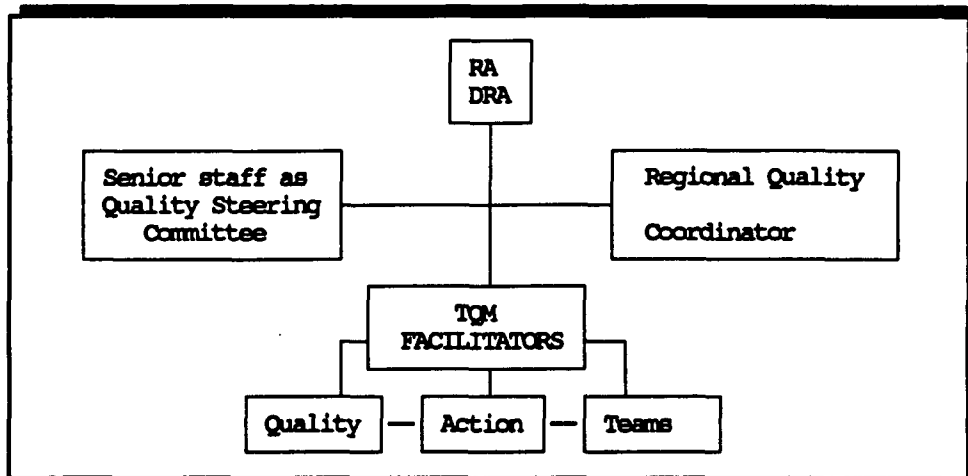


Figure 1. TQM Infrastructure

- Trained all 160 supervisors through the Basic TQM course--the first Region to do so.
- Designed a special 4-hour orientation session for all 1,300 employees. Presentation will begin in December.
- Invited several States to take part in our TQM facilitator training. Indiana staff have already been trained; four other States have asked to participate as well.

**Multicultural Diversity:** The Region 5 Special Emphasis Programs and the Human Resources Council have formed a task force to look into issues presented by a changing workforce. Through a series of meetings, focus groups, and seminars, Region 5 was able to put together a creative strategy and a solid action plan that will meet our needs well into the future.

- This initiative has generated excitement and enthusiasm among all involved. It has created an atmosphere of trust and teamwork, which produced excellent recommendations and proposed actions.

- Region 5 will shortly begin to train all managers and supervisors and to orient all employees to cultural diversity issues we face as an Agency and as a Nation.

**Envirofest:** Last July, Region 5 held its first Envirofest. It was a huge success. Some 1,000 employees, their families, and friends had gathered in Chicago's Lincoln Park. This set an all-time attendance record for a Regional event.

- Fourteen field demonstrations were set up, covering everything from air pollution to wetlands.
- Prizes were awarded for the best conceived, most interactive, most practical, and wittiest displays.
- Athletic contests, plentiful food, and music rounded out this unique event.

**Project 92:** The move of nearly 1,600 EPA employees and contractors to the new Federal building began October 11, 1991--exactly 4 days ahead of the target date set 33 months ago.

- Voluminous communication efforts to keep employees informed about this historical move--EPA's largest--included periodic newsletters, fact sheets, memos, interim briefings, model workstations, and walk-through tours.
- Employee involvement included surveys on fitness equipment, food preference, color and fabric selection for furniture, and testing of seating and systems workstations. Design changes were then made to accommodate special needs.

**Indian Lands Multimedia Program:** Region 5 was part of a historic first--the awarding of one of two multimedia demonstration grants to Indian tribes nationally. Region 5's recipient was the Bad River Band of Lake Superior Chippewas in Wisconsin.

- By the end of FY91 Region 5 had awarded nine additional multimedia grants to tribes, for a total of \$503,000, including OFA funds. This support was the largest in the country. By year's end, more than half the Region's tribes had such grants.

## **COMPARATIVE RISK — REGIONAL PROCESS & ACTIVITIES**

The Region's comparative risk study produced a powerful tool for redirecting work years. In FY91, the Region shifted ten percent of its base resources to launch work on high priority risks.

**Habitat Protection:** Region 5 has developed an aggressive stewardship-oriented program for protecting ecosystems. The program relies heavily on Federal, State, and local agencies, as well as on environmental groups. Region 5 has:

- organized a Habitat Protection Forum with representatives from many diverse organizations;
- established an Ecological Seminar Series and an ecological training program;
- scheduled a Midwest Environmental Roundtable of Federal Land Managers (Nov. 12-14, 1991) to develop a year-to-year multiagency strategy for identifying and protecting ecosystems;
- launched a geographically focused pilot project in three key areas (Saginaw Bay, Green Bay, and hardwoods region of southern Illinois) that augment other Great Lakes and multimedia projects.

**Global Atmosphere Initiative:** Stratospheric ozone depletion and global climatic change are problems ranked highest in Region 5's comparative health and ecological risks analysis. The initiative's goals are to:

- increase public awareness of health and ecological risks posed by ozone depletion and global warming;
- encourage government, industry, and individuals to take preventive steps.

**Safe Sun Campaign:** To highlight risks of exposure to ultraviolet radiation, Region 5 has:

- issued press releases before major summer holiday weekends to caution outdoor enthusiasts;
- distributed fact sheets to all regional TV and radio weathermen;
- delivered over 300,000 "Practice Safe Sun" bookmarks to regional bookstores and libraries.

**Green Lights Program:** To stress energy conservation and pollution prevention, Region 5, in cooperation with EPA HQ, has signed up 18 corporate partners, 40 allies, and the first city partner in the country.

These commitments are expected to prevent annually the emission of some 1 million tons of carbon dioxide, 5 million lbs of sulfur dioxide, and 3 million lbs of nitrogen oxide.

**Lead:** Region 5 has taken steps to reduce emissions from 17 largest industrial sources of airborne lead. Most of them have no legally enforceable emission limits.

- Plant visits, which included discussion of ways to reduce emissions, have already yielded reduction commitments from several companies.

- Project LEAP (Lead Education and Abatement Program) is being carried out over a 3-year period. Its basic components are: data analysis and targeting, pollution prevention, education and intervention, and abatement. The primary goal is to prevent lead poisoning in children, especially those in inner cities.

**State Comparative Risk Projects:** As lead Region for OPPE, Region 5 held a workshop with OPPE's Regional-State Planning Branch on State comparative risk projects. This included guidance on methodology and process issues. All 10 EPA Regions and representatives from 21 States attended. In addition:

- Region 5 has started State comparative risk projects with Michigan and Illinois.

**Wisconsin Tribal Risk Project:** Region 5 has developed jointly with the tribes a comparative risk analysis for Indian lands in Wisconsin. This project will tell us:

- how risks may differ in a minority community from the overall patterns in the Region and the Nation;

- how risk analysis may change where environmental and welfare values differ.

Problem areas were discussed with tribal officials and ranked according to human health, ecological, and socioeconomic risks.

**Data Integration:** To tap environmental data available at Federal and State agencies, Region 5 has asked other EPA Regions and Offices to identify their data needs for FY93. Six major data sets were identified. The most important: land use/land cover information via satellite imagery from NOAA and NASA.

## GREAT LAKES

### **Knowledge Base:**

- Accelerated Remedial Action Plans (RAP's), with 19 Stage I and 4 Stage II RAP's submitted to EPA as of June 30, 1991.

- Facilitated Lakewide Management Plans (LAMP's) for Lakes Michigan and Ontario; draft LAMP for Lake Michigan submitted to International Joint Commission (IJC) July, 1991.

**Assessment and Remediation of Contaminated Sediments:**

- Completed field assessments and site-specific reports for demonstration sites, selected treatment technologies, and conducted pilot scale demonstrations of five different treatment technologies.
- Signed Buffalo River cleanup agreement with key agencies.

**Data Integration:** Great Lakes Advisory Committee Data Integration Work Group produced a Great Lakes Mission Needs Report and Great Lakes Information Resources Directory.

**Air Deposition:** Established one U.S. and one Canadian master station on Lakes Superior and Ontario, respectively.

**Monitoring:** Completed monitoring cruises to track nutrient and trophic status in the four lower Lakes, the oxygen depletion ratio in Lake Erie, and toxicants in Lakes Michigan and Ontario.

**Risk Management:**

- Completed Risk Characterization Study.
- Completed mapping Basin areas subject to greatest threat from spills; identified weaknesses in prevention and response programs.

**Pollution Prevention:**

- Developed Great Lakes Pollution Prevention Action Plan.
- Developed binational program to protect and restore Lake Superior.

**Education and Outreach:**

- Completed Great Lakes teachers' curriculum, "Great Lakes in My World," which complements "Great Minds-Great Lakes."
- Promoted public awareness through the RV Lake Guardian goodwill tour of 15 Great Lakes ports. A specially produced 15-min. video on the ship's mission was shown continuously during open-house periods on board.

### Building Alliances:

- Developed a Federal-State 5-year strategy for the Great Lakes focusing on activities designed to reduce high-priority risks. Currently under stakeholder review.
- Developed agencywide action plans and tracking systems for FY91 and FY92.
- Developed an integrated, multimedia, FY93 budget request.

**Cross-Program Integration:** Initiated a special multi-year program to speed up measurable environmental improvement in NW Indiana. This is a heavily industrialized region, with serious air, land, and water pollution. Greatest environmental toll was suffered by Grand Calumet River, Indiana Harbor and Canal, and near-shore waters of Southern Lake Michigan.

## ENFORCEMENT

**Clean Water Act:** Region 5 referred 18 percent of all CWA civil litigation actions nationwide. Assessed penalties, covering 18 facilities, totalled over \$12.8 million. This regional total exceeds the national civil total for FY90. Stand-out cases:

- Wheeling-Pittsburgh Steel Co. was fined \$6.2 million and had to complete \$29 million in wastewater treatment improvements.
- USX signed a consent decree totalling \$34.1 million (including a \$1.6 million civil penalty), requiring cleanup of river sediments.
- Cerro Copper was fined \$1.4 million and had to recycle its toxic wastewater.
- Roll Coater, Inc., trial ended in a court-ordered penalty of \$2.1 million for multiple violations.

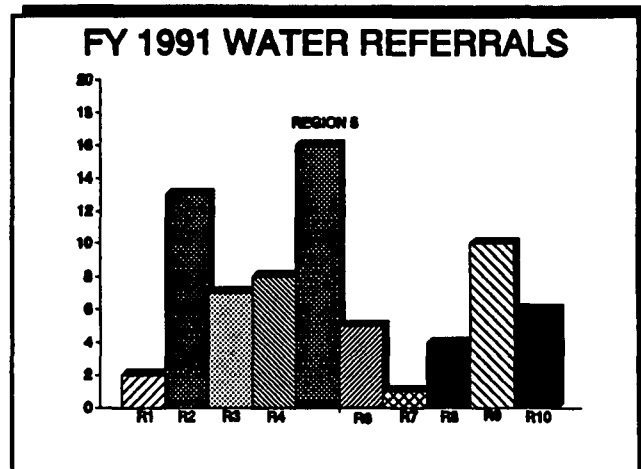


Figure 2. Water referrals

**Clean Air Act:** Region 5 issued 34 percent of CAA referrals nationwide. Assessed penalties, covering 13 facilities, totalled over \$3.4 million. Notices of Violation were issued to 17 facilities for failure to comply with the Chicago Federal ozone plan. Standout cases:

- General Motors Corp. was fined more than \$1.5 million--the single largest environmental penalty in Northern District of Ohio. It also had to reduce VOC's from 3,400 tons to 800 tons per year.

- Bethlehem Steel Co. was fined \$60,000 and had to improve operation and maintenance, as well as monitor its own emissions for the life of the consent decree.

- Stanson Wrecking Co. was fined \$60,000 in a judicial hearing for asbestos violations.

**Superfund:** Twelve consent decrees and seven unilateral orders netted some \$214 million in settlements for remedial design and cleanup. Also:

- A record 37 removal orders were issued to private parties.

- A total of \$29 million in cost-recovery cases was referred to Department of Justice.

- A total of \$255 million in commitments was received from potentially responsible parties.

- Ott-Story-Cordova case resulted in a \$50 million cleanup and a vital precedent: companies were held liable not only for their own cleanup but also that of their site predecessors and subsidiaries.

- For the first time, Department of Energy acknowledged EPA's right to assess fines, in a consent agreement to clean up the Fernald, OH, nuclear facility.

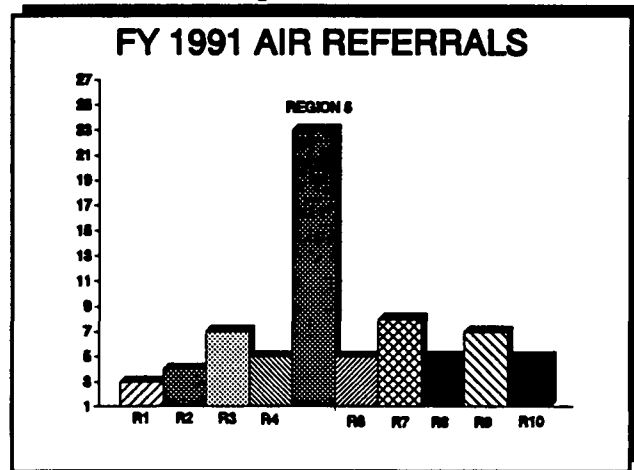


Figure 3. Air referrals



**Toxic Substances Control Act and Emergency Community  
Right-to-Know Act:**

- CBI Services was fined \$99,000 for violations of Section 313 (Toxic Release Inventory).
- DeSoto Inc. was fined \$469,800 for violations of Section 5 (Manufacture without a Premanufacture Notification).
- Southern Indiana Gas was the first natural gas distribution company to be fined (\$53,000) for PCB pipeline contamination. A \$600,000 cleanup/abatement program was negotiated in the final settlement.
- As part of a national asbestos enforcement (AHERA) action against Hall-Kimbrell Environmental Services, Inc., Region 5 issued a \$4,040,000 complaint for violations in 160 schools.

**Multimedia Actions:** As part of a Geographic Enforcement Initiative (GEI), civil cases have been filed in NW Indiana against Inland Steel (RCRA, CWA, SDWA, CAA), Bethlehem Steel (RCRA, SDWA), and Federated Metals (RCRA).

Three other major lawsuits in the area were pursued against City of Gary (SDWA, TSCA, RCRA), City of Hammond (CWA, TSCA), and LTV (CWA, SPCC). Six other judicial matters were targeted and developed.

Region 5 has expanded multimedia enforcement beyond the GEI with seven cases under development, one case referred, and two multimedia matters filed.

In February, Chemical Waste Management (CWM) incinerator in Chicago was shut down due to an explosion in the kiln. Until CWM demonstrates that the incinerator has been repaired, permission to burn both RCRA and PCB wastes has been denied by EPA and Illinois EPA.

**Criminal Actions:** Eleven cases referred; 11 individuals and 1 company indicted. In addition, five individuals and two companies convicted. This is the second-highest number of successful criminal actions in EPA. Standout cases:

- In U.S. v. Ruetz, president of analytical lab was found guilty of 14 charges; faces up to 40 years in jail.
- In U.S. v. Pizzuto, demolition company owner was convicted of dumping PCB's. Sentenced to 18 months in

jail, unless he posts \$1 million in escrow to clean up the mess.

• In U.S. v. U.S. Plating, two companies were fined a total of \$50,000 for discharging cyanide and toxic metals 60 times over the limit.

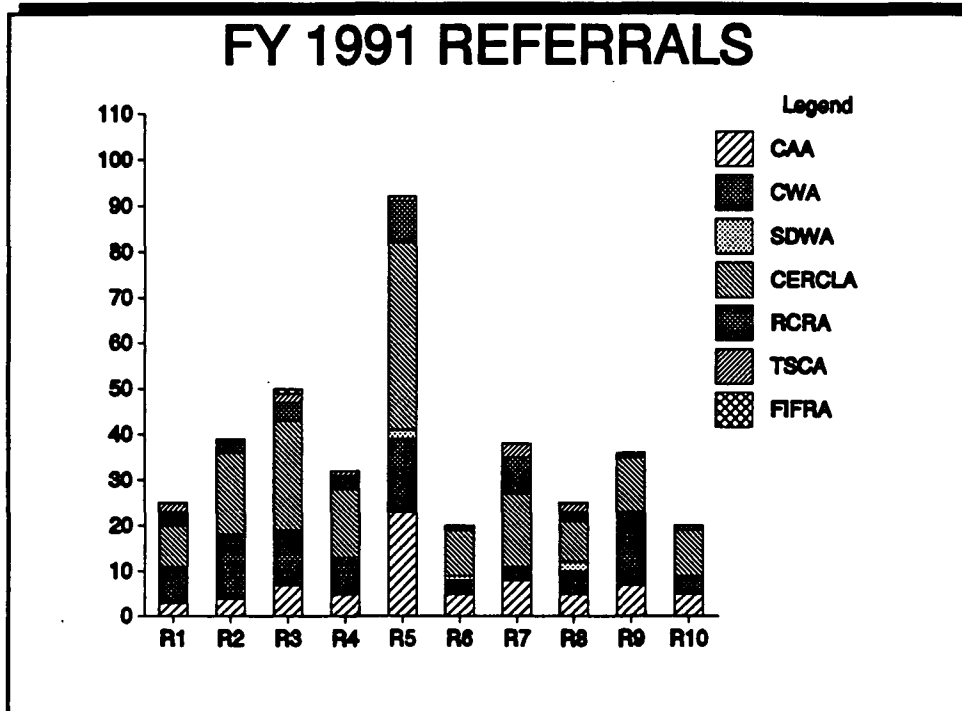


Figure 4. Regional referrals

## P2 ACTIVITIES

**Pollution Prevention:** As lead for OPPE, Region 5 has made major inroads toward developing a fully integrated multimedia pollution prevention program.

- A cross-media Quality Action Team has been working on a Regional 5-year pollution prevention strategy and an FY92 pollution prevention plan.
- The third Region 5 State Pollution Prevention Roundtable Meeting was held in Madison, WI, last August. Next meeting scheduled in Chicago, Feb. 1992.
- Region 5 is represented on the advisory council of the newly funded Pollution Prevention Center for Curriculum Development and Dissemination at the University of Michigan.

Region 5 has successfully implemented the National 33/50 program of reducing the 17 select chemicals by one-half in 1995.

- Coordinated with State P2 representatives to provide outreach to industry by identifying potential obstacles, providing technical assistance needs, and reducing areas of possible duplication.

- Joint 33/50 geographical initiative with Region 7 was held in St. Louis, MO, for facilities in Madison and St. Clair Counties, IL. About 180 industry representatives attended.

- Mailed 1,500 letters to parent companies in the six States, inviting them to participate in the 33/50 program. These companies were in addition to the 600 companies contacted by Administrator Reilly.

- In September, Region 5 coordinated a joint meeting with Region 7 and the Special Projects Office from Headquarters with State and trade association representatives to discuss the goals and status of the 33/50 program.

## INTERNATIONAL ACTIVITIES

**Twinning Program:** As lead Region for international activities, Region 5 was paired with Czechoslovakia under this new EPA initiative. The aim is to match senior EPA managers with senior managers in ministries of each twin country. Help offered would include human resources, technical information, and management (risk-based planning, legislation).

**Eastern Europe:** Water Division staff went to the U.S.S.R., Lithuania, and Hungary to promote water conservation. Host countries showed great interest in environmental software as well as in exchange of data on environmental problems.

**Environmental Software:** Fifteen programs developed by Purdue University are being distributed by Region 5. The programs, either tutorial or analytical, cover such diverse subjects as drinking water, soil erosion, on-farm fuel storage, and pesticides.

- The U.S. Information Agency agreed to distribute this software to all its electronic libraries around the world.

- Work has begun with the Agency for International Development to design software for assessing environmental impacts in Mexico and Brazil.

- Region 5 has answered requests for software from such diverse sources as the San Antonio School District, Canada's Alberta Dept. of the Environment, and the Hungarian Dinosaur Youth Organization.

**German Exchange on Waste Sites:** Under an agreement with Germany, an information exchange program has been set up on abandoned-site cleanup. Region 5 is monitoring six German sites where new technologies are being used. The Germans, in turn, are monitoring six sites in Region 5. Emergency Response Branch staff visited the German sites last August and was host to the Germans in October. Region 5 has presented to the Germans reports on each regional site where new technologies have been used.

**Books to Lithuania:** Region 5 shipped about 200 cartons of books on environmental engineering and health and safety to Lithuania last August. Recipients were the Lithuanian EPA, the National Library, and two universities.

**International Visitors:** Region 5 was host to several dozen guests, including those from the Soviet Union, Lithuania, China, Hong Kong, Taiwan, Australia, Pakistan, Poland, India, France, Morocco, and Zambia.

## **BASE PROGRAM SUMMARIES**

### **Air:**

Region 5 has completed a study on deposition of toxicants in the Great Lakes and on associated health impacts. The study area covered Detroit-Port Huron in the United States and Windsor-Sarnia in Canada. This is the first time that such a study on deposition of toxicants was done. It is also the first study to assess health impacts of air toxicants across an international border.

The Federal Implementation Plan became effective July 1, 1991. These rules on control technology for volatile organic matter (VOM) in northeastern Illinois laid a foundation for VOM rules nationally.

- After notifying some 1,500 affected facilities, Region 5 identified large coating operations that had not submitted the required documents on time. Notices of violation were issued to 17 facilities.

The Lake Michigan Ozone Study is being conducted by Illinois, Indiana, Michigan, and Wisconsin. It is the result of a settlement stemming from Wisconsin's suit against EPA.

- Over 56 land-based sites operated continuously from June 12 through end of August to collect ambient air and meteorological data.
- On 7 days of predicted high ozone concentrations, 4 boats and 7 aircraft were used to collect samples on and above Lake Michigan.
- New technologies, such as three Airtrek systems (which measure reactivity) and a UV-DIAL instrument (to show ozone levels in three-dimensional profile), were employed.
- Early data show that a total of 73 sites had recorded ozone concentrations above the Federal standard of 0.12 ppm.

#### FIFRA/TSCA:

- For the first time, EPA Region 5, FIFRA program has expanded its cooperative efforts to include the White Earth Band of Chippewa and Leech Lake Indian Tribes.
- Through extensive planning on the Great Lakes Action Plan and capitalizing on some existing State programs, the Region began to coordinate a multi-state collection and disposition of old/canceled/suspended pesticide products.
- Region 5 has actively encouraged Local Education Agencies to apply for FY91 funds to control asbestos in schools. Region 5 received \$22.7 million (47.6 percent of the total) of the \$47.5 million awarded nationwide.

#### Waste Management:

The Region 5 Superfund program contributed about 21 percent of the national accomplishment--with 17 percent of the Regional resources.

- Cleanup was begun at 14 NPL sites, with twice as many removals as were targeted. These exceeded our FY90 figures by 25 percent and 27 percent, respectively.
- More records of decision were issued and more designs and remedial actions started than ever before--89 percent more than in FY90.

- Remedial actions were completed at Outboard Marine, LaSalle Electrical Utilities, Lake Sandy Jo, Forest Waste, Cemetery Dump, Verona Well Field, Kummer Sanitary Landfill, University of Minnesota, New Brighton-Arden Hills, and Wausau sites.

The Region 5 RCRA program met all its permit and closure targets and reduced the backlog of permit appeals. In addition:

- RCRA enforcement issued 15 new administrative complaints and settled 13 old actions.
- Twelve new civil judicial complaints were filed.
- A sound foundation was laid for startup of the new RCRIS data management system.
- The UST/LUST program has established a national model for streamlining the repair process for leaking tanks.
- A new UST enforcement move yielded 7 administrative complaints.

**Water:**

- Delegated both the Public Water System Supervision and the Class II Underground Injection Control programs to the State of Indiana, ending a multi-year process to develop State capability.
- Improved integration in protecting ground water through the development of a report by the Ground Water Protection Branch. This report identifies subject areas and action steps to reduce program overlap and improve the use of State resources to protect ground water.
- Expanded shallow injection-well control through grants for senior citizen activities to locate endangered wells.
- Reduced UIC exception-listed facilities from 509 to 195.
- Approved the Illinois Wellhead Protection Program. The Illinois Groundwater Protection Act provides a significant statutory basis for many aspects of the program.
- Assumed a national leadership role for implementing Ground-Water Task Force recommendations at the regional level by preparing for the first State meetings with State programs. Also started a TQM exercise to evaluate the most efficient means for integrating the eight ground-water grant programs in support of the comprehensive program.

- Signed regional order for ground-water data. This requires all regional programs to develop plans for the Minimum Data Element Set--for ground-water data as well as for other data policies.
- Developed--for the first time--State profiles to determine the extent of State ground-water protection programs as called for by the EPA Ground-Water Task Force Report.
- Made integrated program grants for over \$16 million to Region 5 States and Indian tribes.
- Continued the Great Lakes Water Quality Initiative. This will provide basis for consistent water quality standards and implementation procedures to control pollutants discharged into the Great Lakes.
- Developed strategies to carry out stormwater permitting and sludge management programs under NPDES permits, with focus on toxic limits.
- Targeted over \$10 million to prevent nonpoint pollution in selected geographic areas.
- Provided over \$1.1 million to States for wetlands projects, including the preparation of two wetlands conservation plans.
- Sponsored a joint Municipal Water Pollution Prevention seminar and awarded Ohio EPA a \$50,000 grant to pilot the program. Purdue is developing POTW analytical software for treatment plant operators.
- Proposed the establishment of a Center for Technology Transfer and Pollution Prevention at Purdue. This will give environmental ambassadors the tools to train environmental personnel around the world.
- Reviewed the State Revolving Fund (SRF) program on the completed FY90 cycle. All six Region 5 States are making progress in their programs. All have received SRF capitalization grants, cumulatively totalling \$420.6 million.
- Awarded \$108.9 million in residual funds for 23 grants; 147 removed to administrative completion.
- Negotiated a 5-year voluntary construction safety compliance agreement with S.A. Healy, a major contractor, who had been cited for safety violations.

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