In the early 1970s, the Environmental Protection Agency (EPA) faced the challenge of improving the quality of air, water, and soil in the U.S. This mandate came after decades of stressing increased industrial production without concern for the environmental impact of these policies. The U.S. had damaged its streams and rivers, fouled its air, and exposed many citizens to unknown hazards through unsafe waste management practices. For the past 25 years, EPA has worked to improve the country’s human health and environment. The EPA has achieved major accomplishments. For continued improvement, however, the time has come to change the way EPA approaches environmental leadership and oversight.

Changing Relationships
The adversarial relationship between EPA and business must end to achieve further gains. Early advances in environmental protection came through straightforward waste treatment. End-of-pipe regulations were aimed to stop pollution from entering the environment at the source, but often only shifted the point of introduction. Continued improvements will come through pollution prevention practices that promote increased manufacturing efficiency. These improvements will require businesses to begin making fundamental changes to their manufacturing processes. Change will only occur if businesses see an advantage to capital investments in new equipment, materials, or practices. The EPA must recognize this condition for improvement and work with businesses to seek a common ground. Both groups must seek policies that ensure the improvement of the environment while maintaining the potential for increased profitability for businesses.

As the EPA enters its second quarter-century of service, its role and function will evolve significantly. Although EPA continues to maintain a traditional oversight role, the agency has developed a greater capacity to provide services to help business and industry solve their pollution and waste management problems. Two current activities display the EPA’s changing attitude and its commitment to work with businesses to make positive changes. The first activity shows EPA’s evolution toward cross-media oversight of the nation’s manufacturers. A series of industry profiles were recently published that describe manufacturing processes, their inputs and outputs, sources of pollution, and opportunities for improvement. The second project catapults the metal finishing industry into the information age. EPA and its partners currently are developing the National Metal Finishing Resource Center, an information and compliance assistance center located on the Internet.

Sector Profiles
Each profile describes the environmental issues associated with distinct industrial sectors. The profiles chart a new direction toward comprehensive (cross-media) sector-based compliance assistance programs. The project is an important step to shift environmental protection approaches from single-media and pollutant-specific policies toward policies that consider the whole impact of industrial sectors and the facilities that make up each sector. These documents help the EPA and state environmental organizations to better understand industrial processes and the resulting core products. Each profile received extensive review from industry representatives, regulatory programs, and environmental groups. The profiles are impartial overviews of the industries in question and reflect the comments provided by all groups. Increased understanding will lead to improved communication. This will permit regulatory agencies and assistance programs to develop strategies better suited to allow innovation and change under the existing regulatory framework.

The profiles include general information about economic trends, geographic and size distribution, major industrial processes; type, location, and amounts of pollutant release; pollution prevention opportunities; federal statutory and regulatory requirements; compliance history; and cooperative compliance initiatives between industry and government. The EPA does not intend the profiles to serve as compliance manuals, but as a thorough overview of an industry’s characteristics. This project includes the following industries:

- Fabricated Metal Products
- Iron and Steel
- Motor Vehicle Assembly
- Nonferrous Metals
- Metal Mining
- Electronics and Computers
- Dry Cleaning
- Inorganic Chemicals
- Lumber and Wood
- Non-Metal Mining
- Organic Chemicals
- Petroleum Refining
• Printing
• Pulp and Paper
• Rubber and Plastics
• Stone/Clay/Glass/Concrete
• Transportation Equipment Cleaning
• Wood Furniture and Fixtures

The profiles will show businesses how their particular industries compare to others. No greater incentive to change exists than the desire to be better than competitors within a common market. The EPA expects that the pollution prevention and voluntary program information will show how progressive companies or industries can succeed by accepting change and moving toward manufacturing processes that produce less waste, and in turn, creating better opportunities for increased profit. Within each profile, one will find comparisons of Toxic Release Inventory data from 1993, enforcement activity from fiscal years 1991 through 1995, a listing of participants in the 33/50 program, and other sector specific information. This comparative information allows an individual business to compare its release and compliance information to the averages provided. This information, along with the pollution prevention section, may serve to provide impetus for wider acceptance of cleaner and cheaper ways to manufacture finished products.


National Metal Finishing Resource Center
The EPA and the National Institute of Standards and Technology (NIST), in partnership with AESF, National Association of Metal Finishers (NAMF), the Metal Finishing Suppliers Association (MFSA), academic institutions, environmental groups and other federal and state agencies, will establish the National Metal Finishing Resource Center (NMFRC) for the metal finishing industry. The center will provide interested users with information on environmental compliance, pollution prevention opportunities, production efficiencies, and emerging technology trends. This center comes in response to EPA’s and NIST’s desires to improve the performance of an industrial sector heavily populated with small businesses that face substantial federal regulation. The leadership within AESF, NAMF, and MFSA recognizes the importance of continuously providing better information to its membership. The center has received both endorsement and funding from these organizations. This endeavor shows the possibilities to improve performance when industry and government work together toward common goals. Not only will the center serve the metal finishing industry, but government technical assistance providers, contractors, and lawyers seeking to better understand this industry may access the center’s databases.

The center will supply users with written materials in both electronic and hard copy format. The center will also provide users with an in-house staff to answer many questions concerning compliance and competitiveness. All questions are confidential and the center will not release site-specific information to the EPA or its state partners. The center will help technical assistance seekers find an appropriate individual or organization within a local area to provide the needed expertise to solve compliance and production problems. The following services will be provided:

• One-Stop Shopping—The center will provide compliance information across environmental media; information will be based on the production processes businesses use that balance good business sense with what is good for the environment.
• Regulatory Interpretation—The center will post all available regulatory determinations made by EPA and its regional programs.
• Performance and Cost Comparisons Across Technology Options—The center will provide users with cost comparisons between selecting various technology options and will identify any associated risks or performance data.
• Training Schedules—The center will post training opportunities available nationally.

• Information Sharing—The center will allow users to post questions to other users and obtain feedback from other facilities that may have already overcome the obstacle in question.
• Vendor Information—A directory will provide information on vendor location, the equipment and materials each provide, and contact information.
• User-Defined Services—The center will continuously solicit thoughts from users to better tailor services to their needs.

EPA and NIST entered into a cooperative agreement with the National Center for Manufacturing Sciences (NCMS). Under a three-year work plan, NCMS will develop the center’s information delivery systems, gather all available and relevant information, and create a network of technical assistance providers that will serve the center’s users. The cooperative agreement directs NCMS to develop a plan to make the center self-supporting within three years. Access to the center will be through a yearly subscription. The partners involved will try to keep the cost affordable to small businesses and nonprofit organizations. The NMFRC will begin operations in 1996.

For more on the project, see “NMFRC News,” a new P&SF column by Bill Bonivert and George Cushnie that appears on page 00.

The Search Will Continue
These are only two examples of the EPA’s evolution toward working cooperatively with industry to reach mutually acceptable goals. The metal finishing industry continues to be a leader by accepting the challenge from EPA to create environmentally progressive methods of preparing, cleaning, and coating materials. Tomorrow’s generations may be assured of a clean environment and a vibrant economy if these initial projects lead to a new way for government and business to find common ground. P&SF