



Project Summary

Fourth Conference on Advanced Pollution Control for the Metal Finishing Industry (Proceedings)

The Fourth EPA/AES Conference on Advanced Pollution Control for the Metal Finishing Industry was held in Lake Buena Vista, Florida, January 18-20, 1982. This broad-scoped colloquium was jointly designed by the American Electroplaters' Society and the Nonferrous Metals and Minerals Branch, Industrial Environmental Research Laboratory, U.S. Environmental Protection Agency. The primary objective of this Conference was to continue the dialogue established at the First EPA/AES Conference (1978) and strengthened at the Second and Third EPA/AES Conferences (1979 and 1980, respectively) between key members of the EPA and the metal finishing industry. The proceedings of this Fourth Conference reflect the primary points of the gathering: the status of EPA's wastewater and solid waste regulations, and both EPA's and industry's efforts to effectively address the ramifications of these regulations. Special sessions of the Conference were devoted to metal finishing solid waste, practical pollution control alternatives, recovery technology, emerging technologies, and innovative alternatives. The proceedings contain 21 papers reporting on this work.

This Project Summary was developed by EPA's Industrial Environmental Research Laboratory, Cincinnati, OH, to announce key findings of the research project that is fully documented in a separate report of the same title (see Project Report ordering information at back).

The keynote address of the conference was delivered by Bruce Barrett, the USEPA's Acting Assistant Administrator for Water, who discussed a broad range

of topics, including water quality standards regulations.

Since attendees at the first, second, and third conferences placed the greatest emphasis on wastewater and solid waste, the initial segment of the Fourth Conference was structured to provide attendees with a detailed understanding of the potential impact of current and future regulations in these two important environmental areas. Key officials, representing EPA's water and solid waste regulatory offices, described the procedures by which the Agency prepares and promulgates regulations having a direct impact on metal finishers. Titles of presentations from this segment were "Status of Effluent Guidelines for the Metal Finishing Industry and the General Pretreatment Regulations," and "Status of EPA's Hazardous Waste Program."

The second segment, entitled "Solid Waste," provided the Conference attendees with an overview of the solid waste regulations and the delisting procedure. Descriptions of technical and administrative difficulties and solutions for metal finishing solid waste were also presented. Presentations included "RCRA Delisting Procedures and a Regulatory Overview," "Determination of the Relationship Between Plant Operating Conditions and Wastewater Sludge Leachability," "Outlook for New Hazardous Waste Management Technology," "Segregated Neutralization for Treatment of Concentrated Aluminum Finishing Wastes," "Hazardous Waste Treatment Facility Siting Methods, Concerns and Progress," and "Disposal: What Does It Really Cost?"

Since numerous industrial plants are currently attempting to comply with various air, water, and solid waste regulations, the third and fourth segments of the Conference discussed practical cur-

rent solutions to major pollution problems. A majority of the presentations from these two segments were given by industrial participants who are faced with the burden of regulatory compliance. The third segment, "Practical Alternatives for Pollution Control," consisted of the following presentations: "Energy, Environmental and Safety Benefits Through Computer Controlled Curing Oven Processes," "Oily Wastewater Treatment by Electrochemical Techniques," "Cross Flow Filtration Technology for Metal Finishers," and "The Application of Ion-Exchange and Modified Rinsing Procedures to Minimize Treatment Costs." The fourth segment focused on recovery technology for metal finishing wastewater. The titles of the presentations from this session included "Recovery of Acid Etchants at Imperial Clevite, Inc.," "Recovery and Electrochemical Technology," "Some Successful Applications of Electrodialysis," and "Electrolytic Metal Recovery Comes of Age."

"Emerging Technologies and Innovative Alternatives" was the title of the fifth segment. Presentations described new developments that could eventually solve key environmental problems. This final segment was comprised of four presentations: "New Developments for the Treatment of Wastewater Containing Metal Complexers," "Batch Hydrolysis System for the Destruction of Cyanides in Electroplating Effluents," "Renovation of Electroplating Rinse Waters with Coupled-Transport Membranes," and "The Application of Donnan Dialysis to Electroplating Wastewater Treatment."

An evening session entitled "Regulatory Reform—An Open Forum Discussion" was also conducted. Panel members

representing EPA, industry, and the Natural Resources Defense Council individually provided opening remarks focused at regulatory reform. The panel then opened the floor to a free discussion in order to permit all attendees to commonly and openly discuss the topical subject as well as other related environmental concerns. Since these discussions were informal in nature to allow for a more open dialogue, they are not included in the proceedings.

These proceedings are published in order that the material presented at the Conference can benefit as many people as possible interested in solving the intricate problems inherent to metal finishing processes. These proceedings contain the presentations made by representatives of various EPA regulatory groups affecting the metal finishing industry, as well as presentations by parties actively addressing research and development in this same industrial area.

The conference was co-sponsored by the U.S. Environmental Protection Agency and the American Electroplaters' Society, Winter Park, FL 32789.

M. Lynn Apel is the EPA Project Officer (see below).

The complete report, entitled "Fourth Conference on Advanced Pollution Control for the Metal Finishing Industry (Proceedings)," (Order No. PB 83-165 803; Cost: \$13.00, subject to change) will be available only from:

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