



Project Summary

Proceedings of International Workshop on Research in Pesticide Treatment/Disposal/Waste Minimization

T. David Ferguson

An international workshop on treatment, disposal, and waste minimization of pesticides and pesticide wastes was held in Cincinnati, OH, on February 26-27, 1991. The purpose of this workshop was to work with government, pesticide user groups, pesticide producers, farm organizations, and academia to define and offer practical solutions to pesticide users' treatment and disposal problems. The technical program included presentations by government researchers and regulators, academia, industry experts, and individuals involved in pesticide disposal and treatment.

The workshop was sponsored by the following organizations:

U.S. Environmental Protection
Agency
Office of Research and Development
Risk Reduction Engineering Laboratory
Cincinnati, Ohio 45268
and
Tennessee Valley Authority
National Fertilizer and Environmental Research Center
Muscle Shoals, Alabama 35660

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

Aside from the technical presentations, the workshop allowed for some discussion among the participants. Several issues/

concerns were discussed by the attendees. The two issues which caused the greatest concern were site remediation and regulatory framework.

Discussions on site remediation were directed toward dealer sites. The focuses on the cleanup were both soils and groundwater contamination. The largest problems identified with dealer site cleanup were costs and issues of how clean is clean enough. It was noted that many dealers could go bankrupt if costs were high. Also, little remediation is being conducted because dealers feel that regulators cannot give them cleanup levels that will hold true in the future.

Regulatory framework is also of great concern. Discussion ensued regarding how to solve this problem. Suggestions included the following:

- 1) Prove technology first, then worry about the regulatory framework.
- 2) Regulatory framework needs to be looked at while technology is being developed—it can and does drive costs.
- 3) Policy people are not listening to research people.
- 4) Get the key players involved. Target state regulators since they are closest to the problem. Get the concerns and scientific information to the pertinent regulatory people.

Another topic of discussion was waste minimization and education. It was agreed that many pollution prevention ideas would significantly decrease the number of future problems involving pesticides. These waste minimization techniques were generally low-cost practical solutions to managing



pesticides and pesticide wastes. It is important that these ideas become common practices through education of appropriate users and dealers of pesticides.

The full report includes the following papers:

Tennessee Valley Authority National Fertilizer and Environmental Research Center—An Overview
by Joe Gautney

Tracking Small Quantities of Cancelled or Excess Pesticides Containing Dioxins and Furans
by J. Paul E. des Rosiers

Research and Development Needs for Agrichemical Retail Dealership Site Assessment and Remediation
by Chris Myrick

An Evaporation/Degradation System for Pesticide Equipment Rinse Water
by Steven E. Dwinell

Pesticide Disposal Using a Demulsification, Sorption, Filtration and Chemical and Biological Degradation Strategy
by D.E. Mullins, R.W. Young, G.H. Hetzel, and D.F. Berry

Landfarming and Biostimulation for Decontaminating Herbicide Wastes in Soil

by Kudjo Dzantor and A.S. Felsot

Removal of Pesticides From Aqueous Solutions Using Liquid Membrane Emulsions

by Dr. Verrill M. Norwood, III

Field and Laboratory Evaluations of an Activated Charcoal Filtration Unit
by J.H. Massey, T.L. Lavy, and B.W. Skulman

Preliminary Studies of Batch Chemical Oxidation of Wastewaters Containing Agrichemicals
by C.E. Breed and M.C. Crim

Extraction of Pesticides from Contaminated Soil Using Supercritical Carbon Dioxide
by G.B. Hunter

Modular Concrete Pads for Pesticide and Liquid Fertilizer Handling, Storage and Containment
by Ronald T. Noyes

Waste Minimization for Non-Agricultural Pesticide Applicators: EPA's Pollution Prevention Guide
by Teresa M. Harten

Pesticide Container Management in the United States
by Nancy Fitz

Pesticide Disposal in Guinea-Bissau: A Case History
by Janice Jansen

Downstream Injection Equipment for Sprayers and Fertilizer Spreaders
by A.W. McLaughlin, S.A. Weeks, and O.L. Vanderslice

Evolution of the Pesticide Container Disposal Program in Alberta
by C.G. Van Teeling and W. Inkpen

Retail Fertilizer Dealer Product Containment
by M.F. Broder

The full proceedings was submitted in fulfillment of Contract No. 68-C8-0061 by Science Applications International Corporation (SAIC) under the sponsorship of the U.S. Environmental Protection Agency.

T. David Ferguson is the EPA Project Officer, (see below).

The complete report, entitled "Proceedings of International Workshop on Research in Pesticide Treatment/Disposal/Waste Minimization," (Order No. PB92-119940/AS; Cost: \$35.00, subject to change) will be available only from:

National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161
Telephone: 703-487-4650

The EPA Project Officer can be contacted at:
Risk Reduction Engineering Laboratory
U.S. Environmental Protection Agency
Cincinnati, OH 45268

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Information
Cincinnati, OH 45268

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