



FLORIDA
ASSOCIATION
for
WATER
QUALITY
CONTROL

June 22, 1995

Dear Attendees:

It is my pleasure to welcome you to the 18th Annual Conference of the Florida Association for Water Quality Control. We thank you for your attendance and participation in this conference and I am sure that you will be pleased with the program. As you review the technical program in this handout, I am sure you will see that we have water quality related presentations for everyone. A top notch team of experts in their respective fields have been assembled to give you the latest, most up-to-date information on the current "hot" environmental topics. This promises to be an excellent opportunity to learn in a relaxed, informal atmosphere.

In addition to the technical program, we have arranged other activities for you enjoyment including a boat tour of the Everglades and Ten Thousand Islands. This field trip will be a fun filled opportunity for the family and to enjoy the company of your colleagues.

This year's conference would not have been possible without the hard work and tireless dedication of the Executive and Planning Committees. These members, who are listed in Section VI, donated many hours of hard work to make this conference successful.

The quality that we achieve at this conference each year is possible only with the help of our sponsors and exhibitors. These companies are listed in Sections III and IV. On behalf of FAWQC I extend our sincerest thanks for their continued support.

So sit back and relax, absorb the timely technical information, enjoy the field trips and social events and last, but not least, HAVE A GREAT TIME!

Sincerely,

R. Fred Crabill
Chairman

TABLE OF CONTENTS

SECTION I	Meeting Agenda and Technical Program
SECTION II	Abstracts and Biographical Information
SECTION III	Corporate Sponsors of FAWQC
SECTION IV	Expo Participants
SECTION V	About the Registry Resort and Surrounding Area
SECTION VI	Officers, Board and Committee Chairmen

SECTION I

Meeting Agenda and Technical Program

FAWQC

AGENDA OF EVENTS

Vendor Setup Wednesday Afternoon

Cocktail Reception Thursday, 6:00 pm - 7:30 pm

Fun Run/Walk Friday, 6:45 am - 7:45 am

Everglades Field Trip Friday, 1:15 - 4:30 pm

Tennis Tournament Saturday, 9:00 am, The Registry Resort Tennis Courts

Golf Tournament Saturday, 9:00 am, 851 Gulfshore Blvd. North, Naples

DIRECTIONS: From The Registry, take US-41 South (approximately 5 miles), turn right on Golf Drive (just past Red Lobster). Follow Golf Drive to Clubhouse.

FORMAT: Scramble Teams. Dan Bracy, PGA Professional, will provide coordination, rules, scoring help.

**1995 FAWQC CONFERENCE
TECHNICAL PROGRAM**

THURSDAY, JUNE 22, 1995

INTRODUCTIONS

Fred Crabill - Chairman
Lisa Sutton - Program Chairman

8:00 - 8:15

RCRA/HSWA CORRECTIVE ACTION

Satish N. Kastury - Department of Environmental Protection
Jon Hull - Atlanta Testing & Engineering
Tom Patka - Holland & Knight
Questions & Answers

8:15 - 8:35
8:35 - 8:55
8:55 - 9:15
9:15 - 9:25

WATER USE AND PERMITTING STRATEGIES

Greg Williams - IMC-Agrico
Douglas Foster - Tropicana Products, Inc.
Questions & Answers

9:25 - 9:45
9:45 - 10:05
10:05 - 10:15

BREAK

10:15 - 10:30

RISK ASSESSMENT

Dr. Chris Teaf - HSWMR, Inc.
Dr. Gary Rand - Ecological Services, Inc.
Questions & Answers

10:30 - 10:50
10:50 - 11:10
11:10 - 11:15

WETLANDS/ENVIRONMENTAL RESOURCE PERMITTING

Jeremy Craft - Department of Environmental Protection
Susan Stephens - Holland & Knight
Questions & Answers

11:15 - 11:35
11:35 - 11:55
11:55 - 12:00

LUNCH

12:00 - 1:15

Keynote Speaker

Sam Poole - Executive Director, South Florida Water Management District

BREAK

1:15 - 1:30

ECOSYSTEMS MANAGEMENT

Ernie Barnett - Department of Environmental Protection
Questions & Answers

1:30 - 1:50
1:50 - 2:00

POLLUTION PREVENTION/LEGISLATIVE UPDATE

John Barkett - Coll, Davidson, Carter, Smith, Salter & Barkett, P.A.
Fred Mullins - AT&T Paradyne
Questions & Answers

2:00 - 2:45
2:45 - 3:05
3:05 - 3:15

BREAK

3:15 - 3:30

NPDES DELEGATION WORKSHOP

Greg Williams - IMC-Agrico, Moderator
Jan Mandrup-Poulsen - Department of Environmental Protection
Roosevelt Childress - EPA Region IV
Bruce Barrett - Bruce Barrett & Associates, Inc.
Questions & Answers

3:30 - 5:30

COCKTAIL SOCIAL

6:00 - 7:30

**1995 FAWQC CONFERENCE
TECHNICAL PROGRAM**

**FRIDAY, JUNE 23, 1995
NAPLES, FLORIDA**

FUN RUN/WALK		6:45 - 7:45
OVERVIEW OF SECOND DAY'S ACTIVITIES & ANNOUNCEMENTS		
Fred Crabill & Lisa Sutton		8:30 - 8:40
COMPLIANCE AND AUDITING STRATEGIES		
Tom DeRose - Hopping, Green, Sams & Smith		8:40 - 9:00
Mark Stephens - Atlanta Testing & Engineering		9:00 - 9:20
Jeff Pardue - Florida Power Corporation		9:20 - 9:40
John Wiley - Monsanto Chemical Company		9:40 - 10:00
Questions & Answers		10:00 - 10:15
BREAK		10:15 - 10:30
FLORIDA GROUNDWATER CONTAMINATION ISSUES		
Kristin Conroy - Hopping, Green, Sams & Smith		10:30 - 10:50
Mary Williams - Department of Environmental Protection		10:50 - 11:10
Questions & Answers		11:10 - 11:20
COMPLIANCE CASE STUDY		
Ronald DeBattista - Waste Management Inc. - Florida		11:20 - 11:40
Questions & Answers		11:40 - 11:50
WRAP UP & ADJOURNMENT		11:50 - 12:00
Lisa Sutton		
LUNCH	On your own	12:00 - 1:00
EVERGLADES FIELD TRIP		1:15 - 4:30

**SPORTING EVENTS
SATURDAY, JUNE 24, 1995**

GOLF	NAPLES BEACH CLUB	9:00 - TILL
TENNIS	REGISTRY RESORT COURTS	9:00 - TILL

SECTION II

Abstracts and Biographical Information

SATISH KASTURY

BIOGRAPHICAL

Mr. Kastury is Environmental Administrator, Hazardous Waste Section, Florida Department of Environmental Protection (FDEP), Tallahassee, Florida. He received his B.S. Degree in Civil Engineering from the University of Calicut, India, and his M.S. Degree in Environmental Engineering from the University of Connecticut. In his current position, he is responsible in administrating the State's Hazardous Waste (RCRA) Program, coordinating the State Hazardous Waste Program with the U.S. Environmental Protection Agency, develops a yearly workplan and multiyear permitting strategies. He is responsible for providing professional and technical assistance in the review of hazardous waste facility permit applications, compliance and enforcement activities, and coordinates the review with U.S. EPA and other inter-departmental agencies. He assists in the preparation of hazardous waste regulations and prepares guidance and training for the FDEP field hazardous waste staff. In addition, he is Adjunct Professor for the FAMU/FSU College of Engineering, Tallahassee, Florida. Prior experience includes Environmental Engineer, Division of Waste Management, New Jersey Department of Environmental Protection; Adjunct Professor, New Jersey Institute of Technology; Consulting Engineer, TestPak, Inc.; and In-Charge, Environmental Division, Department of Civil Engineering, Hyderabad, India. Member, American Bar Association.

AGENDA

RCRA/HAZARDOUS WASTE

I. Florida

- A. HSWA Program I Authorization
 - 1. Toxicity Rule (TC)
 - 2. Paint Filter Test
 - 3. Double Liners and Leachate Collection
 - 4. Spent Solvents and the Mixture Rule
 - 5. Small Quantity
 - 6. Export of Hazardous Waste
 - 7. Waste Minimization for SQG
 - 8. Land Disposal Restrictions (LDRs)
- B. HSWA Corrective Action

II. Federal

- A. Hazardous Waste Identification Rule (HWIR)
- B. Changes to permit modification procedures (40 CFR Part 270.420)
- C. Hazardous Waste Reduction and Combustion Strategy
- D. LDRs - Phases III and IV
- E. Universal Waste

JON HULL

BIOGRAPHICAL

Mr. Hull is a Principal Consultant for Atlanta Testing & Engineering and manages their office in Clearwater, Florida. He has a bachelor's degree in Geology and has practiced environmental consulting for over 14 years. His professional experience includes investigations for RCRA, CERCLA and LUST sites, feasibility studies, and design, installation and management of in-situ and ex-situ remediation systems. Mr. Hull is currently involved in the implementation of the first RCRA corrective action system in Florida using in-situ bioremediation.

AGENDA

Overview of RCRA/HSWA

Common Methods of Entry into RCRA Corrective Action

Nuts & Bolts of Correction Action

- RCRA Facility Assessment (RFA)

- RCRA Facility Investigation (RFI)

- Corrective Measures Study/Implementation (CMS/CMI)

Innovative Strategies

- RFA

- RFI

- CMS/CMI

THOMAS J. PATKA

Thomas J. Patka is Holland & Knight's environmental law partner for Southwest Florida. He is a member of the Environmental and Land Use Law Section of The Florida Bar and serves on the Solid and Hazardous Waste Committee of the Natural Resources Law Section of the American Bar Association. Mr. Patka was admitted to the Florida Bar in 1985.

Mr. Patka was an Assistant Professor in the Department of Public Administration at Florida International University before moving to the Environmental Protection Agency (Washington, D.C.) on a postdoctoral fellowship in 1979. He has authored a number of articles and papers on government and public policy, and has spoken on environmental law at various conferences across the State of Florida.

Mr. Patka earned his B.A. in Microbiology and Chemistry in 1967 from the University of Minnesota, his M.P.A. and Ph.D. in 1973 from the Maxwell School, Syracuse University, and his J.D. in 1985 from the Catholic University of America.

G. GREG WILLIAMS

BIOGRAPHICAL

Mr. Williams is the Environmental Superintendent for the Minerals Division of IMC-Agrico Company. He has been with the Company for nine years. Previous employers include the Florida Department of Environmental Regulation and an environmental consulting firm.

His department is responsible for all phases of environmental compliance, permitting and monitoring for the Company's ten phosphate mining operations, two deep water shipping terminals and two limestone facilities. He supervises a staff of fourteen.

The group's responsibilities include: industrial wastewater, drinking water, domestic wastewater, air permitting and monitoring, hazardous chemicals, regulated tanks, special wastes (PCBs, used oil, mercury lights, asbestos), hazardous waste, consumptive use, and ambient environmental monitoring.

DOUGLAS FOSTER

BIOGRAPHICAL

Mr. Foster has more than ten years of experience in the environmental field. He has worked at Tropicana Products, Inc., in Bradenton for the last four years and currently is the Manager of Environmental Affairs. Prior to working with Tropicana, he worked for Miles, Inc., Elkhart, Indiana, as Manager of Wastewater Treatment Operations. He has a B.S. in Chemical Engineering from Purdue University.

AGENDA

A year of operational results are presented for a downflow anaerobic filter located at a Tropicana Products, Inc., citrus processing facility in Bradenton, Florida. Data presented demonstrate significant improvement in overall wastewater treatment plant performance as a result of the addition of the anaerobic filter. Reduced Chemical Oxygen Demand (COD) loadings to a downstream activated sludge system resulted in lower system volume and aeration requirements.

Soluble COD removals remained consistently above 60 percent even at peak fruit processing season loadings. total COD removal decreased significantly at higher COD loading. Reduction in filter recycle rates as a result of nozzle plugging may have adversely affected COD removal performance.

Only minor operational and maintenance problems were experienced during the first year of operation. Modification of filter injection nozzles corrected plugging problems which caused a decrease in the recycle flow rates. Periodic cleaning of influent/effluent heat exchangers was required to correct fouling due to accumulation of fibrous material on the influent side.

DR. CHRISTOPHER M. TEAF

BIOGRAPHICAL

Dr. Christopher M. Teaf received a B.S. in Biology from Penn State, an M.S. in Biological Science from Florida State and a Ph.D. in Toxicology from the University of Arkansas Medical School in Little Rock. He is Associate Director of the Florida State University (FSU) Center for Biomedical & Toxicological Research and director of Toxicology for HSWMR, a toxicology research and risk assessment firm in Tallahassee. His activities include the evaluation of potential human health effects and performance of risk assessments under requirements of CERCLA, SARA, RCRA and related federal or state legislation. He has conducted or reviewed risk assessments, and has provided litigation support and expert testimony regarding the effects of chemicals for contaminated sites in 20 states or U.S. territories, including sites with pesticides, chlorinated and non-chlorinated solvents, metals, coal tars, creosote, petroleum products, and phosphate byproducts. Dr. Teaf served as the toxicology and risk assessment representative on the Steering committees for the 1992 and 1994 International Symposia on Contamination in Central and Eastern Europe, directed primarily at environmental and health effects evaluations in Hungary and other central and eastern European countries. He served under 3 governors as Toxicologist to the Financial and Technical Advisory committee and presently is Chairman for the Toxic Substances Advisory Council appointed by the Secretary of the Florida Department of Labor and Employment Security. Dr. Teaf presently serves as Co-Chair for the Human Health Committee of the Statewide Comparative Risk Project, a joint effort coordinated by several Florida agencies, including the Department of Environmental Protection.

Dr. Teaf has conducted environmental and human health-related research and has taught courses for the U.S. EPA, U.S. Department of Agriculture, Florida Department of Agriculture, ATSDR, Georgia Tech, University of Florida, Florida A&M University, Florida Department of Environmental Regulation/Protection, and the Florida Department of Health and Rehabilitative Service.

AGENDA

HUMAN HEALTH AND RISK ASSESSMENT ISSUES REGARDING GROUNDWATER AND SURFACE WATERS IN FLORIDA

- I. Introduction
 - A. Comparison of groundwater and surface water risk considerations
 - B. Methods for evaluation of exposures and potential risks
- II. Developing Alternatives to MCLs or Chapter 62-302 Values
 - A. Technical approaches and exposure assumptions
 - B. Application and limitations of the alternative concentrations
- III. Selected Cases: Risk Evaluation and Management
 - A. Groundwater
 - B. Surface water

IV. Summary Comments

- A. Risk mitigation: roles of abatement vs containment vs monitoring
- B. Florida Comparison of Environmental Risks Project
- C. What's on the horizon concerning water-related risks?

DR. GARY RAND

BIOGRAPHICAL

Dr. Rand is presently Senior Scientist, Ecotoxicology for Ecological Services Inc., (North Palm Beach, Fl.); an environmental consulting company that conducts field studies and ecological risk assessments. For the past eighteen years, Dr. Rand has developed and applied specific capabilities in ecology, ecotoxicology and environmental chemistry to evaluate impact of chemicals and other hazardous wastes to aquatic, avian and terrestrial wildlife. His efforts have included toxicology and fate studies on the distribution and persistence of chemicals in freshwater, saltwater, terrestrial and wetland ecosystems. Dr. Rand has conducted ecotoxicology risk assessments for the development of new products in registration (predictive assessments) and for point (e.g., chemical spills, effluents) and non-point sources (e.g., hazardous waste sites) of contamination (retrospective assessments). Results of the ecological risk assessments have been used as a cost-effective means of determining the need for remediation, types of clean-up strategies, in decision making during drug-chemical development, and in support of environmental litigation. Dr. Rand has also edited several aquatic toxicology textbooks and is presently the co-editor of a new series in Ecotoxicology and Environmental Chemistry.

AGENDA

Ecological Risk Assessments (ERAs) have a relatively short-history compared to human health risk assessments. ERA is the process of estimating and characterizing the likelihood that adverse effects of human actions on the nonhuman environment will occur, are occurring, or have occurred. It is a rapidly evolving discipline that attempts to conduct assessments on the effects of chemicals and hazardous wastes on nonhuman organisms in aquatic, terrestrial and wetland ecosystems. ERAs are considerably more complex than human health risk assessments because there are more potential endpoints however there is less guidance from regulatory agencies and consensus from the scientific community. Nonetheless there is greater emphasis on protection of the nonhuman environment because nonhuman organisms, populations and ecosystems may be more sensitive to environmental contamination than humans. ERAs are categorized according to the problems they address; predictive risk assessments estimate risks of future actions (e.g., permitting a wetland to be dredged) and retrospective risk assessments estimate risks posed by past actions (hazardous waste disposal, chemical spills, effluents). The presentation will emphasize concepts, structure and application of ERAs.

*Very few salt water systems evaluated
Probabilistic Modeling -*

JEREMY CRAFT

BIOGRAPHICAL

Mr. Jeremy Craft has 20 years' experience in environmental regulatory matters in florida. On July 1, 1994 he was appointed as the Director of the Division of Environmental Resource Permitting for the Florida Department of environmental Protection. The division includes the Bureaus of Aquatic Plant Management, Beaches and Coastal systems, Mine Reclamation, and Submerged Lands and Environmental Resources as well as the Florida Inland Navigation District and the Wet Coast Inland Navigation District.

Mr. Craft represents the department on a variety of boards and commissions including the florida Greenways Commission, the Northwest Dade Freshwater Lakes Committee, the Western Governors' Association Mine Waste Task Force, and EPA's Policy Dialogue Committee on Mine Wastes.

He served on a two-person committee to develop the Department's ecosystem management implementation strategy for the year prior to being appointed to his current position.

He has a BS in biology from Florida State University.

AGENDA

Mr. Craft will address changes being brought about by the implementation of the Environmental Resource Permit (ERP) including the activity based split for project reviews between the Department of Environmental Protection and the water management districts, delegation of permitting to local governments, and the linkage of the ERP with the proprietary authorization necessary for the use of state-owned, submerged lands. He will also address the creation of the Joint Coastal permit, the linkage of the ERP to other approvals necessary for mines, and the linkage of the ERP with aquatic plant control permits.

Wetland salt water systems evaluated

SUSAN STEPHENS

BIOGRAPHICAL

Susan L. Stephens practices environmental law at Holland & Knight. Ms. Stephens is a member of the Florida Bar. Ms. Stephens is currently the editor of the Holland & Knight Environmental Update, a bimonthly publication dealing with current events in Florida and federal environmental law.

She is also a member of the American Bar Association, Tallahassee Bar, Environmental Law Institute, Tallahassee women Lawyers and the Christian Legal Society.

Ms. Stephens earned her B.A., with high distinction, in English in 1989 from Ohio Northern University, where she was the Outstanding Woman Scholar in the College of Arts and Sciences and a member of the Mortar Board, Phi Kappa Phi, and Sigma Tau Delta (president) honor societies. She graduated first in her class in 1993 from Florida State University College of Law, where she was elected to the Order of the Coif and was an Associate Editor and Writing and Research Editor of the Law Review. During law school, she served as a Judicial Intern to the Honorable Leander Shaw of the Supreme Court of Florida (1992-93).

AGENDA

UPDATE ON ENVIRONMENTAL RESOURCE PERMITTING

- I. Background of the ERP Rules
 - A. Mandate of the Legislature
 - B. Joint Development of Rules
 - C. ERP Rule Adoption
 - D. Rule Challenges
- II. Major Issues
 - A. Secondary Impacts
 - B. Reduction/Elimination of Impacts Prior to Mitigation
 - C. Mitigation Ratios
 - D. Consideration of "Listed Species"
 - E. Impacts to Fish or Wildlife
 - F. Overall Concept of "Streamlining"
- III. The Settlement
 - A. Listed Plant species
 - B. Reduction or Elimination of Impacts
 - C. Impacts to Fish or Wildlife
 - D. Secondary Impacts
 - E. Mitigation
 - F. Unsettled Issues

- G. Adoption of Amendments by ERC & WMD Boards
- H. Final Order

IV. Application of Major Issues: Brief Case Study

SAMUEL E. POOLE, III

BIOGRAPHICAL

Samuel E. Poole III was appointed executive director of the south Florida Water Management District in May 1994. He oversees a total budget of \$345 million, including current expenditures and encumbrances, and a staff of more than 1,600 people. Poole directs multi-objective programs that include the environmental restoration of the Kissimmee River, Lake Okeechobee, the Everglades and Florida Bay, as well as the development of regional water-supply plans.

Before joining the District, Poole was a partner at the law firm of Holland & Knight in Miami from 1987 to 1994, where he specialized in land-use and environmental permitting issues. He also was an associate attorney with the Beasley, Olle & Downs law firm in Miami from 1985 to 1987.

From 1976 to 1982, Poole worked for the Dade County Planning Department. He supervised the environmental section and directed the East Everglades project, preparing and implementing the landmark management plan for a 240-square-mile privately owned wetland. As part of that project, he drafted legislation to implement the project's recommendations and directed a \$1.2 million budget. He received an award of excellence for the East Everglade Management Plan from the Florida chapter of the American Planning Association in 1981. He also was the project manager for the department's wetlands demonstration project from 1976 to 1978.

After attending the U.S. Army Engineer School at Fort Belvoir, Virginia, Poole joined the Jacksonville district office of the U.S. Army Corps of Engineers in 1971 as a first lieutenant. He assessed environmental impacts of development projects in Florida and was assistant project engineer overseeing construction of Jacksonville's first-class mail facility.

Poole received his juris doctor degree from Northwestern University in Chicago in 1985. He also received a masters degree in regional planning from the University of Pennsylvania in Philadelphia in 1976, and a bachelor of science degree in forestry from University of Florida in Gainesville in 1970.

Poole has been active on several civic and governmental groups and committees. he has served on the board and as board president of the Marjory Stoneman Douglas Discayne Nature Center in Miami, which named him as its first Bill Sadowski Citation recipient in 1994 for environmental leadership. Fairchild Tropical Garden in Miami presented him with the 1990 Thomas Barbour award for conservation work in south Florida. Tropical Audubon society in Miami, of which he is a board member, named him "conservationist of the year" in 1982. Poole also has served on the boards of citizens for a Better South florida and The Nature Conservancy in Florida.

He was appointed to the third Environmental Land Management Study (ELMS III) committee by Governor Chiles in 1991. He also was vice chair of chiles' transition task force on the environment following the gubernatorial election of 1990. Poole also served on the water management district's lower east coast regional water supply advisory committee in 1992, and as chairman of the agency's Lake Okeechobee Stakeholder's Advisory Committee from 1987 to 1988. He is a member of the South Florida chapter of the Florida Planning and Zoning Association and served as its secretary from

1986 and 1988.

Following Hurricane Andrew, he served on the reconstruction design team and as pro bono land-use and zoning legal counsel for Florida City during the recovery efforts in 1992 and 1993. He also served as pro bono planning and zoning counsel for the Homestead Habitat for Humanity (Jordan Commons).

AGENDA

The title of Sam Poole's talk is "Preserving South Florida's Water Resources for the 21st Century".

ERNEST L. BARNETT

BIOGRAPHICAL

Ernest L. Barnett is the Director of Ecosystem Planning and Coordination at the Florida Department of Environmental Protection. His responsibilities include coordinating the formulation, development, and implementation of department-wide ecosystem management policies and strategies. Mr. Barnett has been with the Department 12 years, where he served previously as a shellfish biologist, aquatic preserve manager, Environmental Administrator, Special Assistant to the Assistant Secretary, and Water Management Administrator. He has authored or co-authored 28 publications and agency reports on beach management, shellfish management, sea turtle nesting, natural resource damage assessment, and ecosystem management. Mr. Barnett received his B.S. in Environmental Resource Management and Planning and his M.S. in Biology from the University of West Florida.

AGENDA

EMERGING ISSUES IN ECOSYSTEM MANAGEMENT

The Department of Environmental Protection (DEP), acting at the direction of the 1993 legislature and the Governor, has been developing a concept for implementing ecosystem management in the State of Florida. The strategy development process is well underway. The DEP established twelve broad based committees to review and make recommendations on a variety of issues related to implementation of ecosystem management. The committees are chaired by business interests, environmentalists, land owners, other agency representatives and department employees. Close to 300 people from around the state representing different interest groups and federal, state, and local agencies have participated on the committees which met between June and October 1994. Each committee submitted its final report to the DEP on October 31. Between now and mid-1995, an Implementation Strategy Committee (which is made up of the chairs of other committees, plus local government, Water Management District, EPA, and Governor's Office representatives) will evaluate the recommendations of the committees and craft them into a final program for implementation of ecosystem management by the Department.

Over 500 recommendations have been produced through the committee process. The department hopes to finish this process this summer and present our ecosystem management strategy for Florida to the 1996 Legislature. The following concepts appear to be emerging:

- An alternative to the current regulatory approach.
- A team approach to multi-agency issues.
- A change in emphasis from enforcement to compliance monitoring.
- Development of a comprehensive, state-wide environmental resource monitoring network.
- Greater emphasis on pollution prevention.
- An increasing role for private landowners.
- Management of public lands.
- Greater emphasis on environmental education.
- Improved intergovernmental coordination.
- Training
- Incorporation of ecosystem management dominant themes into DEP programs and rules

JOHN M. BARKETT

John M. Barkett concentrates his practice on all phases of environmental law in Florida and around the United States. Mr. Barkett is an active participant in governmental and private Superfund, hazardous waste, underground storage tank, and other environmental matters in both a litigation and non-litigation context, and counsels clients on real estate, loan, and merger and acquisition questions involving environmental issues and assessments. He has also been involved in efforts in the Congress and in the state legislature to make changes in environmental laws. Mr. Barkett also assists colleagues in the firm who are experts in insurance coverage matters and toxic tort litigation.

Mr. Barkett is assisted by two attorneys, one of whom is a professional engineer and the other a Ph.D in biology. Together, they have worked on over 600 sites and possess a vast knowledge of the abilities of consultants and contractors. As a result, Mr. Barkett is able to assist clients in managing projects and problem solving in an economically, as well as environmentally, sensible manner.

In 1987, Mr. Barkett and five colleagues formed the law firm of Coll Davidson Carter Smith Salter & Barkett, P.A.. The firm now numbers 21 lawyers and provides specialized litigation and counselling services in a wide variety of disciplines besides environmental law to its many domestic and international clients.

Education: University of Notre Dame (B.A. Summa Cum Laude, 1972, Phi Beta Kappa); Yale University (J.D. 1975).

Experience: Law clerk to the U.S. Circuit Judge David W. Dyer (1975-76); Steel Hector and Davis (1976-87, Partner).

Positions: Co-Chairperson, Private Cost Recovery Subcommittee, Environmental Litigation Committee, ABA Section of Litigation; Board of Advisors, Chemical Waste Litigation Reporter; Contributing Editor, Environmental compliance & Litigation Strategy.

Recent Presentations/Publications: "An Ethical Roadmap for Environmental Lawyers," ABA Environmental Litigation Committee Midyear Meeting (February 1994), "Defenses to Superfund Liability in Private Party Actions," ABA Environmental Litigation committee Midyear Meeting (February, 1993); "The CERCLA Attorney Fee Debate Heats Up," 7 Toxics Law Reporter 1448 (May 5, 1993), "symposium on EPA's Superfund Settlement Process," 25 Chemical Waste Litigation Reporter 1036 (Oct. and Nov. 1993).

AGENDA ON FOLLOWING PAGES

**REDUCING YOUR LIABILITY
AND
PROFITING FROM POLLUTION PREVENTION**

John M. Barkett
Coll Davidson Carter Smith Salter & Barkett, P.A.
3200 Miami Center Building
201 South Biscayne Boulevard
Miami, Florida 33131

These are the ten commandments of profiting from pollution prevention:

- I. Where there is waste, there is worry.
- II. Waste laws and regulations will increase, not decrease.
- III. The cost of complying with waste regulations will increase, not decrease; penalties for noncompliance will become more severe, not less severe.
- IV. Waste disposal costs will increase, not decrease.
- V. Waste disposal sites will become greater risks, not lesser risks.
- VI. Waste begets legal fees.
- VII. Worse yet, waste begets consultant fees.
- VIII. Where there is waste, there are accidents, usually expensive ones.
- IX. Workers must beware of waste.
- X. Waste is wasteful; minimize waste to maximize profits.

I.

Why is there worry, when there is waste? Here are several answers: CERCLA, RCRA, FIFRA, TSCA, CWA, CAA, EPCRA, Chapters 376 and 403, Florida Statutes, Chapter 24, Dade County Code. (If you do not know what these acronyms or laws are, then you should be even more worried if you are a waste generator). The statutes, laws and regulations ready to separate you from your hard-earned dollars over waste handling, storage, transportation, and disposal are real.

Hazardous waste is worse than solid waste, but solid waste should give you just as much cause to worry. There are laws on tires. There is talk of regulating what can and cannot go to landfills. There are laws on grass and tree cuttings. We are running out of room to put solid waste.

II.

The second commandment of profiting from pollution prevention is no secret to any business person: regulations are going to increase. They have been, they are, and they will. If you are a long range planner, build this assumption into your plans. You will not be wrong.

III.

The costs of compliance will go up. More laws making more demands on more people will increase compliance costs. Amended laws will do the same (witness the Clean Air Act). Existing laws have yet to produce final regulations on a variety of subjects. (EPA currently has over 320 regulations in some form of rulemaking under consideration!)

Regulatory agencies make the most conservative judgments on every decision they make. If you make conservative assumptions about health risks, then allowable standards are very low. If allowable standards are very low, expensive equipment is required to meet them.

Penalties - primarily for repeat offenders or for those who profit by noncompliance - are increasing. Government is trying to send a message to all of you. Penalties also fund regulatory agencies, in part. Agency budgets are not going down.

IV.

You know the law of supply and demand. When supply is tight, costs go up. Waste disposal capacity is limited. There is little competition. There is no hazardous waste disposal facility in Florida. Solid waste facilities are raising prices too. They have to comply with regulations as well and are facing

decreasing amounts of space. No one wants these facilities in "my backyard." Hence, construction of such facilities is an expensive, time consuming matter.

V.

It is unlikely that any site that receives your waste is insulated forever from Superfund concerns. You may have a lot of company, but paying for the cleanup of a site that has received waste for one to two decades, where manifests have been religiously kept, is not an attractive thought, no matter how many other potentially responsible parties are around.

Alternatives to disposal - incineration, biological degradation, stabilization or other forms of destruction or treatment - are not cheap either.

Recycling facilities have to be watched. Repair facilities have to be watched. CERCLA's Section 107(a)(3) liability language of "arranging for treatment or disposal of a hazardous substance" has taken on new meaning in the 1990's.

VI.

Do you know what an NOV stands for? Legal fees.

Do you know what a Section 104 information request stands for? Legal fees.

Do you know what a consent order stands for? Legal fees.

CAPs, CARs, RAPs - they also stand for the same thing. Legal fees.

Lawyers are expensive. Litigation is expensive. Avoid the cost of winning. Live your business lives so that you do not need to call upon lawyers or resolve disputes by litigation.

Where there is waste, there are lawyers. Minimize waste and you'll minimize legal fees.

VII.

What is worse than legal fees? You are right. Consultant fees.

Where there is waste, there are many more consultants than there are lawyers. Some are better than others. Some are cheaper than others. Some prepare reports properly. They are all in business like you and me, however, and expect to be paid for their work. The more waste you generate, the more work you will give them.

VIII.

An accident involving any kind of waste is bad, but one involving hazardous waste is the worse kind of accident. Emergency response costs are charged at a premium. Failure to take prompt action will likely make soil and groundwater clean up costs greater, however. Hence, there is little choice in the matter.

Reporting requirements abound. They are a trap for the unwary - both criminally and civilly.

There is no lack of toxic tort litigation around.

Publicity is always terrible.

IX.

Right to know laws - both employee and community right to know laws - require reporting of a large body of information not easily (or cheaply) assembled. Many of you are probably subject to these laws. The OSHA Hazard Communication Standard has created an industry. There are training videos, training books, training consultants. Everyone has an MSDS around on something.

Worker's compensation insurance premiums are no laughing matter. Mental or emotional damage claims from exposure to waste are significant and expensive matters and will become more so in the 1990's.

X.

Get the picture?

The less waste you generate, the more sleep you'll get at night.

The less waste you generate, the cheaper it will be to comply with increasing regulations. You'll need fewer people, create less paper, and go to fewer meetings and seminars. You'll even avoid growing penalties.

The less waste you generate, the less waste disposal costs you'll have. That will make you, your accountant, your lender, and buyers of your land or business very happy.

The less waste you generate, the smaller your share will be of cleaning up your waste disposal site. (Every cloud has a silver lining.)

The less waste you generate, the less time you'll spend with your lawyer - on the clock, at least. Better yet, you will spend less time with your consultants.

The less waste you generate, the less risk you will face from accidents.

The less waste you generate, the less risk facing your workers and neighbors.

When you reduce costs, you increase profits, even if your revenues are flat. In other words, environmental sense is economic sense.

Waste not, want not. Pollution prevention pays. Do it.

F. Proximate Cause

Derdiarian v. Felix Contracting Corp., 51 N.Y.2d 308 (N.Y. App. Div. 1980).

Affirmance of jury verdict for plaintiff. **RULE:** Plaintiff must show that defendant's negligence was a "substantial cause" of the events which produced the injury. **HELD:** Court found employer liable for injuries caused to plaintiff as a result of employer ordering plaintiff to set up dangerous equipment near roadway where it and plaintiff were struck by epileptic motorist.

Rumph v. Ford, Inc., 355 N.Y.S.2d 114 (N.Y. App. Div. 1974).

Affirmance of jury award for plaintiff. **FACTS:** Plaintiff was injured in automobile accident. Dealer represented that car was a salesman's demonstrator, but it had been a used car. **HELD:** Accident was not proximately caused by misrepresentation. However, plaintiff could recover on implied warranty and negligence theories.

G. Speculative Damages

Himes v. Brown & Co. Securities Corp., 518 So. 2d 937 (Fla. 3d DCA 1988).

Affirmance of final judgment (bench trial) for defendant. **RULE:** Damages must be determinable with a reasonable degree of certainty, rather than by means of speculation and conjecture. **FACTS:** Plaintiff brought action against stock broker for failure to execute transactions as directed. Plaintiff claimed that he lost a short sale which was profitable. **HELD:** Damages were

speculative in that the alleged lost profit hinged on time-sensitive disposition of the securities after their purchase.

Kenford Co., Inc. v. County of Erie, 502 N.Y.S.d 131 (N.Y. 1986).

Affirmance of appellate court's reversal of award for lost profits. **RULE:** Damages must be determinable with a reasonable degree of certainty, rather than by means of speculation and conjecture. **FACTS:** County entered into contract for construction and operation of domed stadium. County breached contract and was found liable for damages. Trial was held on issue of damages. **HELD:** Lost future profits awarded were too speculative as they were premised on profit projections and modifications.

Trademark Research Corp. v. Maxwell Online, Inc., 995 F. 2d 326 (2d Cir. 1993).

Reversal of award for lost profits. **RULE:** Damages must be determinable with a reasonable degree of certainty, rather than by means of speculation and conjecture. **HELD:** Plaintiff's claims for lost profits due to failure of computer company to design software per contract were too speculative in that they assumed growing markets and reversal of past trends.

H. Measure of Damages for Securities Transactions

Katara v. D.E. Jones Commodities, Inc., 835 F.2d 966 (2d Cir. 1987). ?

Rule:

I. Shamburger

Shamburger v. Moody, 322 F. Supp. 196 (E.D. Ark. 1970).

FACTS: Attorney experienced in forming and operating insurance companies brought claim against insurance company and chairman of its board for fraud and breach of contract for failure of the insurance company to cause a loan to be made to plaintiff in contemplation of a merger. **HELD:** Board approval of the contract was a condition precedent to the duty to arrange for the loan. Plaintiff's sophistication in the insurance industry and business world precluded argument that he believed chairman had unfettered authority to speak for the insurance company.

J. Intentional Torts

Acevedo v. Consolidated Edison Co. of New York, 596 N.Y.S.2d 68 (N.Y. App. Div. 1993).

RULE: In order to constitute an intentional tort, the conduct must be engaged in with the desire to bring about the consequences of the act. A mere knowledge and appreciation of risk is not the same as the intent to cause injury.

Bardere v. Zafir, 477 N.Y.S.2d 131 (N.Y. App. Div. 1984).

RULE: "Intentional tortious conduct connotes conduct engaged in with the desire to bring about the consequences of the injurious act."

K. Fraud Claims and Contract Claims (Economic Loss Rule)

Garwood v. Sheen & Shine, Inc., 572 N.Y.S.2d 237 (N.Y. App. Div. 1991).

Order granting motion to dismiss fraud claim affirmed.

RULE: A cause of action seeking damages for fraud cannot be sustained where the only fraud claimed relates to breach of contract. **FACTS:** Defendant offered plaintiff more salary to stay on board in light of competing offer. Plaintiff refused other job based on representation. Defendant then terminated plaintiff. **HELD:** Fraud claim was not available. Only claim would be for breach of contract, however, no remedy was available because plaintiff was at-will employee with no contract.

Jakobs v. Gambino, 614 N.Y.S.2d 183 (N.Y. App. Div. 1994).

RULE: A cause of action seeking damages for fraud cannot be sustained where the only fraud claimed relates to breach of contract. **HELD:** Fraud claim should have been dismissed.

Paper Corp. of the United States v. Schoeller Technical Papers, Inc., 759 F. Supp. 1039 (S.D.N.Y. 1991).

HELD: Fraud claim properly dismissed where action was based on breach of contract claim.

Plantation Key Developers, Inc. v. Colonial Mortgage Co. of Indiana, Inc., 589 F.2d 164 (5th Cir. 1979).

RULE: A mere broken promise does not constitute fraud.

R.D.M.H., Inc. v. Dempsey, 618 So. 2d 794 (Fla. 5th DCA 1993).

Jury award for fraud reversed and judgment entered for defendants where trial court allowed plaintiff to amend at trial to bring claim for fraud. **RULE:** Damages for fraud are not awardable where they are no different than damages awardable for breach of contract. **HELD:** Evidence did not support claim for fraud different from breach of contract.

Steyr Daimler Puch of America v. A & A Bicycle Mart, Inc., 453 So. 2d 1149 (4th DCA 1984).

RULE: Fraud cannot be predicated on a mere promise not performed.

84152

Superfund is Broken: Can it be Fixed?

John M. Barkett
Coll Davidson Carter Smith Salter & Barkett, P.A.
3200 Miami Center
201 South Biscayne Boulevard
Miami, Florida 33131
Telephone: 305-373-5200
Facsimile: 305-374-7296
(Copyright John M. Barkett February 1995)

After 14 years of Superfund, no one asks any more whether Superfund is broken. Rather, the question is: Can it be fixed? Congress tried to answer this question in 1994. House Bill 4916 and Senate Bill 1834 contained major reforms - some good, some not so good. Imperfect reforms would have been better than no reforms. And that's where we finished: Superfund reform legislation died in Congress, a triumph or tragedy (depending upon one's point of view) of our political system.

Superfund reform will be resurrected in Congress in 1995,¹ although no one is quite sure whether there will be a reformation or a transformation. Writing from the Superfund trenches, I offer a formula on how to fix Superfund with this important preface: I do *not* discuss retroactive liability.² I realize that retroactive liability will receive a lot of attention in the reauthorization process and I can argue both sides of the issue. However, I have decided to write this paper assuming that retroactive liability will survive, and will simply say at the outset that I recognize that such an assumption may be wrong.

Three Goals in Superfund Reform

In broad terms, the historical obstacles to a sensible Superfund program can be broken down into three categories:

- EPA's Costs
- Remedy Selection and

¹The Superfund tax is only authorized through the end of 1995. Some action will have to be taken on Superfund before year end if the tax is to be maintained.

²Retroactive liability is liability prior to December 1980 when Superfund was first adopted for what, in most cases, was otherwise lawful conduct before that date. It allows EPA and private parties to reach back into time -- several decades if the evidence allows -- to identify potentially liable parties. It is both reviled and embraced -- frequently by the same entities -- depending upon the facts of one case versus another. It survived every due process challenge that was raised against it in the early Superfund litigation.

- Fairness.

Superfund has been such a disaster because EPA has not controlled its costs, extreme remedies are considered or selected in relation to the very low risk posed by most Superfund sites, and there has been no fairness in the allocation process.

It follows, therefore, that Superfund can work, if:

1. EPA controls its costs,
2. The allocation process is fair, and
3. Remedies appropriate to the reasonably calculated risk are selected.

My "fix" for Superfund centers on the achievement of these three goals.

Goal 1: EPA Must Control its Costs

EPA must control its costs for several reasons:

- It is the right thing to do.
- Government dollars are precious; they must be used wisely and sparingly.
- EPA should set an example of how government can work efficiently.

Most importantly:

the less EPA spends → the less there will be for PRPs to fight over with EPA;

the less costly overall site costs are → the quicker agreements with PRPs will be reached, and

the shorter the negotiations → the faster the investigations and cleanups.³

EPA Costs. EPA costs fall into three broad categories:

- Direct Costs
- Indirect Costs
- Outside Contractor Costs

Direct Costs. Direct costs represent payroll and travel costs related to every aspect of the Superfund process. Many direct costs are derived from EPA "oversight," the ubiquitous monitoring of the performance of Potentially Responsible Parties (PRPs) in conducting the Remedial Investigation (RI), Feasibility Study (FS), Remedial Design (RD), or Remedial Action (RA).

Absence of Accountability. Superfund is broken in part because there is no contemporaneous accountability for Direct Costs.⁴ For payroll hours recorded by an EPA employee, there is no description of the services rendered. One simply sees a name, a date, and a number of hours. There is no way to measure the efficiency of the work or the propriety of all of the time spent. Employee time sheets are not reviewed on a contemporaneous basis.⁵ Rather, they are gathered together one to three years later when EPA sends a cost recovery bill to PRPs demanding payment. Cost-effective management of the Superfund program must begin with a religious attention to staffing that emphasizes experience, judgment and knowledge, and eliminates duplication, waste, and unnecessary work

³If EPA keeps its costs under control there will be less reason for PRPs to fight among themselves over allocating those costs and paying for them. PRP resistance to resolving a demand to conduct a Superfund investigation or cleanup is directly proportional, among other things, to the amount of money that EPA has spent prior to the demand and the scope of the work being demanded. I address the latter half of this equation below.

⁴EPA will have some back up documentation for every penny it spends. That's not the point. Back up is meaningless when one cannot determine from the backup what specifically was done, especially when the back up is assembled months or years after the fact (which is the norm in my experience).

⁵In a commercial context, no service provider who bills time to a client - and this is especially true of lawyers today - would be permitted to demand payment without a daily detailed description of the services rendered, and the time associated with those services, all of which has been subjected to, at least, one level of contemporaneous scrutiny before a bill is sent to a client.

under the watchful, but thoughtful, eye of supervisors who are judged for producing excellent work at the lowest possible cost.⁶

Overstaffing. No one monitors the number of employees billing time to a site. At one Superfund Site in Florida, 70 different EPA employees billed time to the Site.⁷ In contrast, a state environmental agency, typically, will effect a cleanup at a site with the involvement of one to five persons, depending upon the complexity of the site. Superfund is broken because we, as a society, cannot afford this level of involvement to ensure an NCP-consistent cleanup. To fix Superfund, efficiency must begin at EPA, not, as many PRPs feel, end there.

Process Overkill. Direct costs are high in proportion to the concerns presented by many Superfund sites, in part, because the National Priorities List (NPL) does not, for the most part, represent the worst contaminated sites in the United States.⁸ Superfund is broken because a system designed to deal with the contaminated, but complicated, sites presenting significant risk to human health and the environment is being applied, without adjustment, to contaminated, but simple, sites that present only slight risk to human health⁹ and the environment. To fix Superfund, EPA must dismantle the Superfund organizational monolith. It must emphasize results; not process.¹⁰

⁶Disturbingly, the 1994 proposed Superfund rewrite would have made changes to Section 107(a)(4)(A) of Superfund which effectively deleted the word "necessary" as a limitation on the type of cost that EPA can recover. Unless EPA's costs are circumscribed by some standard (e.g., "necessary" or "reasonable and necessary"), there will be no accountability at EPA. Although proposed caps on EPA's costs (discussed below) would have helped to create accountability, deletion of the qualifier "necessary" for EPA's costs would not have been, to me at least, a wise policy choice.

⁷This was twice the number of employees at the facility. Not surprisingly, EPA managed to spend twice as much as the facility owner that performed the RI/FS. Indeed, one EPA non-technical employee managed to bill more than the cost of the EPA approved Feasibility Study.

⁸EPA has tried to fix this problem. Revisions made to the Hazard Ranking System (HRS) - the system by which a site is scored for listing on the NPL - should be eliminating many sites that would have been proposed for the NPL under the old HRS. That is little comfort to the owners and operators and other PRPs associated with sites that ranked under the old HRS who are forced to endure the Superfund process and the stigma of the "Superfund" label.

⁹Even then the risk is usually derived from exposure to a hypothetical future resident, or from a "hot spot" on a site.

¹⁰The Superfund program is attempting to implement reforms to accelerate the Superfund process. How well they actually work to expedite investigations and cleanups at a reasonable cost remains to be seen. I have seen improvements here and there based on the approach taken by a particular remedial project manager. I have

Indirect Costs. The absence of accountability, overstaffing and process overkill are particularly pernicious because EPA multiplies every payroll hour by approximately \$60 to cover its indirect costs. Obviously, the more payroll hours directed to a site, the larger the indirect costs will be. It is no longer unusual to see indirect costs that represent 30-40% of an EPA cost recovery claim.

While one might debate the recoverability of these dollars, as either a matter of law or good governmental policy, one cannot question the large impact that indirect costs have in cost recovery negotiations. As Superfund liability increases for federal agencies, and perhaps if the Superfund liability net begins to reach members of Congress as it might well do given the breadth of liability, perhaps then we will see the elimination, or the significant control, of indirect costs.¹¹

Outside Contractor Costs. Outside contractors are used by EPA for many purposes. They conduct screening investigations to evaluate a site for listing on the National Priorities List. They conduct removal actions. They perform EPA oversight of the RI/FS or RD/RA process. The track record on the performance of these contractors has not always been good, according to EPA's own published reports.

Managing contractors is a time consuming job. It must be done fervently if costs are to be controlled. To fix Superfund, EPA must use contractors wisely. It must demand excellent services from qualified personnel in a timely manner. EPA cannot be the training school for contractors. PRPs should not be expected to pay for contractor inefficiencies and inexperience under the guise of a strict liability statute.

Nor should EPA use outside contractors to conduct oversight if they are not necessary. EPA qualifies every PRP-paid contractor. PRPs must have a Project Coordinator. Why do we need watchers watching watchers watch workers do the work? Money must be spent on sites not people watcher watchers. The best Remedial Project Managers have learned this fact and manage their sites better and more cheaply than those RPMs who have not yet learned this lesson.¹²

not seen improvements from new policies.

¹¹EPA has a proposed rule to increase the indirect cost multiplier to \$180 per hour. If adopted, we will see the PRP equivalent of the Boston Tea Party.

¹²Outside of actual oversight of the work, the Record of Decision sets performance standards which must be met. PRP contractors, including laboratories must use approved quality assurance plans. EPA model orders and decrees require additional work in EPA's discretion within the limits of arbitrariness. EPA makes PRPs acknowledge that EPA-chosen remedies are not guaranteed to work. Liability under the statute does not end. In

The proposed rewrite of Superfund in the House and Senate contained a 10% cap on oversight costs, that included direct and indirect costs.¹³ The 10% cap was applied to the total response costs incurred by potentially responsible parties for the work that would be overseen. A \$400,000 RI could only generate \$40,000 in oversight costs, for example. There is no reason why EPA needs the legislation to accomplish this goal. Controls necessary to remain within this cap if the legislation had been adopted, can be just as easily implemented today. To fix Superfund, EPA ought to do so.

The Senate bill also began the process of addressing the indirect cost nightmare. It included a 35% cap on indirect costs (presumably non-oversight related since the 10% oversight cap included direct and indirect oversight costs).¹⁴ While I would get rid of indirect costs altogether, some limit is better than no limit. If EPA effects changes to create contemporaneous accountability on payroll hours, and eliminates overstaffing and process overkill, the reduced indirect costs that will accompany such improvements should not raise the ire of PRPs.

Removal Costs. Large direct costs can be associated with Removal Actions as well.¹⁵ Under current law, EPA can spend up to \$2 million or 12 months on a removal, and more than this sum, if EPA can meet certain statutory criteria to demonstrate that more money or more time is required. The proposed Senate and House bills would have increased this

this scheme, a large technical staff at EPA combined with outside oversight is unjustifiable.

¹³S. 1834, §404(a)(3) and H.R. 4916, §404(a), both amending 42 U.S.C. §9607.

¹⁴S. 1834, §414 which would have added new §133 to 42 U.S.C. 9601 would have provided that, beginning in Fiscal Year 1995, the percentage of total cost expenditures by EPA that represents indirect cost expenditures "shall not exceed 35 percent." The Comptroller General was also ordered to complete a study of indirect costs within four years after enactment of the legislation and submit its report to the Senate with "recommendations as to the appropriate aggregate annual amount of indirect cost expenditures." There is some irony in the General Accounting Office's effort to urge EPA to collect more indirect costs, while everyone else is complaining about them. In EPA's defense, it is difficult to deal with such competing demands.

¹⁵A removal action is typically regarded as a shorter term remedy designed to address emergencies or unstable conditions, while a remedial action is a longer term remedy that is selected after a characterization of the lateral and vertical extent of contamination (the RI), the analysis of the possible solutions (the FS), and the completion of the Risk Assessment. The Remedy is announced in a document called the Record of Decision (ROD) which is then followed by Special Notice Letters to PRPs (in which the past costs are demanded), execution of a consent decree by the PRPs (if they agree to pay the costs and perform the remedy), and performance of Remedial Design and then Remedial Action. A removal or a remedial action is also called a Response Action.

number to \$4 million and two years.¹⁶ The increase in this ceiling was not accompanied by any check and balance: removals do not receive much in the way of public scrutiny unless the removal is going to eliminate later remedial action. Removals do not have to comply with remedy selection rules which include a careful weighing of variety of factors including the cost of the proposed action.

There is no question that removal authority is necessary to respond to legitimate emergencies. Costs are not a concern then; public safety is paramount. However, removal actions have broadened in scope to include many non-emergency response actions, without any attitudinal change on the irrelevance of cost. Indeed, EPA has a name for a new response action: the "Non-Time Critical Removal Action." Giving EPA \$4 million, instead of \$2 million, to spend on removal actions is fraught with risk. If spent without concern for cost and effectiveness, a battle with PRPs in cost recovery proceedings is inevitable. It makes more sense to leave the ceiling at \$2 million. Such a cap maintains control over EPA's costs without jeopardizing EPA's ability to spend more if a true need, as currently defined in the statute, exists.

To fix Superfund, EPA must control its costs to keep them within a zone of reasonableness relative to the circumstances presented by each site. Process must give way to common sense. If EPA does so, it will avoid or reduce future fights with PRPs -- fights that delay investigations and cleanups -- over the recoverability of those costs.

Goal 2: Superfund Must Ensure Allocation Fairness

In a system of joint and several liability that is retroactive, entities who prosper (e.g., successful companies and governmental entities) are penalized by Superfund. They are the ones targeted by EPA to pay for a site. For most of Superfund's history, they were also told that if they were not happy about their plight, that they should sue everyone else who can be located who can be linked to a site.¹⁷

¹⁶S. 1834, §505(a)(2) and (3); H.R. 4916, § 505(a)(2) and (3).

¹⁷Liability under Superfund applies to current owners or operators of property (unless they are "bona fide innocent purchasers") former owners or operators at the time of disposal, "arrangers" for disposal or treatment, or transporters who select the disposal site. In a used oil site, for example, any party that sent used oil -- say, from engine crankcases -- to be recycled, "arranged" for disposal or treatment of the used oil and is regarded by EPA as a PRP under Superfund. Arranger liability is the reason why there are large numbers of PRPs at sites like landfills, used oil recycling facilities, battery reclamation facilities, and drum reconditioning sites.

And they did. That cost recovery litigation, and all of the Superfund related insurance litigation, have resulted in reports and studies that suggest that the bulk of the dollars changing hands because of a Superfund site are going to lawyers, expert witnesses, airlines, copying machine and paper companies, court reporters, hotels, and telephone companies -- the so called "transactional costs" that take money away from site cleanups.

This mess was predictable. In the early days of Superfund, enormous monies were being spent but sites were not getting cleaned up, as lawsuit after lawsuit tested the constitutionality of the statute, the liability provisions, and the availability of a jury trial. In 1986, the first Superfund reauthorization legislation, SARA, was passed by the Congress. To try to give Superfund a tint of fairness, the Non-Binding Allocation of Responsibility (NBAR) was adopted along with a moratorium period for negotiations and the potential for de minimis settlements. Whatever the intent of these provisions actually was, I have always assumed that Congress was telling EPA to go collect all of the allocation information and put together a fair allocation early, give it to the PRPs and settle out the "little guys" to keep all parties' transaction costs down.

It did not happen that way. Congress and EPA both are to blame. While telling EPA on the one hand to do a better job with allocation in order to encourage settlements, Congress also gave EPA deadlines to complete a fixed number of Remedial Investigations and Feasibility Studies, and a fixed number of Remedial Designs and Remedial Actions.¹⁸

EPA had to choose to allocate resources (a) based on bean counting to meet Congressionally imposed schedules, or (b) based on fairness to find all of the parties associated with a site. From my vantage point, EPA elected to count beans. Thus began in the late 1980's the practice to target "key" PRPs at any site where an allocation investigation was too time consuming. Those PRPs signed EPA orders and judicial decrees and did what they were told to do: they filed lawsuits against every other PRP to collect back the "unfair" portion of their expenditures.¹⁹

¹⁸According to 42 U.S.C. §9616(d) and (e), EPA had to commence 275 RI/FSs by October 17, 1989, and 175 more by October 17, 1990 and 200 more by October 17, 1991, for a total of 650 by October 17, 1991. Remedial action had to commence at 175 facilities by October 17, 1989, and at 200 more facilities by October 17 1991.

¹⁹Indeed, EPA, more often than not has done little to support the efforts of PRPs that cooperate with EPA to effect investigations and cleanups. PRPs that sit on the sidelines usually get away with doing so for long periods of time unless they are sued by PRP groups. The absence of support by EPA of PRP groups, after they are formed and signed orders or decrees, is another reason why Superfund is broken.

Who did the members of Congress hear from then? Many small businesses and others who wondered why it is that they were being sued and having to pay large sums to lawyers if they were "de minimis." Congress asked EPA about the absence of de minimis settlements. In 1993, EPA got "de minimis" religion and started to push de minimis settlements throughout the United States.

There was only one problem. Without a tedious and careful investigation up front, de minimis settlements cannot succeed at large multi-party sites. There are several reasons for this fact:

1. With retroactive liability, PRPs can go back many, many years. Finding a historic name is just the first step in the process of finding the PRP today. Address search work that may include the identification of officers or registered agents for purposes of notice letters or service of process is a time consuming exercise at any multi-party site that has been, or was, in operation for years.
2. Predicting the level of participation is difficult. Even a good address might not result in a properly identified PRP because of legal arguments (corporate dissolution or successor liability issues, for example, might come into play). A buy-out price will be based on a predicted level of participation. If the prediction is wrong, the de minimis parties will either have overpaid or underpaid. Where de minimis parties underpay, non-de minimis parties will revolt.²⁰
3. Predicting future remedial costs is difficult. EPA is forced in many cases to use worst case numbers which themselves might overstate the actual costs depending, among other things, upon the complexity of the site and the remedy, the number of years of remedial action, and the number of operable units that will be constructed to complete remedial action.

EPA rarely has enough information to prepare a de minimis buyout early because it typically does not devote the resources to find de minimis parties. Rather, traditionally EPA devotes resources to find enough viable parties to help EPA meet Congressionally or self imposed deadlines on investigations and cleanups.

²⁰A de minimis party is no less liable than any other party. It should not receive a windfall because the de minimis buyout used incorrect assumptions in setting a price.

Superfund is broken because the unfairness that the law, as written or applied by EPA²¹, has imposed on prospering businesses and municipal governments has forced them to fight back in the courts to bring some amount of fairness to the process. Enormous transaction costs are a direct result of the administration of the Superfund program.

The proposed Superfund reauthorization sought to keep joint and several and retroactive liability. However, it tried to make this liability scheme "fair" by:

- (1) excluding various categories of PRPs from the liability scheme, or limiting their liability and providing a mechanism for early exits from the process through "expedited" or de minimis settlements;
- (2) funding, out of the Superfund Trust Fund, the liability shares of parties that are defunct, called "orphan shares"²² and
- (3) sponsoring an "allocation" process that introduces a third party neutral allocator to take all of the evidence gathered by EPA and to allocate the responsibility of PRPs after giving the PRPs an opportunity to be heard.

Rather than the old "stick" approach of threatening PRPs with government inefficiency to coerce them to perform investigations and cleanups at a lower cost, the legislation offered this "carrot": participate in the allocation process and (1) you will only be liable for your share and (2) the orphan share fund will be made available to cover the share of defunct parties that can be identified.²³

²¹I have had personnel from EPA tell me that if I or any of my clients think that Superfund is democratic, then I or they are wrong.

²²Had the proposed legislation been adopted, EPA would have been directed to fund the "orphan share" of an allocation except for the shares of "unidentified" parties (a volume, e.g., without a name to which to attribute the volume). As long as the orphan share money did not run out, the funding of the orphan share would have contributed substantially to the effort to bring a modicum of fairness to the Superfund process. There was a potential problem with the approach. It created an incentive *not* to find the names of parties to go with the volumes (or pounds, etc.) at a site since unidentified shares get spread out among the PRPs and the identifiable orphan shares. However, I do not assume that such a device would have been used to reduce orphan share funding.

²³For example, if known PRPs represented 80% of the allocation at a Superfund site, but there was a 20% orphan share (assume that all of the orphaned allocation belonged to defunct parties that could be identified), and if all of the PRPs participated in the allocation process, then the orphan share fund would pay 20% of the response costs at the site. Parties that elected to forego the allocation process would have faced a joint and

Was this a "fix"? In the context of a joint and several liability scheme that is retroactive, it is better than what exists now and, apparently, was acceptable to EPA and other interest groups that matter in the political process.

Would it have worked? Maybe. The key to its success would have been the allocation investigation. If the investigation that precedes the allocation process is an excellent one it might have worked. If it is not, the allocation process would have been the subject of the next Superfund reauthorization.

Did the proposed legislation guarantee an excellent investigation? No. It said only to EPA that the investigation must be "thorough." Section 130(c) of the law (Section 413 of H.R. 4916) would have provided:

(1) Responsible Party Search.--At all facilities subject to this section, the Administrator shall, as soon as practicable, but not later than 60 days after the commencement of the remedial investigation, initiate a thorough investigation and search for all potentially responsible parties, using his authorities under section 104.²⁴ Any person may submit information to the Administrator concerning any potentially responsible party at the facility, and the Administrator shall consider such information in carrying out the responsible party search.

several liability claim for the orphan share sum. Unidentified allocations (ones that could not be linked to an identifiable PRP) would have been spread out among both known and identifiable orphan shares. The process sounds complicated because it would have been complicated. It easily could have been simplified by giving PRPs who are still around and who participate in the allocation process the benefits of doubts that arise from the presence of orphan shares rather than trying to allocate those orphan shares in convoluted ways.

²⁴EPA would have been given new and broader information gathering authority under Section 104 if the House and Senate bills had been adopted. Section 104(e)(2) would have been amended by adding new subparagraphs D-F which would give EPA the authority to seek in an information request: (D) the identity of any persons who control operations at a facility, (E) information relating to the potential liability of any person, (F) for persons conducting a response action, an accounting of direct and indirect costs the person has incurred and (G) "information that is otherwise relevant to enforce the provisions of this Act." EPA routinely asks in a Section 104 information request for information similar to (D) and (E) now. Presumably subparagraph (F) related to the requirement imposed on EPA to calculate a national oversight rate as required in Section 404 of the Senate bill, although how a PRP was supposed to define "indirect" costs was not clear in the proposed legislation. Proposed subparagraph (G) was extremely broad and would have given EPA leverage to force persons to respond to overreaching questions. Relevance is in the eyes of the beholder and most parties cannot afford an enforcement action over the issue of relevance.

The key to this language was the attention paid by EPA to the word "thorough"? "Thorough" would have had to mean an extensive and complete investigation for documents and witnesses with knowledge (both of which are fewer in number, the older the site).

In the past, EPA has not demonstrated a consistent ability to develop a thorough data base of PRPs. Section 104 information requests have not worked to ensure thoroughness because, at many sites, EPA:

- (i) asked irrelevant questions,
- (ii) asked questions formed so poorly that the answers were useless,
- (iii) asked questions with so many subparts that a PRP was numb after trying to answer them on the one hand, while EPA, on the other, did not have the staff to analyze the answers anyway,
- (iv) asked for documents like financial statements, insurance policies, and tax returns, that pile up in someone's office unreviewed.

Indeed, the instructions for some information requests were longer than the questions asked. As a result, typically, EPA was overwhelmed by the information gathering process, especially at large multi-party sites.

To make matters worse, because Section 104(e) enforcement has been non-existent, parties that exercised true due diligence in responding to an information request were penalized, and parties who did no due diligence were rewarded. EPA would take the self-reported information and tag the diligent PRP while, traditionally, EPA would ignore the PRP who did as little as possible in responding, if it responded at all.

Administrative depositions have not been successful except to identify some PRPs, never all PRPs. Allocation information - volumes, types of waste and the like - frequently is not gathered, or is not gathered carefully or uniformly, requiring an enormous amount of follow up.

The proposed legislation tried to create a standard of due diligence. Section 401 of the Senate Bill would have added to Section 104(e) the requirement that a PRP certify that its responses are accurate, based on a diligent, good faith search (including inquiry of current and former employees and agents) and accurately and completely reflects the information gathered. It also would have required an acknowledgment that there is a duty on the PRP to supplement the answers and that there are penalties, including fines and imprisonment, for

submitting false information. Presumably, responsible corporate officers will not sign such a certification idly.

If:

1. Section 104 requests are simplified to obtain essential information in an efficient and useful manner;
2. Due diligence is carried out by PRPs uniformly and honestly; and
3. There is prudent enforcement action to encourage due diligence in responding completely to Section 104 information requests, and
4. EPA devotes sufficient qualified investigative resources to find former employees of site owners and operators, as well as off-site arrangers and transporters, particularly at older sites or sites where records are non-existent or sparse, in order to develop credible allocation information, then there is a chance that a responsible party search can be "thorough" and the allocation process can work.²⁵

If this scenario does not occur, those same successful companies --large and small-- and municipal governments who are still around, will continue to bear the lion's share of liability.

There is irony here, however. EPA has the ability -- today -- to achieve allocation fairness under the current Superfund law. If EPA would conduct "thorough" investigations to permit it to create credible and reliable -- PRP-acceptable -- and sensible NBARs *and* if EPA

²⁵Whether EPA reallocates resources to development of credible and thorough allocation databases administratively or under new legislation, there will be a need for cost controls. The costs of a "thorough investigation" presumably will be passed on to the PRPs. Whether EPA retains outside contractors to do the work, or does the work in house, EPA will have a large contingent of EPA personnel involved in the process. Every payroll hour spent on investigation will result in the application of the indirect cost multiplier. The work will be done by someone if the cleanup costs are high enough, and it will be expensive at large, multi-party sites. If future legislation forces EPA to emphasize the development of fair and complete allocations, perhaps it should include a requirement of a report to Congress within 1-2 years on how things are working - the direct and indirect costs of the PRP investigation - which would, perhaps, keep EPA from letting "thoroughness" become a blank check for EPA contractors, particularly at sites where the amount of the cleanup costs might suggest that a pragmatic approach should be taken to the scope of the PRP search (weighing the cost and benefits of the PRP search given the costs of the cleanup and the availability of an orphan share fund) .

would use mixed funding²⁶ like it should have -- to address orphan shares -- we could significantly reduce, if not eliminate, the aggravation, annoyance, anxiety and anguish that have prompted the universal demand to reform Superfund.

EPA Must Select Reasonable Remedy Relative to Risk

My final fix for Superfund is the selection of reasonable remedies relative to the risk posed by a site.

Traditionally, the RI/FS and RD/RA process has suffered from several problems. Superfund is broken because of these problems. They include:

- Scopes of work, particularly in chemical analytical demands, that are too broad, too rigid, and too boilerplate. They eliminate thought and thoughtfulness from the Superfund process.
- Consideration of remedial alternatives that are too many in number, and too extreme to be realistically considered;
- Risk assessments that utilize unreasonable exposure scenarios, ridiculous default assumptions, or skewed contaminant concentration levels; and

²⁶Under Section 122(b)(1) of the Superfund law, added by Congress in 1986, EPA has the authority to reimburse parties to an agreement with EPA to conduct a response action, "from the Fund, with interest, for certain costs of actions under the agreement that the parties have agreed to perform but which" EPA has agreed to finance. EPA then is to make "all reasonable efforts to recover the amount of such reimbursement" under Section 107 of the law. EPA has, in my judgment, ample room within this language to rewrite the mixed funding regulations to create incentives for participation by PRPs in agreements to conduct response actions by funding orphan shares. Let's face it. Cleanups have to be a cooperative effort. There are too many sites for EPA to clean them all alone up in our lifetimes. Saying that "polluters should pay" is not the answer. Few Superfund PRPs are "polluters" any more than any of us are by driving a car or maintaining a lawn. Most "polluters" were acting lawfully at the time. And frequently the real "polluters" are the very dissolved corporations who don't end up paying a dime while successful businesses are penalized for still being around. Moreover, an after-the-fact designation of a party as a "polluter" by virtue of a retroactive liability law *without* a fair governmental contribution for the shares of "polluters" who are defunct will guarantee the protracted, expensive Superfund litigation and large transaction costs about which everyone complains.

- Selection of remedies that are "permanent" and require "treatment"²⁷ irrespective of the need for either in relation to the cost of the remedy and the risk posed by the site.

Historically, these remedial investigation/selection flaws have translated into dollars - lots of them.

Individuals familiar with Superfund will concede that the amount of risk being eliminated by the Superfund program is small compared to the amount of money that is being spent. This fact comes as a surprise to a lot of people, but even EPA will admit it. However, contamination attracts public attention and public attention traditionally has meant appropriations.

In recognition, in part, of the low level of risk eliminated by Superfund, the proposed legislation would have eliminated the preference for "permanent" or "treatment" remedies (except for "hot spots" of contamination) and elevated "containment" (a specially designed cap over contaminated soils, for example) to a preferred remedy. Containment not only makes environmental sense at many sites (in relation to the risk presented) but is less expensive than treatment remedies.

The proposed legislation also attempted to recognize that an industrial site should be risk assessed as an industrial site and not a residential site. Applied fairly, this should have meant that reasonable risk scenarios would have been utilized to select a remedy.

The actual language in the proposed legislation was not perfect, but it was a definite step in the right remedial direction. If these changes are ever adopted and they, in fact, permit the implementation of remedies that are related to a reasonable determination of risk, they will bring down the cost of remedies without any loss in protection of human health and the environment.

In the absence of this legislation, EPA can still improve the RI/FS and RD/RA process. Here are some of my "fixes":

1. Boilerplate scopes of work should be eliminated. Reasonable limits on the number of chemical analytic tests to be run at every site must be imposed. Screening tools to gather information must be utilized.

²⁷Admittedly, in SARA, Congress required EPA to prefer permanent remedies that provided treatment. The proposed legislation would have taken EPA out of this legislative bind. If Congress does nothing else in Superfund, it should speedily eliminate this remedy preference language.

2. Remedial Project Managers should be encouraged to look for ways to gather information and make decisions at the lowest possible cost. That means that they must be trained or experienced and that they must be supported in, and not worry about being blamed for, their decision making.²⁸

3. Risk assessments must be based on reasonable default assumptions, reasonable exposure scenarios, a true understanding of where contaminants are located at a site and their concentrations in relation to the risk they might pose.

4. Groundwater remedies must recognize the inherent difficulty or technical impracticability of complete cleanup, especially when addressing solvent contamination and free product removal.

5. The ability of nature to complete a cleanup process must become a part of remedial decision making.

6. Small sites, simple sites, and repetitive sites must not be subjected to the same RI/FS and RD/RA processes as large sites, complicated sites, or sites that are "unique." Where the problem is small, manageable, or well understood, based on prior work or similar sites, the wheel must not be reinvented. America cannot afford it.²⁹

Summary

In my judgment, Superfund reform must meet three goals:

1. EPA costs must be fair,
2. The allocation process must be fair, and
3. The remedy selected must be reasonable in relation to the risk.

²⁸"Defensive medicine" has reached new heights -- or lows, depending upon your point of view -- in EPA scopes of work.

²⁹I could add a seventh: "The Model Consent Decrees should be re-designed to reflect trust, not mistrust." However, this is not the place to discuss changes in the Model Decrees. Suffice it to say that PRPs are amazed to find that the Model Decree is as onerous, or more onerous, than the Unilateral Administrative Order; yet they are asked to *consent* to it.

In the past, EPA used the stick approach to effect agreements with PRPs: joint and several, retroactive and strict liability combined with EPA's historical record for spending two or three times what private parties spend have been used as leverage to get PRPs to do work. It has worked in many instances, but made everyone angry, and has created enormous amounts of litigation.

The proposed legislation took more of a carrot approach. It made a legitimate effort to encourage remedy implementation by providing a process by which some of EPA's costs are capped, remedies will be more reasonable, and allocation might, for once, provide for a reasonable level of fairness.

The challenge in Superfund reform is to dramatically reduce Superfund's cost without sacrificing objectively accepted levels of protection of human health and the environment -- it can be done -- and to bring true fairness in allocating Superfund's costs without penalizing successful businesses and governmental entities which have, in the past, been Superfund's targets. If Superfund reforms are designed to meet these goals and if they are implemented wisely, Superfund reauthorization has the potential to work. If not, you will be reading about a new set of reforms in a few years and the litigation will continue.

FRED G. MULLINS III

BIOGRAPHICAL

Mr. Mullins has an MBA and twenty years of experience in the Environmental Health and Safety disciplines, including experience in the chemical, power generation and consulting industries. Mr. Mullins is the EH&S officer for AT&T Paradyne which is headquartered in Largo, Florida. His other responsibilities include real properties acquisition/control and management of the AT&T division facilities.

AGENDA

Waste Reduction and Pollution Prevention at AT&T Paradyne's Largo, Florida Facility

- AT&T Paradyne
- Corporate Environmental Goals
- Environmental Programs
- Recycling Programs
- Waste Water Elimination
- DFE (Design for the Environment)

AGENDA FOR NPDES DELEGATION WORKSHOP

Speakers: Roosevelt Childress - EPA, Atlanta
Jan Mandrup-Poulsen, FDEP, Tallahassee
Bruce Barrett - Barrett & Associates, Atlanta
Greg Williams - IMC Agrico Company, Lakeland
(Biographical information on speakers is presented on following pages)

- I. Introduction and Welcome Greg Williams
- II. EPA Summary Roosevelt Childress
 - A. What elements of the NPDES program has EPA retained?
 - B. How will EPA oversee the FDEP program?
 - C. When will additional delegation occur?
- III. FDEP Summary Jan Mandrup-Poulsen
 - A. When will the permits be consolidated?
 - B. Who do I contact? (Permits? Forms? Spills?)
 - C. What about the permit fees?
 - D. Where does the paper go? (District? Tallahassee?)
 - E. What about the 50% reduction in rules? (Can't apply to federal laws)
- IV. Discussion of Other Delegated Programs in Region IV Bruce Barrett
 - A. How have other states fared?
 - B. What can we learn from their experiences?
 - C. What about local programs?
- V. Effects on Permitted Facilities Greg Williams
 - A. How should we manage our records?
 - B. What about notifications?
 - C. Who will be coming to see us?
 - D. What management strategies should we use?
- VI. Question and Answer Session

ROOSEVELT CHILDRESS

BIOGRAPHICAL

Roosevelt Childress is Chief of the Storm Water and Municipal NPDES Permits Unit at EPA, Region 4. He has been with EPA in the NPDES program for 23 years. His staff is responsible for the issuance of National Pollutant Discharge Elimination System (NPDES) permits for storm water discharges from municipal separate storm sewer systems in the State of Florida. He is also responsible for the overview of the storm water permitting programs operated by seven (7) other States in Region 4.

JAN MANDRUP-POULSEN

BIOGRAPHICAL

Jan is an Environmental Manager within the Wastewater Facilities Regulation Section in the Department of Environmental Protection. Section functions include acting as liaison between the Department and the U.S. EPA, coordinating permitting activities conducted at the Department's district offices, providing training to district staff, and developing policies for permitting, compliance, and enforcement activities.

Jan received a B.S. in Atmospheric and Oceanic Science from the University of Michigan, a M.S. in Biological Oceanography from Florida State University, and a M.B.A. in Management also from Florida State University.

BRUCE BARRETT

BIOGRAPHICAL

Bruce Barrett, P.E. is head of Bruce Barrett & Associates, a professional services consulting firm. The firm offers a broad range of environmental management services to industry, trade associations, government agencies, and law firms. Representative services offered include assistance on permit applications and renewals; liaison and negotiation with regulatory agencies; option assessment for discharge and treatment alternatives; compliance strategies; pretreatment programs; monitoring and reporting assistance; preparation of storm water pollution prevention plans; preparation of spill prevention, control, and countermeasure plans; and corporate environmental program development. The firm also assists law firms with technical case development, data review and evaluation, and expert testimony. Mr. Barrett is a former high level official in the U.S. Environmental Protection Agency, and is an acknowledged expert in environmental regulation. He is a registered Professional Engineer in several states.

G. GREG WILLIAMS

BIOGRAPHICAL

Mr. Williams is the Environmental Superintendent for the Minerals Division of IMC-Agrico Company. He has been with the Company for nine years. Previous employers include the Florida Department of Environmental Regulation and an environmental consulting firm.

His department is responsible for all phases of environmental compliance, permitting and monitoring for the Company's ten phosphate mining operations, two deep water shipping terminals and two limestone facilities. He supervises a staff of fourteen.

The group's responsibilities include: industrial wastewater, drinking water, domestic wastewater, air permitting and monitoring, hazardous chemicals, regulated tanks, special wastes (PCBs, used oil, mercury lights, asbestos), hazardous waste, consumptive use, and ambient environmental monitoring.

THOMAS M. DEROSE

BIOGRAPHICAL

Thomas M. DeRose is a partner in the firm of Hopping Green Sams and Smith, P.A., in Tallahassee, Florida. He received his B.A. Degree from Bucknell University in 1976, his J.D. Degree from the National Law Center, George Washington University in 1979, and an LL.M. in Admiralty from the Tulane University School of Law in 1983. From 1984 through 1987, Mr. DeRose was Assistant Regional Counsel for the U.S. Environmental Protection Agency in Atlanta, Georgia. He is licensed to practice in law in Florida, Alabama, Louisiana and the District of Columbia and is a member of the Florida Bar environmental and Land Use Section and the American Bar Association's Natural Resource Law Section.

AGENDA

USING ENVIRONMENTAL COMPLIANCE AUDITS TO MANAGE ENVIRONMENTAL LIABILITY

Environmental Enforcement Generally

Both the Federal and State governments have stepped up their enforcement of environmental regulations in recent years. Most federal and state environmental statutes give the environmental agencies which administer the statutes the authority to pursue both civil and criminal enforcement for violations of the statutes. In the past, civil penalties have been the standard enforcement method for dealing with environmental infractions; however, the increase in criminal actions in the last few years shows a trend of increased and increasing activity in criminal enforcement. The U.S. Department of Justice (DOJ) added an Environmental Crimes Section in 1987 specifically to handle enforcement of federal criminal laws relating to the protection of the environment. The number of indictments and the amount of criminal fines collected by the DOJ is continually rising. In fact, the Pollution Prosecution Act of 1990 requires EPA to increase the number of criminal investigators. Even in Florida, criminal enforcement is becoming more mainstream.

Civil and Criminal Liability

The penalties for violations of environmental laws are staggering given the extreme complexity of the web of environmental regulations. Following is a list of some of the civil and criminal penalties to which facilities are subject under federal and State law.

Comprehensive Environmental Response Compensation and Liability Act (CERCLA)

- \$25,000 per day per violation in civil penalties;
- \$75,000 per day per violation in civil penalties for subsequent violations;
- From \$5,000 to \$250,000 in criminal fines and/or one to five years in prison for reporting Violations;

Costs of removal and cleanup by governmental and private parties;
Damages for injury to natural resources;
Punitive damages;
Injunctive relief.

Resource Conservation and Recovery Act (RCRA)

\$50,000 per day criminal fine and/or 2 to 5 years in prison;
\$100,000 per day criminal fine and/or 4 to 10 years in prison for subsequent convictions;
Up to \$250,000 criminal fine and/or 15 years for knowing endangerment;
Up to \$1,000,000 criminal fine for an organization for knowing endangerment;
\$25,000 per day per violation in civil penalties;
Injunctive relief.

Clean Water Act

\$25,000 per day criminal fine and/or one year in prison for a negligent violation;
\$50,000 per day criminal fine and/or two years in prison for subsequent negligent violations;
\$50,000 per day criminal fine and/or three years in prison for knowing violations;
\$100,000 per day criminal fine and/or six years in prison for subsequent knowing violations;
Up to \$250,000 criminal fine and/or 15 years for knowing endangerment;
Up to \$1,000,000 criminal fine for an organization for knowing endangerment;
\$10,000 per day per violation in civil penalties;
Injunctive relief.

Clean Air Act

The criminal fines and sentences vary according to the specific violation, but includes fines of up to \$250,000 for individuals and \$500,000 for organizations, and up to five years in prison;

\$25,000 per day per violation in civil penalties;
Injunctive relief.

Florida Resource Recovery and Management Act

\$50,000 per day per violation in civil penalties;
\$50,000 per day criminal fine and/or 5 years in prison;
\$100,000 per day criminal fine and/or 10 years for subsequent convictions;
Costs of removal or remedial action incurred by DEP;
Damages for injury to natural resources;
Injunctive relief.

Florida Air and Water Pollution Control Act

\$10,000 per day per violation in civil penalties;
\$50,000 per day criminal fine and/or 5 years in prison;
Damages for injury to natural resources;
Injunctive relief.

Florida Safe Drinking Water Act

\$5,000 per day per violation in civil penalties;
Injunctive relief.

Examples of Federal and State Criminal Enforcement Activities

Following is an example of a criminal enforcement case brought against a corporation which is regulated by several environmental statutes.

In U.S. v. Rockwell International Corp., (1992) Rockwell plead guilty to a ten-count information charging four felony counts under RCRA, one felony county under the Clean Water Act (CWA) and four misdemeanor CWA counts. The court sentenced the corporation to \$18.5 million in criminal penalties. The action alleged illegal storage and treatment of hazardous wastes, knowingly discharging pollutants in violation of a permit, and negligently discharging pollutants in violation of a permit.

Criminal liability is not limited to corporations. Individuals may be held criminally liable for their individual actions under environmental statutes. In 1992, while 50 corporations were criminally indicted, 24 president/past owners, 7 vice-president, 7 directors, 30 managers, 11 supervisors and 57 other individuals were indicted. Following are several examples of the federal government's enforcing environmental crimes against individuals.

US v. Baytank, et. al. (1992) involved a criminal action against a corporation (Baytank) and three individual defendants. The corporation was sentenced to a \$1 million criminal fine for six CWA violations and one CERCLA violation for failure to report the release of hazardous substances. The corporation's executive vice-president and the operations manager were both sentenced to a \$40,000 criminal fine for two CWA violations. The technical manager was sentenced to a \$20,000 criminal fine for one CWA count.

US v. Goldsmith (1991) involved a criminal action against Goldsmith for the illegal storage and transportation of 70 drums of characteristically hazardous waste. Goldsmith was sentenced to a 23 month prison term, without a fine.

As noted above, Florida is also pursuing criminal enforcement for environmental violations.

State of Florida v. Caccamisi (1992) involved a tank wash operation in Haines City, Florida. The

owner-operator was adjudicated guilty and sentenced to five years in a Florida state prison on three felony counts of illegal disposal of hazardous waste and five years probation on three additional counts of hazardous waste violations. He was credited with time served for a misdemeanor count of operating a hazardous waste facility without a permit. Environmental agencies found that the tank wash operation, which removed the "heel" and tank residues from bulk liquid tankers, diverted the waste to underground tanks which were not sound. The tanks had holes cut into them and drained to the ground. Widespread contamination was found upon the property.

Scope of Criminal Liability

As the various environmental statutes each set forth the requirements for criminal liability under the specific statute, it is difficult to speak generally about environmental crimes. In most statutes, however, there is a condition of intent, either "negligent," "knowing," or "willful" misconduct or "knowing endangerment."

* "Negligence" is the least stringent standard of criminal intent and has the least stringent criminal penalties attached. Negligence means an act or omission which is not knowingly committed, but occurs in violation of some standard of "reasonableness." Criminal negligence is generally alleged in combination with more serious offenses.

The Clean Water Act provides that criminal liability attaches to any person who:

- (A) negligently violates section 301, 302, 306, 307, 308, 311(b)(3), 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act by the Administrator or by a State, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of this Act or in a permit issued under section 404 of this Act by the Secretary of the Army or by a State; or
- (B) negligently introduces into a sewer system or into a publicly owned treatment works any pollutant or hazardous substance which such person knew or reasonably should have known could cause personal injury or property damage or, other than in compliance with all applicable Federal, State, or local requirements or permits, which causes such treatment works to violate any effluent limitation or condition in any permit issued to the treatment works under section 402 of this Act by the Administrator or a State.

* "Knowing" and "willful" intent generally describes the same level of intent. The extent of knowledge or intent required is a matter of debate in the courts. Some courts have held that knowledge of each element of the offense is required. For example, one would have to know that the waste disposed of was hazardous under the regulations, that to dispose of such waste one must obtain a permit, and that no permit authorizing such disposal has been issued. U.S. v. Johnson & Towers, Inc., 741 F.2d 662 (3rd Cir. 1989). Other courts have repudiated such a narrow construction of criminal liability: an awareness that the material being disposed of "had the potential to be harmful to others or the environment" was sufficient to prove that the defendant "knew" the

material was hazardous. U.S. v. Hoflin, 880 F.2d 1033 (9th Cir. 1989). Some courts have held that knowledge may be established by circumstantial evidence that the defendant was deliberately ignorant or willfully blind to the regulatory requirement. The cases remain in conflict at this point.

Under RCRA, criminal liability applies to any person who:

- (1) knowingly transports or causes to be transported any hazardous waste identified or listed under this subtitle to a facility which does not have a permit under this subtitle,
- (2) knowingly treats, stores, or disposes of any hazardous waste identified or listed under this subtitle,
 - (A) without a permit under this subtitle,
 - (B) in knowing violation of any material condition or requirement of such permit, or
 - (C) in knowing violation of any material condition or requirement of any applicable interim status regulations or standards;
- (3) knowingly omits material information or makes any false material statement or representation in any application, label, manifest, record, report, permit, or other document filed, maintained, or used for purpose of compliance with regulations promulgated by the Administrator (or by a State in the case of an authorized State program) under this subtitle;
- (4) knowingly generates, stores, treats, transports, disposes of, exports, or otherwise handles any hazardous waste or any used oil not identified or listed as a hazardous waste under this subtitle (whether such activity took place before or takes place after the date of the enactment of this paragraph) and who knowingly destroys, alters, conceals, or fails to file any record, application, manifest, report, or other document required to be maintained or filed for purposes of compliance with regulations promulgated by the Administrator (or by a State in the case of an authorized State program) under this subtitle;
- (5) knowingly transports without a manifest, or causes to be transported without a manifest, any hazardous waste or any used oil not identified or listed as a hazardous waste under this subtitle required by regulations promulgated under this subtitle (or by a State in the case of a State program authorized under this subtitle) or be accompanied by a manifest;...

* "knowing endangerment" is the highest standard of criminal intent and requires both knowingly violating regulatory provisions, and, as a result, knowingly placing another person in "imminent danger of death or serious bodily injury." Both the Clean Water Act and RCRA specify criminal penalties for "knowing endangerment."

Under RCRA, the following provision imposes criminal liability:

- (e) **Knowing Endangerment.** -- Any person who knowingly transports, treats, stores, disposes of, or exports any hazardous waste identified or listed under this subtitle or

used oil not identified or listed as a hazardous waste under this subtitle in violation of paragraph (1), (2), (3), (4), (5), (6), or (7) of subsection (d) of this section who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment for not more than fifteen years, or both. A defendant that is an organization shall, upon conviction of violating this subsection, be subject to a fine of not more than \$1,000,000.

(f) Special Rules, 00 For the purposes of subsection (e)--

- (1) A person's state of mind is knowing with respect to --
 - (A) his conduct, if he is aware of the nature of his conduct;
 - (B) an existing circumstance, if he is aware or believes that the circumstance exists; or
 - (C) a result of his conduct, if he is aware or believes that his conduct is substantially certain to cause danger of death or serious bodily injury.
- (2) In determining whether a defendant who is a natural person knew that his conduct placed another person in imminent danger of death or serious bodily injury--
 - (A) the person is responsible only for actual awareness or actual belief that he possessed; and
 - (B) knowledge possessed by a person other than the defendant but not by the defendant himself may not be attributed to the defendant; provided, that in proving the defendant's possession of actual knowledge, circumstantial evidence may be used, including evidence that the defendant took affirmative steps to shield himself from relevant information.

Factors in Decisions on Criminal Prosecutions

Whether criminal enforcement will be pursued in addition to or in lieu of seeking civil penalties is within the discretion of the prosecutorial entity. In general, criminal enforcement is likely when it appears that the misconduct threatens accomplishment of a specific goal or priority of the state or federal government and if one or more of the following aggravating factors exist: history of repeated violations; potentially deliberate, knowing or willful misconduct; concealment of misconduct or falsification of records, including failure to report; tampering with monitoring or control equipment; operating without a required permit, license, manifest or other required authorization; or actual discharge, release, emission or other fact demonstrating the potential for harm to the environment or

human health.

On July 1, 1991, the DOJ issued a guidance document entitled "Factors in Decision on Criminal Prosecutions for Environmental violations in the context of significant Voluntary Compliance or Disclosure Efforts by the Violator." The first two sentences read as follows:

It is the policy of the Department of Justice to encourage self-auditing, self-policing and voluntary disclosure of environmental violations by the regulated community by indicating that these activities are viewed as mitigating factors in the Department's exercise of criminal environmental enforcement discretion. This document is intended to describe the factors that the Department of Justice considers in deciding whether to bring a criminal prosecution for a violation of an environmental statutes, so that such prosecutions do not create a disincentive to undermine the goal of encouraging critical self-auditing, self-policing, and voluntary disclosure.

It is clear that the thrust of the guidance document is that regulated entities which conduct self-audits, make voluntary, timely and complete disclosures of violations and take prompt corrective action will get a prosecutorial break.

The DOJ factors in decision on criminal environmental prosecutions include the following: Voluntary Disclosure; Cooperation; Preventative Measures and Compliance Programs; Pervasiveness of Noncompliance; Internal Disciplinary Action and Subsequent Compliance Efforts. An explanation of each factor is set forth more fully in the guidance document. For example:

Voluntary Disclosure --

DOJ takes into account voluntary, timely and complete disclosure of the matter under investigation; whether the person came forward promptly after discovering non-compliance; and whether the disclosure occurred before a regulatory authority already obtained the knowledge.

Cooperation --

DOJ takes into account the degree and timeliness of cooperation by a person, such as the person's willingness to make all relevant information available to the government investigators and prosecutors.

Preventative Measures and Compliance Programs --

DOJ considers the existence and scope of any regularized, intensive and comprehensive environmental compliance program, including an environmental compliance or management program, considering whether the program includes sufficient measures (objectivity, QA/QC) to identify and prevent future noncompliance. Another key factor is whether there is a strong institutional policy to comply with all environmental requirements.

Pervasiveness of Noncompliance --

Pervasive noncompliance may indicate to DOJ the lack of a meaningful compliance program. DOJ considers the number and level of employees participating in the unlawful activities and the obviousness, seriousness, duration, history and frequency of noncompliance.

Internal Disciplinary Action --

DOJ sees an effective internal disciplinary program as crucial to any compliance program, including disciplinary proceedings against supervisors who are lax in preventing or detecting noncompliance.

Subsequent Compliance Efforts --

DOJ considers the extent and promptness of any efforts to remedy and ongoing noncompliance.

The DOJ attorney who has sufficient evidence to pursue criminal action takes into account these factors to determine whether and how to prosecute a case. Of course, the list of factors is not a checklist or requirements and no one factor will be dispositive. All of the factors are considered as relevant information to the exercise of prosecutorial discretion.

Many of the factors, however, hinge upon the early detection of violations and the ability to respond to knowledge of the problem in order to correct it. Regular compliance audits allow regulated entities to detect actual or potential violations prior to agency inspections and enable the regulated entities to detect actual or potential violations prior to agency inspections and enable the regulated entities to plan an effective method for reporting and correcting environmental violations. The compliance audit is the first step in ensuring that a facility utilizes factors available to deter criminal proceedings.

Confidentiality of Audits

One of industry's fears about conducting compliance audits is that the information will be used against them in the future. There is currently not a specific privilege in Florida to prevent the discovery of information obtained in a compliance audit. Both EPA and DEP have the authority (or believe that they have the authority) to request audit reports. However, EPA has recognized that routinely requesting audit reports could inhibit compliance audits in the long run and may diminish the quantity and quality of such audits. As a result, EPA issued on July 9, 1986, its policy on environmental auditing. A portion of the document addresses EPA policy on Agency Requests for Audit Reports. EPA states that "as a matter of policy, EPA will not routinely request environmental audit reports." Instead, it is EPA's policy to request audit reports only where the agency determines it is "needed to accomplish a statutory mission, or where the Government deems it to be material to a criminal investigation." Even then, those requests should be limited to particular information in the report rather than the entire report, and only when the information cannot be obtained from other data otherwise available. EPA further clarified its position in an interim policy published April 3, 1995, which states that "EPA will not request an audit in routine inspections. However, EPA will seek any relevant information -- which could include audit reports - if it has reason to believe a violation has

occurred. Thus, EPA's policy doesn't limit the authority of the agency to request and receive an audit report.

EPA's policy set forth three circumstances in which it will seek audit information, noting that the list is not exhaustive:

1. Where audits are conducted under consent decrees or other settlement agreements;
2. Where a company has placed its management practices at issue by raising them as a defense; and
3. Where state of mind or intent is a relevant element of inquiry, such as during a criminal investigation.

It may be possible to protect compliance audits from disclosure through the attorney-client privilege or attorney work product; however, the applicability of those theories for protection are not guaranteed. The audit work would have to be requested and conducted pursuant to instruction of the regulated entity's legal counsel. Nevertheless, some courts have held that the attorney-client privilege does not apply because a compliance audit may not constitute legal advice. Furthermore, the work product doctrine requires that the document must be prepared in anticipation of litigation. Documents prepared in the ordinary course of business are generally not deemed to have been prepared in anticipation of litigation. A routine program of compliance inspection is more likely to be considered business advice or materials produced in the normal course of business and therefore less likely to be protected.

An alternative means of protecting environmental audit documents, the self-valuative or self-critical privilege has recently been recognized by a federal district court in the context of environmental litigation. Reichhold Chemicals, Inc. v. Textron, Inc., 157 F.R.D. 522 (N.D.Fla. 1994). However, like the attorney-client privilege, the self-valuative privilege does not provide guaranteed protection. The privilege will not shield documents with evidence of a party's prior knowledge of the risks inherent in a course of conduct. Thus, it offers no protection for audits of prospective conduct where an accident, in fact, results and may not shield routine compliance audits conducted with the intention of preventing violations. More problematic, and unresolved by the court opinion, is whether the privilege may be asserted against a governmental agency.

In order to provide a greater incentive to regulated entities to conduct voluntary compliance audits, several states have enacted legislation which protects voluntary environmental audits from disclosure. Legislation creating an environmental self-audit privilege has been adopted in Oregon, Colorado, Indiana, Kentucky, Illinois, Wyoming, Arkansas and Virginia. The legislation adapted in Oregon stipulates that under certain conditions, voluntary audit reports are privileged and that they are not admissible in most legal proceedings, with certain exceptions. The exceptions are narrowly tailored, such as where there is fraud or failure to take appropriate steps to remedy noncompliance. Information which must be reported to the authorities as a matter of law, information gathered by the regulatory agency and information obtained from a source independent of the audit are not privileged from disclosure.

Similar legislation was filed for consideration by the florida legislature in 1995. The Florida bill was

modeled after the Colorado law. Colorado's environmental audit law creates a limited privilege for the information which is contained in an environmental audit report in both the formal setting of court or an administrative hearing, and also during requests to inspect documents which are made pursuant to law. The privilege would be conditioned upon taking appropriate steps to correct any noncompliance discovered by the environmental self-audit and would be limited by certain other exceptions. The Colorado law also provides limited immunity from civil or criminal liability or administrative penalties or fines for violations of environmental laws which are revealed as a result of voluntary disclosure of any part of an environmental audit report or related materials. Although the Florida bill did not pass, industry representatives expect that legislation in substantially the same form will be filed in 1996.

EPA has expressed strong opposition to state laws which create privileges and immunities as an incentive for voluntary auditing. As an alternative, EPA's interim policy offers reduced penalties as an incentive for self-policing and self-disclosure. Already, the policy has been criticized as too uncertain to provide any meaningful incentive.

MARK STEPHENS

BIOGRAPHICAL

Mr. Stephens is a Principal Consultant with AT&E and is the Co-Manager of AT&E's Hydrotechnology Division. He has practiced environmental consulting for 20 years, including 18 years in Florida. Mr. Stephens is a registered Professional Geologist and a registered Professional Engineer in the State of Florida and a registered Professional Engineer in the State of Illinois. He has a B.S. degree in Geology and a M.S. degree in Geology/Water Resources. During Mr. Stephens' 20 years of practice, he has and continues to conduct and direct a vast variety of environmental projects including: contamination investigations for all types of contaminants in ground water, soil and surface water; remedial system design, permitting, construction, and operation/maintenance; solid and liquid waste disposal facility permitting and design; ground water supply permitting and wellfield construction/testing; RCRA facility permitting, closure, design, construction, and contamination investigations; injection well permitting, testing, and construction; and project management. Mr. Stephens had published four papers related to solid waste disposal and lectures frequently on environmental topics.

AGENDA

Multi Media Compliance Audits

- I. Audit Planning
 - A. Example Audit Areas:
 1. Environmental
 2. Safety
 - B. Audit Checklists
 - C. Reference documents
- II. Pre-Audit Conference
 - A. Windshield tour of facility
 - B. Audit team meeting
- III. Records Review
 - A. Permits
 - B. Inspection and Monitoring Reports
 - C. Training Records
 - D. Records Management
- IV. Facility Inspection
- V. Reporting Results
 - A. Verbal Report
 - B. Summary Written Report
 - C. Detailed Written Report

W. JEFFREY PARDUE

BIOGRAPHICAL

Mr. Pardue is Director, Environmental Services, at St. Petersburg based Florida Power Corporation. He holds B.S. and M.S. degrees in Biology and an M.B.A. and is a certified environmental professional. He has spent over 20 years in the environmental sciences, 19 of which have been in the power industry.

In addition to his responsibilities at Florida Power Corporation, Mr. Pardue is also Chairman of the Florida Electric Power Coordinating Group, Environmental Committee and Chairman of the Legislative Task Force.

Mr. Pardue has authored many publications in environmental science and is active in legislative issues at the state and national level.

AGENDA

Self-Assessment (A Missed Opportunity)

During the 1995 legislative session the Florida Electric Power Coordinating Group prepared legislation to establish incentives for companies to conduct self-assessments of their environmental compliance status. The bill would have provided for confidentiality of the self-assessment documents and would have included protection from civil and criminal penalties if the self-assessment documents were submitted to the regulatory agency and all deficiencies were corrected in a timely manner. The bill, which was actively opposed by the Attorney General's Office and the Florida Academy of Trial Lawyers, did not pass.

The State of Florida missed a real opportunity to improve environmental compliance throughout the State. Passage of senate bill 944 would also send a signal that the State does not need regulatory reform in the environmental arena, such as is the case in Washington, and it would allow the State to focus its enforcement efforts in areas that need the most attention.

JOHN G. WILEY

BIOGRAPHICAL

John G. Wiley is the Environmental, Health, and Safety Superintendent at the Monsanto Chemical Company Plant in Pensacola. The Pensacola Plant is Monsanto's largest plant and world's largest wholly unified nylon facility. John has held various assignments in manufacturing and in the support services areas during his 22 years with the company. John received a B.S. degree in Industrial Engineering from Auburn University and completed course work toward his Masters in System Management from F.I.T. in Melbourne, Florida. Prior to joining Monsanto, John was a system Engineer with Harris Corporation in Melbourne. John has been responsible for Monsanto's Environmental Program for the past 12 years and has been recognized by the corporation for his proactive approach with the regulated community. Through John's leadership Monsanto's Pensacola Plant has been recognized as the "Best-IN-Class" in regulatory compliance and pollution prevention. This is evidenced by the fact that the plant was the first facility in the state and in the Monsanto Corporation to receive OSHA's Voluntary Protection Plan (VPP) STAR award for excellence. John has also received several individual awards and recognition regarding his proactive approach to Voluntary Pollution Prevention.

AGENDA

ENVIRONMENTAL AUDITS "A REAL LIFE EXAMPLE"

Monsanto's Environmental Audit Program

History:

- Audit program in place for 12 years
- Evolution of program
- Proven track record

Current Audit Protocol:

- Dedicated corporate audit team
- Major plants audited on 2 yr. intervals
- Visible management commitment
- Internal legal reviews

Results:

- Increased awareness, commitment & ownership
- Continuous improvements realized
- Required to reach goal of 100% compliance

Purpose of Environmental Audit

Assure continuous compliance with Federal, State, and local environmental laws and regulations.

Assure conformance with Monsanto pledge guidelines, policies, and procedures

Assure that effective environmental compliance management systems are in place and functioning as designed.

FUNCTIONAL SCOPE OF AUDIT

Air Pollution Control
Water Pollution Control
Spill Control & Emergency Planning
Solid & Hazardous Waste Management
Drinking Water Management
PCB Management
Underground Storage Tanks
Underground Injection Control
ESH compliance Process
Monsanto Pledge Guidelines

ENVIRONMENTAL AUDIT PROGRAM

PLANNING AND SCHEDULING

- SCHEDULE DATE FOR ON-SITE AUDIT WITH THE PLANT
- REQUEST PRE-AUDIT INFORMATION FROM THE PLANT
- SCHEDULE/ASSIGN AUDITORS

PRE-AUDIT (EACH AUDITOR)

- REVIEW PRE-AUDIT INFORMATION FROM THE PLANT
- REVIEW COMPANY FILES ON THE PLANT
- IDENTIFY & REVIEW APPLICABLE LAWS/REGULATIONS
- ANNOTATE PROTOCOLS
- DEVELOP PRELIMINARY AUDIT SCOPE
- MEET WITH ENVIRONMENTAL MANAGER
- MEET WITH ENVIRONMENTAL LAW DEPARTMENT
- FINALIZE AUDIT SCOPE
- DEVELOP DETAILED AUDIT WORK PLANS

ON-SITE AUDIT

- OPENING MEETING WITH PLANT STAFF
- PLANT TOUR
- FINALIZE AUDIT SCHEDULE
- EXECUTE AUDIT WORK PLANS
- DOCUMENT WORK/FINDINGS IN WORK PAPERS
- DAILY FEEDBACK MEETINGS WITH PLANT
- CLOSING MEETING WITH PLANT STAFF

POST-AUDIT

- DEVELOP DRAFT OF FINAL AUDIT REPORT
- REVIEW WITH LEGAL DEPT. & OP. COMPANY
- ISSUE FINAL AUDIT REPORT
- ESTABLISH AUDIT FILES
- MONITOR STATUS OF AUDIT RECOMMENDATIONS
- MAINTAIN AUDIT RECOMMENDATION CLOSURE FILE

ON-SITE AUDIT APPROACH

Audit Activities/Tools:

Physical survey of the plant

Examination of a sample of environmental, administrative, technical, and operating records available at the facility.

Interviews and discussions with key facility management & staff.

Strategy/Logic:

Understand management systems

Verification procedures designed to examine the facility's application of and adherence to environmental laws and regulations, company policies, and good management practices

Are systems in place and functioning as designed?

REPORTING RESULTS

Daily feedback meetings

Verbal findings/observations vs. written recommendations

Open exchange of progress

Schedule next day

On-site closing meeting

Management review

Final Report

ACTION PLAN & FOLLOW-UP

Action plan development issues
 Audit is a sample=> expand plantwide address findings and systems
Draft Action Plan (30 days)
 Specific Actions
 Person Responsible
 Completion Dates
ECAU & DEP Review and Comment
Finalize Action Plan
Quarterly Status Report
 Exception Report
 Documentation on completed items
Audit Closure File

SUMMARY

PERSONAL TESTIMONY

COMMIT TO SELF AUDITING

CUSTOMIZE PROGRAM TO FIT NEED

UTILIZE OUTSIDE EXPERTISE

SUPPORT SELF-AUDIT LEGISLATION

KRISTIN CONROY

BIOGRAPHICAL

Kristin Conroy is an Associate with Hopping Green Sams & Smith in Tallahassee, Florida. She Received her B. A. in English in 1988 from the University of Notre Dame and her J.D. in 1991 from Florida State University, where she was an editor on the Law Review. Ms. conroy practices mainly in the areas of solid and hazardous waste permitting and enforcement, and soil and groundwater remediation.

AGENDA

FLORIDA GROUNDWATER CONTAMINATION ISSUES

- I. Introductions
- II. Assessment and Remediation of Groundwater Contamination in Florida.
 - A. Mechanisms for Discovering Groundwater contamination.
 - B. Consent Order Procedures
 - C. Typical Contents of Consent Orders.
 - D. "Corrective Actions of Contamination Site Cases" Guidance Document.
 - 1. Requirements.
 - 2. Recent Revisions.
 - E. Remediation levels.
 - 1. "Groundwater Guidance Concentrations" Guidance Document.
 - 2. Developments in the Use of Risk Assessments.

MARY E. S. WILLIAMS

BIOGRAPHICAL

Mary E. S. Williams has been with the Department of Environmental protection since 1992, and is currently the Drinking Water and Ground Water Resources Bureau Chief in the Division of Water Facilities. This Bureau houses the Drinking Water, Ground Water, Underground Injection Control, Water Well construction and Management, and Ground Water Quality Monitoring Network programs. Prior to joining DEP, Ms. Williams was President of CJW Enterprises, Inc., a private consulting firm specializing in regulatory compliance in New Hampshire.

AGENDA

FLORIDA GROUNDWATER CONTAMINATION ISSUES.

- III. Recent Statutory and Regulatory Debates Affecting Groundwater.
 - A. Wellhead Protection Rulemaking.
 - B. UDI--"Under the Direct Influence" Program.
 - C. Tanks Legislation.
- IV. Question and Answer Session.

RONALD F. DEBATTISTA

BIOGRAPHICAL

Mr. DeBattista presently serves as the Group Environmental Vice President for Waste Management, Inc. of Florida officed in Pompano Beach, Florida. He held similar positions in the company's Northern, East/South Central and South Groups. He has over thirty years experience in the field of environmental protection including solid waste management, wastewater disposal, construction and consultant management both in the private and public sectors. He holds a Bachelors of Civil Engineering Management Department which consists of engineers, environmental scientists and technicians. In managing the Company's Environmental Management Department, he is responsible for environmental compliance and engineering; it includes managing the design and permitting of projects, environmental assessments, quality control, oversight during construction and/or operational phase oversight ensuring that operations are constructed in compliance with permit conditions, applicable federal, state and local regulations as well as company policies.

AGENDA

COMPLIANCE MANAGEMENT SYSTEM (CMS)

Waste Management Technologies' (WMX) approach to compliance is centered in its Environmental Policy and "ACT" approach to compliance - Preventing compliance issues from arising, Assessing the compliance status of operations, Correcting deficiencies identified and Training personnel to improve their performance.

We believe this framework is a comprehensive model for many industries and also satisfies the draft Federal Sentencing Guideline criteria for effective environmental compliance programs.

To implement the PACT approach, WMX has developed computer based tools to help facility managers plan and carry out compliance related activities and track resolution of compliance issues. The Compliance Management System (CMS) and the Corrective Action Reporting System (CARS) and the tools we developed.

CMS is a simple computerized tracking and scheduling tool designed specifically for Waste Management of Florida facility managers. It is intended to provide facility management with the ability to assure continuous compliance with Company, Federal, State, local, and permit derived environmental requirements.

CMS will provide Facility Management with the following capabilities:

- Environmental Requirement Tracking
- Task Assignment/ Scheduling
- Accountability System/ Personnel Evaluation
- Documentation

- In-House Education/Training
- Self-Audit/Corporate Audit

CMS is also generic enough to allow management of facility compliance with other major programs such as Safety, Human Resources, Industrial Hygiene, Training, etc. The system was designed in 1990 by our corporate Environmental Compliance group, programmed by our Systems Department, and implemented at nine landfill pilots by the Environmental Management Department (EMD). During 1991 and 1992 we installed CMS at all of our landfills, medical waste incinerators, and hauling companies.

SECTION III

Corporate Sponsors of FAWQC

1995 CORPORATE SPONSORS

The arrangement of a good technical conference requires a tremendous amount of time and effort. The Florida Association for Water Quality Control Annual Conference is unique from many other conferences in that, in addition to providing an excellent forum for the exchange of technical information, they are always enjoyable to attend. We can afford to hold attractive and exciting conferences because of the generosity and support of the Corporate Sponsors. Their donations allow the FAWQC Board to meet routinely to plan the conference, fund the hospitality hours, and more importantly in recent years, allow the FAWQC to support young people pursuing research in water quality related fields. The FAWQC Board wishes to express its sincere thanks to our Corporate Sponsors.

Ardaman & Associates

P.O. Box 593003
Orlando, Florida 32859-3003
(407) 855-3860

Atlanta Testing & Engineering

P.O. Box 5527
Lakeland, Florida 33807
(813) 644-1337

Cargill Fertilizer, Inc.

P.O. Box 9002
Bartow, Florida 33830
(813) 534-9606

CF Industries, Inc.

P.O. Box 1549
Wauchula, Florida 33873
(813) 375-4321

Florida Phosphate Council

215 S. Monroe Street, Suite 830
Tallahassee, Florida 32301
(904) 224-8238

Holland & Knight

P.O. Box 1288
Tampa, Florida 33601
(813) 227-6456

Hopping, Green Sams & Smith

123 South Calhoun Street
Tallahassee, Florida 32314
(904) 222-7500

IMC-Agrico Company

P.O. Box 2000
Mulberry, Florida 33860
(813) 428-2500

Oxychem

P.O. Box 300
White Springs, Florida 32096
(904) 397-8269

Regulatory Support Services

P.O. Box 549
Plant City, Florida 33564
(813) 754-3720

Tropicana Products, Inc.

P.O. Box 338
Bradenton, Florida 34206-0338
(813) 742-2748



Atlanta Testing & Engineering

Proud to Sponsor the
1995 FAWQC Conference



atlanta testing
& engineering

Lakeland
813-644-1337

• Clearwater
813-532-4447

• North Palm Beach
407-624-2866

• Sarasota
941-922-0788

FLORIDA ASSOCIATION for WATER QUALITY CONTROL

wishes to thank

CARGILL FERTILIZER, INC.

for their sponsorship
of
the 1995 FAWQC Conference

FLORIDA ASSOCIATION for WATER QUALITY CONTROL

wishes to thank

HOLLAND & KNIGHT

for their sponsorship

of

the 1995 FAWQC Conference

FLORIDA ASSOCIATION for WATER QUALITY CONTROL

wishes to thank

OxyChem

for their sponsorship

of

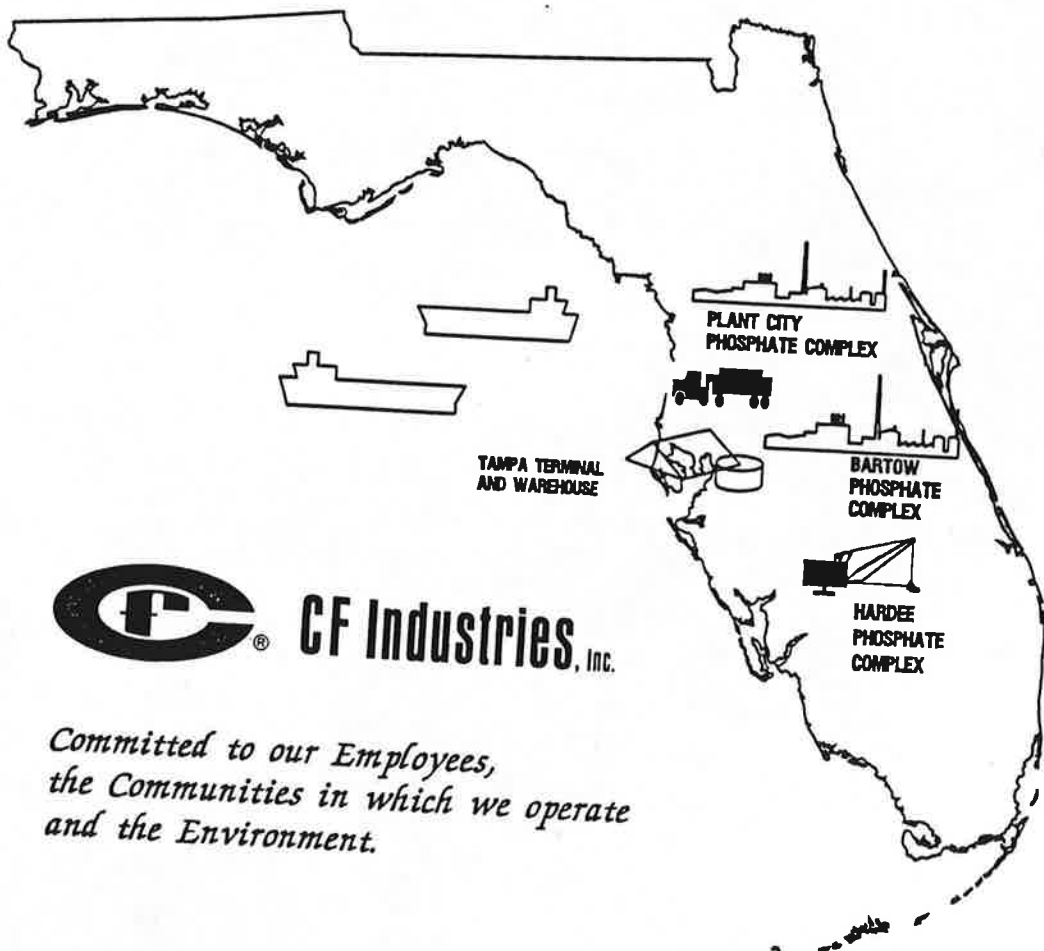
the 1995 FAWQC Conference

Tropicana®

*You Can't Pick
a Better Juice.™*



P.O. Box 338 Bradenton, FL 34206



CF Industries, Inc.

*Committed to our Employees,
the Communities in which we operate
and the Environment.*

A Leader in Water Conservation

IMC 
AGRICO



Ardaman & Associates, Inc.

Specialists since 1959 in:

- Geotechnical Engineering
- Hydrogeology and Water Resources
- Real Estate Environmental Audits
- Construction Inspection
- Site Contamination Assessment and Remediation

Corporate Headquarters

8008 S. Orange Avenue
Orlando, Florida 32809
(407) 855-3860

With offices in:

- Bartow
- Cocoa
- Ft. Lauderdale
- Fort Myers
- Miami
- Orlando
- Port Charlotte
- Port St. Lucie
- Sarasota
- Tallahassee
- Tampa
- West Palm Beach
- Cairo, Egypt

HOPPING GREEN SAMS & SMITH
PROFESSIONAL ASSOCIATION
ATTORNEYS AND COUNSELORS

THE FIRM CONTINUES ITS PRACTICE
IN THE FIELDS OF
GOVERNMENTAL AND ADMINISTRATIVE LAW,
ENVIRONMENTAL AND LAND USE REGULATION,
BUSINESS AND PROFESSIONAL REGULATION
AND
CIVIL TRIALS AND APPEALS

123 SOUTH CALHOUN STREET
POST OFFICE BOX 6526
TALLAHASSEE, FLORIDA 32314
(904) 222-7500



REGULATORY SUPPORT SERVICES, INC.

ENGINEERING, HYDROLOGY, BIOLOGY, DRAFTING ...
IN SUPPORT OF ALL ENVIRONMENTAL PERMITTING
AND COMPLIANCE MONITORING REQUIREMENTS

JOHN N. ALLEN JR.
PRESIDENT

MICHAEL C. COTTER, P.E.
VICE-PRESIDENT

1701 S. ALEXANDER ST., SUITE 111, PLANT CITY, FL. 33567
OFFICE (813) 754.3720 . FAX (813) 752.3303

Commitment.

*To Our
Environment
and Our
Community.*


**phosphate
feeds you**



We provide essential fertilizers and food supplements...
plus jobs, taxes, products and services.

FLORIDA PHOSPHATE COUNCIL

P.O. Box 367, Lakeland, FL 33802 • 813/686-2880

Member companies:

CF Industries, Inc. • Cargill Fertilizer, Inc. • Farmland Hydro, L.P.
IMC-Agrico Company • Mobil • Mulberry Phosphates, Inc.
Occidental Chemical Corporation • U.S. Agri-Chemicals Corporation

SECTION IV

Expo Participants

1995 FAWQC EXHIBITORS

AMS Engineering and Environmental, Inc.
204 E. McKenzie Street, Suite F
Punta Gorda, Florida 33950
(813) 575-2500
Marcus Allhands

Atlanta Testing & Engineering
P.O. Box 5527
Lakeland, Florida 33807
(813) 644-1337
Mark Stephens

Dynatech Precision Sampling Corporation
P.O. Box 15886
Baton Rouge, Louisiana 70895

Florida Environments Magazine
4010-B Newberry Road
Gainesville, Florida 32605
(904) 373-1401
Mary Hutchens

The Florida Specifier
P.O. Box 2027
Winter Park, Florida 32790-2027
(407) 740-7950
Michael Eastman

Hartman & Associates, Inc.
201 E. Pine Street
Orlando, Florida 32801
(407) 839-3955
Chuck Drake

Hydrolab
1755 West Olive Street
Lakeland, Florida 33801
(813) 682-4500
Korey Jarrell

P.E. LaMoreaux & Associates, Inc.
4320 Old Highway 37
Lakeland, Florida 33813
(813) 646-8526
Robert Stach

Post, Buckley, Schuh & Jernigan, Inc.
6635 E. Colonial Drive
Orlando, Florida 32807
(407) 277-4443
Dennis Raichart

Regulatory Support Services
P.O. Box 549
Plant City, Florida 33564
(813) 754-3720
Jay Allen

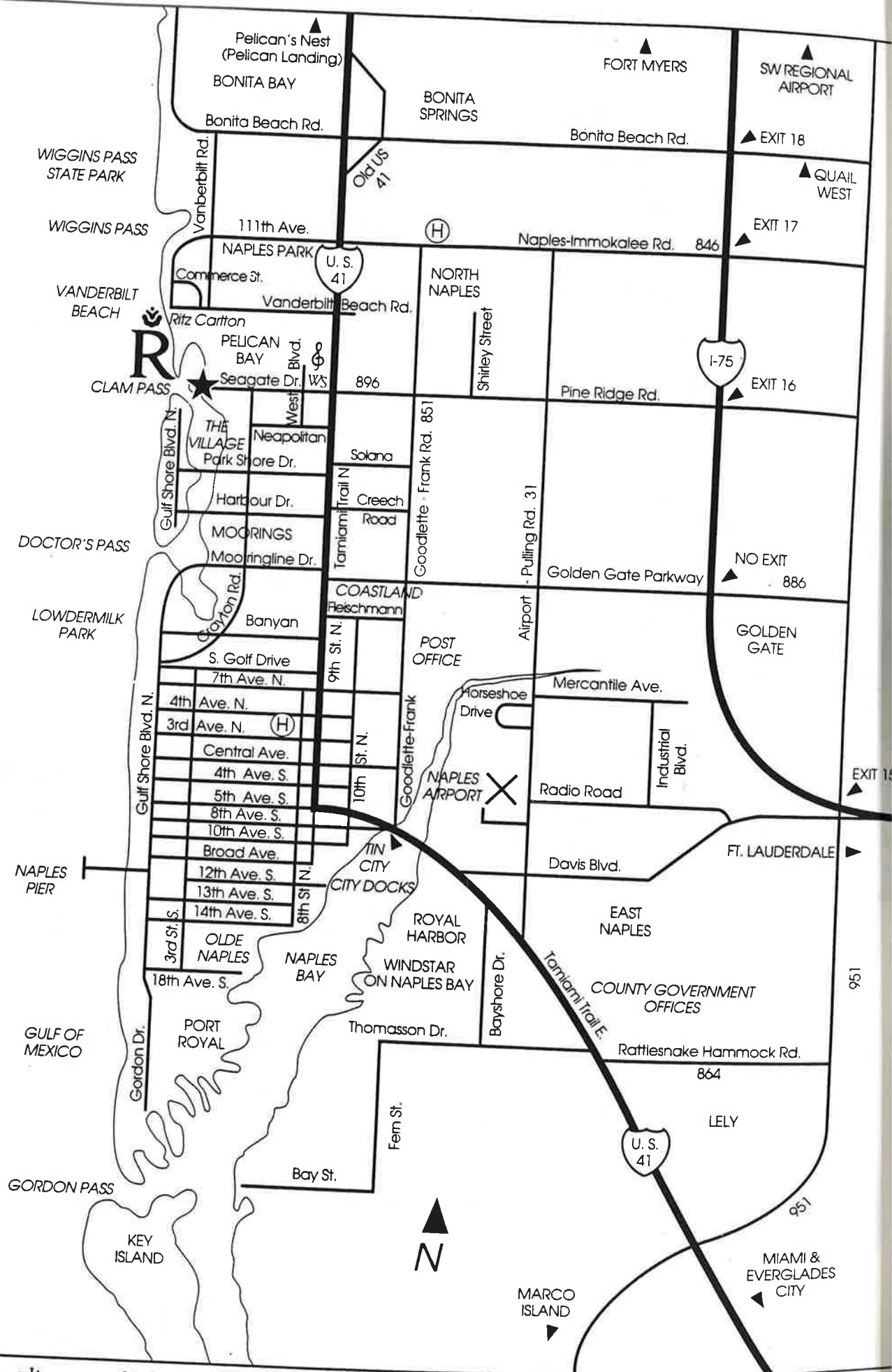
R.H. Moore & Associates, Inc.
8917 Maislin Drive, Building E
Tampa, Florida 33637
(813) 988-0200
Cheryl Moore

Terra Environmental Services, Inc.
14902 Winding Creek Ct., Suite 101-C
Tampa, Florida 33613
(813) 265-1651
Kathie Englert

Thornton Laboratories
1145 E. Cass Street
Tampa, Florida 33602
(813) 223-9702
Neumie Roberts

SECTION V

About the Registry Resort and Surrounding Area

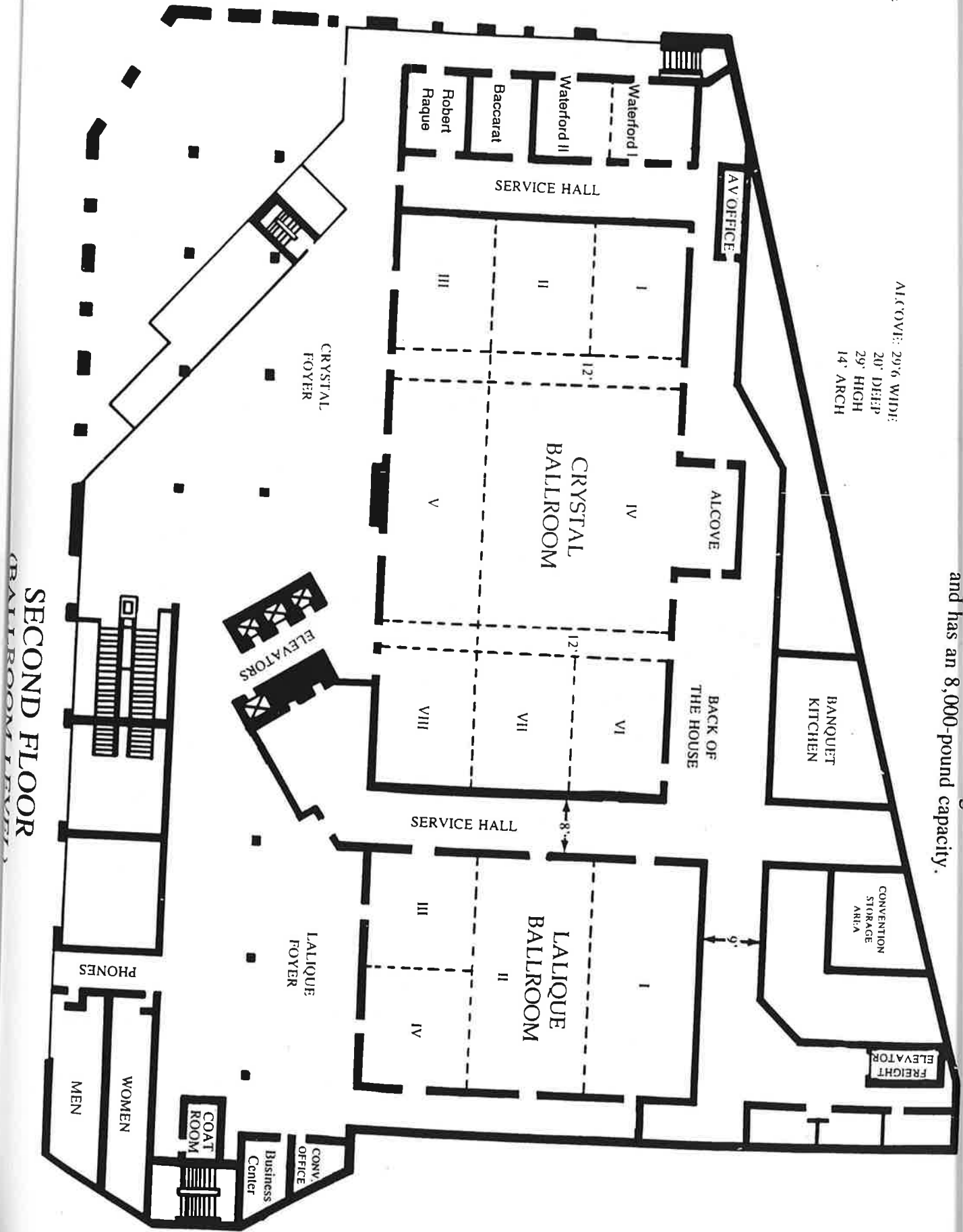


Compliments of The Registry Resort, 475 Seagate Drive, Naples, Florida 33940

N
W + E
S

ALCOVE: 29'6" WIDE
20' DEEP
29' HIGH
14' ARCH

and has an 8,000-pound capacity.



SECOND FLOOR
(BALLROOM LEVEL)



IN-HOUSE ACTIVITY LIST

AEROBIC CLASSES

Our instructor will join your group for an energizing workout. We offer both high and low impact sessions.

Duration: 1 hour.

REJUVENATION BREAK/STRETCH BREAK

Our aerobic instructor will come to your meeting room, stretch and rejuvenate your group and add a great deal of fun to those long seminars!

Duration: 5 - 10 minutes (meeting planner's discretion)

AQUACISE

Join our aquacise instructor for a private water workout. Loads of fun! Splish and splash your way to fitness!

Duration: 1 hour

FITNESS WALK

Your group will enjoy a leisurely stroll through Pelican Bay! Our guide will set the set and all are sure to enjoy!

Duration: 1 hour

BIKE TOUR

Enjoy a leisurely ride through Pelican Bay!

*Duration: 1 hour
Limit: 12 people*

TEE SHIRT PAINTING

Create your own personalized T-shirt masterpieces. All supplies will be provided for you to let your imagination run wild!

*Duration: 1 - 1 1/2 hours
Minimum: 5 people
Maximum: 15 people*

DRAW THE TROPICS

Join our Naples resident artist for a taste of the tropics! Learn to draw animals and scenes native to Southwest Florida. Beginners welcome.

*Duration: 1 hour
Limit: 12 people*

PORTRAIT SKETCHES

Our artist will sketch individuals or entire groups! A perfect vacation souvenir. Able to work from pictures as well as personal sittings.

Duration: 8-10 sketches per hour

PRIVATE DRAWING EXCURSIONS

Our resident artist will tour you through Naples and teach you to draw your favorite sights! Private instruction for those wishing to express their creativity. Beginners welcome.

*Duration: 4 hours
Maximum: 3 people*

SCAVENGER HUNT/TREASURE HUNT

A chance to go blundering through the grounds of the Registry Resort. Solve clues, endure obstacles to compete for success!

Duration: 1 -2 hours

Minimum: 10 people

GAME SHOW/BOARD GAME COMPETITIONS

The following activities can be set up for free play or in a tournament fashion:

*WIN, LOSE OR DRAW
TRIVIAL PURSUIT
CHECKERS
CHESS
TRIVIA CHALLENGE*

CANOE TRIP

Join our guide for an intriguing, informative and exciting canoe trip through Clam Pass. Bring hats, cameras and sunscreen.

Duration: 2 hours

Limit: 40 people

SPECIALTY LECTURES

Tailor a lecture to fit your own groups needs. Allow spouses to enjoy an afternoon while learning something new. The following are suggestions:

- 1. Feeling Good About Yourself*
- 2. Art Reflections*
- 3. Cooking Class*
- 4. Makeover/Skin Care Classes*
- 5. Wardrobe Analysis and Accessory Coordination*
- 6. Self Defense*
- 7. Flower Arrangement*

Duration: 1-4 hours

No limit to the number of participants.

FASHION SHOW

From beach wear to formal wear, we can do it all! Relax by the pool or enjoy a show as an excellent addition to a breakfast or luncheon.

BEACH OLYMPIC COMPETITION

For the lovers of surf and sun arrange a mini beach olympics for your group! Build unity in a competitive fashion! Choose from events such as tug-o-war, obstacle course, sand sculpting, volleyball and many, many others!

Duration: Flexible

No limit to the number of participants.

BEACH ACTIVITIES

Arrange a volleyball tournament for your group or relax and enjoy our "beach toys" including hobie cats, day sailors, canoes, kayaks, aqua bikes, wind surfers and more! Equipment in limited supply.

TENNIS TOURNAMENT

Arrange a "Round Robin" tournament - Men's, Women's or Mixed Doubles. Contact our tennis pro shop for details. Feel free to enjoy our fifteen beautifully manicured Har-Tru courts for casual play as well! Private lessons and clinics can be arranged through our tennis pro shop.

The REGISTRY Resort

OFF-PROPERTY ACTIVITY LIST

THOMAS EDISON HOME TOUR

Step into the unique world of the winter home of Thomas Alva Edison. See Edison's chemical lab, botanical gardens and museum. (Combination tour with Henry Ford home available.)

Duration: Approximately 1 1/2 hour tour plus approximately two hours round trip travel time.

Limit: Availability

HENRY FORD WINTER HOME

Visit the home of Henry Ford which was purchased so he could spend time visiting his friend, inventor Thomas Edison. Tour the newly renovated estate and six-bedroom house. Combination tours with the Thomas Edison Home are also available.

Duration: 45 minute tour plus approximately two hours round trip travel time.

Limit: Availability

SHOPPING TOURS

Spend a leisurely day shopping at one of Naples unique shopping areas. TIN CITY, VILLAGE AT VENETIAN BAY, 5TH AVENUE SOUTH and 3RD STREET SOUTH. Choose the area that pleases your personal style or experience them all! (Combine with lunch.)

Duration: 1 - 8 hours.

Minimum: No limit

EVERGLADES NATIONAL PARK

A narrated tour in the depths of the Everglades provides an adventure packed with the areas most beautiful and interesting wildlife including alligators, exquisite water birds, tropical plants, sea turtles and manatees while traveling through the mangrove wilderness of the 10,000 islands.

Duration: 1 1/2 hour tour plus two hours round trip travel time.
Minimum: Availability

SIGHTSEEING BOAT CRUISES

Arrange a scenic boat trip for your group including tours of our local bays. Learn historical facts while you enjoy watching our area's most beautiful fauna, birds and flora. Fishing and shelling tours can also be arranged. May include food and beverage if desired.

Duration: 1-5 hours
Minimum: 6-49 people (one boat)

NAPLES SIGHTSEEING

By car, van or trolley, stop at your favorite destinations while getting an overview of the beautiful city of Naples.

Duration: 1-5 hours
Minimum: Open

BABCOCK WILDERNESS TOUR

Enjoy the fun and excitement of traveling in a comfortable swamp buggy through the dark waters of the Telegraph Swamp. Highly skilled guides will make the woods come to life and you will have the opportunity of meeting some woodland creatures. Babcock has the largest reserve in the United States for the endangered Florida panther.

Duration: 2 hour tour plus 2 hours round trip travel time.
Minimum: Availability

WINERY TOUR (IN COMBINATION WITH BABCOCK TOUR)

Experience the beautiful Eden Vineyards Winery and Park. Enjoy the nature trail and boardwalk and take a tram ride through Cypress woods to the winery, or just sit and rock on the porch after a tasting of the wines.

Duration: 1 to 2 hours plus travel time of 2 hours round trip
Limit: Availability

HOGAN ART GALLERY

The HOGAN GALLERY is an enlarged modern replica of the Navajo house called a "hogan". It is like a museum in quality and display but all items are for sale. Enjoy browsing and maybe bring home a treasure or two!

THALHEIMERS AUCTION/GALLERY TOUR

Jewels, oriental carpets and ivory carvings are just a few of the items displayed in this unique gallery. Tour the gallery on your own and join them for an exciting evening "at the auction".

JUNGLE LARRY'S ZOOLOGICAL PARK

Experience JUNGLE LARRY'S which features exotic wild animals, lush and botanical gardens. Included in your adventure is an alligator lecture, petting zoo, tiger training center, a guided tour through 52 acres of Southwest Florida's nature land.

Duration: Travel time of ten minutes each way.
Minimum: Availability

GOLF/PELICAN'S NEST

Tournaments or casual play can be arranged on the immaculately manicured greens of the 27-hole, Tom Fazio designed PELICAN'S NEST championship golf course.

Duration: Travel time of twenty minutes each way.
Minimum: Availability

FISHING

Test your skills on the Gulf of Mexico. Charter boats including those for backwater or deep sea fishing can be arranged. Familiar fish of the area include: Grouper, Tarpon, Snook, Redfish and Trout. Food and beverage can also be provided.

Duration: Half day or full day charters available.
Minimum: Availability

GREYHOUND TRACK

This is one of the finest racing facilities in the country. Matinees, evening fun trips or dining can be arranged.

Duration: Travel time is twenty minutes each way.

Minimum: Availability

COLLIER AUTOMOTIVE MUSEUM

Visit one of the most exciting automotive museums in the country. The museum is dedicated to the preservation and display of one of the world's finest high-performance sports, sports racing and racing car collection. Call for hours.

Duration: Travel time is fifteen minutes each way.

Minimum: Open

TEDDY BEAR MUSEUM

More than 1800 Teddy Bears are on display at this unique museum, including antique and limited edition bears.

Duration: 10 minutes travel time

Minimum: Availability

SECTION VI

Officers, Board and Committee Chairmen

FAWQC 1994 - 1995 OFFICERS AND BOARD

Chairman

Fred Crabill
Southeast Environmental Solutions, Inc.
801 N. Park Road
Plant City, Florida 33566
(813) 752-1289
(813) 757-0721 Fax

Vice Chairman

Sam Zamani
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619
(813) 744-6100
(813) 744-6090 Fax

Secretary/Treasurer

Lisa Sutton
Atlanta Testing & Engineering
Imperial Lakes Crown Center, Suite 218
Post Office Box 527
Lakeland, Florida 33807
(813) 644-1337
(813) 644-4628 Fax

Directors

Dale Caldwell
Southeast Environmental Solutions, Inc.
801 N. Park Road
Plant City, Florida 33566
(813) 752-1289
(813) 757-0721 Fax

Kathy Englert
Terra Environmental
14902 Winding Creek Court
Suite 101-C
Tampa, Florida 33613
(813) 265-1651
(813) 968-8607 Fax

Marvin Miller
Occidental Chemical Corp.
Box 300
White Springs, Florida 32096
(904) 397-8269
(904) 397-8619 Fax

Dennis Raichart
Post, Buckley, Schuh &
Jernigan
6635 E. Colonial Drive
Orlando, Florida 32807
(407) 277-4443
(407) 382-8794 Fax

FAWQC 1994 - 1995 COMMITTEE CHAIRMEN

Keynote Speaker

John Wiley
Monsanto Chemical Corp.
P.O. Box 12830
Pensacola, Florida 32575
(904) 968-7582
(904) 968-7220 Fax

Hotel & Sponsors

Sam Zamani
Department of Environmental
Protection
8407 Laurel Fair Circle
Tampa, Florida 33610
(813) 744-6100
(813) 744-6090 Fax

Advertising

Lisa Georgiou
Atlanta Testing & Engineering
19321 U.S. 19 North, Suite 101
Clearwater, Florida 34624
(813) 532-4447
(813) 535-3817 Fax

Sporting Events

John N. (Jay) Allen, Jr.
2325 Fairway Drive
Plant City, Florida 33567
(813) 754-3720
(813) 757-1473 Fax

Exhibitors

Kathy Englert
Terra Environmental
14902 Winding Creek Court
Suite 101-C
Tampa, Florida 33613
(813) 365-1651
(813) 968-8607 Fax

and

Cheryl Moore
R. H. Moore & Associates, Inc.
8917 Maislin Drive
Building E
Tampa, Florida 33637
(813) 988-0200
(813) 985-4533 Fax

Legal

Tom Patka
Holland & Knight
P.O. Box 1288
Tampa, Florida 33601
(813) 227-8500
(813) 229-0134 Fax

Allan Schreiber
Bromwell, Carrier
P.O. Box 5467
Lakeland, Florida 33807
(813) 646-8591
(813) 644-5920 Fax