

EPA

DECISION

SERIES

United States
Environmental
Protection Agency

Office of
Research and
Development

Energy,
Minerals and
Industry

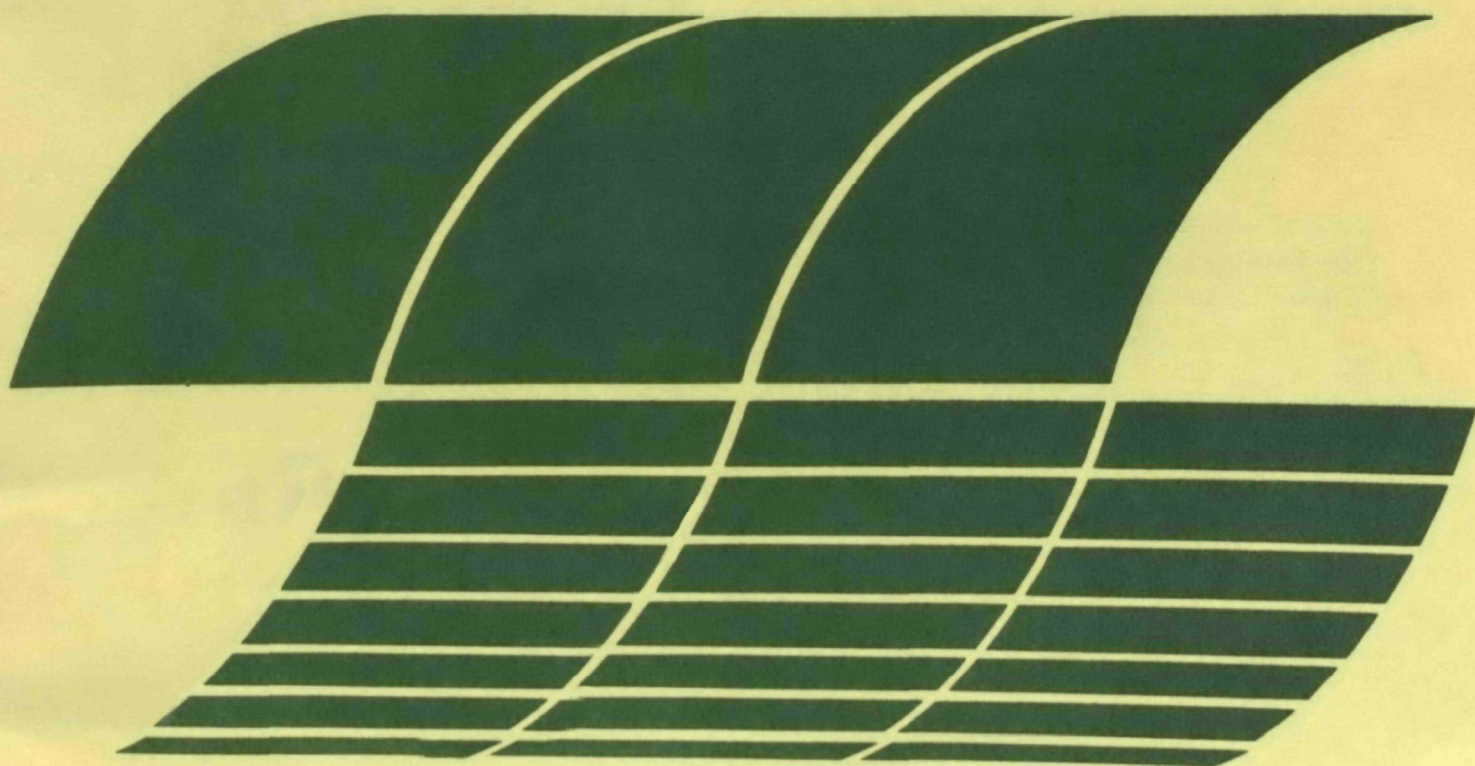
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June 1977

Who's Who III

in the

Interagency Energy/Environment R&D Program



THE ENERGY/ENVIRONMENT R&D DECISION SERIES

This volume is part of the Energy/Environment R&D Decision Series. The series presents the key issues and findings of the 17-agency Federal Interagency Energy/Environment Research and Development Program in a format conducive to efficient information transfer.

The Interagency Program was inaugurated in fiscal year 1975. Planned and coordinated by the Environmental Protection Agency (EPA), research projects supported by the program range from the analysis of health and environmental effects of energy systems to the development of environmental control technologies. The works in this series will reflect the full range of program concerns.

The Decision Series is produced for both energy/environment decision-makers and the interested public. If you have any comments or questions, please write to Series Editor Richard Laska, Office of Energy, Minerals and Industry, RD-681, U.S. EPA, Washington, D.C. 20460 or call (202) 755-4857. Extra copies are available. This document is available to the public through the National Technical Information Service, Springfield, Virginia 22161. Mention of trade names or commercial products herein does not constitute EPA endorsement or recommendation for use.

Who's Who III

in the

Interagency Energy/Environment R&D Program

United States Environmental Protection Agency
Office of Research and Development
Office of Energy, Minerals and Industry

June 1977

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IN CONTEXT . . .

Research is the seeking of knowledge about something which is, at least in part, unknown. This factor of the unknown has hindered the development of a consensus on national energy policy. Many of these energy-related uncertainties involve environmental issues.

Such uncertainties can only be removed by, first, performing adequate research and, second, communicating the results of that research to energy/environment policy makers, research managers, and the interested public. One of the best ways of communicating research information is by establishing personal links among the individuals involved. In order to provide the tool to establish these links, EPA is publishing its third edition of the interagency directory, *Who's Who III in the Interagency Energy/Environment R&D Program*.

This listing of individuals and agencies involved with each R&D project area in the Interagency Program is intended to open communications with not only the researchers and program managers but the concerned public as well. It is our hope that the dialogue stimulated by this and other Interagency Program documents will contribute to effective information exchange, and will shed light on some of the salient environmental issues involved in energy research and development decision making.

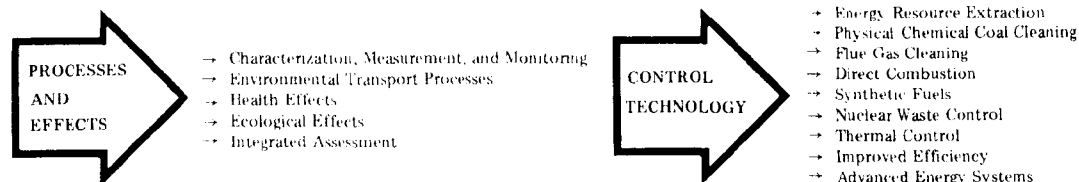
Inaugurated in late 1974, the Federal Interagency Energy/Environment Research and Development Program brings together the coordinated efforts of 17 Federal agencies and departments. The goal of the Interagency Program is to assure that both environmental data and control technology are available to support the rapid development of domestic energy resources, especially coal, in an environmentally acceptable manner. The program is planned and coordinated by the Office of Energy, Minerals and Industry within EPA's Office of Research and Development.



Stephen J. Gage
Deputy Assistant Administrator
Office of Energy, Minerals and Industry
U.S. Environmental Protection Agency

HOW TO USE WHO'S WHO III

This directory provides a means of access to information on specific projects currently underway within the Interagency Program. The directory generally follows the same category and project sequence as the *Federal Interagency Energy/Environment Research and Development Program Status Report III*. The 14 major categories are shown here.



Under each category, most of the project areas discussed in *Status Report III* are listed by a descriptive title. The list includes research conducted by EPA as well as that conducted by other agencies.

After each project title three names appear:

- **Project Contact** - The individual or individuals responsible for implementing the project and/or having cognizance of its technical scope and status.
- **EPA Coordinator** - The individual in EPA's Office of Energy, Minerals and Industry responsible for coordination of project activity in this and related areas.
- **Agency Coordinator** - The policy-level individual, within the performing agency, who has overall supervisory responsibility for the projects.

The following Federal agency abbreviations are used throughout this directory:

EPA	- Environmental Protection Agency
ERDA	- Energy Research and Development Administration
HEW	- Department of Health, Education and Welfare
NIEHS	- National Institute of Environmental Health Sciences
NIOSH	- National Institute of Occupational Safety and Health
HUD	- Department of Housing and Urban Development
NASA	- National Aeronautics and Space Administration
TVA	- Tennessee Valley Authority
USDA	- U.S. Department of Agriculture
ARS	- Agricultural Research Service
CSRS	- Cooperative State Research Service
ERS	- Economic Research Service
FS	- Forest Service
SCS	- Soil Conservation Service
USDC	- U.S. Department of Commerce
NBS	- National Bureau of Standards
NOAA	- National Oceanic and Atmospheric Administration
OEA	- Office of Environmental Affairs
USDI	- U.S. Department of Interior
BOM	- Bureau of Mines
FWS	- Fish and Wildlife Service
USGS	- United States Geological Survey

Following the listing of all the projects, there is a separate list of additional sources, outside of the Interagency Program, of energy-environment research and development information. After this is the alphabetical listing of all the Project Contacts, EPA Coordinators, Agency Coordinators, and other information sources together with their mailing addresses and telephone numbers. These addresses and numbers have been updated within four weeks of the publishing date of this report.

WHO'S WHO IN THE INTERAGENCY ENERGY/ENVIRONMENT R&D PROGRAM

PROJECT	PROJECT CONTACT	EPA COORDINATOR	AGENCY COORDINATOR
CHARACTERIZATION, MEASUREMENT, AND MONITORING			
<ul style="list-style-type: none"> Western Energy/Environment Monitoring Study <ul style="list-style-type: none"> Western Regional Air Monitoring and Data Analysis Western Region Water Monitoring and Data Analysis Northern Great Plains Energy/Air Quality Baseline Information Western Air Monitoring Quality Assurance Support Western Water Monitoring Quality Assurance Support Western Groundwater Monitoring and Techniques Development Western Overhead Surface Monitoring and Techniques Development Atmosphere and Meteorological Studies of Pollutants from Energy Production in the Western United States Meteorological Interpretation and Prediction of Air Quality in the Western United States Related to Energy Activities Energy-Related Surface Water Monitoring/Western Region Energy-Related Groundwater Monitoring/Western Region Study Energy-Related Surface and Groundwater Monitoring Studies/Western Region Technical Support for Western Energy-Related Environmental Assessment/Overhead Monitoring Method Development Energy-Related Radiological Monitoring and Techniques Development Energy-Related Radiological Monitoring Quality Assurance Remote Monitoring for Energy-Related Pollutants and Effects Techniques Development Energy-Related Water Pollutant Monitoring Techniques Development Energy-Related Air Pollutant Measurements and Instrumentation Development Energy-Related Low-Level Trace Contaminant Identification, Measurement, and Analysis of Solid Waste and Effluent Water Water Monitoring Field Instrumentation Development Energy-Related Surface and Groundwater Studies/Eastern Region Development of Energy-Related Air Measurement and Analytical Methods Development of Aqueous Effluent Analytical Methods for Energy-Related Sources Energy-Related Remote Sensing Instrumentation Development Energy-Related Water Pollutant Analysis Method Development Energy-Related Air Pollutant Analysis Method Development Energy-Related Water Pollutant Standard Reference Materials Energy-Related Air Pollutant Standard Reference Materials Radiological Pollutant Standard Reference Materials 	<p>D. McNelis ↓</p> <p>T. Thoem</p> <p>S. Bromberg</p> <p>D. Ballinger</p> <p>L. McMillion</p> <p>H. Melfi</p> <p>R. Pueschel (NOAA)</p> <p>L. Machta (NOAA)</p> <p>H. Hudson (USGS)</p> <p>↓</p> <p>E. Tilton (NASA)</p> <p>E. Bretthauer</p> <p>A. Jarvis</p> <p>H. Melfi</p> <p>D. Ballinger</p> <p>A. O'Keefe</p> <p>W. Donaldson</p> <p>P. Greeson (USGS)</p> <p>F. Kilpatrick (USGS)</p> <p>R. Wood (ERDA)</p> <p>↓</p> <p>J.P. Mugler, Jr. (NASA)</p> <p>W. Kirchoff (NBS)</p> <p>↓</p>	<p>G. D'Alessio</p> <p>↓</p>	<p>S. Gage (EPA)</p> <p>↓</p> <p>W.N. Hess (NOAA)</p> <p>↓</p> <p>G. Davis (USGS)</p> <p>↓</p> <p>W.E. Stoney (NASA)</p> <p>S. Gage (EPA)</p> <p>↓</p> <p>G. Davis (USGS)</p> <p>↓</p> <p>J.L. Liverman (ERDA)</p> <p>↓</p> <p>W.E. Stoney (NASA)</p> <p>H. Sorrows (NBS)</p> <p>↓</p>

PROJECT	PROJECT CONTACT	EPA COORDINATOR	AGENCY COORDINATOR
CHARACTERIZATION, MEASUREMENT, AND MONITORING (Continued)			
● Development Instrumentation and Devices for the Measurement of Hazardous Agents in the Occupational Environment Associated with Energy Usage	W. Wagner (NIOSH)	G. D'Alessio	J. Finklea (NIOSH)
● Lidar Techniques for Measuring Particulate Pollutants from Energy Production and Their Transport and Dispersion Processes	V. Derr (NOAA)		W.N. Hess (NOAA)
● Standardization and Intercalibration Techniques for Marine Monitoring	M.A. Basileo (NOAA)		
● Ocean Oil Spill Concentrating and Trajectory Forecast	C.S. Barrientos (NOAA)		
● Isolation and Identification of Waterborne Pollutants Associated with the Power Industry (Steam Electric Power Generation)	C.W. Holley (TVA)		P. Krenkel (TVA)
● Development and Evaluation of an Integrated Approach to the Optimization of Nuclear Power Plant Radiological Surveillance Programs	E.A. Belvin (TVA)		
● Remote Sensing of SO ₂ Effects on Vegetation	H.C. Jones III (TVA)		
● Design a Service Assessment Sampling System	A.B. Craig		S. Gage (EPA)
● Development of Particulate Measurement Technique for Process Evaluation			
● Inorganic Sampling and Analysis of Process Streams			
● Development of Process Measurements for POM and Other Organic Compounds			
● Development of High Pressure, High Temperature Sampling			
● Development of Fugitive Emission Measurement Techniques			

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PROJECT	PROJECT CONTACT	EPA COORDINATOR	AGENCY COORDINATOR
HEALTH EFFECTS			
<ul style="list-style-type: none"> Water Exposures and Their Effects: Heavy Metals and Toxic Organic Chemicals Multiroute Exposures and Their Effects Characterize Human Exposure to Pollutants Emitted in Ambient Air as a Result of Coal Conversion and Utilization Under Controlled Experimental Conditions Assess Human Exposure-Effects Relationships Develop and Apply Cytological, Biochemical, and Physiological Indicators of Biodamage Resulting from Exposure to Pollutants Associated with Energy Development Studies of Carcinogenesis of Airborne Pollutants from Energy Sources Identify the Most Potent Carcinogens, Mutagens, Teratogens, and Physiologically Detrimental Agents in Process Streams, Products and By-Products, and Effluents from Major Fossil Fuel Extraction and Conversion Technologies Develop Cytological and Biochemical Indicators to Estimate Toxicity from Oil and Coal Extraction, Conversion, and Utilization Determine Effects and Organ Distribution of Hazardous Trace Metals and Polycyclic Hydrocarbons Associated with Coal and Oil Shale Extraction, Conversion, and Utilization Assess the Hazards of Trace and Heavy Metals and Organic Agents of Nonnuclear Energy Technologies Using Chromosome Abberation, Isozyme Patterns and Teratogenic Effects on Mammalian Embryos as Indicators Identify Damage to Cells and Cell Components Resulting from Pollutants from Nonnuclear Energy Technologies Assess the Metabolism, Fate, and Toxicology of Particulates and Organic Compounds Associated with Nonnuclear Energy Technologies Dose Effect Relationship for Physical Effects of Toxic Agents in Nonnuclear Energy Technologies Mechanisms of Incorporation, Metabolism, Deposition, and Turnover of Toxic Agents Associated with Energy Related Hazardous Materials Develop and Test Models and Concepts for Extrapolation of Cellular and Animal Data to Man, Using Toxic Agents from Energy Technologies Determine Dose Effects Relationships for Mutagenic Agents Associated with Nonnuclear Energy Technologies Develop Physiological Indicators of Damage from Toxic Agents Assessment of Effects of Occupational Exposure to Coal Technologies Conduct Environmental and Industrial Studies of Occupational Exposures to Insulation Materials Assessment of Risk to Occupational Health Development of Work Practice Procedures 	<p>R. Tardiff</p> <p>J. Stara</p> <p>C. Hayes</p> <p>G. Hueter</p> <p>M. Waters</p> <p>D.L. Coffin</p> <p>G. Stapleton (ERDA)</p> <p>G. Duda (ERDA)</p> <p>M. Schulman (ERDA)</p> <p>A. Smith (ERDA)</p> <p>L. Hart (NIEHS)</p> <p>R. Dixon (NIEHS)</p> <p>D. Hoel (NIEHS)</p> <p>H. Mallng (NIEHS)</p> <p>B. Bruckner (NIOSH)</p> <p>J. Lee (NIOSH)</p> <p>W. Wagner (NIOSH)</p> <p>D. Knowles (NIOSH)</p>	<p>G. Rausa</p>	<p>S. Gage (EPA)</p> <p>J. Liverman (ERDA)</p> <p>D.P. Rall (NIEHS)</p> <p>J. Finklea (NIOSH)</p>

PROJECT	PROJECT CONTACT	EPA COORDINATOR	AGENCY COORDINATOR
ECOLOGICAL EFFECTS			
<ul style="list-style-type: none"> ● Development of Models for Comparison of Pollutant Impact on Population Dynamics of Fishes ● Determination of Acute and Chronic Toxicological Effects on Marine/Estuarine Organisms and Ecosystem Impacts of Pollutants from Petroleum Extraction and Discharges from Refineries and Fossil-Fueled Power Plants ● Determination of Thermal Effects on Marine Organisms and by Synergism with Metals ● Determination of the Immediate and Long-Term Dose-Response Relations of Pollutants on Selected Western Arid and Grassland Species from Coal and Oil Shale Processes ● Determination of the Effects of Heat and Vapor Discharge from Cooling Systems on Local Weather ● Determination of the Nature, Loading, Distribution, and Long-Term Effects of Crude Oil in the Gulf of Alaska Marine and Estuarine Ecosystem ● Development of a Comprehensive Information Profile for Major Freshwater Aquatic Environments that could be Affected by Energy Development; this will be done Through a Number of Resource Specific Biological Studies. ● Development of Ambient Sampling Procedure at Geothermal Sites. Identification, Quantification of Air Pollutants, Water Discharges, and Noise Levels will be made. ● Assessment of Environmental Impacts Resulting from Energy Resource Development. These will include Land Use, Water, and Air Quality. ● Assessment of the Impacts of Expansion of the Uranium Industry ● Determination of Toxicity to Marine Organisms of Petrochemicals and Energy-Related Organic Solvents from Offshore Activities and Ocean Dumping ● Determination of Acute and Chronic Toxicological Effects on Freshwater Organisms and Ecosystem Impacts of Pollutants and Complex Effluents Released by Coal and Oil Shale Processes ● Determination of Long-Term Effects on Waste Heat in the Surface Waters of the Great Lakes Basin on Aquatic Species and Community Populations ● Assess Quality of Water in Strip-Mined Areas as it relates to Habitat for Aquatic Organisms and Wildlife Species Associated with These Water Bodies ● Assess the Redepositioning and Stabilizing of Mine Spoils and Identify Technologies that will Enhance Water Quality for Associated Aquatic Life ● Assess Effects of Mining-Related Transportation Systems in Water, Air, Soil, Plant, Animal, and Aesthetic Resources ● Develop Operational Technical Information System for Reclamation of Lands Affected by Mining 	<p>E. Schneider</p> <p>↓</p> <p>N. Glass</p> <p>M. Shirazi</p> <p>R. Gordon</p> <p>T. Thoem</p> <p>↓</p> <p>T. Duke</p> <p>D. Mount</p> <p>↓</p> <p>H. Brown (USDA)</p> <p>↓</p>	<p>W. Preston</p> <p>C. Hall</p> <p>↓</p> <p>W. Preston</p> <p>↓</p> <p>C. Hall</p> <p>↓</p>	<p>S. Gage (EPA)</p> <p>↓</p> <p>R. Callahan (USDA)</p> <p>↓</p>

PROJECT	PROJECT CONTACT	EPA COORDINATOR	AGENCY COORDINATOR
ECOLOGICAL EFFECTS (Continued) <ul style="list-style-type: none"> ● Develop Reclamation Plan Before Mining Operation Begins ● Determine Effect of Strip-Mining and Reclamation Processes on the Quality and Quantity of Water Leaving the Area ● Determine Effect of Strip-Mine Reclamation Practices on the Nutritional Quality of Forages or Other Crops Grown on Reclaimed Area ● Evaluate Species and Seed Sources for Revegetation of Energy Resource Extraction Areas with Native Plants ● Determine Soil Characteristics Developing on Spoils of Varying Ages Relating to Root Growth and Biological Productivity ● Assess and Model Effects of Previous Mining Methods, Spoil Characteristics, and Reclamation of Surface and Groundwater (Hydrologic Management in Strip-Mining) ● Conduct Experiments on Plants of Fast Growing Trees to Assess Growth Support Capabilities of Specific Sites in Relation to Water Quality and Spoil Characteristics (Use of Sewage Sludges and Topsoil in Reclaiming Coal Strip-Mine Spoil) ● Expand Existing "Resources Inventory, Information Management and Monitoring Systems" for Collection, Assimilation, and Analyses of Natural Resources and Pollution Data Related to Coal Extraction (Resource Inventory Monitoring and Analysis System, RIMAS) ● Summarize Results of Laboratory Experiments and Field Observations to Evaluate the Physiological, Toxicological, and Ecological Effects of Oil, Primarily on Ducks ● Describe Effective Guidelines and Methodology for the Development, Synthesis, Analysis, and Interpretation of Complex Ecological and Biological Information Relative to Major Coastal Ecosystems ● Prepare Reports on Three Coastal Regions Subject to Energy Development. Place Emphasis on Value of Resources such as Fish, Wildlife, and Ecological Processes Subject to Man-Induced Environmental Alternatives ● Identify and Demonstrate a Rapid, Cost-Effective, and Reliable Method of Inventorying and Characterizing Wildlife Habit, Special Emphasis Being Placed on Requirements for Food, Cover, Breeding, and Other Critical Factors ● Determine Water Quantity Requirements of Fish and Wildlife in the Upper Colorado and Upper Missouri River Basins ● Develop In-Stream Flow Methodologies to Determine Flow Requirements for Biological/Fisheries Stability in Areas Affected by Increased Energy Development—Both East and West ● Develop Mechanism to Identify and Monitor the Activities of Endangered Species in Areas Under Stress from Energy Development ● Develop Appropriate Methods for Estimating Impacts of Power Plants on Fish and Shellfish 	H. Barrows (USDA)	C. Hall	C. Carlson (USDA)
	D. Kirkham (USDA)		E. Miller (USDA)
	F. Haghari (USDA)		
	J. Johnson (USDA)		
	L. Stickel (USFWS)		A. Hirsch (USFWS)
	H. Tait (USFWS)		
	R. Stewart, Jr. (USFWS)		
	R. Hayden (USFWS)	W. Preston	
	C.P. Goodyear (USFWS)	C. Hall	

PROJECT	PROJECT CONTACT	EPA COORDINATOR	AGENCY COORDINATOR
ECOLOGICAL EFFECTS (Continued)			
<ul style="list-style-type: none"> • Effects of Oil Spills on Tundra and Thaw Ponds • Effects of Construction and Operations of Alaska Pipeline on Aquatic Habitats • Effects of Trace Metals on Crop and Forest Ecosystem • Biological Indices of Pollutant Effects on Freshwater Ecosystems • Long-Term Effects of Hydrocarbons on Selected Ecosystems and Associated Organisms • Surveys on Oil Extraction and Transport and Related Effects on Coastal Ecosystems • Intake of Metals by Marine Organisms • Compare Pharmacokinetics and Toxicity in Mammals of Metals Consumed in Diet Through Shellfish Vs Drinking of H₂O • Synergistic Action of Temperature with Other Pollutants on Marine Species (Vertebrate and Invertebrate) • Relationship Between Toxic Fractions of Crude Oil and Petroleum Products and Tumor Formation in Marine Species • Conduct Environmental Assessment of Northern Puget Sound and Strait of Juan De Fuca • Develop Predictive Capability for Impacts of Petroleum-Related Activities on Northern Puget Sound and Strait of Juan De Fuca • Perform a Comparison/Analysis of an Existing Marine Ecosystem Under Stress of an Active Oil Field with a Similar Ecosystem in an Undisturbed Area • Design, Establish, Operate, Evaluate, and Refine a Data Management System for Interagency Energy-Related Marine and Meteorological Programs • Relationships of Atmospheric Pollutants (SO_x + NO_x) from Coal Fired Power Plants on Terrestrial Ecosystems • Thermal Effects from Mechanical Draft Cooling Towers on Vegetable and Soils • Thermal Impacts on Freshwater, Shellfish, Insects, and Other Biota (Organisms) • Production of Anthropod Pests and Vectors in Strip Mines Pools • Development of Baseline Information and Identification, Characterization and Quantification of Transfer, and Fate and Effects of Coal Fired Power Plant Emissions in Terrestrial Ecosystems • Fate and Effects of Atmospheric Emissions from Cooling Systems on Terrestrial Habitats • Ecological Recovery After Reclamation of Toxic Spoils Left by Coal Surface Mining 	<p>J.R. Haugh (ERDA)</p> <p>↓</p> <p>D. Ballantine (ERDA)</p> <p>C. Coutant (ERDA)</p> <p>W.D. Forster (ERDA)</p> <p>↓</p> <p>L.G. Hart (NIEHS)</p> <p>↓</p> <p>H.S. Harris (NOAA)</p> <p>D. Wolfe (NOAA)</p> <p>J. Angelovic (NOAA)</p> <p>K. Hughes (NOAA)</p> <p>T. Montgomery (TVA)</p> <p>↓</p> <p>B.G. Isom (TVA)</p> <p>↓</p> <p>H.C. Jones III (TVA)</p> <p>↓</p> <p>T.G. Zarger (TVA)</p>	<p>C. Hall</p> <p>↓</p> <p>W. Preston</p> <p>↓</p> <p>C. Hall</p> <p>↓</p> <p>G. D'Alessio</p> <p>↓</p> <p>C. Hall</p> <p>↓</p>	<p>J. Liverman (ERDA)</p> <p>↓</p> <p>D. Rall (NIEHS)</p> <p>↓</p> <p>W.N. Hess (NOAA)</p> <p>↓</p> <p>P. Krenkel (TVA)</p> <p>↓</p>

PROJECT	PROJECT CONTACT	EPA COORDINATOR	AGENCY COORDINATOR
INTEGRATED ASSESSMENT			
● Develop and Coordinate Effective Internal and External Information Transfer for the Interagency Program	R. Laska	R. Laska	S. Gage (EPA)
● Integrated Technology Assessment Support for Western Energy Development	I. White	S. Plotkin	
● Integrated Technology Assessment of Electric Utility Energy Systems	P. Cukor	L. Smith	
● Ohio River Basin Energy Study	B. Keenan/ J. Stukel	↓	
● Methodology Development for the Technology Assessment Modeling Project	R. Ball	R. Ball	
● Integrated Assessment of Petroleum Transportation	↓	↓	
● Integrated Technology Assessment of Energy Development in the Appalachian Region	V. Jelen	S. Plotkin	
● Integrated Technology Assessment of Coal-Based Energy Development	R. Hansen/ W. Tucker	S. Reznick	
● Assess the Socioeconomic Consequences of Coal and Oil Shale Development	V. Davis (USDA)	W. Bloch	G. Taylor (USDA)
● Assess the Socioeconomic Impact of Energy Conservation for the Residential Sector	K. Credle (HUD)		C.E. Barfield (HUD)
● Develop a Cost/Risk/Benefit Methodology for Western Energy Development	J. Olson (ERDA)		J. Liverman (ERDA)
● Coordinate a National Design for an Environment/Energy R&D Information System	↓		↓
● Develop Energy/Environment Economic Projection Models for Multicounty Areas	H. Hinote (TVA)		P. Krenkel (TVA)
● Electric Power System Operation and Expansion of Environmental Residual Output Model	D.H. Walters (TVA)		
● Develop Applications of Computer Graphics for Regional Integrated Assessment of Power Systems	R. Hickey (TVA)	↓	↓

PROJECT	PROJECT CONTACT	EPA COORDINATOR	AGENCY COORDINATOR
ENERGY RESOURCE EXTRACTION			
<ul style="list-style-type: none"> Oil and Gas Production <ul style="list-style-type: none"> Assess, Develop, and Demonstrate Methods, Equipment, and Techniques to Control and Cleanup 75% Spills of Oil on Land and Water, Including Limiting Extent of Contamination and Mitigating Adverse Environmental Effects Assess, Develop, and Demonstrate Proven Techniques for the Protection and Restoration of Shorelines due to Oil Contamination; Include Ocean, Estuarine Inland River and Lake and Cold Climate Evaluate Effectiveness of 1973 Oil Spill Prevention Regulation (40 CFR, Part 112, Fed. Reg. Vol. 38, No. 237, 11 Dec. 1973) in Achieving 1985 Goal of 85% Spill Incident Reduction and Develop Information to Modify as Necessary Assess, Develop, and Demonstrate Control Technology to Minimize Adverse Environmental Impacts from the Installation and Operation of Offshore Oil and Gas Production Facilities; Include Offshore Platform, Product Transportation Systems, and Shore Termination Facilities Access, Develop, and Demonstrate Proven Cost/Effective Methods to Treat Bilge and Ballast Water at Shore Reception Facilities, Including Existing Ports and Planned Deep Water Ports Develop Guidelines to Control Environmental Impact During Secondary and Tertiary Recovery Program, Including Onshore and Offshore Access, Develop, and Demonstrate Spill Control Techniques, Equipment and Methods for the Onshore Storage and Transportation of LNG Solid Fossil Fuels <ul style="list-style-type: none"> Assess, Develop, and Demonstrate Methods to Prevent and Control Air, Water, Solid Waste, and Other Environmental Damages from Active and Abandoned Eastern U.S. Coal Surface Mines, Including Surface Disturbances from All Coal Mining Operations and Beneficiation Facilities Assess, Develop, and Demonstrate Methods to Prevent and Control Air, Water, Solid Waste, and Other Environmental Damages from Active and Abandoned Eastern U.S. Coal Underground Mines Assess, Develop, and Demonstrate Methods to Prevent and Control Air, Water, Solid Waste, and Other Environmental Damages from Active and Abandoned Western U.S. Coal Surface and Underground Mines and Surface Disturbances Associated with Them; also include Alaska Coal Mining Assess, Develop, and Demonstrate Methods to Prevent and Control Air, Water, Solid Waste, and Other Environmental Damages from Oil Shale and Tar Sands Extraction Disposal of Spent Waste from Beneficiation, Such as Spent Shale Assess, Develop, and Demonstrate Methods to Prevent and Control Air, Water, Solid Waste, and Other Environmental Damages (Except Radiation) from Active and Abandoned Uranium Extraction and Beneficiation Operations Assess, Develop, and Demonstrate Methods to Prevent and Control Environmental Damages from the Transportation of Solid Fuels by Rail, Truck, Pipelines, etc. Reduce Adverse Environmental Effects from Uranium Mill Wastes Eastern Coal Surface Mining: Vegetative Methods and Materials Western Coal and Oil Shale Mining: Vegetative Methods and Materials Surface Manipulations for Enhanced Coal and Oil Shale Mine Vegetation 	<p>I. Wilder</p> <p>↓</p> <p>R. Hill/ E. Harris</p> <p>↓</p> <p>R. Kennedy (ERDA)</p> <p>H. Brown (USDA)</p> <p>R. MacLaughlin (USDA)</p> <p>H. Barrows (USDA)</p>	<p>K. Jakobson</p> <p>↓</p> <p>D. O'Bryan</p> <p>↓</p>	<p>S. Gage (EPA)</p> <p>↓</p> <p>J. Liverman (ERDA)</p> <p>R. Callahan (USDA)</p> <p>W. Johnson (USDA)</p> <p>C. Carlson (USDA)</p>

PROJECT

PROJECT CONTACT

EPA COORDINATOR

AGENCY COORDINATOR

PHYSICAL/CHEMICAL COAL CLEANING

- Perform Environmental Assessment of Coal Transportation, Storage, and Cleaning Technologies
- Investigate, Test, Evaluate, and Develop Coal Cleaning Technology and Process Controls
- Characterize Potentially Harmful or Valuable Trace Elements in Coal Cleaning Wastes
- Develop a Coal Washing Test Facility
- Demonstrate Disposal and Reuse Processes for Coal Cleaning Wastes
- Report on Results of Tests of Cleanability of Northern Appalachian Coals

R. Hangebrauck
J. Kilgroe
↓
E. Wewerka (ERDA)
↓
A. Deubrouck (USBM)
↓

W. McCarthy
↓

S. Gage (EPA)
↓
J. Liverman (ERDA)
↓
E. Moust (USBM)
↓

FLUE GAS CLEANING

- Develop and Demonstrate Nonregenerable Flue Gas Desulfurization Technology
- Develop Techniques for Disposal or Use of Waste Pollutants from Combustion Sources and Associated Control Processes
- Develop and Demonstrate Several Processes for Regenerable Flue Gas Desulfurization
- Enhance the Means of Flue Gas Desulfurization Technology Transfer
- Environmental Impact Assessment of NO_x Flue Gas Treatment Technology
- Assessment of State-of-the-Art and Development of Technology for NO_x Flue Gas Treatment
- Development of Control Technology for Removing Fine Particulates from Waste Gases
- Multimedia Pollutant Assessment for Conventional Combustion Systems
- Development of Processes for Disposal of Flue Gas Cleaning Wastes
- Environmental Assessment Applications Testing of Combustion Modification Technology for Stationary Sources
- Development of Flue Gas Desulfurization Technology—Shawnee Lime/Limestone Scrubbing Program
- Energy Requirement Conservation Study of Selected Processes for Removing SO₂ from Power Plant Stack Gases
- Develop Comparative Economics of SO₂ Emission Control Processes
- Lime/Limestone Advanced SO₂ Removal Concepts—TVA's 1-MW Pilot Plant
- Processing Sludges from Lime/Limestone Wet Scrubbing Processes for Disposal or Recycle and Studying Disposal of FBC Waste Products
- Characterization of Effluents from Coal Fired Utility Boilers
- Fly Ash Characterization and Disposal
- Evaluation of Marketing By-Products from Flue Gas Desulfurization Processes
- Development of Flue Gas Treatment Technology for Control of Combustion Generated Pollutants—Pilot Plant Studies of NO_x and SO₂/NO_x
- Develop Comparative Economics of NO_x FGT Emission Control Processes

E. Plyler
M. Maxwell
H. Jones
↓
R. Stern
↓
J. Abbott
↓
W. Ponder
↓
J. Jones
↓
R. Hangebrauck
↓
J. Williams
↓
G.G. McGlamery (TVA)
↓
G.A. Hollinden/ (TVA)
R.F. Robards (TVA)
J.L. Crowe (TVA)
↓
H.B. Flora II/ (TVA)
B.G. McKinney (TVA)
S.S. Ray (TVA)
J.I. Bucy (TVA)
↓
T.M. Kelso/ (TVA)
G.A. Hollinden (TVA)
↓
H.L. Faucett/ (TVA)
G.A. Hollinden (TVA)

R. Statnick
↓

S. Gage (EPA)
↓
P. Krenkel (TVA)
↓

PROJECT	PROJECT CONTACT	EPA COORDINATOR	AGENCY COORDINATOR
DIRECT COMBUSTION			
<ul style="list-style-type: none"> Environmental Assessment of Pollutants and Processes Associated with Fluidized Bed Combustion Development of Control Technology for Pollutants Resulting from Fluidized Bed Combustion Chemically Active Fluidized Bed Residual Oil Cleanup Technology Development of Control Technology for Pollutants and Processes with Fluidized Bed Combustion 	R. Hangebrauck B. Henschel ↓ S. Rakes ↓ W. Steen (ERDA)	M. Altshuler ↓	S. Gage (EPA) ↓ J. Liverman (ERDA)
SYNTHETIC FUELS			
<ul style="list-style-type: none"> Environmental Assessment of Potential Pollutants from Fossil Fuel Conversion Development of Multimedia Pollution Control Technology for Synthetic Fuel Processes Environmental Assessment of Potential Pollutants from Advanced Oil Processing of Petroleum Residuals Development of Multimedia Pollution Control Technology for Oil Processes Identify Potential Pollutants and Develop Control Technology for Oil Shale Processes Identify Potential Pollutants and Develop Control Technology for Noncoal Synthetic Fuel Processes Develop Technology for High Temperature/Pressure Particulate Control for Advanced Energy Systems Environmental Assessment of Potential Pollutants from Fossil Fuel Conversion Development of Multimedia Pollution Control Technology for Synthetic Fuel Processes 	R. Hangebrauck K. Janes ↓ S. Rakes ↓ T. Powers ↓ D. Drehmel ↓ M. Gottlieb (ERDA) ↓	M. Altshuler ↓	S. Gage (EPA) ↓ J. Liverman (ERDA) ↓
NUCLEAR WASTE			
<ul style="list-style-type: none"> Long-Term Implications of Radioactive Waste Management 1977 Farallon Radioactive Waste Dump Site Survey, Long-Term Measurement of Deep Sea Currents Assessment of Environmental Impact of Shallow Land Burial of Low Level Radioactive Waste 	J. Swift (ORP) ↓ Bob Dyer (ORP) ↓ Lew Meyer (ORP)	G. Rey/ R.J. Augustine (ORP) ↓	S. Gage (EPA) ↓
THERMAL			
<ul style="list-style-type: none"> Evaluation of Performance and Economics of Advanced Cooling Technology Utilization of Waste Heat and Water from Utility and Industrial Plants Advanced Waste Heat Control Waste Heat Utilization 	E. Plyler M. Maxwell ↓ H.B. Flora II (TVA) ↓ B.J. Bond (TVA)	D. Graham ↓	S. Gage (EPA) ↓ P. Krenkel (TVA) ↓

PROJECT**PROJECT CONTACT****EPA COORDINATOR****AGENCY COORDINATOR****IMPROVED EFFICIENCY**

- Environmental Assessment of Energy Conserving Processes and Techniques in High Energy Consumption Industries
- Development of Energy Efficient Pollution Control Technology for Industrial Processes
- Characterization of Multimedia Pollutants Resulting from Using Wastes as Fuel
- Identify and Characterize Industrial Waste Streams
- Evaluation of Major Processes for Co-Firing Waste with Coal or Other Wastes
- Develop Processes for Co-Firing Wastes with Oil
- Assessment and Development of Air Pollution Control Technology for Waste-as-Fuel Processes
- Evaluate Processes for Thermochemical Conversion of Wastes
- Assessment of the Potential Environmental Impact of Advanced Cycles
- Assessment and Development of Control Technology for Indoor Air Pollution Resulting from Improved Efficiency
- Assistance in Developing Criteria for Pollutants Resulting from Waste-as-Fuel Processes
- Perform Waste Stream Surveys for Nonindustrial Waste Sources
- Assess Existing Processes for the Separation of Recoverable Materials from Solid Waste
- Assessment of Existing Processes for Preparing Refuse-Derived Fuels and Feedstocks
- Assessment of the Co-Incineration of Sewage Sludge with Waste
- Evaluate Major Bioconversion Waste-to-Energy Processes

H. Bostian



H. Freeman

G. Huffman

R. Olexsey



W. Liberick

W. Cain

D. Schearer

R. Stenburg



K. Jakobson



S. Gage (EPA)

**ADVANCED SYSTEMS**

- Geothermal Environmental Impact Assessment: Surface and Groundwater Monitoring for Contaminants
- Comprehensive Assessment of Geothermal Control Technology
- Comprehensive Environmental Assessment of the Use of Solar Energy

D. Gilmore

R. Hartley



G. D'Alessio



S. Gage (EPA)



ENERGY/ENVIRONMENT INFORMATION SOURCES OUTSIDE OF THE INTERAGENCY PROGRAM

MAJOR ACTIVITY

CONTACT

WHITE HOUSE OFFICES

- Executive Energy Policy and Planning
- Executive Office of Management and Budget
 - Environment and Natural Resources
 - Science, Space, and Energy Technology
- CEQ Energy Programs Review

James D. Bishop, Jr.

Morgan Kinghorn

Richard Hartzberg

John Davidson

U.S. CONGRESS

- U.S. House of Representatives
 - Committee on Science and Technology
 - Subcommittee on Fossil and Nuclear Energy RD&D
 - Subcommittee on Advanced Energy Technologies and Energy Conservation RD&D
 - Subcommittee on the Environment and the Atmosphere
- U.S. Senate, Committee on Environmental and Natural Resources
- Congressional Budget Office, Natural Resources and Commerce Division

John Dugan

Robert Ketchum

John Andelin/
David Luken

James W. Spensley

Richard D. Grundy

Raymond C. Scheppach

RESEARCH INFORMATION SYSTEMS

- National Energy Information Center
- Smithsonian Science Information Exchange
- National Technical Information Service
- EPA Technology Transfer and Environmental Information Research
- Library of Congress
- Inventory of Energy R&D
- National Science Foundation, Advanced Environmental Research and Technology

Robert E. Coughlan

Samuel Liebman

Roy Stamm

Robert E. Crowe

Constance Carter

Dr. Gloria M. Caton

Charles C. Thiel

DEPARTMENT OF DEFENSE

- Air Force Environics
- Navy Energy and Natural Resources R&D
- Defense Research and Engineering Environmental and Life Sciences
- DOD Environment and Safety
- Army Environmental Affairs

Lt. Col. D.G. Sylva

Capt. V.M. Skrinak

Thomas R. Dashiell

George Marienthal

Bruce Hildebrand

MAJOR ACTIVITY

CONTACT

REGIONAL & OTHER INFORMATION SOURCES

- Old West Regional Commission
- Western Governor's Regional Energy Policy Office
- Appalachian Regional Commission
- Organization for Economic Cooperation and Development
- United Nations Environment Program
- Electric Power Research Institute
 - Air Quality Control Program
 - Water Quality Control and Heat Rejection
 - Environmental Assessment
 - Physical Factors
 - Ecological Effects
 - Health Effects

Warren C. Woods
Richard Mayer
Dr. David Maneval
Dr. Milton Klein

Dr. Noel J. Brown

Kurt Yeager
John Maulbetsch
Dr. Cyril Comar
Ralph Perhac
Dr. Harry Kornberg
Dr. James McCarroll

OTHER AGENCIES/DEPARTMENTS

- State Department International Environmental and Scientific Affairs
- State Department Environmental Affairs
- Coast Guard Marine Environment and Systems
- Coast Guard Environmental Affairs
- ERDA Fossil Fuel Environmental Programs

Patsy T. Mink

Donald R. King
RADM A.F. Fugaro
Dr. Charles Bates
Marvin I. Singer

INTERAGENCY PROGRAM DIRECTORY

NAME AND ADDRESS

ABBOTT, JAMES H. EPA/IERL Research Triangle Park, NC 27711 919-541-2925	BARROWS, H. L. USDA Agricultural Research Service Washington, DC 20251 202-447-5211	BROWN, NOEL V. United Nations U.N. Environment Program New York, NY 10017 212-754-8139
ALTSHULER, MORRIS EPA/OEMI 401 M Street, SW Washington, DC 20460 202-755-2683	BASILEO, MICHAEL A. DOC/NOAA 6010 Executive Blvd. Rockville, MD 20852 301-426-9080	BRUCKNER, B. NIOSH 5600 Fishers Lane Rockville, MD 20857 301-443-4493
ALTSHULLER, DR. A. PAUL EPA/EMSL Research Triangle Park, NC 27711 919-541-2191	BATES, DR. CHARLES U.S. Coast Guard 400 7th Street, SW Washington, DC 20590 202-426-1037	BUCY, JOHN I. TVA Off. of Agri. and Chem. Development Muscle Shoals, AL 35660 205-383-4631
ANDELIN, JOHN U.S. House of Representatives Subcommittee on Advance Energy Tech. and Energy Conservation RD&D Rayburn Building, B 374 Washington, DC 20515 202-225-9117	BAUMGARTNER, D. EPA/ERL 200 S.W. 35th Street Corvallis, OR 97330 503-752-4211	CAIN, W. C. EPA/IERL Cincinnati, OH 45268 513-684-4335
ANGELOVIC, J. W. NOAA Gulf Coastal Fisheries Center Fort Crockett, Bldg. 302 Galveston, Tx 77550 713-527-6501	BELVIN, E. A. TVA River Oaks Bldg. Muscle Shoals, AL 35660 205-383-4631	CALLAHAM, R. USDA Forest Environment Research Washington, DC 20251 703-235-1071
AUGUSTINE, DR. ROBERTSON J. EPA/ORP East Tower, Rm 611 401 M Street, SW Washington, DC 20460 202-755-4894	BISHOP, JAMES D. JR. Executive Office of the President Energy Policy and Planning Washington, DC 20500 202-456-6433	CALLAWAY, R. EPA/CERL/EERD 200 SW 35th Street Corvallis, OR 97330 503-757-4601
BALL, RICHARD EPA/OEMI 401 M Street, SW Washington, DC 20460 202-755-0646	BLOCH, WAYNE EPA/OEMI 401 M Street, SW Washington, DC 20460 202-755-0647	CARLSON, C. W. USDA Agricultural Research Service Washington, DC 20251 202-447-7157
BALLANTINE, D. S. ERDA Div. of Biomed. & Env. Res. Germantown, MD 20767 301-353-3763	BOND, DR. BILLY JOE TVA Off. of Agri. and Chem. Development Muscle Shoals, AL 35660 205-383-4631	CARTER, CONSTANCE Library of Congress Science & Technology Washington, DC 20540 202-426-5582
BALLINGER, DR. DWIGHT G. EPA/EMSL Cincinnati, OH 45268 513-684-2200	BOSTIAN, DR. H. E. EPA/IERL Cincinnati, OH 45268 513-684-4318	CATON, DR. GLORIA M. Oak Ridge National Laboratory Building 3603 Oak Ridge, TN 37830 615-483-8611
BARFIELD, CLAUDE E. HUD Research & Demonstration 451 7th St. SW Washington, DC 20410 202-755-5561	BRETTHAUER, E. EPA/EMSL P.O. Box 15027 Las Vegas, NV 89114 702-736-2969	COFFIN, DR. DAVID L. EPA Research Triangle Park, NC 27711 919-541-2585
BARRIENTOS, CELSO S. NOAA Techniques Dev. Lab Silver Spring, MD 20910 301-472-7613	BROMBERG, STEVEN M. EPA/EMSL Research Triangle Park, NC 27711 919-541-2573	COMAR, DR. CYRIL Electric Power Research Institute Environmental Assessment Dept. 1750 New York Avenue, NW Ste. 835 Washington, DC 20006 202-872-9222
	BROWN, DR. H. E. USDA Forest Environment Research Washington, DC 20251 703-235-1071	

COUGHLAN, ROBERT E.
FEA
National Energy Information Center
1200 Pennsylvania Avenue, NW
Washington, DC 20461
202-566-9230

COUTANT, C. C.
Oak Ridge National Laboratory
P.O. Box X
Oak Ridge, TN 37830
615-483-8611

CRAIG, A.
EPA/IERL
Research Triangle Park, NC 27711
919-541-2509

CREDLE, K.
HUD
451 7th Street, NW
Washington, DC 20241
202-755-5524

CROWE, JAMES L.
TVA
Office of Power
1320 Commerce Union Bank Bldg
Chattanooga, TN 37401
615-755-3381

CROWE, ROBERT E.
EPA
Technology Transfer Program
Env. Research Information Center
Cincinnati, OH 45268
513-684-4488

CUKOR, PETER
Teknekron, Inc.
2118 Milvia Street
Berkeley, CA 94704
415-548-4100

D'ALESSIO, DR. GREG J.
EPA/ORD/OEMI
401 M Street, SW
Washington, DC 20460
202-426-4568

DASHIELL, THOMAS R.
Defense Research & Engineering
Environment and Life Sciences
The Pentagon
Washington, DC 20301
202-697-9111

DAVIDSON, JOHN
President's Council on Env. Quality
Executive Off. of the President
722 Jackson Place
Washington, DC 20006
202-382-6854

DAVIS, GEORGE H.
USGS
407 National Center
Reston, VA 22092
703-860-6846

DAVIS, V. W.
USDA
GHI Building, Room 420
500 12th Street, SW
Washington, DC 20250
202-447-8151

DAVIS, W. P.
Bears Bluff Field Station
Box 368
Johns Island, SC 29245
803-559-0371

DERR, DR. VERNON E.
NOAA/ERL/WPL
R 45 x 3
Boulder, CO 80302
303-499-1000

DEURBROUCK, ALBERT W.
USBM
Off. of Coal Preparation and Analysis
4800 Forbes Avenue
Pittsburgh, PA 15213
412-892-2400

DIXON, DR. RICHARD L.
NIEHS
Environmental Toxicology Branch
Research Triangle Park, NC 27709
919-541-2242

DONALDSON, WILLIAM T.
EPA/ERL
College Station Road
Athens, GA 30601
404-546-3134

DREHMEL, DENNIS
EPA/IERL
Research Triangle Park, NC 27711
919-541-2925

DUDA, G. D.
ERDA Biomed. Programs
Germantown, MD 20767
301-353-5037

DUGAN, DR. JOHN
U.S. House of Representatives
Committee on Science and Tech.
Rayburn Building, 2321
Washington, DC 20515
202-225-9117

DUKE, DR. THOMAS
EPA/ERL
Sabine Island
Gulf Breeze, FL 32611
904-932-5326

DYER, BOB
EPA/ORP
East Tower, Rm 611
401 M Street, SW
Washington, DC 20460
202-755-4863

ENOS, H.
EPA/ERL
College Station Road
Athens, GA 30601
404-546-3134

FAUCETT, H. L.
TVA
OACD-WHB
Muscle Shoals, AL 35660
205-383-4631

FINKLEA, JOHN F., M.D.
NIOSH
5600 Fishers Lane, Rm 3-30
Rockville, MD 20857
301-443-1530

FLORA, DR. HOLLIS B. II
TVA
Off. of Power
1320 Commerce Union Bank Bldg.
Chattanooga, TN 37401
615-755-3381

FORSTER, WILLIAM O.
ERDA
Div. of Biomed. & Env. Research
Washington, DC 20545
202-353-5323

FREEMAN, H. M.
EPA/IERL
Cincinnati, OH 45268
513-684-4363

FUGARO, RADM A. F.
U.S. Coast Guard
Off. of Marine Env. & Systems
400 7th Street, SW
Washington, DC 20540
202-426-2158

GAGE, DR. STEPHAN J.
EPA/ORD/OEMI
401 M Street, SW
Washington, DC 20460
202-755-4857

GALEGAR, W. C.
EPA
Robert S. Kerr ERL
P.O. Box 1198
Ada, OK 74820
405-332-8800

GILMORE, D.
EPA/EMSL
P. O. Box 15027
Las Vegas, NV 89114
702-736-2969

GLASS, DR. N.
EPA/ERL
200 SW 25th Street
Corvallis, OR 97330
503-752-4211

GOODYEAR, C. P.
USFWS
Federal Building
Ft. Snelling
Twin Cities, MN 55111
612-725-3585

GOTTLEIB, DR. MYRON
ERDA
20 Massachusetts Ave, NW
Washington, DC 20545
202-353-5587

GORDON, R.
EPA
Arctic Environmental Research Lab
College, AK 99701
907-479-7728

GRAHAM, DAVID J.
EPA/ORD/OEMI
401 M Street, SW
Washington DC 20460
202-755-0205

GREESON, PHILLIP E.
USGS
412 National Center
Reston, VA 22092
703-860-6834

GRUNDY, RICHARD D.
U.S. Senate
Committee on Env. & Natural Resources
Washington, DC 20510
202-224-9894

HAGHARI, F.
Ohio Agricultural Research Center
Wooster, OH 44691
216-264-1021

HALL, CLINTON W.
EPA/ORD/OEMI
401 M Street, SW
Washington, DC 20460
202-426-4567

HAMILTON, DR. D. H., Jr.
ERDA
Div. of Biomed. & Env. Research
Germantown, MD 20767
301-353-4155

HANGEBRAUCK, ROBERT
EPA/IERL
Research Triangle Park, NC 27711
919-541-2825

HANSEN, R.
EPA/IERL
Research Triangle Park, NC 27711
919-541-2815

HARRIS, EUGENE F.
EPA/IERL
Cincinnati, OH 45268
503-684-8207

HARRIS, DR. HOWARD S.
NOAA/ERL
3711 15th Avenue, NE
Seattle, WA 98105
206-442-4998

HARRISON, P. W.
Argonne National Laboratory
9700 South Cass Avenue
Argonne, IL 60439
312-739-7711

HART, LARRY G.
NIEHS
Pharmacology Branch
Research Triangle Park, NC 27709
919-541-3235

HARTLEY, R. P.
EPA/IERL
Cincinnati, OH 45268
513-684-4335

HARTZBERG, RICHARD
Off. of Management and Budget
Energy Tech. Branch of Science,
Space & Energy Tech. Div.
Rm 8002, New Executive Off. Bldg.
726 Jackson Place
Washington, DC 20503

HAUGH, JOHN R.
ERDA
Div. of Biomed. & Env. Research
Washington, DC 20545
202-353-4905

HAYDEN, ROBERT P.
USDOI/FWS
2800 Cottage Way, Rm 264
Sacramento, CA 95125
916-484-4516

HAYES, C.
EPA/HERL
Cincinnati, OH 45268
513-684-7411

HENSCHER, D. BRUCE
EPA/IERL
Research Triangle Park, NC 27711
919-541-2825

HESS, WILMOT N.
NOAA
6010 Executive Blvd.
Rockville, MD 20852
301-443-8202

HICKEY, DR. HARRISON R., JR.
TVA
Div. of Env. Planning
401 Chestnut Street, Rm 264
Chattanooga, TN 37401
615-755-3155

HILDEBRAND, BRUCE
Civil Works
Environmental Affairs
OAS - Army
The Pentagon
Washington, DC 20301
202-697-8986

HILL, RONALD D.
EPA/IERL
5555 Ridge Avenue
Cincinnati, OH 45268
513-684-4402

HINOTE, HUBERT
TVA
Div. of Navigation Dev. & Region Studies
270 K Liberty Bldg.
415 Walnut St.
Knoxville, TN 37902
615-632-4860

HIRSCH, DR. ALLAN
USFWS
Office of Bio. Services
Washington, DC 20240
202-634-4900

HOEL, DR. DAVID G.
NIEHS
Environmental Biometry Branch
Research Triangle Park, NC 27709
919-541-3441

HOLLEY, C. WAYNE
TVA
401 Chestnut Street, Rm 150
Chattanooga, TN 37401
615-755-3155

HOLLINDEN, G. A.
TVA
Office of Power
1320 Commerce Union Bank Bldg.
Chattanooga, TN 37401
615-755-3381

HUDSON, H.
USGS
Denver Federal Center
Water Resources Division
Box 2504 - Stop 406
Denver, CO 80115
303-234-4118

HUETER, F. GORDON
EPA/HERL
Research Triangle Park, NC 27711
919-541-2585

HUFFMAN, G.
EPA/IERL
Cincinnati, OH 45268
513-684-8207

HUGHES, KENT H.
NOAA
Environmental Data Service
3300 Whitehaven
Washington, DC 20235
202-634-7393

ISOM, BILLY G.
TVA
E&D Bldg.
Muscle Shoals, AL 35660
205-383-4631

JAKOBSON, KURT
EPA/OEMI
401 M Street, SW
Washington, DC 20460
202-755-9014

JANES, KELLY
EPA/IERL
ERC Bldg.
Research Triangle Park, NC 27711
919-541-2851

JARVIS, A.
EPA/EMSL
P.O. Box 15027
Las Vegas, NV 89114
702-736-2969

JELIN, V.
EPA/IERL
Cincinnati, OH 45268
513-684-8207

JOHNSON, J.
Professor of Agri. Economics
North Dakota State University
Fargo, ND 58102
701-237-8011

JOHNSON, WILLIAM
USDA
Soil Conservation Service
P.O. Box 2890
Washington DC 20013
202-447-3587

JONES, DR. HERBERT C., III
TVA
E&D Bldg.
Muscle Shoals, AL 35660
205-383-4631

JONES, JULIAN
EPA/IERL
Research Triangle Park, NC 27711
919-541-2915

KEENAN, DR. BOYD
ORBS
271 Boyd Avenue
Elmhurst, IL 60126
312-833-7610

KELSO, THOMAS M.
TVA
OACD-WHB
Muscle Shoals, AL 35660
205-383-4631

KENNEDY, R. H.
ERDA
Germantown, MD 20767
301-973-4090

KETCHUM, ROBERT
U.S. House of Representatives
Subcommittee on Fossil and
Nuclear Energy RD&D
Rayburn Building, B 374
Washington, DC 20515
202-225-9117

KILGROE, JAMES D.
EPA/IERL
ERC Bldg.
Research Triangle Park, NC 27711
919-541-2851

KILPATRICK, FREDERICK A.
USGS
407 National Center
Reston, VA 22092
703-860-6848

KING, DONALD R.
State Department
Office of Environmental Affairs
2201 C Street
Washington, DC 20520
202-655-4000

KINGHORN, MORGAN
Office of Management and Budget
Env. Branch of the Natural
Resources Division
726 Jackson Place
Washington, DC 20504
202-395-6827

KIRCHHOFF, WILLIAM H.
NBS
Off. of Air & Water Measure
Gaithersburg, MD 20760
301-921-3775

KIRKHAM, D.
Professor of Agronomy
Iowa State University
Ames, IA 50011
515-294-4111

KLEIN, DR. MILTON
Organization for Economic
Cooperation and Development
Chateau de la Muette
2 Rue Andre-Pascal 75775
Paris Cedex 16, France
524-8200

KNOWLES, D.
NIOSH
944 Chestnut Ridge Road
Morgantown, WV 26505
304-599-7136

KORNBERG, DR. HARRY
Electric Power Research Institute
Ecological Effects
1750 New York Ave. NW, Ste. 835
Washington, DC 20006
202-872-9222

KRENKEL, DR. PETER A.
TVA
Division of Environmental Planning
401 Chestnut Street, Rm 268
Chattanooga, TN 37401
615-755-3161

LASKA, RICHARD M.
EPA/ORD/OEMI
401 M Street, SW
Washington, DC 20460
202-755-4857

LEE, J.
NIOSH
340 Wakara Way
Salt Lake City, UT 84108
801-524-5287

LIBERICK, W. W.
EPA/IERL
Cincinnati, OH 45268
513-684-4363

LIEBMAN, SAMUEL
Smithsonian Science Info. Exch.
Science Division
1730 M Street, NW
Washington, DC 20036
202-381-4211

LIVERMAN, DR. JAMES L.
ERDA
Germantown, MD 20767
301-353-5171

LOTSPEICH, F.
EPA
Arctic Envr. Research Lab
College, AK 99701
907-479-7728

LUKEN, DAVID
U.S. House of Representatives
Advance Energy Tech. &
Energy Conservation RD&D
Rayburn Building, B 374
Washington, DC 20515
202-225-9117

MACHTA, LESTER
NOAA
Air Resources Lab
8060 13th Street
Silver Spring, MD 20903
301-427-7645

MACLAUGHLIN, R.
USDA
Soil Conservation Service
Washington DC 20250
202-447-5667

MALLING, DR. HEINRICH V.
NIEHS
Lab. of Environmental Mutagenesis
Research Triangle Park, NC 27711
919-541-3378

MANEVAL, DR. DAVID
Appalachian Regional Commission
1666 Connecticut Avenue, NW
Washington, DC 20009
202-673-7861

MARIENTHAL, GEORGE
Installation and Logistics
Office of Assistant Secretary
Environment and Safety
The Pentagon
Washington, DC 20301
202-695-0221

MAULBETSCH, JOHN
Electric Power Research Inst.
Water Quality Control & Heat Rejection
1750 New York Avenue, NW Ste. 835
Washington, DC 20006
202-872-9222

MAXWELL, MICHAEL A.
EPA/IERL
Research Triangle Park, NC 27711
919-541-2915

MAYER, RICHARD
Western Governor's Regional Energy
Policy Office
4730 Oakland Street
Denver, CO 80239
303-371-4280

MCCARROLL, DR. JAMES
Electric Power Research Institute
Health Effects
1750 New York Avenue, NW Ste. 835
Washington, DC 20006
202-872-9222

MCCARTHY, WILLIAM N., JR.
EPA/OEMI
401 M Street, SW
Washington, DC 20460
202-755-2737

MCGLAMERY, GERALD G.
TVA
OACD/WHB
Muscle Shoals, AL 35660
205-383-4631

MCKINNEY, B. G.
TVA
1320 Commerce
Chattanooga, TN 37401
615-755-3381

MC MILLION, LESLIE G.
EPA/EMSL
P.O. Box 15027
Las Vegas, NV 89114
702-736-2969 Ext. 241

MCNELIS, DR. DAVID N.
EPA/EMSL
P.O. Box 15027
Las Vegas, NV 89114
702-736-2969

MELFI, H.
EPA/EMSL
P.O. Box 15027
Las Vegas, NV 89114
702-736-2969

MEYER, LEW
EPA/ORD
East Tower, Rm 611
401 M Street, SW
Washington, DC 20460
202-755-4863

MILLER, E. V.
USDA
CSRS
Washington, DC 20250
202-447-4348

MINK, PATSY T.
State Department
Oceans & Internat'l Env. Affairs
2201 C Street, NW
Washington, DC 20520
202-655-4000

MONTGOMERY, T. J.
TVA
Air Quality Branch
River Oaks Bldg.
Muscle Shoals, AL 35660
205-383-4631

MOUNT, DR. DONALD I.
EPA/ERL
6201 Congdon Blvd.
Duluth, MN 55804
218-727-6692

MOUST, E.
USBM/OEMT
Rm 106
2401 E Street, NW
Washington, DC 20241
202-634-1300

MUGLER, JOHN P., JR.
NASA
Env. Quality Program Office
Hampton, VA 23665
804-827-2717

O'BRYAN, DONALD J., JR.
EPA/ORD/OEMI
401 M Street, SW
Washington, DC 20460
202-755-0646

O'KEEFFE, ANDREW
EPA/ESRL
Research Triangle Park, NC 27711
919-541-2408

OLEXSEY, ROBERT A.
EPA/IERL
Cincinnati, OH 45268
513-684-4363

OLSON, J. S.
ERDA
Germantown, MD 20767
301-973-3631

PERHAC, RALPH
Electric Power Research Institute
Physical Factors
3412 Hill View Ave.,
P. O. Box 10412
Palo Alto, CA 94303
415-493-4800

PLOTKIN, STEVEN
EPA/ORD/OEMI
401 M Street, SW
Washington, DC 20460
202-426-4568

PLYLER, E.L.
EPA/IERL
Research Triangle Park, NC 27711
919-541-2915

PONDER, WADE
EPA/IERL
Research Triangle Park, NC 27711
919-541-2915

POWERS, THOMAS J.
EPA/IERL
Cincinnati, OH 45268
513-684-4363

PRESTON, WALTER
EPA/ORD/OEMI
401 M Street, SW
Washington, DC 20460
202-426-4569

PRINCIOTTA, FRANK T.
EPA/ORD/OEMI
401 M Street, SW
Washington, DC 20460
202-755-2737

PUESCHEL, DR. RUDOLF F.
NOAA
Atmospheric Physics & Chemistry Lab
Boulder, CO 80302
303-499-1000

RAKES, SAMUEL L.
EPA/IERL
Research Triangle Park, NC 27711
919-541-4605

RALL, DR. DAVID P.
NIEHS
Research Triangle Park, NC 27709
919-541-3201

RAUSA, GERALD J.
EPA/ORD/OEMI
401 M Street, SW
Washington, DC 20460
202-426-4567

RAY, SHIRLEY S.
TVA
Office of Power
1320 Commerce Union Bank Bldg.
Chattanooga, TN 37401
615-755-3381

REY, GEORGE
EPA/ORD/OEMI
401 M Street, SW
Washington, DC 20460
202-426-4170

REZNEK, DR. STEVEN R.
EPA/ORD/OEMI
401 M Street, SW
Washington, DC 20460
202-755-4857

ROBARDS, RUSSELL F.
TVA
Office of Power
1320 Commerce Union Bank Bldg.
Chattanooga, TN 37401
615-755-3381

RUANE, RICHARD J.
TVA
Rm 248
Chattanooga, TN 37401
615-755-3167

SCHEARER, DAVID
EPA/EMSL
Research Triangle Park, NC 27711
919-541-2106

SCHIRAZI, M.
EPA/IERL/EERD
200 SW 35th Street
Corvallis, OR 97330
503-757-4601

SCHNEIDER, DR. ERIC D.
EPA/ERL
South Ferry Road
Narragansett, RI 02882
401-528-4843

SCHULMAN, DR. MURRAY
ERDA
Biomed. Programs
Germantown, MD 20767
301-353-3681

SCHULTZ, J. J.
TVA
OACD-WHB
Muscle Shoals, AL 35660
205-383-4631

SHEPPACH, RAYMOND C.
Congressional Budget Office
Natural Resources & Commerce Div.
Rm 3540, House Annex 2
Second and D streets, SW
Washington, DC 20515
202-225-1494

SINGER, MARVIN I.
ERDA
Div. of Env. & Socioeconomic Programs
20 Massachusetts Ave. NW
Washington, DC 20545

SKRINAK, CAPT. V. M.
U.S. Navy
Energy and Natural Resources
Naval Material Command HQ
Rm 606, Crystal Plaza Bldg. 6
Washington, DC 20360
202-692-1444

SMITH, DR. DAVID A.
ERDA/DBER
Washington, DC 20545
202-353-4819

SMITH, LOWELL
EPA/ORD/OEMI
401 M Street, SW
Washington, DC 20460
202-426-4568

SORROWS, H. E.
NBS
Administration Building A1123
Washington, DC 20234
301-921-2446

SPENSLEY, JAMES W.
U.S. House of Representatives
Subcom. on the Env. & the Atmosphere
House Science & Tech. Committee
Rayburn House Office Bldg., Rm 2319
Washington, DC 20515
202-225-2452

STAMM, ROY
NTIS
Information Analysis Branch
Springfield, VA 22161
703-557-4640

STAPLETON, DR. DEORGE E.
ERDA
Biomed. Programs
Washington, DC 20545
202-353-5468

STARA, J.
EPA/HERL
Cincinnati, OH 45268
513-684-7411

STATNICK, ROBERT M
EPA/IERL
Research Triangle Park, NC 27711
919-541-2547

STEEN, WALTER
EPA/IERL
Research Triangle Park, NC 27711
919-549-8411 Ext. 3188

STENBURG, R.
EPA/MERL
Cincinnati, OH 45268
513-684-8201

STERN, RICHARD D.
EPA/IERL
Research Triangle Park, NC 27711
919-541-2915

STEWART, R. E., JR.
USFWS
Office of Bio. Services
Laurel, MD 20810
301-776-4880

STICKEL, L. F.
USFWS
Patuxent Wildlife Research
Laurel, MD 20810
301-776-4880

STONE, WILLIAM E.
NASA
Earth Observation Program
Washington, DC 20036
202-755-8590

STUKEL, DR. JAMES
ORBES
331 Administration Bldg.
800 Wright Street
Urbana, IL 61801
217-333-6963

SWIFT, JERRY
EPA/ORP
East Tower, Rm 611
401 M Street, SW
Washington, DC 20460
202-755-4860

SYLVA, LT. COL. DONALD G.
Air Force Civil Eng. Cntr.
Tyndall Air Force Base, FL 32401
904-283-2097

TAIT, H.
USFWS
Office of Bio. Services
Washington, DC 20240
202-343-8097

TARDIFF, R.
EPA/HERL
Cincinnati, OH 45268
513-684-7411

TAYLOR, G. C.
USDA
Washington, DC 20250
202-447-8679

THIEL, CHARLES C.
National Science Foundation
Advanced Env. Research & Tech.
1800 G Street, NW
Washington, DC 20550
202-655-4000

THOEM, TERRY
EPA
Region VIII
1860 Lincoln Street
Denver, CO 80203
303-837-3895

TILTON, EDWARD LEE III
NASA
Earth Resources Lab
Slidell, LA 70458
504-255-6511

TUCKER, W. GENE
EPA/IERL
Research Triangle Park, NC 27711
919-541-2745

TURNER, F. B.
Lab. of Nuclear Med. & Radiation Bio.
University of California
900 Veteran Avenue
Los Angeles, CA 90024
213-825-5315

WAGNER, DR. WILLIAM
NIOSH
944 Chestnut Ridge Road
Morgantown, WV 26505
304-599-7136

WALTERS, DOUGLAS H.
TVA
Div. of Power Resource Planning
216 Power Building
Chattanooga, TN 37401
615-755-2381

WATERS, DR. MICHAEL D.
EPA/HERL
Research Triangle Park, NC 27711
919-541-2593

WATTERS, ROBERT L.
ERDA/DBER
Washington, DC 20545
202-353-5329

WEWERKA, E.
ERDA
Los Alamos Science Lab.
Group CMB-8, MS 734
Los Alamos, NM 87545
505-667-5061

WHITE, IRVING L.
University of Oklahoma
Science & Public Policy Program
601 Elm Ave, Rm 432
Norman, OK 73019
405-325-2555

WILDER, IRA
EPA/IERL
Edison, NJ 08817
513-684-2200 (IERL - Cincinnati)

WILLIAMS, JOHN E.
EPA/IERL
Research Triangle Park, NC 27711
919-541-2915

WOLFE, DR. D. A.
NOAA/ERL
Research Building 3
Boulder, CO 80302
303-323-6531

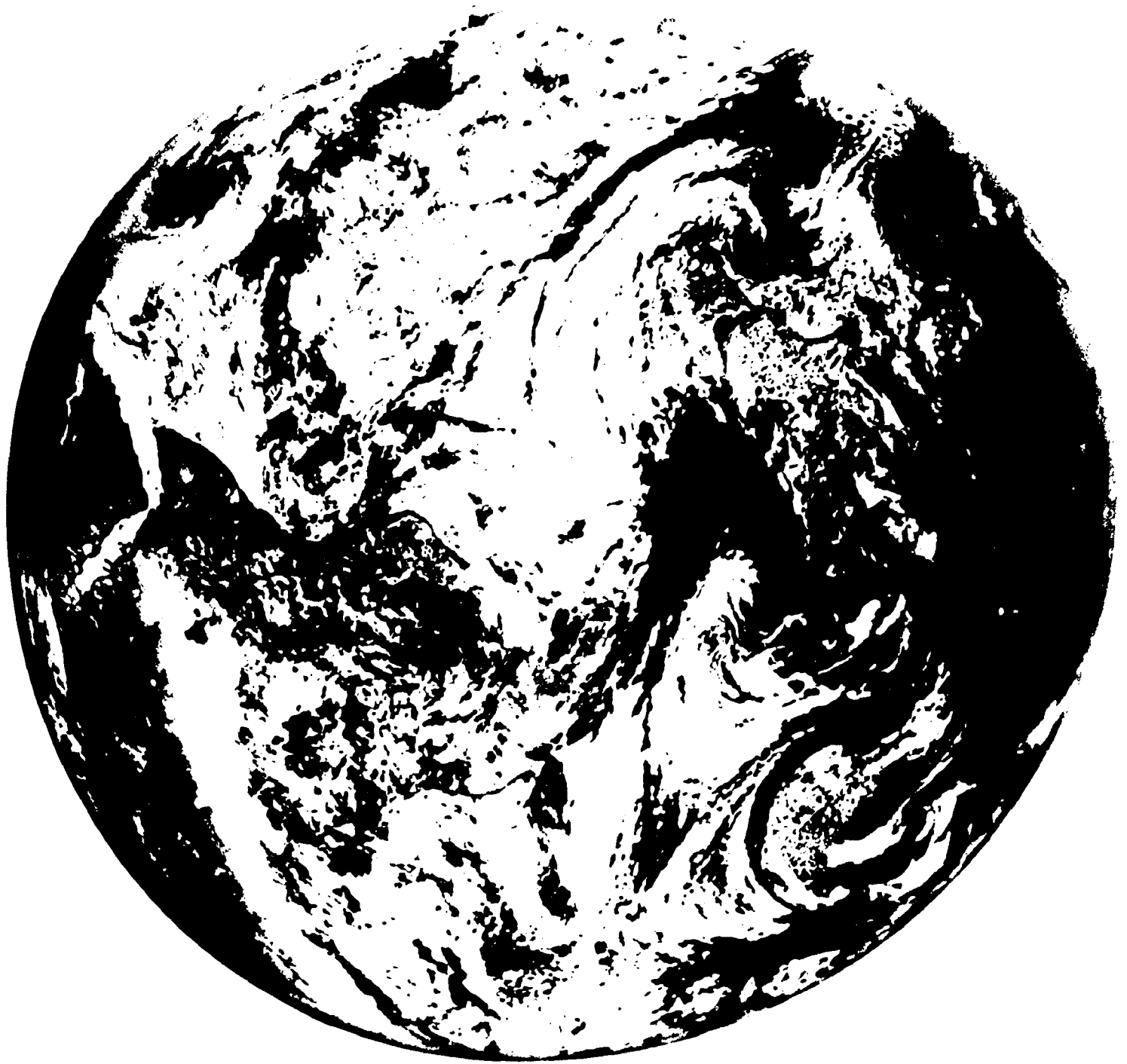
WOOD, DR. ROBERT W.
ERDA
Div. of Biomed. & Env. Research
Rm. E201
Washington, DC 20545
301-353-3213

WOODS, WARREN C.
Old West Regional Comm.
1730 K Street, NW
Washington, DC 20038
202-634-3907

YEAGER, KURT
Electric Power Research Institute
Air Quality Control Program
1750 New York Ave., NW Ste. 835
Washington, DC 20006
202-872-9222

ZARGER, T. G.
TVA
Division of Forestry
Fish and Wildlife Development
Norris, TN 37828
615-632-4411

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16. ABSTRACT This publication documents major organizational aspects/functions of the Interagency Energy/Environment Program and associated points of contact. This listing of individuals and agencies involved with each R&D project in the Interagency Program is intended to promote and facilitate communications, not only among the researchers and program managers, but with the interested public as well. The dialogue stimulated by this document should contribute to effective information exchange within the organizations involved in energy-related environmental research, and should assist in shedding light on some of the salient environmental issues involved in energy research and development decision making. Inaugurated in fiscal year 1975, the Federal Interagency Energy/Environment Research and Development Program brings together the coordinated efforts of 17 Federal agencies and departments. The goal of the Interagency Program is to assure that both environmental data and control technology are available to support the rapid development of domestic energy resources, especially coal, in an environmentally acceptable manner. The program is planned and coordinated by the Office of Energy, Minerals and Industry within EPA's Office of Research and Development.					
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