

EPA

United States
Environmental
Protection
Agency

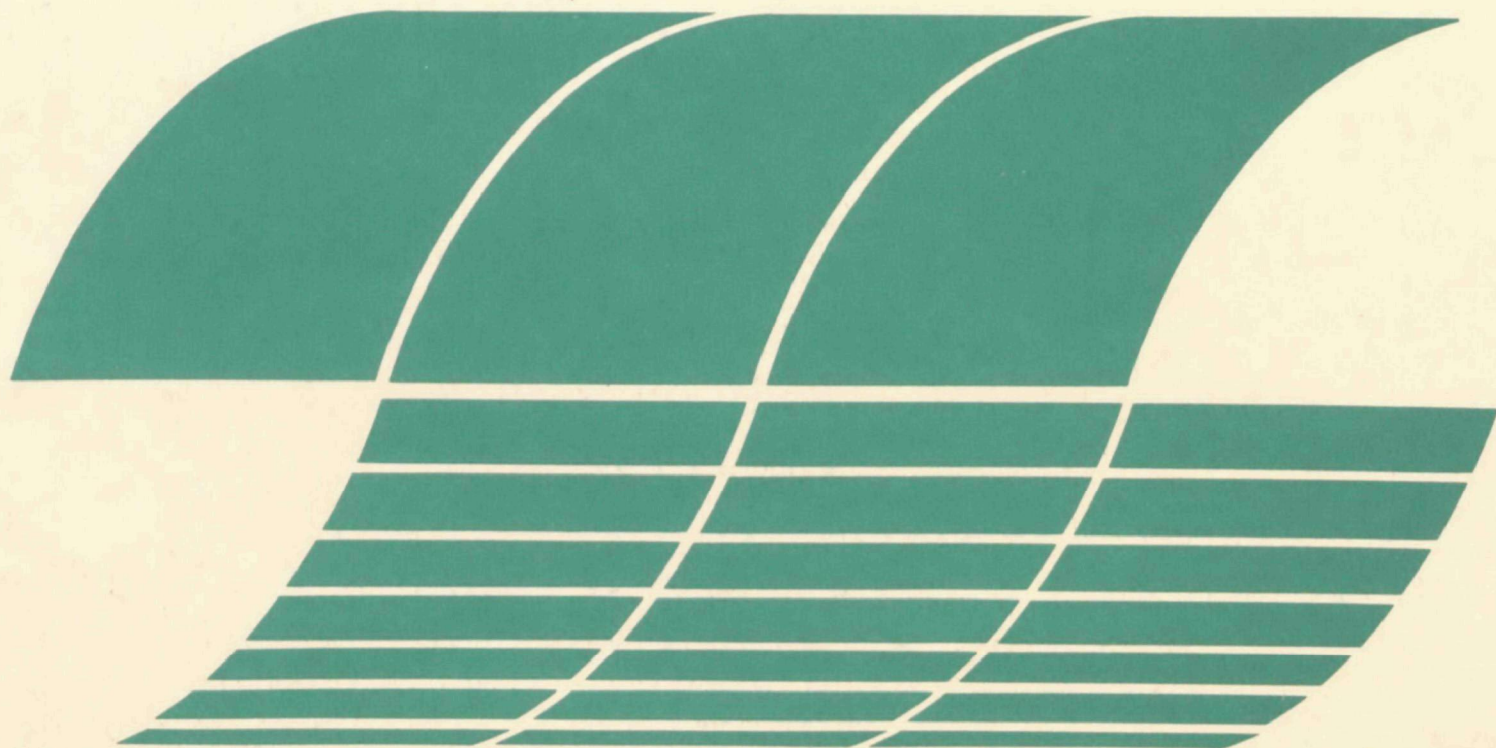
Office of
Research and
Development

Energy,
Minerals and
Industry

EPA-600/7-76-003

June 1976

Who's Who in the Interagency Energy/Environment R&D Program



AGENCY: ENVIRONMENTAL PROTECTION AGENCY

<u>PROJECT</u>	<u>LAB DIRECTOR</u>	<u>HQ COORDINATOR</u>
CHARACTERIZATION, MEASUREMENT AND MONITORING		
ENERGY RELATED WESTERN REGIONAL AIR MONITORING	D. S. BARTH	G. D'ALESSIO
ENERGY RELATED WATER MONITORING		
ENERGY RELATED GROUNDWATER MONITORING AND TECHNIQUES DEVELOPMENT		
ENERGY RELATED OVERHEAD MONITORING AND TECHNIQUES DEVELOPMENT		
ENERGY RELATED RADIOLOGICAL POLLUTANT MONITORING AND TECHNIQUES DEVELOPMENT		
ENERGY RELATED RADIOLOGICAL MONITORING QUALITY ASSURANCE		
REMOTE INSTRUMENTAL TECHNIQUES FOR MONITORING ENERGY RELATED POLLUTANTS AND EFFECTS		
ENERGY RELATED WATER MONITORING TECHNIQUES DEVELOPMENT	D. G. BALLINGER	G. D'ALESSIO
ENERGY RELATED WATER MONITORING QUALITY ASSURANCE SUPPORT		
ENERGY RELATED AIR MONITORING QUALITY ASSURANCE SUPPORT	S. D. SCHEARER	G. D'ALESSIO

AGENCY: ENVIRONMENTAL PROTECTION AGENCY

<u>PROJECT</u>	<u>LAB DIRECTOR</u>	<u>HQ COORDINATOR</u>
CHARACTERIZATION, MEASUREMENT AND MONITORING (Continued)		
ENERGY RELATED AIR POLLUTANT MEASUREMENTS AND INSTRUMENTATION DEVELOPMENT	S. D. SCHEARER	G. D'ALESSIO
DESIGN AND FABRICATION OF A SERVICE ASSESSMENT SAMPLING SYSTEM	J. K. BURCHARD	G. D'ALESSIO
ENERGY RELATED LOW LEVEL TRACE CONTAMINANT IDENTIFICATION, MEASUREMENT AND ANALYSIS OF SOLID WASTE AND EFFLUENT WATER	D. W. DUTTWEILER	G. D'ALESSIO
ENVIRONMENTAL TRANSPORT PROCESSES		
FATE OF SPECIFIC POLLUTANTS IN FRESH WATERS	D. W. DUTTWEILER	C. W. HALL
CHEMICAL, PHYSICAL AND METEOROLOGICAL STUDIES OF ENERGY-RELATED POLLUTANTS IN THE ATMOSPHERE	S. D. SCHEARER	G. D'ALESSIO
TRANSPORT AND FATE OF ENERGY-RELATED POLLUTANTS IN GROUND WATERS	W. C. GALEGAR	C. W. HALL
DETERMINE TRANSFORMATION PATHWAYS, PHYSICAL AND CHEMICAL PERTURBATION AND TOXICITY OF CRUDE OIL TO FRESHWATER ORGANISMS IN ARCTIC LAKES	A. F. BARTSCH	C. W. HALL
DETERMINE TRANSPORT PATHWAYS, TRANSFER RATES AND FATE OF POLLUTANTS AND DEGRADATION PRODUCTS OF CRUDE OIL IN SOIL AND ACTIVE LAYER OF PERMAFROST TERRAIN	A. F. BARTSCH	G. D'ALESSIO

AGENCY: ENVIRONMENTAL PROTECTION AGENCY

<u>PROJECT</u>	<u>LAB DIRECTOR</u>	<u>HQ COORDINATOR</u>
ENVIRONMENTAL TRANSPORT PROCESSES (Continued)		
DETERMINE MECHANISMS OF TRANSFORMATIONS, DEGRADATION, FATE AND EFFECT OF CRUDE OIL IN STREAM ECOSYSTEMS	A. F. BARTSCH	C. W. HALL
EXTENSION OF MULTI-LAYER, TWO-DIMENSIONAL (HORIZONTAL) MODEL OF CIRCULATION TO ACCEPT A HEATED DISCHARGE AS A POLLUTANT	A. F. BARTSCH	C. W. HALL
DETERMINATION OF PERSISTENCE AND DISPERSION OF CHLORINE FROM ON-SHORE COOLING DISCHARGES	A. F. BARTSCH	C. W. HALL
DETERMINE THE DYNAMICS OF DISPERSION AND DISSIPATION IN MARINE AND ESTUARINE WATERS AND THE EFFECTS ON MARINE AND ESTUARINE ORGANISMS, AND LONG-TERM ECOSYSTEM IMPACTS OF WASTE HEAT AND BIOCIDES DERIVED FROM COASTAL AND OFF-SHORE POWER PLANTS; DEVELOP ECOSYSTEM MODELS OF FATE AND EFFECTS OF THERMAL AND BIOCIDES DISCHARGES RANGING FROM SIMPLE PLANKTONIC ASSEMBLAGES TO CONTROLLED FIELD STUDIES	T. W. DUKE	C. W. HALL
MAINTENANCE OF AIR QUALITY MONITORING NETWORK TO CONTINUE TO DEFINE LONG-TERM (5-YEAR) BASELINE DATA INFORMATION	J. A. GREEN	G. D'ALESSIO
ECOLOGICAL EFFECTS		
DEVELOPMENT OF MODELS FOR COMPARISON OF POLLUTANT IMPACT ON POPULATION DYNAMICS OF FISHES	E. D. SCHNEIDER	C. W. HALL
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	E. D. SCHNEIDER	C. W. HALL
DETERMINATION OF THERMAL EFFECTS ON MARINE ORGANISMS AND BY SYNERGISM WITH METALS		

AGENCY: ENVIRONMENTAL PROTECTION AGENCY

<u>PROJECT</u>	<u>LAB DIRECTOR</u>	<u>HQ COORDINATOR</u>
ECOLOGICAL EFFECTS (Continued)		
DETERMINATION OF THE IMMEDIATE AND LONG-TERM DOSE- RESPONSE RELATIONSHIPS OF POLLUTANTS ON SELECTED WESTERN ARID AND GRASSLAND SPECIES FROM COAL AND OIL SHALE PROCESSES	A. F. BARTSCH	C. W. HALL
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		
DETERMINATION OF TOXICITY TO MARINE ORGANISMS OF PETROCHEMICALS AND ENERGY RELATED ORGANIC SOLVENTS FROM OFFSHORE ACTIVITIES AND OCEAN DUMPING	T. W. DUKE	C. W. HALL
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	D. I. MOUNT	C. W. HALL
DETERMINATION OF LONG-TERM EFFECTS ON WASTE HEAT IN THE SURFACE WATERS OF THE GREAT LAKES BASIN ON AQUATIC SPECIES AND COMMUNITY POPULATIONS		
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	J. A. GREEN	C. W. HALL

AGENCY: ENVIRONMENTAL PROTECTION AGENCY

PROJECT

LAB DIRECTOR

HQ COORDINATOR

ECOLOGICAL EFFECTS (Continued)

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

HEALTH EFFECTS

WATER EXPOSURE AND THEIR EFFECTS: HEAVY METALS AND TOXIC ORGANIC CHEMICALS

R. J. GARNER

G. RAUSA

MULTI-ROUTE EXPOSURES AND THEIR EFFECTS

CHARACTERIZE HUMAN EXPOSURE TO POLLUTANTS EMITTED IN AMBIENT AIR AS A RESULT OF COAL CONVERSION AND UTILIZATION

J. H. KNELSON

G. RAUSA

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

IDENTIFY THE HAZARDS OF CHRONIC, LOW-LEVEL EXPOSURE TO 85K, AND 3H AS IT RELATES TO NUCLEAR ENERGY PRODUCTION

AGENCY: ENVIRONMENTAL PROTECTION AGENCY

<u>PROJECT</u>	<u>LAB DIRECTOR</u>	<u>HQ COORDINATOR</u>
INTEGRATED ASSESSMENT		
WESTERN ENERGY INTEGRATED TECHNOLOGY ASSESSMENT SUPPORT		E. ROYCE
ELECTRICAL UTILITIES ITA STUDIES		
QUANTITATIVE METHODS IN TECHNICAL ASSESSMENT		E. ROYCE
INTEGRATED TECHNOLOGY ASSESSMENT		
SEAS		R. W. SHOBE
OFFICE OF ENERGY ACTIVITIES		
COAL LEASE AREA ASSESSMENT		
CONTROL TECHNOLOGY - RESOURCE EXTRACTION		
ENERGY RESOURCE EXTRACTION AND HANDLING OIL AND GAS PRODUCTION	D. G. STEPHAN	D. O'BRYAN
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		

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CONTROL TECHNOLOGY - RESOURCE EXTRACTION (Continued)

ENERGY RESOURCE EXTRACTION AND HANDLING OIL AND GAS
PRODUCTION (Continued)

D. G. STEPHAN

D. O'BRYAN

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 IN-
STALLATION AND OPERATION OF OFFSHORE OIL AND GAS PRO-
DUCTION FACILITIES; INCLUDE OFFSHORE PLATFORM, PRODUCT
TRANSPORTATION SYSTEMS AND SHORE TERMINATION FACILITIES

ASSESS, 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 IN-
CLUDING ONSHORE AND OFFSHORE

ASSESS, DEVELOP AND DEMONSTRATE SPILL CONTROL TECH-
NIQUES, EQUIPMENT AND METHODS FOR THE ONSHORE STORAGE
AND TRANSPORTATION OF LNG

AGENCY: ENVIRONMENTAL PROTECTION AGENCY

<u>PROJECT</u>	<u>LAB DIRECTOR</u>	<u>HQ COORDINATOR</u>
CONTROL TECHNOLOGY - RESOURCE EXTRACTION (Continued)		
ENERGY RESOURCE EXTRACTION AND HANDLING SOLID FOSSIL FUELS	D. G. STEPHAN	D. O'BRYAN
<p>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</p> <p>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</p> <p>ASSESS, DEVELOP AND DEMONSTRATE COST/EFFECTIVE METHODS TO TREAT MINE DRAINAGE FROM ACTIVE AND ABANDONED COAL, OIL SHALE, URANIUM (EXCEPT RADIATION), TAR SANDS, AND OTHER ENERGY RELATED SOLID FUELS EXTRACTION; ALSO INCLUDE DISCHARGES FROM MATERIALS PRODUCTION MINING</p> <p>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</p>		

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<u>PROJECT</u>	<u>LAB DIRECTOR</u>	<u>HQ COORDINATOR</u>
CONTROL TECHNOLOGY - RESOURCE EXTRACTION (Continued)		
ENERGY RESOURCE EXTRACTION AND HANDLING SOLID FOSSIL FUELS (Continued)	D. G. STEPHAN	D. O'BRYAN
<p>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</p> <p>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</p> <p>ASSESS, DEVELOP AND DEMONSTRATE METHODS TO PREVENT AND CONTROL ENVIRONMENTAL DAMAGES FROM THE TRANSPORTATION OF SOLID FUELS BY RAIL, TRUCK, PIPELINES, ETC.</p>		
COOPERATE WITH ERDA TO REDUCE ADVERSE ENVIRONMENTAL EFFECTS FROM URANIUM MILL WASTE	J. S. SILHANEK	D. O'BRYAN
CONTROL TECHNOLOGY - SYNTHETIC FUELS		
SYNTHETIC FUELS FROM COAL - ENVIRONMENTAL ASSESSMENT	J. K. BURCHARD	G. A. FOLEY

AGENCY: ENVIRONMENTAL PROTECTION AGENCY

<u>PROJECT</u>	<u>LAB DIRECTOR</u>	<u>HQ COORDINATOR</u>
CONTROL TECHNOLOGY - SYNTHETIC FUELS (Continued)		
SYNTHETIC FUELS FROM COAL - CONTROL TECHNOLOGY DEVELOPMENT	J. K. BURCHARD	G. A. FOLEY
ADVANCED OIL PROCESSING - ENVIRONMENTAL ASSESSMENT	J. K. BURCHARD	
ADVANCED OIL PROCESSING - TECHNOLOGY DEVELOPMENT	J. K. BURCHARD	
OIL SHALE	D. G. STEPHAN	
PROCESS MEASUREMENTS SUPPORT	J. K. BURCHARD	
PROCESS MEASUREMENTS SUPPORT AND SPECIAL STUDIES	D. G. STEPHAN	
NON-COAL SYNTHETIC FUEL PRODUCTION AND UTILIZATION	D. G. STEPHAN	
SPECIAL STUDIES	J. K. BURCHARD	
HIGH T/P PARTICULATE CONTROL	J. K. BURCHARD	
CONTROL TECHNOLOGY - NUCLEAR		
ASSESSMENT OF ENVIRONMENTAL IMPACT AND ANALYSIS OF CONTROL TECHNOLOGIES FOR RADIOACTIVE MATERIALS ASSOCIATED WITH THORIUM/URANIUM - 233	D. G. STEPHAN	G. REY

AGENCY: ENVIRONMENTAL PROTECTION AGENCY

<u>PROJECT</u>	<u>LAB DIRECTOR</u>	<u>HQ COORDINATOR</u>
CONTROL TECHNOLOGY - NUCLEAR (Continued)		
UPDATING AND EXTENDING THE TECHNOLOGY ASSESSMENT METHODOLOGY FOR RADIOACTIVE WASTE MANAGEMENT	D. G. STEPHAN	G. REY
EVALUATION OF PROBLEMS AND LIMITATIONS OF OCEAN DUMPING AS A RADIOACTIVE WASTE MANAGEMENT ALTERNA- TIVE		
IMPROVING MODEL FOR SIMULATING GROUNDWATER TRANSPORT OF RADIOACTIVE POLLUTANTS FROM BURIED LOW-LEVEL RADIOACTIVE WASTES		
DEFINITION OF THE RADON - 222 SOURCE LEVEL FROM URANIUM WASTES		
MANAGEMENT AND ENGINEERING STUDY FOR COMMERCIAL LOW-LEVEL BURIAL SITES		
ASSESSMENT OF RADIONUCLIDE RETENTION IN SOILS		
CONTROL OF RADIOLOGICAL IMPACTS FROM RECOVERY OF URANIUM FROM PHOSPHATE AND OTHER MINERAL ORES, PRODUCTS, BY-PRODUCTS AND WASTES		
EMERGENCY RESPONSE PLANNING FOR A NUCLEAR INCI- DENT AT A FIXED NUCLEAR FACILITY		
PROCESS MEASUREMENTS SUPPORT AND SPECIAL STUDIES		

AGENCY: ENVIRONMENTAL PROTECTION AGENCY

<u>PROJECT</u>	<u>LAB DIRECTOR</u>	<u>HQ COORDINATOR</u>
CONTROL TECHNOLOGY - PHYSICAL/CHEMICAL COAL CLEANING		
ENVIRONMENTAL ASSESSMENT	J. K. BURCHARD	G. A. FOLEY
CONTROL TECHNOLOGY DEVELOPMENT	J. K. BURCHARD	
PROCESS MEASUREMENTS SUPPORT	D. G. STEPHAN	
SPECIAL STUDIES	J. K. BURCHARD	
PROCESS MEASUREMENTS SUPPORT AND SPECIAL STUDIES	D. G. STEPHAN	
CONTROL TECHNOLOGY - FLUE GAS CLEANING		
NON-REGENERABLE FLUE GAS DESULFURIZATION	J. K. BURCHARD	D. J. GRAHAM
REGENERABLE FLUE GAS DESULFURIZATION		
FGD TECHNOLOGY TRANSFER AND SUPPORTING STUDIES		
CONTROL OF WASTE AND WATER POLLUTION FROM COMBUSTION SOURCES		
NO _x ENVIRONMENTAL ASSESSMENT/APPLICATIONS TESTING		
DEVELOP COMBUSTION MODIFICATION TECHNOLOGY TO MINIMIZE STATIONARY SOURCE NO _x AND OTHER EMISSIONS		
DEVELOP FLUE GAS TREATMENT TECHNOLOGY FOR NO _x CONTROL		
FINE PARTICULATE CONTROL TECHNOLOGY DEVELOPMENT		

AGENCY: ENVIRONMENTAL PROTECTION AGENCY

<u>PROJECT</u>	<u>LAB DIRECTOR</u>	<u>HQ COORDINATOR</u>
CONTROL TECHNOLOGY - FLUE GAS CLEANING (Continued)		
COMBUSTION POLLUTANT ASSESSMENT CONTROL TECHNOLOGY DEVELOPMENT	J. K. BURCHARD	D. J. GRAHAM
PROCESS MEASUREMENT AND SUPPORT		
SPECIAL STUDIES		
FLUE GAS CLEANING WASTE DISPOSAL	A. W. BREIDENBACH	
CONTROL TECHNOLOGY - DIRECT COMBUSTION		
FLUIDIZED-BED COMBUSTION - ENVIRONMENTAL ASSESSMENT	J. K. BURCHARD	G. A. FOLEY
FLUIDIZED-BED COMBUSTION - CONTROL TECHNOLOGY DEVELOPMENT		
ADVANCED OIL PROCESSING - CHEMICALLY ACTIVE FLUID BED RESIDUAL OIL CLEANUP		
SPECIAL STUDIES - TECHNICAL EVALUATION		
PROCESS MEASUREMENTS SUPPORT		
CONTROL TECHNOLOGY - THERMAL CONTROL		
THERMAL POLLUTION CONTROL - COOLING TECHNOLOGY	J. K. BURCHARD	D. J. GRAHAM
THERMAL POLLUTION CONTROL - WASTE HEAT AND WATER UTILIZATION	J. K. BURCHARD	

AGENCY: ENVIRONMENTAL PROTECTION AGENCY

<u>PROJECT</u>	<u>LAB DIRECTOR</u>	<u>HQ COORDINATOR</u>
CONTROL TECHNOLOGY - THERMAL CONTROL (Continued)		
DEVELOPMENT OF ICE FOG CONTROL TECHNOLOGY FOR STATIONARY SOURCES	A. F. BARTSCH	D. J. GRAHAM
CONTROL TECHNOLOGY - IMPROVED EFFICIENCY		
ENVIRONMENTAL ASSESSMENT OF ENERGY CONSERVING PROCESSES AND TECHNIQUES	D. G. STEPHAN	D. R. BERG
DEVELOPMENT OF ENERGY-EFFICIENT POLLUTION CONTROL TECHNOLOGY FOR INDUSTRIAL PROCESSES	D. G. STEPHAN	
WASTES AS FUEL: POLLUTANT CRITERIA AND CHARACTERIZATION	D. G. STEPHAN	
WASTES AS FUEL: INDUSTRIAL WASTE SURVEYS	D. G. STEPHAN	
WASTES AS FUEL: WASTE CO-FIRING WITH COAL OR OTHER WASTES	D. G. STEPHAN	
WASTES AS FUEL: WASTE CO-FIRING WITH OIL	D. G. STEPHAN	
WASTES AS FUEL: THERMOCHEMICAL CONVERSION	D. G. STEPHAN	
WASTES AS FUEL: AIR POLLUTION CONTROLS	D. G. STEPHAN	
WASTES AS FUEL: PROGRAM MANAGEMENT	D. G. STEPHAN	
ENVIRONMENTAL ASSESSMENT OF ADVANCED CYCLES	D. G. STEPHAN	

AGENCY: ENVIRONMENTAL PROTECTION AGENCY

<u>PROJECT</u>	<u>LAB DIRECTOR</u>	<u>HQ COORDINATOR</u>
CONTROL TECHNOLOGY - IMPROVED EFFICIENCY (Continued)		
PROCESS MEASUREMENTS SUPPORT AND SPECIAL STUDIES	D. G. STEPHAN	D. R. BERG
INDOOR AIR QUALITY - ASSESSMENT AND CONTROL OF POLLUTANTS	J. K. BURCHARD	
WASTES AS FUEL - POLLUTANTS STUDIES	A. W. BREIDENBACH	
WASTES AS FUEL - WASTE SURVEYS	A. W. BREIDENBACH	
WASTES AS FUEL - TECHNICAL ASSISTANCE	A. W. BREIDENBACH	
WASTES AS FUEL - MATERIAL RECOVERY PA & D	A. W. BREIDENBACH	
WASTES AS FUEL - FUEL AND FEEDSTOCK PREPARATION	A. W. BREIDENBACH	
WASTES AS FUEL - WASTE CO-INCINERATION	A. W. BREIDENBACH	
WASTES AS FUEL - BIOLOGICAL CONVERSION PA & D	A. W. BREIDENBACH	
WASTES AS FUEL - PROGRAM MANAGEMENT	A. W. BREIDENBACH	
CONTROL TECHNOLOGY - ADVANCED SYSTEMS		
GEOHERMAL CONTROL TECHNOLOGY ASSESSMENT	D. G. STEPHAN	D. R. BERG
SOLAR USE ENVIRONMENTAL ASSESSMENT	D. G. STEPHAN	D. R. BERG
GEOHERMAL ENVIRONMENTAL IMPACT ASSESSMENT	D. S. BARTH	D. R. BERG

AGENCY: DEPARTMENT OF AGRICULTURE

<u>PROJECT</u>	<u>PROJECT DIRECTOR</u>	<u>AGENCY COORDINATOR</u>
ECOLOGICAL EFFECTS		
ASSESS QUALITY OF WATER IN STRIP-MINED AREAS AS IT RELATES TO HABITAT FOR AQUATIC ORGANISMS AND WILDLIFE SPECIES ASSOCIATED WITH THESE WATER BODIES	H. E. BROWN	R. F. CALLAHAM
ASSESS THE REDEPOSITIONING AND STABILIZING OF MINE SPOILS AND IDENTIFY TECHNOLOGIES THAT WILL ENHANCE WATER QUALITY FOR ASSOCIATED AQUATIC LIFE	H. E. BROWN	R. F. CALLAHAM
ASSESS EFFECTS OF MINING-RELATED TRANSPORTATION SYSTEMS IN WATER, AIR, SOIL, PLANT, ANIMAL AND AESTHETIC RESOURCES	H. E. BROWN	R. F. CALLAHAM
DEVELOP OPERATIONAL TECHNICAL INFORMATION SYSTEM FOR RECLAMATION OF LANDS AFFECTED BY MINING	H. E. BROWN	R. F. CALLAHAM
DEVELOP RECLAMATION PLAN BEFORE MINING OPERATION BEGINS	H. L. BARROWS	C. W. CARLSON
DETERMINE EFFECT OF STRIP-MINING AND RECLAMATION PROCESSES ON THE QUALITY AND QUANTITY OF WATER LEAVING THE AREA	H. L. BARROWS	C. W. CARLSON
DETERMINE EFFECT OF STRIP-MINE RECLAMATION PRACTICES ON THE NUTRITIONAL QUALITY OF FORAGES OR OTHER CROPS GROWN ON RECLAIMED AREA	H. L. BARROWS	C. W. CARLSON
ASSESS AND MODEL EFFECTS OF PREVIOUS MINING METHODS, SPOIL CHARACTERISTICS AND RECLAMATION OF SURFACE AND GROUND WATER	S. R. ALDRICH	E. V. MILLER
CONDUCT EXPERIMENTS ON PLANTS OF FAST GROWING TREES TO ASSESS GROWTH SUPPORT CAPABILITIES OF SPECIFIC SITES IN RELATION TO WATER QUALITY AND SPOIL CHARACTERISTICS	S. R. ALDRICH	E. V. MILLER
EXPAND EXISTING "RESOURCES INVENTORY, INFORMATION MANAGEMENT AND MONITORING SYSTEMS" FOR COLLECTION, ASSIMILATION AND ANALYSES OF NATURAL RESOURCES AND POLLUTION DATA RELATED TO COAL EXTRACTION	S. R. ALDRICH	E. V. MILLER
EVALUATE SPECIES AND SEED SOURCES FOR REVEGETATION OF ENERGY RESOURCE EXTRACTION AREAS WITH NATIVE PLANTS	H. L. BARROWS	C. W. CARLSON

AGENCY: DEPARTMENT OF AGRICULTURE (Cont.)

PROJECT

PROJECT DIRECTOR

AGENCY COORDINATOR

ECOLOGICAL EFFECTS (cont)

DETERMINE SOIL CHARACTERISTICS DEVELOPING ON SPOILS OF VARYING
AGES RELATING TO ROOT GROWTH AND BIOLOGICAL PRODUCTIVITY

H. L. BARROWS

C. W. CARLSON

INTEGRATED ASSESSMENT

SOCIOECONOMIC/CULTURAL SUPPORT STUDIES

V. W. DAVIS

G. C. TAYLOR

CONTROL TECHNOLOGY-RESOURCE EXTRACTION

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

AGENCY: DEPARTMENT OF HOUSING AND
URBAN DEVELOPMENT

PROJECT

PROJECT DIRECTOR

AGENCY COORDINATOR

INTEGRATED ASSESSMENT

BUILDING ENERGY CONSERVATION STUDIES

K. L. CREDLE

V. G. VOLLERO

AGENCY: DEPARTMENT OF INTERIOR

<u>PROJECT</u>	<u>PROJECT DIRECTOR</u>	<u>AGENCY COORDINATOR</u>
CHARACTERIZATION, MEASUREMENT AND MONITORING		
WATER MONITORING FIELD INSTRUMENTATION DEVELOPMENT	P. E. GREESON	G. H. DAVIS
ENERGY RELATED SURFACE WATER MONITORING/WESTERN REGION	F. A. KILPATRICK	G. H. DAVIS
ENERGY RELATED GROUNDWATER MONITORING/WESTERN REGION STUDY	F. A. KILPATRICK	G. H. DAVIS
ENERGY RELATED SURFACE AND GROUNDWATER MONITORING STUDIES/ WESTERN REGION	F. A. KILPATRICK	G. H. DAVIS
ENERGY RELATED SURFACE AND GROUNDWATER MONITORING STUDIES/ EASTERN REGION	F. A. KILPATRICK	G. H. DAVIS
ECOLOGICAL EFFECTS		
SUMMARIZE RESULTS OF LABORATORY EXPERIMENTS AND FIELD OBSERVATIONS TO EVALUATE THE PHYSIOLOGICAL, TOXICOLOGICAL AND ECOLOGICAL EFFECTS OF OIL, PRIMARILY ON DUCKS	L. F. STICKEL	A. HIRSCH
DESCRIBE EFFECTIVE GUIDELINES AND METHODOLOGY FOR THE DEVELOPMENT, SYNTHESIS, ANALYSIS AND INTERPRETATION OF COMPLEX ECOLOGICAL AND BIOLOGICAL INFORMATION RELATIVE TO MAJOR COASTAL ECOSYSTEMS	H. TAIT	A. HIRSCH
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DETERMINE WATER QUANTITY REQUIREMENTS OF FISH AND WILDLIFE IN THE UPPER COLORADO AND UPPER MISSOURI RIVER BASINS	R. P. HAYDEN	A. HIRSCH

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AGENCY COORDINATOR

ECOLOGICAL EFFECTS (cont)

DEVELOP IN-STREAM FLOW METHODOLOGIES TO DETERMINE FLOW REQUIREMENTS FOR BIOLOGICAL/FISHERIES STABILITY IN AREAS AFFECTED BY INCREASED ENERGY DEVELOPMENT--BOTH EAST AND WEST

A. HIRSCH

DEVELOP MECHANISM TO IDENTIFY AND MONITOR THE ACTIVITIES OF ENDANGERED SPECIES IN AREAS UNDER STRESS FROM ENERGY DEVELOPMENT

A. HIRSCH

CONTROL TECHNOLOGY-PHYSICAL/CHEMICAL COAL CLEANING

COAL WASHING TEST FACILITY

A. DEURBROUCK

T. V. FALKIE

COAL CLEANING TECHNOLOGY DEVELOPMENT

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T. V. FALKIE

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DEVELOPMENT OF AQUEOUS EFFLUENT INSTRUMENTATION AND METHODS FOR ENERGY-RELATED SOURCES	H. R. WASSON	J. L. LIVERMAN
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DETERMINATION OF THE TRANSPORTATION AND FATE OF FUEL WASTES THROUGH SOIL AT SOLID WASTE SITES		J. L. LIVERMAN
DETERMINATION OF ORGANIC POLLUTANT LOAD AND DYNAMICS OF RESULTING REFINERY WASTES INTO MARINE WATERS	P.W. HARRISON	J. L. LIVERMAN
DETERMINATION OF THE LOAD AND DYNAMICS OF OIL REFINERY WASTES IN LAKE MICHIGAN		J. L. LIVERMAN
EVALUATION OF THE EFFECTS OF COOLING TOWERS ON WEATHER MODIFICATION	D. H. HAMILTON, JR.	J. L. LIVERMAN
ECOLOGICAL EFFECTS		
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EFFECTS OF CONSTRUCTION OPERATIONS OF ALASKA PIPELINE ON AQUATIC HABITATS	I. L. BRISBIN	J. L. LIVERMAN
EFFECTS OF TRACE METALS ON CROP AND FOREST ECOSYSTEM	D. S. BALLANTINE	J. L. LIVERMAN
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HEALTH EFFECTS		
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	G. E. STAPLETON	J. L. LIVERMAN
DEVELOP CYTOLOGICAL AND BIOCHEMICAL INDICATORS TO ESTIMATE TOXICITY FROM OIL AND COAL EXTRACTION, CONVERSION AND UTILIZATION	G. D. DUDA	J. L. LIVERMAN
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INTEGRATED ASSESSMENT		
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EDP INFORMATION RETRIEVAL SYSTEM	J. S. OLSON	J. L. LIVERMAN
CONTROL TECHNOLOGY-RESOURCE EXTRACTION		
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CONTROL TECHNOLOGY-PHYSICAL/CHEMICAL COAL CLEANING		
CONTROL TECHNOLOGY DEVELOPMENT	R. H. KENNEDY	J. L. LIVERMAN

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<u>PROJECT</u>	<u>PROJECT DIRECTOR</u>	<u>AGENCY COORDINATOR</u>
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SYNTHETIC FUELS FROM COAL - CONTROL TECHNOLOGY DEVELOPMENT	R. H. KENNEDY	J. L. LIVERMAN

	AGENCY: NATIONAL AERONAUTICS AND SPACE ADMINISTRATION	
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TECHNICAL SUPPORT FOR WESTERN ENERGY-RELATED ENVIRONMENTAL ASSESS- MENT/OVERHEAD MONITORING METHOD DEVELOPMENT	E. L. TILTON	P. S. THOME
ENERGY RELATED REMOTE SENSING INSTRUMENTATION DEVELOPMENT	J. P. MUGLER, JR.	W. E. STONEY

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ENERGY RELATED WATER POLLUTANT STANDARD REFERENCE MATERIALS	J. R. MC NESBY	H. E. SORROWS
ENERGY RELATED AIR POLLUTANT STANDARD REFERENCE MATERIALS	J. R. MC NESBY	H. E. SORROWS
RADIOLOGICAL POLLUTANT QUALITY ASSURANCE	J. R. MC NESBY	H. E. SORROWS

AGENCY: NATIONAL INSTITUTE OF ENVIRON-
MENTAL HEALTH SCIENCES

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DEVELOP AND TEST MODELS AND CONCEPTS FOR EXTRAPOLATION OF CELLULAR AND ANIMAL DATA TO MAN USING TOXIC AGENTS FROM ENERGY TECHNOLOGIES	D. G. HOEL	D. P. RALL
DETERMINE DOSE EFFECTS OF EXPOSURE TO MUTAGENIC AGENTS ASSOCIATED WITH ENERGY TECHNOLOGIES	F. de SERRES	D. P. RALL
ASSESS THE METABOLISM, FATE AND TOXICOLOGY OF PARTICULATES AND ORGANIC COMPOUNDS ASSOCIATED WITH ENERGY TECHNOLOGIES	L. G. HART	D. P. RALL
DEVELOP PHYSIOLOGICAL INDICATORS OF DAMAGE FROM TOXIC AGENTS	F. de SERRES	D. P. RALL
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AGENCY: NATIONAL INSTITUTE OF OCCUPA-
TIONAL SAFETY AND HEALTH

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CHARACTERIZATION, MEASUREMENT AND MONITORING		
DEVELOP INSTRUMENTATION AND DEVICES FOR THE MEASUREMENT OF HAZARDOUS AGENTS IN THE OCCUPATIONAL ENVIRONMENT ASSOCIATED WITH ENERGY USAGE	J. LYNCH	J. F. FINKLEA
HEALTH EFFECTS		
ASSESSMENT OF EFFECTS OF OCCUPATIONAL EXPOSURE TO COAL TECHNOLOGIES	B. BRUCKNER	J. F. FINKLEA
CONDUCT ENVIRONMENTAL AND INDUSTRIAL STUDIES OF OCCUPATIONAL EXPOSURES TO INSULATION MATERIALS	J. LEE	J. F. FINKLEA
ASSESS HEALTH EFFECTS OF THE RECIRCULATION OF EXHAUST AIR	R. HUGHES	J. F. FINKLEA

AGENCY: NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION

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METEOROLOGICAL INTERPRETATION AND PREDICTION OF AIR QUALITY IN THE WESTERN UNITED STATES RELATED TO ENERGY ACTIVITIES	L. MACHTA	J. W. TOWNSEND, JR.
LIDAR TECHNIQUES FOR MEASURING PARTICULATE POLLUTANTS FROM ENERGY PRODUCTION AND THEIR TRANSPORT AND DISPERSION PROCESSES	V. E. DERR	J. W. TOWNSEND, JR.
STANDARDIZED AND INTERCALIBRATED TECHNIQUES FOR MARINE MONITORING	R. J. FARLAND	J. W. TOWNSEND, JR.
OCEAN OIL SPILL CONCENTRATION AND TRAJECTORY FORECAST	C. S. BARRIENTOS	J. W. TOWNSEND, JR.
UNDERWAY WATER SAMPLING SYSTEM	M. E. RINGENBACH	J. W. TOWNSEND, JR.
ENVIRONMENTAL TRANSPORT PROCESSES		
TRANSPORT, TRANSFORMATION, FATE AND EFFECTS OF TOXIC METALS, PETROLEUM HYDROCARBONS IN SELECTED MARINE ECOSYSTEMS	D. A. WOLFE	J. W. TOWNSEND, JR.
ECOLOGICAL EFFECTS		
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DEVELOP PREDICTIVE CAPABILITY FOR IMPACTS OF PETROLEUM-RELATED ACTIVITIES ON NORTHERN PUGET SOUND AND STRAIT OF JUAN DE FUCA	D. A. WOLFE	J. W. TOWNSEND, JR.
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DESIGN, ESTABLISH, OPERATE, EVALUATE AND REFINE A DATA MANAGEMENT SYSTEM FOR INTERAGENCY ENERGY-RELATED MARINE AND METEOROLOGICAL PROGRAMS	R. R. REYNOLDS	J. W. TOWNSEND, JR.

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DEVELOPMENT OF SIMULATION MODELS OF THERMAL DISPERSION OF FLUID MECHANICS IN STREAMS AND RESERVOIRS		W. R. NICHOLAS	P. A. KRENKEL
DETERMINATION OF ATMOSPHERIC TRANSPORT AND TRANSFORMATION OF EMISSIONS FROM COAL-FIRED POWER PLANTS		T. J. MONTGOMERY	P. A. KRENKEL
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THERMAL IMPACTS ON FRESHWATER, SHELLFISH, INSECTS AND OTHER BIOTA (ORGANISMS)		N. R. NICHOLAS	P. A. KRENKEL

	<u>PROJECT</u>	<u>PROJECT DIRECTOR</u>	<u>AGENCY COORDINATOR</u>
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	RESIDUAL FORECASTS	D. H. WALTERS	P. A. KRENKEL
	COMPUTER GRAPHICS	H. R. HICKEY	P. A. KRENKEL
CONTROL TECHNOLOGY-FLUE GAS CLEANING			
	ENERGY REQUIREMENT CONSERVATION STUDY OF SELECTED PROCESSES FOR REMOVING SO ₂ FROM POWER PLANT STACK	A. F. LITTLE	P. A. KRENKEL
	DEVELOP COMPARATIVE ECONOMICS OF MAJOR STACK GAS EMISSION CONTROL PROCESSES. DESIGN BRANCH	H. L. FAUCETT	P. A. KRENKEL
	BYPRODUCT MARKETING. TEST AND DEMONSTRATION BRANCH	J. I. BUCY	P. A. KRENKEL
	DEVELOPMENT OF FLUE GAS DESULFURIZATION TECHNOLOGY - SHAWNEE LIME/LIMESTONE SCRUBBING PROGRAM. DESIGN BRANCH	J. J. SCHULTZ	P. A. KRENKEL
	ADVANCED SO ₂ REMOVAL PROCESS IMPROVEMENTS. APPLIED RESEARCH BRANCH	J. M. POTTS	P. A. KRENKEL
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	CHARACTERIZATION OF EFFLUENTS FROM COAL FIRED UTILITY BOILERS	H. B. FLORA II	P. A. KRENKEL
	FLY ASH CHARACTERIZATION AND DISPOSAL	S. S. RAY	P. A. KRENKEL
CONTROL TECHNOLOGY-THERMAL CONTROL			
	ADVANCED WASTE HEAT CONTROL	H. B. FLORA II	P. A. KRENKEL

NAME AND ADDRESS

ALDRICH, S. R.
USDA
Agricultural Experiment Sta.
Urbana, Illinois 61801
217-333-1604

ANGELOVIC, J. W.
NOAA
Gulf Coastal Fisheries Center
Fort Crockett, Bldg, 302
Galveston, Texas 77550
713-527-6501

BALLINGER, D. G.
EPA/EMSL
Cincinnati, Ohio 45268
513-684-2200

BALLANTINE, D. S.
ERDA
Div. of Biomed. & Env. Res.
Germantown, Maryland 20767
301-353-3763

BARRIENTOS, C. S.
NOAA
Techniques Dev. Lab
Silver Spring, Maryland 20910
301-427-7613

BARROWS, H. L.
USDA
Agricultural Research Service
Washington, D.C. 20251
202-447-5211

BARTH, D. S.
EPA/EMSL
P. O. Box 15027
Las Vegas, Nevada 89114
702-736-2969

BARTSCH, A. F.
EPA/ERL
200 S.W. 35th Street
Corvallis, Oregon 97330
503-752-4211

NAME AND ADDRESS

BERG, D. R.
EPA
401 M Street, S.W.
Washington, D.C. 20460
202-426-4567

BLANTON, J. O.
ERDA
Div. of Biomed. & Env. Res.
Germantown, Maryland 20767
301-353-4155

BREIDENBACH, A. W.
EPA/MERL
Cincinnati, Ohio 45268
513-684-8201

BRISBIN, I. L.
ERDA
Germantown, Maryland 20767
301-973-4155

BROWN, H. E.
USDA
Forest Environment Research
Washington, D.C. 20251
703-235-1071

BRUCKNER, B.
NIOSH
Park Building
Rockville, Maryland 20854
301-443-4493

BUCY, J. I.
TVA
Muscle Shoals, Alabama 35660
205-383-4631

BURCHARD, J. K.
EPA/IERL
Research Triangle Park
North Carolina 27711
919-549-8411

NAME AND ADDRESS

CALLAHAM, R.
USDA
Forest Environment Research
Washington, D.C. 209251
703-235-1071

CARLSON, C. W.
USDA
Agricultural Research Service
Washington, D.C. 20251
202-447-7157

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

CREDLE, K.
HUD
451 7th Street, N.W.
Washington, D.C.
202-755-5524

CROWE, J. L.
TVA
524 Power Building
Chattanooga, Tennessee 37401
615-755-2771

D'ALESSIO, G. J.
EPA
401 M Street, S.W.
Washington, D.C. 20460
202-426-2322

DAVIS, G. H.
USGS
407 National Center
Reston, Virginia 22092
703-860-6846

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

NAME AND ADDRESS

DE SERRES, F.
NIEHS
Environmental Mutagenesis Branch
Research Triangle Park, N.C. 27709
919-629-3378

DERR, V. E.
NOAA/ERL/WPL
R 45 x 3
Boulder, Colorado 80302
303-499-1000

DEURBROUCK, A.
U.S. Bureau of Mines
Office of Coal Preparation and
Analysis
4800 Forbes Avenue
Pittsburgh, Pennsylvania 15213
412-892-2400

DIXON, R. L.
NIEHS
Environmental Toxicology Branch
Research Triangle Park, N.C. 27709
919-629-3333

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

DUKE, T. W.
EPA/ERL
Saline Island
Gulf Breeze, Florida 32611
904-932-5326

DUTTWEILER, D. W.
EPA/ERL
College Station Road
Athens, Georgia 30601
404-546-3134

NAME AND ADDRESS

FALKIE, T. V.
U.S. Bureau of Mines
2401 E Street, N.W.
Washington, D.C. 20241
202-634-1300

FARLAND, R. J.
NOAA
National Oceano. Instrument
Center
Washington Navy Yard Annex
Washington, D.C.
202-426-9087

FAUCETT, H. L.
TVA
Muscle Shoals, Alabama 35660
205-383-4631

FINKLEA, J. F.
NIOSH
Park Building
Rockville, Maryland 20851
301-443-1530

FLORA, H. B., II
TVA
Division of Power
1345 Commerce Union Bank Bldg.
Chattanooga, Tennessee 37401
615-755-3011

FOLEY, G. A.
EPA
401 M Street, S.W.
Washington, D.C. 20460
202-755-4858

GALEGAR, W. C.
EPA
Robert S. Kerr E.R.L.
P. O. Box 1198
Ada, Oklahoma 74820
405-332-8800

NAME AND ADDRESS

GARNER, R. J.
EPA
Health Effects Research Lab
Cincinnati, Ohio 45268
513-684-7411

GRAHAM, D. J.
EPA
401 M Street, S.W.
Washington, D.C. 20460
202-426-2378

GREEN, J. A.
EPA/REGION VIII
1860 Lincoln Street
Denver, Colorado 80203
303-837-3895

GREESON, P. E.
USGS
412 National Center
Reston, Virginia 22092
703-860-6834

HALL, C. W.
EPA
401 M Street, S.W.
Washington, D.C. 20460
202-245-3009

HAMILTON, D. H. JR.
ERDA
Div. of Biomed. & Env. Res.
Germantown, Maryland 20767
301-353-4155

HARRIS, H. S.
NOAA
Env. Research Lab
3711 15th Avenue, N.E.
Seattle, Washington 98105
206-442-0199

NAME AND ADDRESS

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

HART, L. G.
NIEHS
Pharmacology Branch
Research Triangle Park
North Carolina 27709
919-629-3235

HAYDEN, R. P.
U.S. Fish & Wildlife Service
Office of Bio Services
Washington, D.C. 20240
202-343-8095

HICKEY, H. R.
TVA
Div. of Env. Planning
401 Chestnut Street, Room 264
Chattanooga, Tennessee 37401
615-755-3155

HIRSCH, A.
U.S. Fish & Wildlife Service
Office of Bio Services
Washington, D.C. 20240
202-343-8097

HOEL, D. G.
NIEHS
Environmental Biometry Branch
Research Triangle Park
North Carolina 27709
919-629-3441

HOLLEY, C. W.
TVA
401 Chestnut Street, Room 150
Chattanooga, Tennessee 37401
615-755-3135

NAME AND ADDRESS

HUGHES, R.
NIOSH
Post Office & Courthouse
Cincinnati, Ohio 45202
513-684-2591

HYNOTE, H.
TVA
Div. of Navigation Dev. &
Region Studies
213 Mall Building
Knoxville, Tennessee 37902

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

KILPATRICK, F. A.
USGS
407 National Center
Reston, Virginia 22092
703-860-6848

KNELSON, J. H.
EPA
Health Effects Research Lab
Research Triangle Park
North Carolina 27711
919-549-8411

KRENKEL, P. A.
TVA
Division of Environmental
Planning
401 Chestnut Street, Room 268
Chattanooga, Tennessee 37401
615-755-3161

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

NAME AND ADDRESS

LITTLE, A. F.
TVA
Muscle Shoals, Alabama 35660
205-383-4631

LIVERMAN, J. L.
ERDA
Germantown, Maryland 20767
301-353-5171

LYNCH, J.
NIOSH
Robert Taft Center
4616 Columbia Parkway
Cincinnati, Ohio 45226
513-684-4321

MACHTA, L.
NOAA
Air Resources Lab
8060 13th Street
Silver Spring, Maryland 20903
301-427-7645

MC NESBY, J.R.
National Bureau of Standards
Office of Air & Water Measure.
Gaithersburg, Maryland 20760
301-921-3775

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

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

MOUNT, D. I.
EPA/ERL
6201 Congdon Boulevard
Duluth, Minnesota 55804
218-727-6692

NAME AND ADDRESS

MUGLER, J. P., JR.
NASA
Environmental Quality Program
Office
Hampton, Virginia 23665
804-827-2717

NICHOLAS, W. R.
TVA
Div. of Environmental Planning
401 Chestnut Street, Room 248
Chattanooga, Tennessee 37401
615-755-3164

O'BRYAN, D.J., JR.
EPA
401 M Street, S.W.
Washington, DC 20460
202-755-0646

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

OPPOLD, J. A.
TVA
Div. of Environmental Planning
401 Chestnut Street, Room 201
Chattanooga, Tennessee 37401

PARKER, D. R.
ERDA/Biomed. Programs
Germantown, Maryland 20767
301-353-3681

POTTS, J. M.
TVA
Muscle Shoals, Alabama 35660
205-383-4631

PUESCHEL, R. F.
NOAA
Atmospheric Physics & Chemistry Lab
Boulder, Colorado 80302
303-499-1000

NAME AND ADDRESS

RALL, D. P.
NIEHS
Research Triangle Park
North Carolina 27709
919-629-3201

RAUSA, G. J.
EPA
401 M Street, S.W.
Washington, D.C. 20460
202-426-4567

RAY, S. S.
TVA
524 Power Building
Chattanooga, Tennessee 37401
615-755-2771

REY, G.
EPA
401 M Street, S.W.
Washington, D.C. 20460
202-426-4170

REYNOLDS, R. R.
NOAA
National Weather Service
Equipment Development Lab (W44)
8060 13th Street
Silver Spring, Maryland 20910
301-427-7809

RINGENBACH, M. E.
NOAA
Engineering Dev. Lab
6001 Executive Boulevard
Rockville, Maryland
301-443-8585

ROYCE, E.
EPA
401 M Street, S.W.
Washington, D.C. 20460
202-755-0207

NAME AND ADDRESS

SCHEARER, S. D.
EPA/EMSL
Research Triangle Park
North Carolina 27711
919-549-8411

SCHNEIDER, E. D.
EPA/ERL
South Ferry Road
Narragansett, Rhode Island 02882
401-528-4843

SCHULMAN, M.
ERDA/Biomed. Programs
Germantown, Maryland 20767
301-353-3681

SCHULTZ, J. J.
TVA
Div. of Chemical Development
Muscle Shoals, Alabama 35660
205-383-4631

SHOBE, R. W.
EPA
401 M Street, S.W.
Washington, D.C. 20460
202-755-0460

SILHANEK, J. S.
EPA
401 M Street, S.W.
Washington, D.C. 20460
202-755-5482

SORROWS, H. E.
HBS
Administration Building A1123
Washington, D.C. 20234
301-921-2446

STAPLETON, G. E.
ERDA/Biomed. Programs
Washington, D.C. 20545
301-353-5468

NAME AND ADDRESS

STEPHAN, D. G.
EPA/IERL
Cincinnati, Ohio 45268
513-684-8207

STEWART, R. E., JR.
U.S. Fish & Wildlife Service
Office of Bio Services
Laurel, Maryland, 20810
301-776-4880

STICKEL, L. F.
U.S. Fish & Wildlife Service
Patuxent Wildlife Research
Laurel, Maryland 20810
301-776-4880

STONEY, W. E.
NASA
Earth Observation Program
Washington, D.C. 20036
202-755-8590

TAIT, H.
U.S. Fish & Wildlife Service
Office of Bio Services
Washington, D.C. 20240
202-343-8097

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

THOME, P. S.
NASA
Washington, D.C. 20546
202-755-8586

TILTON, E. L.
NASA
Earth Resources Lab
NSTL
Bay St. Louis, Mississippi 39520
601-688-2034

NAME AND ADDRESS

TOWNSEND, J. W., JR.
NOAA
Office of Administrator
6010 Executive Boulevard
Rockville, Maryland 20852
301-443-8202

TURNER, F.B.
Laboratory of Nuclear Medicine
and Radiation Biology
University of California
900 Veteran Avenue
Los Angeles, CA 90024
213-825-8773

VOLLERO, V. G.
HUD
711 14th Street, S.W.
Washington, D.C. 20003
202-382-5315

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

WASSON, H. R.
ERDA
Div. of Biomed. & Env. Research
Germantown, Maryland 20767
301-353-5355

WHITE, C. M.
ERDA
Div. of Biomed. & Env. Research
Germantown, Maryland 20767
301-353-4488

WOLFE, D. A.
NOAA
Environmental Research Lab
Research Building #3
Boulder, Colorado 80302
303-323-6531